

**ECONOMIC INTEGRATIONS,
COMPETITION AND
COOPERATION**

**INTÉGRATIONS
ÉCONOMIQUES,
CONCURRENCE ET
COOPERATION**

Copyright CEMAFI International, 2016
cemafi.international@gmail.com
ISBN 978-2-9544508-9-6

VINKO KANDŽIJA
ANDREJ KUMAR

**ECONOMIC INTEGRATIONS,
COMPETITION AND
COOPERATION**

**INTÉGRATIONS
ÉCONOMIQUES,
CONCURRENCE ET
COOPERATION**



CEMAFI International, Association créée en 2011, se propose de faciliter les échanges intellectuels au niveau international dans le domaine de la macroéconomie et de la finance internationale ainsi que dans les disciplines permettant de développer des approches géopolitiques, afin de comprendre le devenir de l'Union Européenne et de ses environnements du sud et de l'est. Ouvrages publiés par CEMAFI International ou avec son concours :

- V. Kandzija, S. Redzepagic
Perspectives européennes des pays des Balkans
CEMAFI International, Université Nice Sophia Antipolis, mars 2014
- B. Angelova, D. Jurlina Alibegović, S. Redzepagic
Contemporary trends and prospects of economic recovery
CEMAFI International, Université Nice Sophia Antipolis, mars 2014
- C. Berthomieu, J.P. Guichard, E. Ponomarenko, S. Redzepagic
La «Grande Europe» en devenir
CEMAFI International, Université Nice Sophia Antipolis, mars 2014
- A. Guesmi, C. Berthomieu, J.Ch Briquet-Laugier
Banques et PME au Maghreb, une relation difficile
CEMAFI International, Université Nice Sophia Antipolis, mars 2013
- C. Berthomieu, J.P. Guichard, E. Ponomarenko
La Russie, l'Europe et la Méditerranée dans la crise
L' Harmattan, Paris, mars 2013
- P. Teixeira, A. Portugal Duarte, S. Redzepagic, D. Eric, S. Andrejevic
European integration process in Western Balkan Countries
University of Coimbra, 2012
- A. Brunet, J.P. Guichard
Ekonomski imperijalizam, Hegemonijske težnje Kine
Institut ekonomskih nauka, Beograd, 2011

CONTENTS

INTRODUCTION.....	18
-------------------	----

PART I: FUNDAMENTAL ISSUES OF TRADE LIBERALIZATION, ECONOMIC INTEGRATION AND REGIONAL DEVELOPMENT IN EUROPE

CHAPTER 1

Mario Pines

MACROECONOMICS, STRUCTURAL REFORMS: RECONSIDERING THE BANKING MISSION, BETWEEN FINANCIAL RESTRAINTS, SHAREHOLDERS EXPECTATIONS AND MONETARY POLICIES LESSONS, IN A SINGLE CURRENCY MARKET.....	24
---	-----------

CHAPTER 2

Ion Cucui

Ioana Panagoreț

Tomislav Kandžija

THE ROLE OF THE MARSHALL PLAN IN THE ECONOMIC AND POLITICAL STABILITY OF EUROPE AFTER THE SECOND WORLD WAR	41
---	-----------

CHAPTER 3

Davor Galinec

Jasminka Šohinger

THE EFFICIENCY OF THE EXCESSIVE DEFICIT PROCEDURES IN REDUCING FISCAL DEFICIT AND DEBT IN EU MEMBER STATES.....	49
--	-----------

CHAPTER 4

Vera Boronenko
Vladimirs Mensikovs
Jelena Lonska
Alina Ohotina

**RETHINKING TERRITORY DEVELOPMENT IN THE GLOBAL
WORLD BASED ON THE PLURALISTIC PARADIGM.....70**

CHAPTER 5

Igor Cvečić
Petra Adelajda Mirković

**FREE MOVEMENT OF LABOUR IN EU28 AND ITS IMPACT
ON CROATIAN LABOUR MARKET.....97**

PART II: CHANGING GLOBAL COMPETITIVE BUSINESS ENVIRONMENT – THEORY AND PRACTICE

CHAPTER 6

Marco Galdiolo

**EVOLUTION OF THE ECONOMIC SYSTEM OF THE
EU.....123**

CHAPTER 7

Dunja Škalamera-Alilović
Mira Dimitrić

**OVER-INDEBTEDNESS MANAGEMENT IN THE EUROPEAN
UNION: COMPETITIVENESS OF NATIONAL BUSINESS
ENVIRONMENTS IN ENFORCING CONTRACTS.....136**

CHAPTER 8

Ljubomir Drakulevski
Leonid Nakov

**BUSINESS MODEL FOR DIAGNOSING AND CHANGING THE
ORGANIZATIONAL CULTURE.....159**

CHAPTER 9

Zerife Yıldırım,

Şenay Üçdoğruk Birecikli

**FINANCIAL LIBERALIZATION POLICIES AND EFFECTS IN
TURKEY.....177**

CHAPTER 10

Nicholas Olenev

**A RAMSEY TYPE MODEL WITH AN ENDOGENOUS
PRODUCTION FUNCTION FOR STUDY OF ECONOMIC
SYSTEMS.....203**

CHAPTER 11

Kâmil Tüğen

Ayşe Atılğan Yaşa

Fatma Yapıcı

**THE EVALUATION OF THE EFFECTS OF GLOBAL TAX
COMPETITION ON CENTRAL GOVERNMENT BUDGET
IN TURKEY.....217**

CHAPTER 12

Jasmin Bajić

Ivan Mišetić

Mirko Tatalović

**SOUTHEAST EUROPE AIR TRANSPORT IN THE LIGHT OF
GLOBAL MARKET CHANGES - CHALLENGES FOR
CROATIA.....249**

CHAPTER 13

Ricardo Ferraz

António Portugal Duarte

**PORTUGAL AND THE ‘PIIGS’: ECONOMIC GROWTH AND
PUBLIC DEBT IN THE LAST FOUR DECADES,
1974-2014.....274**

**PART III: WESTERN BALKANS: TRADE, BUSINESS,
DEVELOPMENT AND INTEGRATION PERSPECTIVES**

CHAPTER 14

Andrej Kumar
Vinko Kandžija

EU TRADE STRATEGY AND THE BALKANS.....288

CHAPTER 15

Christophe Boogaerts
Evrard Claessens
Vesna Stavrevska

**INFORMATION THEORY, GLOBAL TRADE & EU
INTEGRATION A REVISED THEIL-INVESTIGATION.....312**

CHAPTER 16

Nataša Zrilić
Sanel Jakupović
Biljana Jošić-Bajić

**ECONOMIC GROWTH AND THE EUROPEAN UNION
PRE-ACCESION ASSISTANCE IN BOSNIA AND
HERZEGOVINA.....331**

CHAPTER 17

Mila Gadžić
Igor Živko
Branimir Skoko

**CHANGES IN BANKING STRUCTURE IN BOSNIA AND
HERZEGOVINA AND INTEGRATION IN EU BANKING
MARKET.....350**

CHAPTER 18

Dorđe Mitrović

**DIGITAL DIVIDE DEVELOPMENT AND GLOBAL ECONOMIC
COMPETITIVENESS OF WESTERN BALKAN COUNTRIES –
BROADBAND ADOPTION PERSPECTIVE.....363**

CHAPTER 19

Ivana Dražić Lutilsky

Jagoda Osmančević

**PERFORMANCE MEASUREMENT IN HEALTHCARE
INSTITUTIONS IN BOSNIA AND HERZEGOVINA.....384**

CHAPTER 20

Davor Vašiček

Gorana Roje

Dragan Mišetić

**GOVERNMENT ASSET MANAGEMENT AS AN ELEMENT OF
THE ECONOMIC PROSPERITY IN WESTERN BALKANS:
CROATIA'S UNDERGOING REFORM EXAMPLE.....397**

CHAPTER 21

Boban Stojanović

Srdjan Redžepagić

Jelena Šaranović

**INTEGRATIONS ENGINEERING – CHALLENGES FOR
WESTERN BALKAN COUNTRIES IN ACCESSION TO THE
EUROPEAN UNION.....423**

CHAPTER 22

Boban Stojanović

Jovan Zafiroski

Jelena Šaranović

**GEOPOLITICAL FRAMEWORK OF EUROPEAN AND
EURASIAN ECONOMIC INTEGRATION.....437**

CHAPTER 23

Nenad Smokrović

Vinko Kandžija

Nebojša Zelić

**MODEL OF DELIBERATIVE DEMOCRACY: IS IT
APPROPRIATE FOR WESTERN BALKAN AREA?446**

PART IV: FINANCIAL AND ACCOUNTING ISSUES IN A CHANGING GLOBAL AND EUROPEAN INTEGRATIONS SYSTEM

CHAPTER 24

Josipa Mrša

Nino Serdarević

**DOES HEDGE ACCOUNTING CONTRIBUTE TO REDUCING
ACCOUNTING INFORMATION ASSYMMETRY AND Z-SCORE
BIAS?470**

CHAPTER 25

Davor Vašiček

Ana Marija Sikirić

Josip Čičak

**THE REFORM OF FINANCIAL MANAGEMENT AND
ACCOUNTING OF NON-PROFIT ORGANIZATIONS IN THE
REPUBLIC OF CROATIA.....487**

CHAPTER 26

Nataša Žunić Kovačević

Stjepan Gadžo

**PROPOSALS FOR REFORM OF THE AGENCY PERMANENT
ESTABLISHMENT CONCEPT: EXAMINATION OF BEPS
ACTION 7.....509**

CHAPTER 27

Josipa Mrša

Tomislav Jeletić

**APPLICATION OF HEDGE ACCOUNTING ON THE CRUDE
OIL MARKET.....527**

CHAPTER 28

Michele Bertoni

Bruno De Rosa

Alessio Rebelli

Fabrizio Zanconati

**AN ANALYSIS OF ADVANCED COST ACCOUNTING
TECHNIQUES IN HEALTHCARE ACTIVITIES.....545**

CHAPTER 29

Josipa Mrša

Josip Čičak

Dara Ljubić

ACCOUNTING FOR EXPECTED CREDIT LOSSES.....565

CHAPTER 30

Anita Radman Peša

Jurica Bosna

Josipa Grbić

**THE ROLE OF THE FINANCIAL DERIVATES IN
CROATIA.....575**

CHAPTER 31

Anita Radman Peša

Jurica Bosna

Tena Peša

**IMPACT OF THE BLACK SWANS ON THE CROATIAN STOCK
MARKET.....591**

CHAPTER 32

Urszula Banaszczyk- Soroka

Piotr Soroka

CONSUMERS SAFETY ON THE FINANCIAL SERVICES

MARKET, SHADOW BANKING, LOAN FIRMS.....605

PART V: INVESTMENT AND DEVELOPMENT PERSPECTIVES OF CROATIAN AND INTERNATIONAL ENTERPRISES

CHAPTER 33

Edo Duran

Zoran Grubišić

Srdjan Redžepagić

**APPLICATION OF MODERN PORTFOLIO THEORY ON THE
INTERNATIONAL DIVERSIFICATION OF INVESTMENT**

PORTFOLIO.....624

CHAPTER 34

Marko Tomljanović

Dragan Mišetić

Ivan Kožul

**THE SYSTEM OF LAND REGISTRY IN EUROPEAN UNION
AND CROATIA AND THEIR IMPACT ON MANAGEMENT**

DECISION PROCESS: CASE STUDY AQUA ALFA LTD.....649

CHAPTER 35

Yoji Koyama

CROATIA'S CHALLENGES: CONVERSION OF ITS

ECONOMIC DEVELOPMENT MODEL.....667

CHAPTER 36

Verica Budimir

Ivana Dražić Lutilsky

Svjetlana Letinić

**PERFORMANCE INDICATORS DEVELOPMENT IN
FUNCTION OF CROATIAN'S HOSPITALS EFFICIENCY AND
QUALITY MONITORING.....680**

CHAPTER 37

Urban Šebjan

Polona Tominc

**ENTREPRENEURIAL INTENTIONS IN CHANGING
ECONOMIC AND CULTURAL ENVIRONMENT IN SLOVENIA
AND CROATIA.....698**

PART VI: LEGAL ENVIRONMENT OF THE EU

CHAPTER 38

Edita Čulinović Herc

Nikolina Grković

**CROWDINVESTING REGULATORY FRAMEWORK IN
FRANCE AND ITALY.....717**

CHAPTER 39

Ivana Kunda

Danijela Vrbljanac

**JURISDICTION IN INTERNET DEFAMATION CASES AND
CJEU'S POLICY CHOICES.....739**

CHAPTER 40

Dionis Jurić

**LEGAL FORMS FOR ECONOMIC ACTIVITIES OF FOREIGN
COMPANIES IN CROATIA.....758**

CHAPTER 41

Katarzyna Andrzejczak

THE CHALLENGES OF EUROPEAN GMO REGULATIONS.....	776
--	------------

CHAPTER 42

Kristijan Poljanec

SUBSTANTIVE, PROCEDURAL AND CONFLICT OF LAWS ISSUES OF IMPLEMENTATION OF PROVISIONS ON COMMERCIAL AGENTS' RIGHTS ACCORDING TO THE DIRECTIVE 86/653/EEC ON THE COORDINATION OF THE LAWS OF THE MEMBER STATES RELATED TO SELF- EMPLOYED COMMERCIAL AGENTS.....	796
---	------------

PART VII: COOPERATION CHALLENGES AFTER EU ACCESSION OF CROATIA – PART OF THE JEAN MONNET PROJECT (ECSA SLOVENIA)

CHAPTER 43

Ivan Tolić

Igor Živko

Jelena Hrnkaš

THE IMPACT OF THE ACCESSION OF THE REPUBLIC OF CROATIA INTO THE EUROPEAN UNION.....	814
--	------------

CHAPTER 44

Marino Golob

Martin Golob

Tomislav Kandžija

CROATIAN INSURANCE MARKET OVERVIEW AFTER EU ACCESSION.....	839
---	------------

CHAPTER 45

Stevo Pucar

Nebojša Balaban

**COOPERATION OF UNIVERSITIES AND ECONOMY AS AN
INSTRUMENT FOR ECONOMIC INTEGRATION OF BOSNIA
AND HERZEGOVINA INTO EU.....860**

CHAPTER 46

Branka Topić-Pavković

**FISCAL AND MONETARY ASPECTS OF ACCESSION OF
BOSNIA AND HERZEGOVINA TO THE MONETARY
UNION.....869**

CHAPTER 47

Valerija Botrić

**INDUSTRY WAGE PREMIUM AND EU TRADE EFFECTS IN
CROATIAN MANUFACTURING SECTOR.....884**

CHAPTER 48

Darja Peljhan

Katja Zajc Kejžar

Nina Ponikvar

EFA BASED MEASURE OF CREDIT CONSTRAINTS.....901

PART VIII: WORKSHOP FOR DOCTORAL STUDENTS OF CENTRAL AND SOUTH-EAST EUROPEAN PHD NETWORK (CESEENET)

CHAPTER 49

Bogdan Copcea

**INTEGRATION AND INEQUALITIES IN THE EASTERN
EUROPEAN COUNTRIES.....918**

CHAPTER 50

Helena Bešter

THEORETICAL AND EMPIRICAL CHALLENGES OF RISK MANAGEMENT WITHIN THE SOLVENCY II

REGIME.....932

CHAPTER 51

Alexandru Dronca

Ana – Maria Droncu

THE IMPACT OF FISCAL AND BUDGETARY POLICIES ON THE ECONOMIC GROWTH IN THE EU MEMBER

STATES.....949

CHAPTER 52

Boris Vujčić

Sanja Gongeta

BANK RECOVERY AND RESOLUTION DIRECTIVE– KEY COMPONENT OF BANKING UNION.....963

PART IX: THÉORIE DE L'INTÉGRATION ÉCONOMIQUE / LA COOPÉRATION ÉCONOMIQUE ENTRE LES PAYS DU MAGHREB ET L'UE

CHAPTER 53

Arezki Souak

Fatma Zohra Souak

L'ACCORD D'ASSOCIATION ALGERO-EUROPÉEN:

ANALYSE RETROSPECTIVE ET BILAN.....985

CHAPTER 54

Hana Horak

Kosjenka Dumančić

L'INFLUENCE DU CADRE RÉGLEMENTAIRE SUR

L'IDENTITÉ D'ORGANISATION DE L'ENTREPRISE.....1005

CHAPTER 55

Maria Negreponi-Delivanis

LA FIN DE LA MONDIALISATION?.....1018

INTRODUCTION

The European Union (EU) is the biggest global player in international trade and investments. As economic integration and even more as a complex political and security cooperation of 28 states the EU's impact on global trade, investments, and political relations is based on its large size, combined with the economic and political specifics and partial interests of its member state.

A number of global economic, political and security challenges have occurred in the past. They have strongly affected and tested the efficiency of the EU's economic and other types of the member states' cooperation. Often in the past faced by different political and security challenges the reactions and actions of the EU member states have been strongly different. In number of cases where reactions among the EU member states to the global challenges have been differentiated, the EU today experience different problems. One case of differenced positions among the EU members is probably the root of today's refugee crisis. It is related to the members' of the EU attitudes towards the USA military action towards Saddam Hussein in Iraq in 2003. Similar regional destabilization effects were related do differentiated attitudes of the EU member states in the case of "Arab spring" (Starting Dec. 2010 and faded out by mid-2012). The strong differences among the EU member states were present in cases of support or political attitudes towards the situation in Arab states where the "revolutionary Arab movement" was developed. Probably the strongest and most far reaching differences were developed in the case of military intervention in Libya against the president Gaddafi, where some of the EU members were actively involved in military actions in Libya. Instability of Libya after intervention to present days is one of the sources for the growing flows of the refugees and emigrants towards the EU from Africa and Middle East.

Different attitudes and activities of the EU member states towards the above mentioned broader international destabilizing events and processes were further complicated by specific formal and functional internal differences among the EU member states. In the past the EU undergoes different levels and intensities of the debates on the dilemmas of the EU of different integration speeds, and of the EU potentially being divided into inner and external cooperation cycles and similar. As the role such debates and political judgment have not leaded to conceptual

or operational solutions that would make dilemmas about the EU members' cooperation more EU uniform and especially more EU functional efficiency oriented. Differences in national interests in relation to such crucial questions of the cooperation and relations among the EU member states were bypassed by different compromises in the number of the EU Treaties, including the Treaty of Lisbon (2009, replacing TEU and TFEU). The practice of accepting compromises, even in the cases of the most important questions that decide on long term efficiency of the EU integration cooperation, have created an environment where obligations and solution which should be valid and implemented for all EU members were often accepted and implemented with a number of exceptions that have been based on the partial individual national interests, instead of the EU interests. Before mentioning some of such exceptions we have to recognize, that in the past, different sizes and dynamics of integration obligations implemented among member states, have somehow logically resulted out of the difficulties to find working and generally acceptable solutions for all members who were increasingly different especially after 2004. The so called policy of reaching the "healthy compromises" for the future of the EU among the member states was practiced for a long time. The beginning of the more extensive practice of accepting long term negative compromises for the EU functioning, could be attributed to the so called "UK rebate" that was negotiated by Prime Minister Ms. Margaret Thatcher in 1984.

Before economic (and political) globalization which supposedly started in mead eighties of the last century (see: T. Levitt, *Globalization of markets*, HBR, May 1983) and before rather large and fast enlargements of the EU after 2004 such compromises in the EU Treaties and practices were rather limited in numbers. After eighties last century, following the decision to deepen the EU integration by introducing the internal market and following the political decision to enlarge the EU towards the former eastern socialist states after the fall of the Berlin wall (1989), the new EU cooperation environment was created. The new environment was based on the policy of seeking and accepting an increasing number of the "healthy compromises," where decisions were not focused on the EU functioning efficiency, but were accepted to accommodate major interests of the key EU member nations.

The policy of "healthy compromises" has created; among the others, at least two solutions which have lead the EU towards differentiated

obligations and to different actual cooperation levels between the EU member states. In general, the laws of the EU should be valid and implemented in the all of the 28 EU member states. However, occasionally member states negotiate certain opt-outs from legislation or treaties of the EU, meaning they do not have to participate in certain policy areas. Currently, four EU states have such opt-outs: Denmark (4 opt-outs), Ireland (2 opt-outs), Poland (1 opt-out) and the United Kingdom (4 opt-outs). In the area of the most important opt-outs for the functioning of the EU are those related to the obligations to introduce the single EU currency – the €, and those that relate to the free movement of people in the EU, regulated by the so called Schengen Agreement. Such differences related to the legal obligations of the member states towards the EU legislation and Treaties could be further enlarged based on the future results of the negotiations between the Great Britain and the EU. The negotiations are based on the Great Britain decision on having the national referendum on eventual leaving the EU membership. The major ideas of changes and specific future obligations for the GB, and potentially for some other member states of the EU, are explained in the letter by President Donald Tusk to the Members of the European Council from February 2, 2016.

In case of the Economic and Monetary Union (EMU) of the EU (acceptance and use of € as a national currency) already today GB together with Denmark has the right to opt-out. So they are and will be permanently out of the Euro Zone impacts and they will have permanently different obligations and different economic impacts and interests as the other 26 members of the EU. The EMU differences are further enhanced by the fact that the individual “old” EU members could in contrast to the members joining the EU after 2004 that should join the Euro Zone after fulfilling the criteria contained in the Stability and Growth Pact. In reality there are no sanctions if some member state is not really pushing hard to fulfil conditions to join the €. On such ground already today the EU actually has three different layers of the member states; those in the EMU using € as a national currency (currently 19 states), those with the right to opt-out (2 states), and those that are “preparing “, with no actual obligation based on sanction, to join EMU. We may even add the forth layer of states with respect to the EMU. This layer contains only one state - Sweden, whose obligation when to join the € is not clearly defined. The diversity of positions among the EU member states creates a number of partial interests in the decision

making process of the EU. Such differences are more intense especially when they base formally or practically on long term, and on not time specified process of the obligations implementation. The acceptance of any new decisions needed to regulate and improve the functioning of the EU, or to redefine the cooperation framework and obligations of the member states, is getting by time more and more politicized, and increasingly time consuming.

The second area of different positions among the EU member states in relation to their rights and obligations is related to the free movement of people among the member states that is regulated by the Schengen Agreement. The differences here again create different positions and interests that are especially dangerous in the process of seeking solutions for the growing contemporary EU refugee crises. In reality GB and Ireland have the right to opt-out of the Schengen Agreement, and some newer EU members are not yet part of it. Among them is Croatia, who lately experienced a huge inflow of refugees and emigrants from Africa, Middle East, and Afghanistan. The formal procedures of controlling the flows of people were not clearly defined or understood by Croatia and potentially not by Slovenia too. Croatia is not a member of Schengen Agreement while its bordering partner state Slovenia is member of that Agreement. Obviously such differences have created a lot of at least political tensions and disagreements between Slovenia and Croatia related to the controlling of the flows of emigrants and refugees from Middle East and other areas. The final result of formal differences among member states in the EU, combined with the divergences based on the narrow national political and economic interests, is turning more and more into the danger of reestablishing police and customs controls on most of the internal EU borders.

Combined with the refugee crises, after more than two decades of the policy of the “healthy compromises,” in the EU an environment of high risk for the future stability and even for the future existence of the EU has been developed recently. According to the words of Mr. Junkers “The European Union is not going very well. And so we must ensure that we keep alive the ambitions, hopes and dreams of Europe”. (www.politico.eu)

The question is how in real life we can keep alive the ambitions, hopes and dreams of united, democratic, and socially sensible Europe? One of the answers could eventually be related with the efforts to increase the

knowledge and understanding among people in all EU states about the functioning, problems and of the advantages of the EU. It is obviously not a quick solution but it is probably solid and lasting one. In such sense the present book presents a small stone in the mosaic of created better understanding of the EU functioning and of its problems and benefit.

The 43 articles collected in this book, are part of long lasting research and scientific cooperation between the institutions and individuals from different EU member states and additionally from candidate and other countries interested in the successful future of the EU. Articles are more or less directly related with the functioning and achievements of the EU and its member states. Beside professional analytical contents the papers as well express the tradition of cooperation among experts coming from different nations. As the EU is differently developed and has different historic and social specifics, similarly the papers collected in the book reflect to a certain extend different levels of scientific elaboration and different levels of suggested solutions and findings. All together that way the book offers a very specific experience and the knowledge developed during preparing of the articles. No doubt, preparing the articles and making the book helped to create better understanding and often even a friendship among the authors of the papers collected this book. It is important that they are from different EU and other states, the cooperation and working on research together, helps to better understanding and more ability to seek for alternative solutions together more efficiently. Such relations and deepening of understanding among the authors of the articles could hopefully effectively support the cooperation, ambitions, hopes and dreams of Europe further, even in this period of problems and uncertainties for the future of stability the EU itself.

Rijeka, April 2016

Vinko Kandžija
Andrej Kumar

PART I
FUNDAMENTAL ISSUES OF TRADE
LIBERALIZATION, ECONOMIC
INTEGRATION AND REGIONAL
DEVELOPMENT IN EUROPE

CHAPTER 1

Mario Pines

University of Trieste, Trieste, Italy

MACROECONOMICS, STRUCTURAL REFORMS: RECONSIDERING THE BANKING MISSION, BETWEEN FINANCIAL RESTRAINTS, SHAREHOLDERS EXPECTATIONS AND MONETARY POLICIES LESSONS, IN A SINGLE CURRENCY MARKET

ABSTRACT

Most of the studies conducted in the past eighty years by economists: lately (Mundell, 1999), (Eichengreen, 2004), (Eichengreen and Sachs, 1986), (Friedman and Schwartz, 1963), (Bernanke, Laubach, Mishkin and Posen, 1999), have shown conflicting perceptions about the great depression, even after a long range of studies of evolving situations and the present recession. Such efforts should have definitely shown some tangible evidence, trough some trial and error evidences. The current literature indeed seems to be still hesitant about the full benefits of political and monetary policies and everywhere new studies about structural reforms are appearing. From the operative sectors, comes out some serious approach like (Koo, 2009), with his Holy Grail of Macroeconomics, lessons from Japan's Great recession, which (Krugman, 1998), supporter of the monetization of Government debt, has generally attributed to deflation as the sole direct cause. We must not ignore the frustrated hope of the Bank of Japan, as it embarked since 2001 upon recurring everlasting quantitative easing facilities. Consistently it was a confident hope as well of the central banks in the United States and Europe in the years 2008 – 2009, with their foray into quantitative easing trough TARP and LTRO, and some similar procedures, erratic in their effect, as long as one of the currency, the dollar, is the only left international liquidity pillar instrument. Now the pressing of structural reforms seems to replace some previous monetary policy therapies, but there is no specific definition or any agreement about their meaning, which seems to be confusing the

economic policy planners with final huge debts and liquidity traps, that are affecting most of the present QE guidelines.

This paper wants to consider and propose some structural reforms guideline, in order to clear, at least, from a semantic point of view, the content and scope of such remedies, starting from the uncertain credit and monetary supply approach leading to essential structural reforms.

Key words: monetary, fiscal policy, structural reforms prosperity and development

JEL classification: G21

1. INTRODUCTION

There is a sequence of interlinked events, starting in August 1971, that lead through a single converging economic path that may clearly, specify and explain the present situation, in order to face the present world social economic perspective, the role of the banking industry and its necessary adjustments. As *structural reforms* has become the common language used by our three big global financial players, the IMF, the World Bank and the BCE, for what relates to the EU and its members and associates, it seems to me necessary to stress on the premises to outline the structural reforms as possible remedies in a definitely new environment.

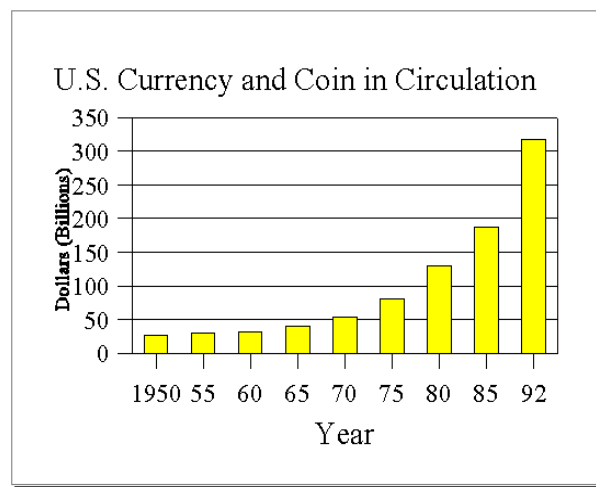
My constant opinion is that the starting point of the present financial and economic crisis is long dated and the decision may be stemming from the dollar debasement on the 15 August 1971, after one week of discussion at Camp David and mostly due to the panic and stress. After a quiet prosperous long golden period of economic rebuilding and developing, both national economies devastated by the Second World War and the international payment system, were rebuilt over the dollar backbone, after the unsuccessful efforts to restart it in the Roosevelt era. Since then, the macroeconomics and most monetary policies have become a common unsuccessful too long term playing tool, defined *Holy Grail of Macroeconomics* (Koo, 2009) in an exponential growth of prices, values and markets turbulences and altered functions, from a huge inflationary wave in the 70's until the global economy produced a new unexpected deflationary recessive environment. The effect of the

'71 debasement was a joint free monetary base expansion and related multiplied quantities, the general adoption of fiat money and the missed solution to the trade imbalances. Assuming structural characteristics in a world divided by oil dollar surpluses, usually the dollar reserves landed in Europe and formed

- the huge euro-dollar market,
- the ongoing cold war divisions,
- the progressive partition in strong and weak currencies,
- the secondary COMECON clearing balances market.

The latter with a substantial loss on the Swiss market of multilateral clearing balances, when stemming from the ex COMECON (Council for Mutual Economic Assistance area) used to loose over 20% of their value becoming weak currencies in a fixed exchange rates world.

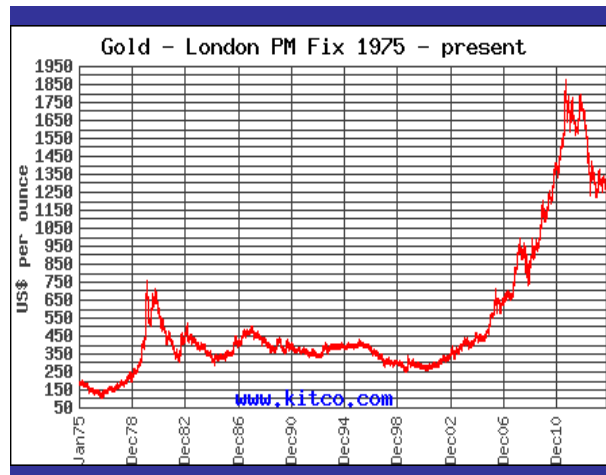
Figure 1 Currency and Coin Circulation U.S.



*Figure 1: United States currency and coin in circulation for selected years since 1950.
Source: The Treasury Bulletin, March 1993; U.S. Government Printing Office, p71. See Table 1 in the Appendix for the supporting data.*

Finally, the surge of gold price, when declared negotiable in the free market for the first time after the 1935 central banks restricted exchange area negotiations.

Figure 2 Gold – London Fixing -1975 Present



Same effects are visible on the oil prices and on the consumer price indexes.

Figure 3 Oil prices

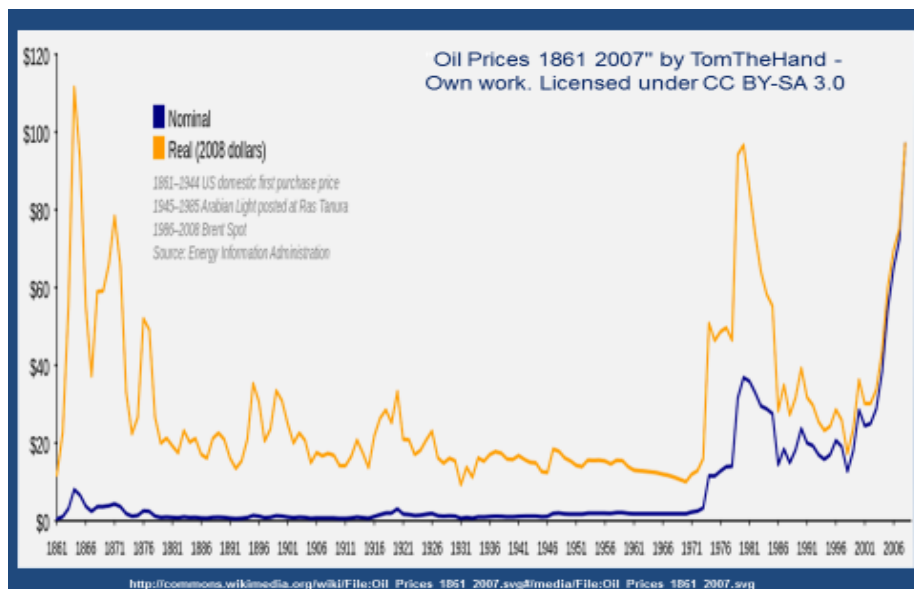
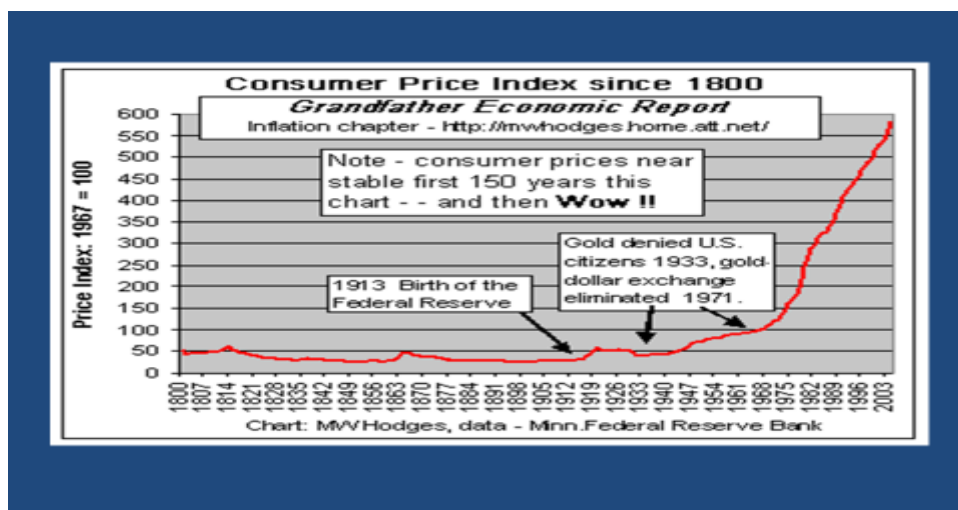


Figure 4 CPI



On a worldwide basis, the structure of the present economic situation starts with the superficial attention given to the dollar debasement and the failure of the world fixed exchange rates currencies. The previous international monetary system started just three weeks after the landing of the allied troops in Normandy, at Mount Washington hotel, in a New Hampshire Carrol Village, at Bretton Woods, when both the World Bank and the IMF surfaced to face the reconstruction and the general indebtedness at the end of the Second World War.

The first tangible impact of the debasement was a fall of the dollar value in terms of gold, just after the December 1971 Smithsonian Agreement that adjusted the fixed exchange rates established at the Bretton Woods Conference of 1944. Although the other currencies remained pegged to the dollar until 1973, the main difference with the previous regime was the abolition of the dollar's convertibility into gold, guaranteed by U.S. Treasury, making the dollar definitely a fiat currency and gold a free commodity.

This paper wants to link some basic structural revision, as outlined in a confused literature, during the fourth following decades and the role banks played in the general markets' turbulence. In this very long period, most of the consequences of: "This broadly held notion was quietly shelved by the breakout of Keynesian economics from the heady cloistered atmosphere of academia to the - practical world - of everyday American politics" (Greenspan, 2014:184), succession of events

interlinked in a strict row of interdependent consequences, rarely jointly considered.

Furthermore, Greenspan remembers in the year 2006 - after his dismissal from being a vested interest – that, when John F. Kennedy introduced the new frontier concept and the removal of the heavy fiscal drag during the 60's, a “.... coterie of academic economists, schooled in the early version of what we now call Keynesian macroeconomics,”¹ made their first appearance. The public saving was then leading to the landing on the moon, before becoming the public debt black hole after the debasement.

The major collateral effects were, on the contrary of what is happening today (Heinemann and Friedrich, 2000:20) “ ... therefore, taking low inflation rates and tax reforms together the presumption seems well founded that fiscal drag comes to an end. This can also be stated in the context of Wagner's Law: Government expenditures can only grow as far as additional revenues can be raised. Finance or privatization proceeds are exhausted in most countries, taxes are crucial. This study indicates increasing marginal political costs of tax financing a rise of public expenditures. For a given income elasticity of the demand for public goods this tends to restrict the scope for a future Wagnerian expansion.”

This problem that by that time the young Kennedy thought to somehow overcome, became a major issue during the 70's, with a high inflation leading to the stagnation, with the indiscriminate deficit spending and the indexation in most Countries of wages and salaries.

2. SOME PRELIMINARY REMARKS

The developments that trailed the dollar debasement were indeed a huge deficit spending, under the Keynesian postulation that the economy would react positively to the demand fall out. In reality, during the 60's, the economic community found out a new topic to discuss indefinitely, the *stag – inflation*, showing no relationship between any public spending increase and economic activities in developed countries.

The *fiscal drag* by Kennedy's times seemed to be a tough issue, depriving the economy of essential demand because of excessive

¹Idem. 103.

taxation, and bringing to the huge budget surpluses and, indeed, during most of the sixties the federal government net saving was in rare surplus. A relevant tax cut in 1964 and the expenses to send a man on the moon were the forefront of initiatives to face the growing rare budget surplus. Since then, a political bipartisan match to face the seeds of the historic entitlement boom to the social welfare redistribution programs.

During the 70's the surplus disappeared and a new deficit era started to emerge, from military spending to tactical fanfare reallocation of income over 9% in the year 2009. The deficit spending has become the main maneuver planned by politicians, supported by the huge inflow of petrodollar and Japanese investments first, Chinese trade surplus during the eighties successively.

The termination of the Bretton Woods agreements produced a visible confused fallout over most of the economies and a reversal of the dollar preeminence. The event, associated with the end of the cold war and the fall of the Berlin wall, brought the most dramatic consequences: the political U-turn of the Muslim world to the ex USSR and the start up of the jihad, the Taliban revolution down to the Caliphate regimes and the endemic spread corruption in the West.

The opening to the China exports, with the mutual recognition in the year 1979, and the consequent new US-China trade and financial relationship, signed in Washington in the month of January 1979, were basic turnaround pillars. The consequent huge economic growth of Asia, even though some local transitory currencies crisis, put on the market the overwhelming amount of progressive more qualified products at the lowest ever seen prices. It was due to the low labor wages, the huge volumes conducted to a surplus of financial instruments on the American capital markets joint with a lack of proper chances of economic investment, with a deflationary financial nominal growth of available capitals over most of remaining financial markets. Such environment was leading Japan, the USA and Europe to a stand still economic activity, under contradictory signs of growing monetary masses and lack of inflation signs, the new Chinese deflation syndrome. Under these pre-conditions, the banking industry was deregulated and all the previous approaches, developed during the Great Depression, like the 1932 Glass-Steagall Act, removed, in a lobbying modernization trend, to the Gramm-Leach-Bliley Act 1999. It became so lawful to mix commercial and investment banking activities. The Dodd-Frank Wall Street Reform and Consumer Protection Act, as signed by President Obama in the year 2010 did not remove this situation.

3. THE EVOLUTION

The most sensitive and visible consequence of the new variable exchange rate has been the spread risk through the financial markets, the enormous development of derivatives and financial transactions within a logic of speculative and short time investments. Then three decades characterized by the huge inflation: the 70's, followed up during the 80's by a counteraction, until the first financial bubble explosion in October 1987, the monetary supply in a macroeconomic perspective with a deep financial deregulation until today and still in effect. Then came the first serious bubble, the dot-com one over the NASDAQ, the sub prime and the derivatives at the end of the roaring 90's in the new millennium 2007-2008.

The two layers new world global markets, one local and one interlinked, through the improperly denomination globalization, reflect the abolition of barriers and levies to the world trade. The new market horizon has privileged the low cost productions to modern car and electronic industries and seems to develop a new world equilibrium based mostly on basic interlinked complementary synergy on both demand and supply side, according to the Adam Smith model, where competition is essential because prices then reflect minimum costs and highest quality. Without competition, prices would rise, quality would weaken, and the consumer choice would falter. Indeed, it might be no better than a system where prices seem dictated by a government or by a mercantile system.

As generally used by the policy makers during the three last decades in the 20th century, modern macroeconomic models were under scrutiny already at the end of the Century. (Lukas, 1996:262) was writing: "But who can say how the macroeconomic theory of the future will develop, any more than anyone in 1960 could have foreseen the developments I have described in this lecture? All one can be sure of is that progress will result from the continued effort to formulate explicit theories that fit the facts, and that the best and most practical macroeconomics will make use of developments in basic economic theory."

Furthermore, "It is no wonder that the integration of money into a neoclassical framework has been so difficult to achieve: neoclassical economics is fundamentally incompatible with the most important functions of money, which - as a medium of exchange - is to free people from the need to know the V, price of n-1 goods at all the times. Money

exists because the real world is fundamentally non neoclassical. Money and Walras do not mix.” (Koo, 2009:308)

4. THE DOLLAR FUNCTIONS

As the dollar is a surviving international payments sole instrument, and the euro has not succeeded to replace it in the world central banks currency reserves, there is no chance to see temporarily an alternative to a full set of structural reforms. Monetary policy must be tested, clearly, structured and inserted in a full scale of error and trial proceedings.

The need of a currency to be used as an international mean of payments is so stringent and undisputable that since the first worsening of the USA foreign debt structure and the consequent weakening of its mean as a purchasing power preservation storage, no substitute was discovered.

The oil standard first and the gold surge later up to 2000 dollar an ounce, discovered a new scenery where the London Big Bang and the deregulation later kept the same USA currency as a reserve currency without valid concurrence. So, during the inflationary 70's, the Volker efforts to curb the inflation in the 80's and the roaring deregulated 90's, nothing changed the world financial assets from a progressive expansion of the dollar notwithstanding its intrinsic value and debasement.

5. THE CRISIS

The following economic developments, from a geographical, sectorial and country crisis experiences are well known and have been converging to the center, most developed Countries, a simple record of the most relevant ones:

- S&L crisis 1980
- Japanese banking crisis 1990
- December 1994 and early 1995 Mexico - Tequila Crisis
- Argentina
- Brazil
- The Philippines
- Poland
- 1997 Thailand
- Indonesia
- Malaysia
- October 1997, Korea

- August 1998, Russia declared a debt moratorium
- January 1999, Brazil suffered an exchange rate crisis
- Lehman Brothers
- Bear Stearns
- Merrill Lynch
- Morgan Stanley
- Goldman Sachs

While too big to fail, Bank of America, Freddie Mac and Fannie Mae in order to survive in the roughest times by their own received large Federal subsidies.

Starting in the 2008, the US Treasury, under the Bernanke guidance and the Troubled Assets Relief Program (TARP), added \$250 billion to some bank equity, the equivalent of 2% to the equity capital-to-asset ratio.(Greenspan, 2014) Such a practice was started by the Federal Reserve Board for the first time in decades, with recourse to the obscure and explosive section 13 (3) of the Federal Reserve Act. The section empowers the Board to lend nearly unlimited cash to virtually anybody; on March 16, 2008, it empowered the FED Bank of NY to lend US\$ 29 billion to facilitate the acquisition of the investment bank Bear Sterns by J.P. Morgan.

The huge recourse to the deficit spending principle, as outlined in the General Theory, inefficient to stimulate the employment figures as in the stagflations years 70's, has been as well no sufficient to guarantee, apart from the monetary nominal debt clearing, the actual structures and assets to supply the promised real economy recovery. The spiral monetary demand - supply and real economy actual output are under the tough concurrence of the prevailing global and overall Asian, effective supply based on classical microeconomics supply side standards and models.

There is no alternative but an involution of the Western economies through policies based on expanding *fiat money* State deficit, prevailing entitlement, reducing progressively savings and investments in a scheme of Welfare State. Referring model, where most of welfare relates do interlinked public expenses linked to mafia type propping up to big to fail concerns, out crowding firms toward a *crony capitalism* as foreseen by (ALAN GREENSPAN, 2014:249).

As far as I have faced the dollar debasement experience, starting in the year 1971, the trend lines and evolution described in my papers and most of the not *vested interests* activities have converged toward both the mixed economies failure, the collapse of state planned economies and

the final resurgences of the Eastern Asian tigers under competing market microeconomics models.

While many aspects of the Great Depression are still debated, there is an universal agreement that the adoption of restrictive trade policies was destructive and counterproductive and that, similarly, any form of barriers in our current slump should be avoided at any cost. This happens as long as the critical size of any modern enterprise, in order to remain competitive, requires an over the borders market. There is no room for a local economic activity, apart from the local artisanship's and specialized productions like clocks and jewelers, slowly disappearing as well. Lacking other instruments with which to support economic activities, governments erected during the thirties tariff and nontariff barriers, in a desperate effort to direct spending to merchandise produced at home, rather than abroad, without great success as the 1928 last Dow Jones quotations surfaced in the market only in the year 1956, after the Second World War. As all other governments were likely responding equally, the distribution of demand across countries remained unchanged at the end of this round of global tariff hikes, in a useless multilateral clearing system, similar to the one promoted within the new Soviet economy. The main effect was to resize trade, which, despite some economic recovery in most countries after 1933, failed to reach its 1929 peak until the second postwar period, and after the Harry Dexter White proposal surfaced at Bretton Woods, disregarding Keynesian vision of gold as a barbaric relic.

The benefits of comparative advantage were then lost. Recrimination over unilateral trade policies made it more difficult to agree on other measures to halt the slump (Eichengreen and Sachs, 1986:67-71).

6. SOME NEW WEIGHTED APPROACH

The finalization of the European Union single currency, after several Basel Schutzenhouse restaurant meetings and after the (Padoa Schioppa, 1992) white paper on the payments and clearing system issue, became a mandatory point in the recent European monetary union history. After the roaring 90's, the technological productivity improvements have distorted the attention from the real evolving macro system monetary quantities, no more defined from gold as an external compulsory limit to the unrestrained public spending, and the euro seemed to represent, after the collapse of the Berlin wall, the end of history according to (Fukuyama, 1992). Fukuyama supported the thesis then prevailing that

free trade had rendered territorial enlargement goals obsolete and that war had become economically irrational henceforth counterproductive. When after the 9/11 2001 attack to the towers, the Business weekly review entitle its coverage “The day the world changed”, something really new was appearing on the economy setting of a confused world, where macroeconomics was dying and a new trade imbalance was confusing both monetary authorities and economic political planners. The new bubbles millennium opens with a classic huge one, resembling the South Sea Bubble. The John Law Mississippi monetary scheme, hit the dot.com NASDAQ quotes. Two other identical events followed, the sub - prime one and the linked derivatives third, which are faced within the President’s advisor committee mainly formed by old fashioned Keynesians in new fiat money monetary system.

The new financial world reminded the one depicted by (Mackay, 1841 and De La Vega, 1688) reprinted and commented by (Fridson, 1996) “..the more things change, the more they seem to stay the same. Nothing in our modern markets appear to make much difference, not the complexity of financial instruments, not the information overload, not the globalization, not the powerful insight of financial theory.” Note that the year in which Confusion de Confusiones appears, 1688, “....was the same year that the English threw the Stuarts and took the first steps in the establishment of a constitutional monarchy. This dramatic break with the pas is the true beginning of the modern era.”²

7. THE RESTRUCTURING PRESENT DILEMMA

Most of clear and present dangers come out of the relationship between deep deregulation and macroeconomic restructuring, financial guidelines requirements, enforced by the lending Authorities, mostly the IMF, the WB, the EBC and the political cost of both reshaping the public administration and reforming the welfare state as grown trough the cold war years and later. A free market economy is not able to allocate savings and investments according to political guidelines and it seems very difficult to obtain wide unconditional consensus, as long as the State is a factor of increasing public demand from a private consumption angle.

²Idem. Viii.

As a readjustment from a public swollen consensus demand, pursuing politically prearranged goals, to a concurrent contraposition between a civil society attitude and a contribution on a single member partnership statute, to a passive bargaining political consensus, based on individualistic vested interests. The gap seems to be insuperable and not likely absorbed by available instruments.

“The financial crisis that began in the summer of 2007 should therefore be understood as an accelerator of an already well-established trend of relative Western decline” (Ferguson, 2011). The consequence is a declining low profile welfare society, facing a new wave of capitalistic instruments, operating from the global new growing competition out of the classic everlasting economic goals, based on value, synthetic expression adding quality and price in a single competitive environment. The total growth of exports from Asia and the slow progressive substitution of western productions was leading to an economic supremacy which ended in a surpassing Chinese GDP over the leading USA, undiscussed lead after the second world war and up to the unsuccessful planned economy experiment in the Eastern hemisphere.

The survival kit left by the financial institutions would have been able to satisfy a strenuous defence of the dying welfare State privilege, which would have endured as long as the Eastern financial centres would have supported it.

Now we must face the overcome of Chinese GDP, larger then the USA one and the misleading welfare policy financed only by deficit spending supporters as well by China. Asia has regained its previous economic level it used to have at the beginning of the new world discoveries, which kind of structural reforms are we now supposed to endure in order to keep our present income untouched, this is the final undisputable problem.

8. CONCLUSIONS

First of all I would again stress that: “A primary aim of the economist is to understand business behavior rather than to make recommendations to businessmen. His understanding of economic processes provides part of the foundations for the analysis of the operation researcher.” (Baumol, 1972:5)

The central problem is to discover, define and accept the new perspective understanding the mistake made under the false assumption that some transitory, usual public spending program, would have

automatically absorbed the multifaceted crisis, arouse after three decades of old fashioned fiscal and monetary policy instruments, while new form of recession was unpredictably developing. This seems now not to be the case: the deficits are already at their upwards limits and slight resurgence interest rates may be able to put several States on the insolvency line simultaneously.

Structural adjustment programs (SAPs) may be a link to define the problem. They consisted of loans provided by the International Monetary Fund (IMF) and the World Bank (WB) to countries that experienced economic crises. The two Bretton Woods Institutions require borrowing countries to implement certain policies in order to obtain new loans (or lower interest rates on existing ones). The clauses conditionality attached to the loans were critical because of their effects on the social sector.

SAPs generally pursue the reduction of the country's financial imbalances in the short or medium term and, as well, to adjust the economy to long-term recovery perspectives. The bank from which a borrowing country receives its loan depends upon the type of necessity. The IMF usually implements stabilization policies as a bank, the WB supplies adjustment measures and acts as a fund.

SAPs were supporting the economies of the developing countries to adopt market structures. This then forces them to concentrate more on trade and production to promote their economy. Through conditions, SAPs generally expects market programs and policy.

These programs include internal changes like privatization and deregulation, as external ones, especially the reduction of trade barriers. On the other side, the role Central banks assumed, after the gold standard demise, have headed progressively to a central role in supplying fiat money in too liquid financial markets directly or indirectly towards mostly political goals and Keynesian frameworks that didn't work.

Remembering what Walter Bagehot was saying in 1883, about the role of a central banker, the actual crisis made his remarks present and clear signs of what we could discuss today within the monetary chaos afflicting some unrealistic situation. According to Alice in Wonderland, impossible things may not happen, but the Irish Government issued in March negative interest rates bonds, over a sixth years maturity. Same thing did the Swiss Government, issuing for the first time in history negative bands over a ten years maturity, that zero rates structures within the Basel members are not indicating a return to normality. Argentina

tried the impossible GDP linked Bonds, without notable success. Normality means that, apart from the operative cash flows, in microeconomics defined as the gross profit, accountable after tax and depreciation, no saving and therefore no new investments are likely to start in the near future. At least as long as a fiat money payment and settlement system is operative in a recessive economic framework and in a multi Nations' area single currency system. Without savings, no future exists in most of Countries in term of economic or social progress in the Western hemisphere, designed to make the Bank as strong as possible, we should look at the rest.

“First. There should be a clear understanding between the Bank and the public that, since the Bank hold out ultimate banking reserve, they will recognize and act on the obligations which this implies; that they will replenish it in times of foreign demand as fully, and lend it in times of internal panic as freely and readily, as plain principles of banking require.

Secondly. The government of the Bank should be improved in a manner to be explained. We should diminish the 'amateur' element; we should augment the trained banking element; and we should ensure more constancy in the administration.

Thirdly. As these two suggestions are of our banking system, and try to reduce the demands on the Bank as much as we can. The central machinery being inevitably frail, we should careful and as much as possible diminish the strain upon it.” (Bagehot, 1873:28)

It appears rational market pricing has been definitely distorted for a too much long time. Interest rates are too low to stimulate savings, and seem impossible the formation of highly required capital and the rationale economic fairness of monetary transaction over term maturities. Interest rates are definitely too low if the market were to drive interest rate levels, but that has not been the case since the days before the Great Depression. I wonder if a market actually exists, if not manipulated and reflecting contradictory objectives.

If growth would start to be rekindled in Europe, the days of nega-coupons may quickly become a memory, as inflation expectations could revive and rational marketing pricing structure discipline return. Under the present variables, higher interest rates are not compatible but with general Nationals payment default, without any perspective of short or medium term economic recovery, which case is not likely to happen.

The only solution possible is a new kind of Bretton Wood agreement, based on the perspective to overcome the real problem, the classic

monetary functions crippled by half a century of deficit spending, not bearable any more and a starving capital efficiency expectations with a destructive taxation both substantially and formally too high. The only reason why National deficit spending are sustained over a rationale expectations is due to the international law enforcements always likely to happen and a progressive dependence of excessively indebted countries, which may seem a temporarily asset to some creditor.

To a practical understanding of the present financial frozen world, in a nega-rates environment, we must say what follows. The single problem we faced during the 90's, with the soft landing expectations, ever recurring at the Senate Banking Committee Greenspan reports, now has been split into two separate issues; the financial and market indexes always monetary manipulated on one side, and the consumer price indexes, showing the long awaited and missing take off.

This bizarre two faces circumstance relates to the enlarging potential market on one side, with a tough competition on the labor costs and the fallout of the monetary policies, always pursuing the demand stimulus but promoting the financial nominal markets indexes alone.

We can understand the problem and resolve if we overcome two separate issues: a set of free market openings to pursue equilibrium values, and the interdependence between macro and microeconomics compatibility.

REFERENCES

Bagehot Walter, (1873): *A Description of the Money Market*, Lombard Street , reprint, San Bernardino, CA, 2012, pag. 28.

Baumol J. W. (1972.), *Economic theory and operational analysis*, Englewood Cliffs.

Bernanke, Ben S. Thomas Laubach, Frederic S. Mishkin, and Adam S. Posen, (1999), *Inflation Targeting: Lessons from the International Experience*, Princeton NJ , Princeton University Press.

Eichengreen Barry, (2004), *Global Imbalances and the Lessons of Bretton Woods*, <<http://www.nber.org/papers/w10497.pdf>>.

Eichengreen Barry, Sachs Jeffrey, (1986), *Competitive devaluation and the Great Depression: A theoretical reassessment*, Economics Letters, Volume 22, Issue 1, Elsevier, Pages 67-71.

Ferguson Niall, (2011), *Civilization, The West and the Rest*, NY, pag.308.

Friedman M., Schwarz A. J., (1963), *Monetary History of the United States, 1867-1960*, Princeton.

Fukuyama Francis, (1992), *The End of History and the Last Man* Paperback. N.Y.

Greenspan Alan, (2014), *The Map and The Territory 2.0*, G.B. , pag.103.

Heinemann, Friedrich, (April 2000), *After the Death of Inflation: Will Fiscal Drag Survive?*. ZEW Discussion Paper No. 00-19. Available at SSRN: <<http://ssrn.com/abstract=373400>> or <<http://dx.doi.org/10.2139/ssrn.373400>>.

Lukas Robert E., (December 7, 1995) *Monetary Neutrality*, Prize Lecture, by, JR University of Chicago, USA: <http://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/1995/lucas-lecture.pdf>.

Koo Richard C., (2009), *The Holy Grail of Macroeconomics, Lessons from Japan's Great Recession*, Singapore.

Krugman, (1998), *The Return of Depression Economics*, London, pag. 182,

Mackay Charles, de la Vega Joseph, (1996), *Extraordinary Popular Delusions and the Madness of Crowds – Confusion de Confusiones*, by Martin S. Fridson, reprint by Marketplace Books, N.Y., page. Vii.

Mundell, P. K Robert, (1999), *A Reconsideration Of The Twentieth Century*, NY <<http://www.columbia.edu/~ram15/nobelLecture.html>>.

Padoa Schioppa Tommaso, (1992), *La moneta e il sistema dei pagamenti*, Milano

CHAPTER 2

Ion Cucui

Valahia University of Târgoviște, Târgoviște, Romania

Ioana Panagoreț

Valahia University of Târgoviște, Târgoviște, Romania

Tomislav Kandžija

County of Primorje and Gorski Kotar, Rijeka, Croatia

THE ROLE OF THE MARSHALL PLAN IN THE ECONOMIC AND POLITICAL STABILITY OF EUROPE AFTER THE SECOND WORLD WAR

ABSTRACT

The Marshall Plan, officially known as the European Recovery Program (ERP) was the first reconstruction plan conceived by the United States of America designed for the European allies from the Second World War, in order to prevent the spread of Soviet communism. In order to rebuild Europe, which was destroyed after the Second World War and following the policy of containment, General George Marshall, who was a state secretary at that time, proposed all free states of Europe an aid against famine, chaos and despair on the 5th of June 1947. This plan was meant to ensure economic recovery, supporting efforts against communism and not least maintaining the prosperity of the American economy. Of a great importance were, also, the efforts to modernize European industry using high-efficiency models from the USA, to reduce artificial trade barriers and to instill a sense of hope and confidence.

The plan gave a new impulse to rebuild Western Europe and had a decisive contribution to there new a lof the transport system, upgrading of industrial and agricultural equipment, resume normal production. Marshall was convinced that economic stability would entail political

stability in Europe and, by the plan which bears his name, he provided important help, the European countries accounting for the task of organizing themselves the support program. An Europe divided into a myriad of small economic entities could not thrive. Thus, after World War II, under the pressure of big economic difficulties and the tense international situation, marked by the threat of Soviet expansion, European cooperation is developed on three levels :economic(by running the Marshall Plan and the creation of the European Organization for Economic Cooperation-OECE); diplomatic and military(the Brussels Pact and NATO); political and parliamentary by the Council of Europe.

The establishment in 1950 of the European Union of Payments allows support of trade between Western European states by the financing brought by American capitals and by European contributions, and the automatic loans augment and facilitate commercial trades between member states. By applying the Marshall Plan in Western European countries was achieved cementing of economic solidarity, which is a prerequisite for creating the European Economic Community.

Keywords: Marshall, reconstruction, economic stability, Europe

JEL classification: G21

1. INTRODUCTION

Europe, considered for centuries on end an important economic, political, military and cultural world centre, entered at the end of the Second World War the darkest period of its existence. Across Europe economy was in deep crisis, inflation was generalized, the monetary system was almost nonexistent, unemployment, poverty and famine reigned everywhere, and much of the continent's industrial infrastructure was destroyed. The German occupation and the war policy had taken adverse effects on the whole of the economic and social life and, especially, on the monetary circulation and the purchasing power. In a word, the social, political and economic disorder was reigning in the Western European states. In the face of difficulties faced by Europeans at the end of World War II, Americans understood that they could not

live in isolation and, from the hostility they had towards Communism; they could not leave Europe to be dominated by a single power.

Also, Americans put before Europeans the idea that they were not alone and helpless in the face of difficulties they faced and they were willing to support them through a coherent economic policy. Thus, after a more attentive analysis of the Western states economic and financial situation and, after reaching the conclusion that the Soviet Union intended to extend its hegemony to the Atlantic, Americans decided to get involved more from an economic, financial and military point of view, to make their presence felt in all aspects and support west- European integration as the only viable and appropriate alternative to the post- war crisis. In the context of certain situations and mentalities characterized by human and material destructions caused by World War II, by the psychological shock generated by the Hiroshima and Nagasaki bombs, but also by the direct aggression of the left on the whole European continent, on 5 June 1947, General Marshall talks, in his speech at Harvard University, about the Program which will make history and which will bear his name: “Europe is exposed to an economic, social and political dislocation very critical without a very important additional aid. The remedy lies in breaking the vicious circle and restore inhabitants confidence in the economic future of their own countries across Europe. The United States is committed to bring aid and establish a European program, but the initiative has to come from Europe”. Subsequent to this speech, France immediately organized under the leadership of Georges Bidault a working cell at Quay d'Orsay and began consultations with London, and on 14 June will contact USSR to organize a tripartite conference in Paris about the *Marshall Plan*. After much hesitation, the permission given by Moscow on June 22 to attend the talks in Paris led to the establishment of the Franco-Anglo-Russian Conference on June 27. The Commissioner of Foreign Affairs, Molotov, assisted by four collaborators led to Paris a large delegation of 90 members. After long and sterile discussions, the conference failed, USSR deliberately advancing some requests which were intentionally inaccessible, decline the offer and compel people's democracies to do the same.

Although there were made efforts in order to convince Molotov that the United States offer was for the whole of Europe, on the 2nd of July, Molotov declared loudly that "States lose their economic autonomy and national independence" for the benefit of big powers, the tripartite conference was a failure and Moscow's allies, including Finland will

publicly decline their invitation to attend the Marshall Plan (Vaisse, 2008)

Taking into account the effects that the new geopolitical situation produced, in Paris, Jean Monnet would present Georges Bidault his various political analyses which clearly showed that a new Euro-Atlantic cooperation was unavoidable and the tearing of the relationship with the soviets seemed a long- lasting one. Insisting on understanding American politics ever since 1941, Jean Monnet, considered the father of European construction, pressed on financial and monetary stabilization of France as well as of Western Europe, and raising the German people. Thus, in this context, he launches a triple warning about:

- revision of German policy of France, so that to avoid a "new Munich";
- the need for an initiative to obtain the much needed financial settlement of France, so it does not seem to be an American interference in the internal affairs or something that had been imposed;
- the opportunity of the moment and the public opinion perception of material advantages, and the promise of future economic independence.

Considering the US aid as “provisional and productive”, Jean Monnet desired to give a “national sense” to the effort of economic equipment and to the economic independence warranty, this Plan put into motion being very important and essential, so that French people place American credits in an authentic development perspective. For Jean Monnet, the implementation of the first French Plan was associated with financial stabilization and this hoped would convince Americans supervisors of productive use of credit funds, which had to be negotiated and reconfirmed each year.

Although the communists make campaign against the Marshall Plan and some feared that they would pay a too high political price to the United States, Europe recognizes that it needs American help and sixteen states accept the Plan. The person leading the Cooperation Committee is Robert Marjolin (a close friend of Jean Monnet), and the estimates on this aid reach 22 billion dollars on a four- year period. The issue was that few Americans were willing to pay higher taxes in order to support Europe. Thus, President Truman manages to dispel Americans reluctance and convinces the Congress to vote the European Recovery Program in April 1948, after the coup in Prague (February 1948) and the

onset of the crisis in Berlin (May 1948). According to this law, it is allowed American aid through credits of 10% and 90% in-kind donations (9 US products are shipped to European governments which sell them to the industrialists).

Very important in the *European Plan for Reconstruction* was the idea of economic cooperation and integration, in his Harvard speech, Marshall suggesting to the European nations the “friendly aid” of the American government in view of developing the *Global Plan for Reconstruction*. Thus, according to the American organizers of the Marshall Plan, the condition sine qua non for economic reconstruction of Europe was free movement of goods and services, of capital and labor and market extension would allow achieving competitiveness of European products and rational use of local resources. Following the meaning of these developments, in September 1947, 16 countries (which were associated OECE) have agreed on an European Program for Reconstruction responding to 4 essential points: an effort of production; obtaining and maintaining internal financial stability; development of economic cooperation between Member States; solving the shortage of dollars.

In April 1948, the sixteen countries adopt the Convention for Economic Cooperation, this making possible the transition from theory to practice of the European Plan for Reconstruction and its economic objectives aimed at:

- promoting industrial and agricultural production;
- obtaining and maintaining monetary stability and budget;
- Increasing international trade between participating countries (in particular due to lowering trade barriers).

This Convention for European Economic Cooperation of 16 April 1948 and the Global Program for European Reconstruction defined Europeans' view on economic development and cooperation. In order to manage this Plan, to materialize cooperation, the states have been influenced by the United States to meet in the European Organization for Economic Cooperation (OECE), founded on April 16, 1948. Intergovernmental structure, and not supranational, OECE has a Council of Ministers of the Member States (decisions are taken unanimously and there exists the veto right in the case in which a State desires to abstain in a particular matter which it will not be obliged to apply), an Executive Committee, a secretary general (the Frenchman Robert Marjolin) and technical committees, and headquarters was established in Paris.

In 1950 the European Union of Payments (UEP) is founded in order to support trade between Western European countries by financing coming from American capital and European contributions. Thus, the automatic credits facilitate commercial trades between member states and the Marshall Plan contributes to strengthen economic solidarity between the states of Western Europe. Between April 1948 and October 1950 the American Aid was approaching \$ 13 billion.

During the implementation of the Marshall Plan (April 1948-June 1952), France received over \$ 2.7 billion, of which almost 90% in materials (\$ 2.419 billion), this amount representing approximately 23% of the total aid granted to Europeans. Thus, France is placed in the second position, after England, and before Germany and Italy. Italy and Germany, both beneficiaries of the Marshall Plan, although they lost the war, realized, beginning with 1946, superior growth as compared to the winner countries. Consequently, in the years 1947-1954, Italy doubled its income per capita, and Germany reached France level (to note that both were at 30% of its level at the end of the war). (Bossuat, 1992)

With the Marshall Plan, between April 1948 and June 1951, it was transferred to Europe more than 1% of US GDP, i.e. 3.5% of European GDP without considering military aid; 3.4% of US aid was in commodities and the rest in loans. The latter helped liquidation of international prewar claims, in very advantageous conditions for borrowers (primarily Germany). All were made against a set of economic policies in a privileged setting offered by the liberalization of intra-European trades and medium-term planning of joint activities.

In the *Debt Agreement*, signed in 1953, the American aid totalled approximately \$ 13 billion. Despite the fact that the Marshall Plan contributed to strengthen economic solidarity between Western European states, this representing the premises for creating the European Economic Community, the national vision still remains dominant and the fault line between the two blocks deepens (Fointaine, 1998).

Thus, in 1949 at the initiative of the USSR, it is created, in response to the OECD, the Council for Mutual Economic Assistance (CMEA) that brings together along this country, Bulgaria, Hungary, Poland, Romania and Czechoslovakia (German Democratic Republic becomes a member in 1950 and Albania between 1949 and 1962). CMEA is an economic side of the Soviet bloc and it was founded from political and strategic considerations, in reply to the Marshall Plan, which Eastern European countries, under pressure from the USSR, reject. Also known as the English COMECON, the Council for Mutual Economic Assistance is the

institutional framework of economic relations between Eastern European countries (even if later joins Mongolia (1961), Cuba (1972) and Vietnam in 1978.

2. CONCLUSIONS

If centuries on a row, Europe was the economic, political, military and cultural center of the world, after World War II, it practically ceases to play any role and becomes a mere stake of the struggle between the two masters of the planet, the US and the USSR. The President of the International Commission for the History of International Relations, the great historian of Sorbonne, René Girault, considered that the Marshall Plan met certain problems which were seen as being essential at the time, it was an “economic weapon” which served political goals in the most efficient manner, clearly targeted stopping the communism and its spread in the Occident, as well as the implementation of Western Europe cohesion.

Designed in order to rebuild Europe after World War II and following a policy of containment, the *Marshall Plan*, after being severely condemned by the USSR and its satellites which considered it an expression of the 'dollar imperialism', it unquestionably created by application, significant positive effects.

Although the political left in Western Europe viewed that the US intervention and the economic recovery that followed the Marshall Plan is one of the causes of failure to achieve political system of socialist type in the West and its brutal end, under the pressure created by the great economic difficulties and the tense international situation, of course marked also by the threat of Soviet expansion, the European cooperation has developed on three levels:

- economic, by unfolding the Marshall Plan and the creation of the European Organization for Economic Cooperation (OEEC);
- diplomatic and military by the Brussels Pact and NATO;
- politic and parliamentary by the Council of Europe;

The benefits of the Marshall Plan and the national programs allowed Western Europe to exceed the average pre-war development in 1949, basically meaning a completion of the Reconstruction.

In conclusion, making a Marshall Plan approach beyond the economic plan, i.e. to the political sphere, one can say that it has contributed, in addition to those already mentioned, to the support of the Western democratic model and the extension of US aid until the early 1952 also allowed strengthening liberal economic structures and policies promoted by the Western governments.

By a deeper analysis of the concordance between objectives and results, one may say that there is a strong relationship between the US financial assistance and the economic recovery in Western Europe, in general, and in West Germany, in particular, and the spectacular growth of GDP and the industrial production fast climb demonstrates that the Marshall Plan succeeded in bringing a great contribution to the reconstruction of the production capacity of Europe. If, under Stalin, in the CMEA only bilateral trade agreements were facilitated, in the mid 50's cooperation activities intensified, and, in 1958, the first multilateral investment projects were launched.

In December 1958, the European Union of Payments is dissolved because European currencies become again convertible, and Western European countries fully align the policy of international financial institutions (Bank for International Settlements, the International Monetary Fund, the International Bank for Reconstruction and Development).

REFERENCES

Bonnet Henri, Dominique Berthet, (1987) *Les Institutions Financières Internationales*, PUF, Paris,

Bossuat, Gérard, (1992), *L'Europe Occidentale A L'Heure Américaine. Le Plan Marshall Et L'Unite Européenne (1945-1952)*, Complexe, Bruxelles.

Cournty, Guillaume, Devin, Guillaume, (2003), *Construcția Europeană*, Editura CNI Coresi S.A., București, P.78

Leboyer-Lévy, Girault, M., (1993), *Le Plan Marshall Et Le Relèvement Economique De L'Europe, Comité D'Histoire Economique Et Financière*.

Lemoine Françoise, (1982), *Le COMECON*, PUF.Paris

Denizet, Jean, (1985), *Le Dollar, Histoire Du Système Monétaire International Depuis 1945*, Fayard

CHAPTER 3

Davor Galinec

Croatian National Bank, Statistics Area, Zagreb, Croatia

University College of International Relations and Diplomacy Dag

Hamarskjöld (VŠMOD DH/ UCIRD DH), Zagreb, Croatia

Jasminka Šohinger

University of Zagreb, Faculty of Economics and Business, Zagreb, Croatia

THE EFFICIENCY OF THE EXCESSIVE DEFICIT PROCEDURES IN REDUCING FISCAL DEFICIT AND DEBT IN EU MEMBER STATES

ABSTRACT

In this paper we compare the performed Excessive Deficit Procedures in selected Member States (since 2004). We give the overview of the measures taken in order to reduce deficit and debt below the thresholds and analyze their efficiency. We focus on measures both on the budget revenue and expenditure sides and analyse their effect on the level of deficit and debt as well as their impact on economic growth, employment, investment, debt service costs and some other macroeconomic indicators.

The aim of the paper is to determine which economic policy measures performed in various EU Member States for the purpose of elimination of excessive deficit and debt could be applied in Croatia in order to reach the deficit and debt targets specified by the Council Recommendation and to abrogate from the existing Excessive Deficit Procedure by the end of 2016.

Keywords: deficit, surplus, debt, fiscal policy, government, government expenditure

JEL classification: E62, E63, H50, H60, H61, H62, H6

1. INTRODUCTION

The Excessive Deficit Procedure (EDP) is a corrective arm of the Stability and Growth Pact (SGP), with the main purpose to ensure that Member States adopt appropriate policies to correct excessive deficits and debt within the thresholds defined by the Maastricht Treaty (3% of deficit to GDP and 60% of debt to GDP) and within the time period defined by the EU Council Recommendation.

Almost all EU Member States (except Sweden and Estonia) were covered by the EDP mechanism during the last decade, especially after the beginning of the 2008 global financial crisis. On one hand, some Member States were very active and efficient during the EDP period, applying the various restrictive measures in order to reduce deficit and debt and they have abrogated from the EDP. On the other hand, for those Members States that were not active and efficient in performing effective action in order to reduce their excessive deficit, the deadlines for reaching the targets have been extended by the Commission and Council. What is also included are enhanced monitoring of public finance as well as the possibility of implementation of sanctions against a Member State.

In this paper we undertake comparative analysis of the performed EDP cases of selected, mainly new, Member states that have been members since 2004. We give the overview of measures taken in order to reduce deficit and debt below the thresholds and we analyze their efficiency. Also, we focus on the implementation of these measures both on the budget revenue and expenditure sides and analyze their effects on the level of deficit and debt, as well as their impact on economic growth, employment, investment, debt service costs and some other macroeconomic indicators.

In the paper first we present the basic facts about Excessive Deficit Procedures (EDP) mechanism within the EU and a short overview of closed and ongoing procedures performed on particular EU Member States. The time horizon of this overview is from the year 2004 onwards and the countries included are Bulgaria, Czech Republic, Croatia, Latvia, Lithuania, and Slovenia. Then we perform a cross-country analysis of the efficiency of measures taken by selected Member States in order to reduce deficit and debt below the thresholds, including the

overview of these measures. Finally, based on the experience and efficiency of those countries which were successful in reducing the level of deficit and debt and which abrogated from the Excessive Deficit Procedure, we also draw policy conclusions about relations between efficiency in reduction of excessive deficit and debt during the EDP and particular policy measures taken by Member States.

2. A SHORT DESCRIPTION OF THE EXCESSIVE DEFICIT PROCEDURE (EDP) MECHANISM AND ITS INCREASING IMPORTANCE DURING THE EUROAREA CRISIS

The Excessive Deficit Procedure is a rules-based process established in the Treaty on the Functioning of the European Union (TFEU, Article 126), with the main purpose to ensure that Member States adopt appropriate policy responses to correct excessive deficits and debt within the thresholds defined by the Maastricht Treaty.

It forms an important part of the economic governance architecture in the EU and it was introduced partly in response to the economic crisis. In particular, the legislative packages known as the "Six Pack" (2011) and "Two Pack" (2013), representing special sets of rules applicable only for the Euro area countries, have significantly reformed economic and budgetary surveillance in the EU and have thus been considered a "preventive arm" of the Stability and Growth Pact.

The EDP begins with a Member State either having breached or being at risk of breaching the deficit threshold of 3% of GDP or having violated the debt rule by having a government debt level above 60% of GDP, which is not diminishing at a satisfactory pace. This means that the gap between a country's debt level and the 60% reference needs to be reduced by 1/20th annually, on average over three years. In determining whether a numerical breach should lead to the opening of an EDP the legislation specifies how all relevant factors should be taken into account. Special consideration can be given to countries whose fiscal positions have worsened due to exceptional events and circumstances outside their control, like natural disasters or as a result of a severe economic downturn. However, it is necessary that the actual value of the deficit be close to the threshold value (3% of GDP) and temporary.

Countries placed in EDP are given a deadline of six months (or three for a serious breach) to comply with recommendations that provide it with a

concrete path for correcting its excessive deficit within a set timeframe. Euro area Member States that have already been sanctioned under the preventive arm, or whose breach of the threshold values is especially serious, may also face a stricter sanction in the form of a non-interest-bearing deposit of 0,2% of GDP at this point. Once the deadline has passed, the Commission and the Council assess the actions that the Member State has taken, with a view to either putting the procedure on hold or stepping it up if the Member State has not done enough. A Member State which has taken effective action to address its excessive deficit, but where the impact on the public finances has been affected by exceptional events outside its control, may see an extension of its deadline for correction and a revision of the recommendations to reflect the change in circumstances. The EDP is extended for Member States for whom the assessment shows that they have failed to take effective action to correct the excessive deficit within the initially set up time period. Those countries also receive revised Recommendations, which may include a new timeline to reduce the excessive deficit.

The extension of the EDP may result also in the imposition or strengthening of sanctions in the form of a fine of 0,2% of GDP, while all countries in receipt of assistance from the EU Cohesion Fund may face a temporary suspension of this financing. For all Member States, the EDP is abrogated when the excessive deficit is corrected in a sustainable manner. At that moment they are eligible to continue to receive assistance from the EU Cohesion Fund and non-interest bearing deposits are returned to the Member States. This applies only to the Euro area countries.

During the year 2004, ten countries (formerly called "Central European Countries in Transition" joined EU. Due to recognized excessive deficits, six countries were covered by the EDP immediately following the accession (Malta, Cyprus, Poland, Czech Republic, Hungary, and Slovakia). Five of them successfully abrogated from EDP in 2008/2009, while Hungary remained covered for almost ten years, until 2013. Estonia and Sweden are the only EU Member States that never experienced the EDP. Since 2009, when the Global Economic Crisis spilled over to Europe, a majority of the EU member states joined the EDP mechanism due to the sudden increase of fiscal deficits. Some of the countries that joined EU in 2004 were again covered by EDP, just shortly after the successful abrogation from previous one. Latvia,

Lithuania and Slovenia were included in the EDP for the first time in 2009.

Bulgaria and Romania, who joined the EU in 2007, were not covered by EDP immediately upon accession, but they were also negatively impacted by the crisis. Consequently Romania was included in 2009 and Bulgaria in 2010. Latvia and Lithuania made serious efforts in the process of fiscal consolidation and they were abrogated from the EDP in 2013. Due to very impressive results of undertaken reforms (and compliance with the other three Maastricht criteria), Latvia becomes member of Euro Area since 2014 and Lithuania since 2015. On the other hand, Slovenia was not able to reduce excessive deficit until the end of 2013, which was its initial deadline for correction. The new deadline has been set up for Slovenia for the end of 2015, with possibility for official abrogation from EDP in mid 2016.

Croatia joined the EU on July 1st 2013. Because of the excessive deficit official inclusion into the EDP began in January 2014 and initial deadline for correction was set up by Council Recommendation for the end of 2016, with the possibility of official abrogation from EDP in mid 2017 (Table 1).

Table 1 Overview of the Excessive Deficit Procedures (EDP) by countries

Country	Date of Commission Report (Art. 104.3/126.3 TFEU)	Council (EU) Decision on existence of excessive deficit (Art.104.6/126.6)	Initial Deadline for Correction (end of the year)	Revised Deadline for Correction (end of the year)	Official date of abrogating EDP (Art. 104.12/126.12 TFEU)	State of EDP
Bulgaria	12.05.2010.	13.07.2010.	2011	-	22.06.2012.	Closed
Czech Republic	12.05.2004.	24.06.2004.	2007	-	03.06.2008.	
Latvia	18.02.2009.	02.07.2009.	2012	-	21.06.2013.	
Lithuania	13.05.2009.	07.07.2009.	2011	2012	21.06.2013.	
Hungary	12.05.2004.	24.06.2004.	2007	several extensions	21.06.2013.	
Slovakia	12.05.2004.	24.06.2004.	2007	-	03.06.2008.	
Czech Republic	07.11.2009.	02.12.2009.	2013	-	20.06.2014.	
Slovakia	07.10.2009.	11.11.2009.	2013	-	20.06.2014.	
Slovenia	07.10.2009.	11.11.2009.	2013	2015	mid 2016 ?	Ongoing
Croatia	15.11.2013.	21.01.2014.	2016		mid 2017 ?	

Source: EC DG ECFIN web site

The EU Member States placed under the EDP on the basis of Council Decision on existence of excessive deficit (Art.104.6/126.6 TFEU) receive a short list of Council Recommendations, which emphasize the deficit thresholds to be achieved during the given deadline. The country under consideration should specify and rigorously implement the measures that are necessary to achieve the correction of the excessive deficit within the deadline given for correction. Simultaneously, Council establishes the the deadline to about 3 to 6 months. In addition for country to take effective action it is expected to report in detail about the consolidation strategy that it planning to pursue to achieve the targets. During that process the authorities are expected to report on the progress made in the implementation of these recommendations at least every six months, until full correction of the excessive deficit has taken place.

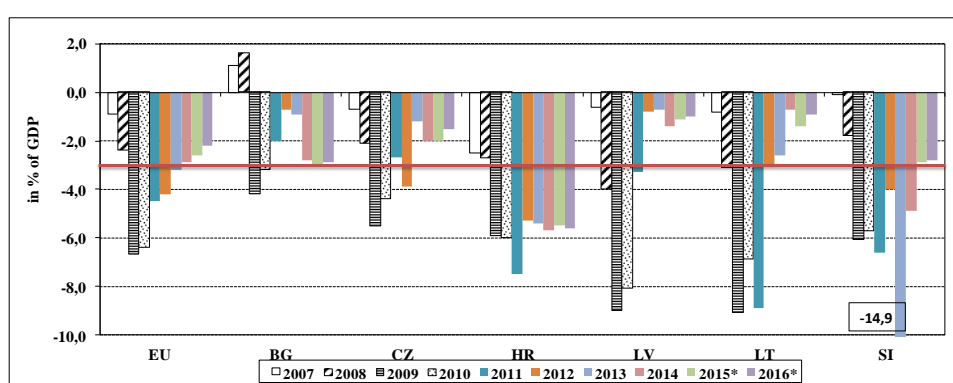
Also, the Recommendation may include a short list of policy areas identified by the Commission as areas in which reform efforts are expected. This involves the creation of measures to be implemented on the revenue and expenditure side of the budget in order to make resulting deficit close to the annual benchmark values defined in the Council Recommendation section of Council Decision. Policy measures for implementation prepared by national authorities, including estimated impacts on the reduction of deficit for each specified measure, are subject to review by the Comission. The Comission makes an estimate of the real feasibility of the proposed measures to achieve their targets. If the Commission concludes that the proposed measures and their expected impacts are not effective enough to reach the recommended deficit thresholds, the Commission will invite national authorities to submit an additional set of policy measures in order to be confident that annual deficit targets are reached. The most demanding task for national authorities during the EDP is to perform deficit reduction measures presented to the Comission and Council efficiently and within a scheduled time frame.

3. CROSS-COUNTRY EFFICIENCY ANALYSIS OF POLICY MEASURES UNDERTAKEN IN ORDER TO ABROGATE THE EDP

The massive inclusion of the most EU member states in the EDP mechanism in 2009 was a result of the sudden increase in fiscal deficits

in 2009, as consequences of the national economic policy reactions on global crisis spillover to Europe. The remaining part of the paper will be dedicated to the analysis of the efficiency of EDP procedures in seven EU member states: Bulgaria, Czech Republic, Croatia, Latvia, Lithuania, and Slovenia.

Chart 1 EU and Selected countries, General Government Deficit (as % of GDP)



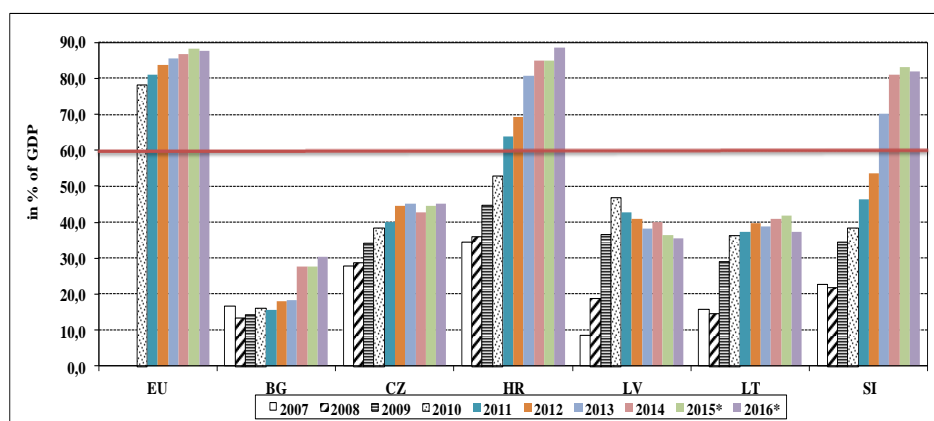
Source: Eurostat Database

During the observed period, year 2007 onwards, including the EC Winter Economic Forecast for the 2014-2016 period, the average general government deficit at the EU level shrank from 6,4% of GDP in 2010 to 2,9% of GDP in 2014. The EC forecasted further continuous shrinking of the deficit below the levels defined by the Maastricht criteria (2,6% of GDP in 2015 and 2,2% of GDP 2016, Chart 1). This reduction resulted from the performed EDP against the countries having breached or being in risk of breaching the deficit threshold of 3% of GDP. As can be seen from the Chart, the most intensive efforts in reducing the excessive deficit within the relative short time frame, especially taking into account its initial size, were recorded in case of Latvia and Lithuania.

On the other hand, the reduction of the general government deficit at the EU level during the period of consideration seems to be partially financed by new borrowing: the average general government consolidated gross debt at the EU level increased from the initial level of 78,2% of GDP in 2010 to 86,8% in 2014, with the perspective to be stabilized at the level slightly below the 90% of GDP until the end of the

period of forecast. The huge average level of general government debt at the EU level during the observed period (well above the threshold of 60% of GDP according to the Maastricht Treaty) is mainly related to huge borrowing of the “old” Euro Area Member States (like Greece, Spain, Portugal, Italy, and Ireland with general government debt levels well above the 100% of GDP). The level of the general government debt of selected Member States is much lower comparing with the EU average, except in the cases of Slovenia and Croatia, two countries with the relatively low initial level in 2007 and progressive growth during the rest of observed period (Chart 2).

Chart 2 EU and selected countries, GG consolidated gross debt (as % of GDP)



Source: Eurostat database

It may lead us to conclusion that selected member states, except Slovenia and Croatia, abrogated from the EDP due to “strong and efficient performance of undertaken policy measures on revenue and expenditure side of the budget combined with the minimum of borrowing” approach rather than alternative “mild performance of undertaken policy measures on revenue and expenditure sides of the budget combined with the new borrowing in order to finance the deficit” approach.

We now turn to further elaboration and analysis of undertaken policy measures with the final aim to successfully abrogate from the EDP and their efficiency in case of selected countries. The countries we analyzed

are Bulgaria, the Czech Republic, Latvia, Lithuania, Slovenia, and Croatia.

Bulgaria entered into the EDP in mid 2010, as a consequence of recorded budget deficit of 4,2% of GDP in 2009. This happened despite the fact that budgetary surpluses are recorded in preceding two years. The Council established the end of 2011 as initial deadline for excessive deficit correction and recommended annual deficit benchmarks of 3,8% of GDP for 2010 and 2,5% of GDP for 2011. The EDP targets were predominantly focused on deficit, because of the very low level of general government debt (14,2% of GDP in 2009).

The final outcome of policy measures performed by Bulgarian authorities was that recorded deficits in 2010 and 2011 were lower compared to the benchmark values (0,6% of GDP in 2010 and 0,5% of GDP in 2011), enabling a formal abrogation of Bulgaria from the EDP in mid 2012. The increase in level of general government debt during the EDP was negligible (from 14,2% of GDP in 2009 to 18% in 2012). The forecast for the period 2014-2016 shows a certain possibility of deficit and debt indicators worsening. Annual real GDP growth is positive and mild since 2010, a share of investment in GDP is pretty stable, while exports of goods and services share in GDP increased from 43,8% in 2009 to 68,4% in 2013. Reduction in employment seems to be finished, while data on population shows annual average reduction of 0,6 percent during the whole observed period, partially due to outflows of “better paid job seeking” citizens to the rest of the EU (Table 2).

Table 2 Key macroeconomic and the EDP efficiency indicators for Bulgaria

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	1,1	1,6	-4,2	-3,2	-2,0	-0,7	-0,9	-2,8	-3,0	-2,9
Total GG revenue	39,4	39,3	36,4	34,1	32,6	34,5	37,4	36,4	37,4	37,2
Total GG expenditure	38,2	37,7	40,6	37,4	34,7	35,2	38,3	39,2	40,4	40,1
- o/w investment expenditure	5,3	5,7	5,1	4,8	3,5	3,5	4,1	5,0	4,8	4,0
- o/w interest expenditure	1,1	0,9	0,8	0,7	0,7	0,8	0,8	0,7	0,8	0,9
GG consolidated gross debt	16,6	13,3	14,2	15,9	15,7	18,0	18,3	27,6	27,8	30,3
GG deficit targets (according to the CR)	...	...	...	-3,8	-2,5	...	...	...	...	...
Efficiency (GG deficit - GG deficit target)	...	...	...	0,6	0,5	...	...	...	...	...
Real GDP (y-o-y)	6,9	5,8	-5,0	0,7	2,0	0,5	1,1	1,4	0,8	1,0
Total investment (% of GDP)	28,6	33,5	28,7	22,9	20,8	21,5	21,3	21,0	...	...
Exports of goods and services (% of GDP)	53,3	53,6	43,8	55,1	64,1	64,6	68,4	67,9	...	...
Employment (y-o-y)	4,6	3,3	-3,2	-6,2	-2,9	-1,1	0,0	...	...	...
Population (y-o-y)	-0,7	-0,7	-0,7	-0,6	-0,7	-0,6	-0,6	-0,5	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

The efficiency of Bulgarian authorities related to decrease of deficit during the EDP resulted from the proposed and undertaken corrective policy measures on the budget revenue and expenditure side. On the revenue side, Bulgarian authorities increased excise duties on energy and tobacco products, pension insurance contributions, the amount of minimum wage, as well as introducing some new taxes, accompanied with the improvement of tax administration efficiency. On the expenditure side, the level of wages in public sector, pensions, subsidies and transfers were fixed (frozen). Also, government investment expenditure and employment in public administration were limited. Measures on expenditure side obviously decreased a purchasing power of citizens, while huge amount of planned government investment were redirected towards the financing from the EU funds. In this case, the government investment expenditure is lower due to the fact that only a part of the costs related to co-financing EU projects is paid from the budget.

The Czech Republic was under the EDP during the period 2004-2008, but the new EDP was launched again in 2009 because of the overall worsening of the economy due to global financial crisis impacts and budget deficit of 5,5% of GDP. Comparing with duration of the first EDP, the second EDP for the Czech Republic was longer for one year. Finally, the Czech Republic abrogated from the EDP in 2014.

Table 3 Key macroeconomic and the EDP efficiency indicators for Czech Republic

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	-0,7	-2,1	-5,5	-4,4	-2,7	-3,9	-1,2	-2,0	-2,0	-1,5
Total GG revenue	39,3	38,1	38,1	38,6	39,7	39,9	40,8	40,1	40,1	39,7
Total GG expenditure	40,0	40,2	43,6	43,0	42,4	43,8	41,9	42,0	42,1	41,2
- o/w investment expenditure	4,6	5,0	5,5	4,7	4,1	3,9	3,5	3,9	4,2	3,7
- o/w interest expenditure	1,1	1,0	1,2	1,3	1,3	1,4	1,3	1,3	1,3	1,2
GG consolidated gross debt	27,8	28,7	34,1	38,2	39,9	44,6	45,0	42,6	44,4	45,0
GG deficit targets (according to the CR)	...	...	-6,6	-5,5	-4,5	-3,5	-2,5	...	...	...
Efficiency (GG deficit - GG deficit target)	...	...	1,1	1,1	1,8	-0,4	1,3	...	...	...
Real GDP (y-o-y)	5,5	2,7	-4,8	2,3	2,0	-0,8	-0,7	2,3	2,5	2,6
Total investment (% of GDP)	29,6	29,0	27,1	27,0	26,6	26,1	24,9	25,3	...	...
Exports of goods and services (% of GDP)	66,6	63,4	58,8	66,2	71,6	76,5	77,2	83,6	...	...
Employment (y-o-y)	1,9	1,6	-1,4	-1,0	-0,3	0,4	1,0	...	...	...
Population (y-o-y)	0,3	0,9	0,8	0,3	0,2	0,2	0,1	0,0	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

The Council proposed the end of 2013 as initial deadline for excessive deficit correction and recommended annual deficit benchmarks of 5,5% of GDP for 2010 and average annual decrease of deficit of 1 percentage point during the period 2011-2013. The EDP targets were predominately focused on the deficit, because of the moderate level of general government debt (34,1% of GDP in 2009). During the period 2009-2013 actual budget deficit was slightly lower compared to the benchmark values, except the year 2012 when actual deficit exceeded the benchmark value for 0,4 percentage point (Table 3). The Czech Republic formally abrogated EDP in mid 2014. Increase in general government debt during the EDP counts for around 11 percentage points (up to 45% of GDP in 2013, still below the Maastricht debt threshold). Data on deficit in 2014 shows some worsening, while the forecast for the period 2015-2016 shows a certain possibility of small reduction of deficit in 2016, while the level of debt will be slightly increased. Real annual GDP growth is expected to switch to positive values during the forecasted period 2014-2016. The share of investment in GDP had steeply decreased during the period of observation, exports of goods and services share in GDP have increased from 58,8% in 2009 to 83,6% in 2014. Reduction in employment trends switched to positive pattern in 2012. Annual growth rates of population during the period 2010-2014 were positive but much lower compared to the period 2007-2009. Reduction of budget deficit during the EDP is a result of the undertaken corrective policy measures prepared by the Czech Republic authorities.

On the revenue side, general VAT tax rate, excise and property tax rates were increased, as well as social contributions for the high income population, including the withdrawal of dividends from public companies profits. On the expenditure side, at the early stage of the EDP subsidies and social transfers have been reduced and public sector wages and pensions were frozen later on. Also, some government payment obligations were rescheduled and some public expenditure categories were limited (for instance, procurement of goods and services).

The fiscal deficit of **Latvia** in 2007 was only 0,6% of GDP and general government debt stood at the low level of 8,4% of GDP. Latvia is a "small open economy" and spill over of global economic crisis affected Latvia sharply within the one year period: in 2008 deficit was sharply increased to 4% of GDP and government debt level more than doubled and reached the level of 18,6% of GDP (Table 4). In 2009 Latvia was officially included into EDP. It had reached the highest historical level of general government deficit of 9% of GDP. At the same time general government debt level almost doubled compared to the previous year (or more than quadrupled in comparison to the year 2007 level).

Table 4 Key macroeconomic and the EDP efficiency indicators for Latvia

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	-0,6	-4,0	-9,0	-8,1	-3,3	-0,8	-0,7	-1,4	-1,1	-1,0
Total GG revenue	33,3	33,0	34,5	35,9	35,5	35,7	35,3	35,5	33,5	32,8
Total GG expenditure	33,9	37,0	43,4	44,0	38,8	36,5	36,0	36,9	34,6	33,8
- o/w investment expenditure	5,9	5,1	4,8	4,6	5,0	4,8	4,3	4,3	3,4	3,2
- o/w interest expenditure	0,4	0,5	1,5	1,7	1,8	1,6	1,5	1,4	1,3	1,2
GG consolidated gross debt	8,4	18,6	36,4	46,8	42,7	40,9	38,2	40,0	36,5	35,5
GG deficit targets (according to the CR)	...	...	...	-7,1	-4,3	-1,6	...	...	...	...
Efficiency (GG deficit - GG deficit target)	...	...	...	-1,1	1,0	0,8	...	...	...	...
Real GDP (y-o-y)	9,8	-3,2	-14,2	-2,9	5,0	4,8	4,2	2,6	2,9	3,6
Total investment (% of GDP)	36,5	32,0	22,5	19,1	22,1	25,2	23,3	23,0	...	...
Exports of goods and services (% of GDP)	38,5	39,5	42,5	53,0	57,8	60,9	59,4	58,0	...	...
Employment (y-o-y)	2,6	-0,2	-13,9	-6,4	1,3	1,6	2,1	...	...	...
Population (y-o-y)	-0,9	-0,8	-1,3	-2,0	-2,2	-1,4	-1,0	-1,1	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

The fiscal deficit benchmark values recommended by the Council sounded incredible: to apply an annual average fiscal effort of at least 2¾ percentage points of GDP over the period 2010-2012. National authorities of Latvia took a serious and resolute approach to fiscal consolidation and overall economic reforms, international financial

institutions (IMF, ECB, World Bank, EBRD) and the governments of the Nordic countries, the Czech Republic and Poland recognized the serious intent of Latvian government. Finally, the financial assistance package amounted to around 7,5 billion of euros was approved to Latvia. It was withdrawn in tranches in 2009, 2010, and the first quarter of 2012. This was reflected through an immediate increase in the general government debt, which is to be repaid to creditors by the end of 2015. In 2010, the Latvian authorities failed to reach the deficit benchmark of less than 1,1 percentage point of GDP, while in 2011 and 2012 the effect of a package of implemented measures proved to be very effective: deficit fell to 3,3% of GDP in 2011 and to 0,8% of GDP in 2012. Compared with the 2013, deficit in 2014 was doubled (from 0,7 to 1,4% of GDP), but the Commission forecast for the period 2015 and 2016 indicates stable annual values around 1% of GDP. Real annual GDP growth is expected to continue during the 2014-2016 period, but less intensive comparing with the previous 2011-2013 period.

The share of investment in GDP has been continuously increasing since the EDP started, exports of goods and services share in GDP have increased from 42,5% in 2009 to 59,4% in 2014. Reduction in employment trends switched to positive pattern in 2011. Annual growth rates of population during the 2010 and 2011 were pretty high and negative (annual reduction of 2%). From 2012 onwards figures are bit lower. During the the period 2010-2014 they were positive but much lower compared to the period 2007-2009. This is mainly the result of outflows of “better paid job seeking” Latvia's citizens to the rest of the EU.

Apart from the huge foreign financial assistance, the key element of success in the process of reduction of the excessive deficit was a comprehensive consolidation of public finances (equally intensive on both revenue and expenditure sides). On the revenue side of the budget measures were focused on noticeable relief in labor costs, reducing the share of local government in the allocation of tax revenues, the introduction of corporate taxation of capital, increasing the rate of VAT and excise duties, the abolition of various tax exemptions and improving tax inspection. On the expenditure side of the budget cuts were visible in terms of wage cuts in the public sector and local government sector, a reduction in subsidies and supports, pension benefits, and all types of social spending. Limiting the current budget spending and improving debt management system, all of which resulted in the reduction of interest expenditure, Latvia abrogated formally from the EDP in mid-

2013. Having fulfilled the remaining Maastricht public finance criteria and in 2014 Latvia became a member of the Eurozone. It was the 18th country to adopt the euro.

Unlike Latvia, the neighboring country **Lithuania** also entered the EDP in 2009 with somewhat lower initial levels of excessive deficit recorded in the previous year (3,1% of GDP). During 2009 the deficit suddenly increased to 9,1% of GDP, while the level of public debt was lower as compared to Latvia. The initial recommendation of the Council in 2009 related to the excessive deficit reduction benchmarking was to reduce excessive deficit by the end of 2011, by average of 1,5 percentage point of GDP annually. As the measures undertaken in 2009 and the first half of 2010 did not give the expected results, the Council issued a revised Recommendation for more intensive deficit reduction within the initial time frame reducing the deficit by 3 percentage points annually instead of 1,5 percentage point of GDP. At the end of 2012, the deficit of Lithuania amounted to 3,1% of GDP, but the Council took into account the assessment of the Commission services about forecasted deficit value of 2,9% of GDP for 2012 and the estimated impact of the undergoing pension reform budgetary costs of 0,2% of GDP. Given these "mitigating circumstances" and the fact that the level of public debt amounted for 2/3 of the Maastricht debt reference benchmark value, Lithuania officially abrogated from the EDP in mid 2013.

Table 5 Key macroeconomic and the EDP efficiency indicators for Lithuania

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	-0,8	-3,1	-9,1	-6,9	-8,9	-3,1	-2,6	-0,7	-1,4	-0,9
Total GG revenue	34,4	35,0	35,8	35,4	33,6	33,0	32,9	34,3	32,8	32,7
Total GG expenditure	35,2	38,1	44,9	42,3	42,5	36,1	35,5	34,9	34,2	33,6
- o/w investment expenditure	5,4	5,4	4,4	5,0	4,7	3,9	3,7	3,5	3,6	3,5
- o/w interest expenditure	0,7	0,7	1,2	1,8	1,8	2,0	1,8	1,6	1,6	1,5
GG consolidated gross debt	15,9	14,6	29,0	36,2	37,2	39,8	38,8	40,9	41,8	37,3
GG deficit targets (according to the CR)	...	...	...	-6,8	-3,8	-3,0	...	...	...	...
Efficiency (GG deficit - GG deficit target)	...	...	...	-0,1	-5,1	-0,1	...	...	...	...
Real GDP (y-o-y)	11,1	2,6	-14,8	1,6	6,1	3,8	3,3	3,0	3,0	3,4
Total investment (% of GDP)	28,6	26,0	17,9	16,9	18,4	17,3	18,2	19,2	...	...
Exports of goods and services (% of GDP)	50,4	57,1	51,9	65,4	75,1	81,7	84,1	81,8	...	...
Employment (y-o-y)	1,6	-1,7	-7,7	-5,3	0,5	1,8	1,3	...	...	...
Population (y-o-y)	-1,2	-1,2	-0,9	-1,3	-2,8	-1,6	-1,1	-1,0	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

In the beginning of 2014 Lithuania also became a member of the Euro zone, as the 19th country to adopt the euro and recorded historically low deficit around 0,7% of GDP. The forecast for the period 2015-2016 indicates further reduction of the budget deficit, associated with the decrease in government debt in 2016. Expected real annual GDP growth is expected to be around 3%, while the share of investment in GDP is expected to be slightly higher. Exports of goods and services share in GDP has increased from 51,9% in 2009 to 84,1% in 2013. Decrease in employment stopped in 2011 and growth of population was negative during the period of observation, mainly due to the emigration of population to the rest of the EU.

The measures that were implemented by Lithuania on the revenue side of the budget relating to the relief of the economy took the form of the tax reduction, together with its negative impact on budget, but expected positive impact on economic growth. There was also an increase in the VAT rate and some non-tax revenues. On the expenditure side, cuts were made in terms of reducing the wage bill and salaries in the public sector. The state investment projects were redirected to financing from EU funds and active measures related to the reform of the pension system were implemented.

In the year 2007 **Slovenia** joined the Euro area and the state budget was almost in balance (-0,1% of GDP). The deficit increased to 1,8% of GDP in 2008, and because of the strong impact of the global crisis and the crisis of the euro zone on Slovenian public finance, in 2009 there was a sharp rise in the deficit to 6,1% of GDP, so that Slovenia was formally included in the EDP procedure (Table 6). Based on the projections of the European Commission services about the deficit of 6% of GDP in 2009, Slovenia was recommended to end up with the excessive deficit position by the end of 2013, with annual average fiscal effort of 0,75 percentage points of GDP. The deficit figures in this period were slightly lower compared to the benchmark values set by the Council Recommendation and the maximum undershooting of 2,1 percentage point was recorded in 2011. In the same period the level of public debt increased from 34,5% of GDP in 2009 to 53,7% of GDP in 2012. Because of the inefficiency in the reduction of the excessive deficit, the EDP is extended for Slovenia until the end of 2015. The updated Council recommendation set up for Slovenia exact annual deficit target benchmarks (4,9% of GDP for 2013, 3,3% for 2014 and 2,5% for 2015).

Table 6 Key macroeconomic and the EDP efficiency indicators for Slovenia

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	-0,1	-1,8	-6,1	-5,7	-6,6	-4,0	-14,9	-4,9	-2,9	-2,8
Total GG revenue	42,1	42,1	42,3	43,6	43,3	44,6	45,0	45,0	44,3	43,7
Total GG expenditure	42,2	44,0	48,5	49,2	50,0	48,6	59,9	49,8	47,2	46,4
- o/w investment expenditure	4,5	4,7	5,0	5,0	4,0	4,0	4,3	5,1	5,5	4,8
- o/w interest expenditure	1,2	1,1	1,3	1,6	1,9	2,0	2,5	3,3	3,2	3,0
GG consolidated gross debt	22,7	21,6	34,5	38,2	46,5	53,7	70,3	80,9	83,0	81,8
GG deficit targets (according to the CR)	...	...	-6,0	-5,3	-4,5	-3,8	-4,9	-3,3	-2,5	...
Efficiency (GG deficit - GG deficit target)	...	...	-0,1	-0,5	-2,1	-0,3	-10,0	-1,6	-0,4	...
Real GDP (y-o-y)	6,9	3,3	-7,8	1,2	0,6	-2,6	-1,0	2,6	1,8	2,3
Total investment (% of GDP)	28,8	29,6	24,3	21,2	20,2	19,2	19,7	20,1	...	...
Exports of goods and services (% of GDP)	67,6	66,1	57,2	64,3	70,4	73,2	74,7	76,8	...	...
Employment (y-o-y)	2,5	1,1	-1,5	-1,5	-3,1	-1,3	-1,9	...	...	...
Population (y-o-y)	0,4	0,0	1,1	0,7	0,2	0,3	0,2	0,1	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

Likewise, the Commission elaborated that the increase in public debt in Slovenia is a consequence of an increase in the primary deficit, to a lesser extent from increased interest costs on the debt, with the attendant risks of activation of guarantees provided by the Slovenian public corporations. The cost of rehabilitation of the banking system at the expense of the state budget are quite high and the European Commission in its "Commission staff working document" (CSWD) found the existence of other macroeconomic imbalances in the economy and the need for sustainable improvements in the areas of fiscal and macroeconomic policy as well as labour market policy, in order to achieve simultaneous reduction of macroeconomic imbalances and the excessive deficit. In 2013, Slovenian deficit suddenly increased to 14,9% of GDP and general government debt exploded up to the level of 70,3% of GDP. The value of deficit recorded for 2014 is 4,9% of GDP and the expected values for 2015 and 2016 are just slightly below the Maastricht reference value, with the corresponding increase in general government debt to 83% of GDP in 2015.

In 2013, the media often writes about the need for Slovenia to request the ECB and other institutions financial aid package (which is effectively used in Latvia), but the Slovenian authorities deny that possibility.

Since 2011 the level of investment in Slovenia has been around 20% of GDP, exports of goods and services have increased from 57,2% of GDP in 2009 to 74,7% of GDP in 2013, employment level is continuously

shrinking, while the slight increase of the population is present throughout the observation period. During the ongoing EDP, the Slovenian authorities implemented various policy measures. On the revenue side, in order to stimulate growth they implemented a reduction in corporate income tax, increased in excise taxes, tolls, and the tax on activities of the banking sector, which is also considered one of the causes of the poor condition of the Slovenian economy. On the expenditure side, wages in the public sector and pensions were frozen and then slightly reduced. Also, salary bonuses and annual promotions of employees in public sector were abolished.

As the latest Member State who joined the EU on July 1st 2013, **Croatia** entered the EDP in January 2014 due to the breach of both segments of fiscal criteria defined by the Maastricht Treaty: deficit in 2013 was 5,4% of GDP and general government debt was 80,6% of GDP. All other selected countries breached only deficit criteria when entered into EDP, while the level of government debt was lower than the benchmark value of 60% of GDP. The European Commission Winter Economic Forecast 2015 announced the forecast of the Croatian government deficit of 5% of GDP in 2014 (recently published figure by Eurostat indicates deficit of 5,7% of GDP in 2014), 5,5% in 2015 and 5,6% in 2016, associated with the increase in general government debt level up to 88,7% of GDP at the end of 2016 (Table 7). The Council recommendation for Croatia from January 2014 set up the exact annual deficit target benchmarks (4,6% of GDP for 2014, 3,5% for 2015 and 2,7% for 2016) as well as the soft recommendation to reduce the excessive general government debt to the reference level of 60% of GDP within the period of two years after the abrogation of the excessive deficit, which is expected at the end of 2018.

Table 7 Key macroeconomic and the EDP efficiency indicators for Croatia

% of GDP	2007	2008	2009	2010	2011	2012	2013	2014	2015*	2016*
GG deficit	-2,5	-2,7	-5,9	-6,0	-7,5	-5,3	-5,4	-5,7	-5,5	-5,6
Total GG revenue	42,2	41,6	41,2	40,8	41,0	41,7	42,4	42,3	43,4	43,3
Total GG expenditure	44,7	44,3	47,2	46,8	48,5	47,0	47,7	48,0	48,9	48,9
- o/w investment expenditure	6,1	5,8	5,5	3,3	3,5	3,5	3,7	3,6	3,4	3,4
- o/w interest expenditure	1,6	1,7	2,1	2,4	3,0	3,4	3,5	3,5	4,1	4,1
GG consolidated gross debt	34,4	36,0	44,5	52,8	63,7	69,2	80,6	85,0	84,9	88,7
GG deficit targets (according to the CR)	...	...	...	...	...	...	...	-4,6	-3,5	-2,7
Efficiency (GG deficit - GG deficit target)	...	...	...	...	...	...	...	-1,1	-2,0	-2,9
General government debt target	< 60 at the end of 2018 (mid 2019)									
Real GDP (y-o-y)	5,1	2,1	-7,4	-1,7	-0,3	-2,2	-0,9	-0,5	0,2	1,0
Total investment (% of GDP)	26,8	28,1	25,2	21,3	20,3	19,6	19,3	18,6	...	...
Exports of goods and services (% of GDP)	39,0	38,5	34,5	37,7	40,4	41,6	42,9	45,7	...	...
Employment (y-o-y)	1,8	1,3	-1,8	-4,0	-3,2	-3,1	5,4	...	...	...
Population (y-o-y)	0,0	0,0	-0,1	-0,2	-0,3	-0,3	-0,3	-0,4	...	...

Source: Eurostat Database, EC European Economic Forecast, Winter 2015 (for 2015*- 2016* forecast)

Due to the long recession in Croatia, real GDP growth in Croatia has been negative since 2009. Year 2015 could be the first one with the mild positive growth. The share of investment in GDP continuously decreased since 2008, growth of exports of goods and services has been very low compared to the other selected countries: the share in GDP increased only 11 percentage points during the period 2009-2014. According to the forecasted values of deficit and debt, it is obvious from the actual perspective that the Croatian authorities will not be able to reduce the deficit within the specified time frame. The main reason for that is that the Croatian authorities are mainly focused on improving the budgetary revenues rather than on the (simultaneous) reduction on the budgetary expenditure side. The several announcements of measures on the revenue side (cuts) were canceled or postponed shortly, and Croatian citizens are not expecting "serious reforms" in 2015 (pre-election year in Croatia). The Croatian authorities submitted to the European Commission in April 2014 the National Reforms Plan, with the list of measures to be implemented to end the excessive government deficit (or to abrogate EDP). In June 2014 the Commission made an assessment of those measures and concluded that Croatia had taken effective action and that no further steps in the excessive deficit procedure were needed. It also announced the continuation of closely monitoring the budgetary developments in Croatia.

The actual outcome of the fiscal consolidation measures undertaken by Croatian authorities is lower than expected. The gap is easily visible comparing the actual forecasted values of the deficit with the recommended benchmarks. The majority of planned measures are long-term measures such as the reform of the public sector wage system, restructuring of the health care system, unification of social benefits, reorganisation of the judicial system, mergers and closing of various state agencies, the substitution of public investment expenditure with the financing sources funds from EU funds, pension system reform, privatization of public enterprises, concession based monetization of highways, etc. Due to various obstacles, the effect of those measures has not been observed yet and full realisation upon the end of 2016 is still unknown. With regard to the short-term measures, on the revenue side Croatian authorities increased certain social contributions, reduced VAT rate, non-taxable part of wage and minimum wage level and excise duties on energy, cigarettes, and other tobacco products. On the expenditure side, possible cuts in the level of wages in public sector, pensions, subsidies and transfers are not seriously considered even though they proved to have been successful in some of the other selected countries. This is a very challenging issue due to the fact that Croatia has the largest share of public expenditure in GDP among selected countries, as well as the highest level of general government debt, which also implies the largest share of the related budgetary interest expenditure tending to achieve 4% of GDP level. In April 2015 the Commission invited Croatian authorities to submit an additional package of fiscal consolidation measures in order to reach the deficit targets for 2015 and 2016. The Croatian authorities proposed (on April 21, 2015) additional measures to the European Commission, with the estimated fiscal effort on the reduction of excessive deficit of 0,634 % of GDP (although the Commission demands for 0,4% of GDP). On the revenue side, Croatian authorities increased the excise taxes on oil products and cigarettes and announced withdrawal of a significant amount of the profit from the strategic public companies. On the expenditure side, government proposed a new limits within the budget (material costs, subsidies and procurements) and additional cuts for extra-budgetary beneficiaries (water and road operators, the Environmental Protection Fund and the Health Insurance Fund) and the reduction of the state owned enterprises losses (Croatian Railways Infrastructure and Croatian Highways), accompanied with the medium term (2016-2018) restructuring of public corporations and mergers of some state agencies. Finally, during the rest

of the European Semester, Commission will evaluate potential efficiency of proposed “additional package of measures“.

4. CONCLUSIONS

It is evident from the overview given in this paper that almost all new Member States of the EU had to undergo a painful process of correcting their macroeconomic imbalances with the purpose of aligning their macroeconomic indicators with the criteria put forward by the Maastricht Treaty. The process that the EU designed to help the economies who experience such fiscal imbalances to achieve the desired targets, the Excessive Deficit Procedure, helped with imposing the discipline both on the budget revenue and expenditure sides. All new Member States who subjected themselves to the EDP successfully abrogated from it within 2-3 years, in large part because of the courage to implement the sizeable cuts on the expenditure side of the budget. This was the case with Bulgaria, the Czech Republic, Latvia, and Lithuania. Slovenia and Croatia are still working on finding the right measures and implementing them. Recent forecasts of growth turning positive in Croatia should help in turning the measures more effective in the process of abrogating the EDP.

REFERENCES

- Busemeyer, Marius R. (2004), Chasing Maastricht: The Impact of the EMU on the Fiscal Performance of
- Member States, European Integration online Papers (EIoP), No. 8, Vol. 8, ECSA Austria
- Bajo, A. and Galinec D. (2013), Ten facts about the Excessive Deficit Procedure, Newsletter No. 80, Institute for Public Finance, Zagreb
- Bajo, A. (2013), Fiscal reforms and consolidations in Croatia under Excessive Deficit Procedure, Newsletter No. 82, Institute for Public Finance, Zagreb
- Bajo, A. (2013), Croatian fiscal (dis)orientation, Press Release No. 58, Institute for Public Finance, Zagreb

Bajo, A. and Primorac, M. (2013), How long is the Excessive Deficit Procedure for Croatia going to take?, Press Release No. 62, Institute for Public Finance, Zagreb

Castro, Vitor (2007), The Causes of excessive deficits in the European Union, Warwick Economic Research papers, No. 805, University of Warwick, Warwick (UK)

European Commission (2007), AMECO database (update: February 5, 2015), Directorate General for Economic and Financial Affairs (DG ECFIN)

available on:

http://ec.europa.eu/economy_finance/db_indicators/ameco/index_en.htm

European Commission (2015), Overview of ongoing excessive deficit procedures (update: February 27, 2015), Directorate General for Economic and Financial Affairs (DG ECFIN)

Available online:

http://ec.europa.eu/economy_finance/economic_governance/sgp/corrective_arm/index_en.htm

European Commission (2015), Winter Economic Forecast 2015, Directorate General for Economic and Financial Affairs (DG ECFIN)

Available on:

http://ec.europa.eu/economy_finance/eu/forecasts/2015_winter_forecast_en.htm

Eurostat (2015), Database (online,

<http://ec.europa.eu/eurostat/data/database>), as of April 21, 2015-04-21

Eurostat (2015), Euro area and EU28 government deficit at 2.4% and 2.9% of GDP respectively, News Release No. 72/2015,

(online, <http://ec.europa.eu/eurostat/documents/2995521/6796757/2-21042015-AP-EN.pdf/2a3922ae-2976-4aef-b6ce-af19bde6a236>)

Government of the Republic of Croatia (2015), Additional measures to account for 0.63% of GDP, deputy PM says, Press Release (online, <https://vlada.gov.hr/news/additional-measures-to-account-for-0-63-of-gdp-deputy-pm-says-16803/16803>)

CHAPTER 4

Vera Boronenko

Daugavpils University, Daugavpils, Latvia

Vladimirs Mensikovs

Daugavpils University, Daugavpils, Latvia

Jelena Lonska

Rezekne Higher Education Institution, Rezekne, Latvia

Alina Ohotina

Daugavpils University, Daugavpils, Latvia

RETHINKING TERRITORY DEVELOPMENT IN THE GLOBAL WORLD BASED ON THE PLURALISTIC PARADIGM

ABSTRACT

Analyzing territory development in the global world with many different “worlds-economies” the authors suggest using a pluralistic paradigm of territory development which unlike an evolutionary paradigm assesses it from the viewpoint of its qualitative nature but not at what point of a linear economic evolution the territory is. The analysis of the empirical data on 89 world countries according to the indicators of the energy use per capita and quality of social infrastructure allowed the authors to single out two established and rather big and two emerging “worlds-economies”. “Ecologists with poor social infrastructure” and “energy consumers with strong social infrastructure” refer to the first ones, “ecologists with strong social infrastructure” and “energy consumers with poor social infrastructure” refer to the second ones. The hypothesis of this research is that territory development in the modern world is possible without accelerated resource-intensive production and consumption, but through improvement of an institutional environment within a country, and it is proved by the example of the countries- “ecologists with strong social infrastructure” - such as Botswana, Chile, China, Costa Rica, Cyprus, Hong Kong, Jordan, Malaysia, Malta, Morocco, Namibia, Portugal, Uruguay.

Key words: territory development, integration, pluralistic and paradigm of territory development

JEL classification: O11, O18, R58.

1. INTRODUCTION

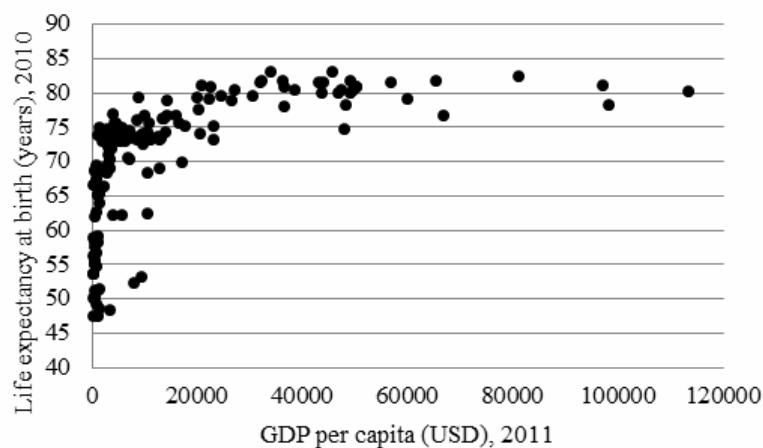
The idea of this research emerged as a result of numerous international scientific contacts and trips, as well as of some years' common work of the authors on the topic of territory development (TD) (Boronenko et al., 2012; Lonska and Boronenko, 2012, 2013). A number of practical examples which at a glance do not seem very important for the scientific understanding of TD, but all together become an impulse for rethinking of territory development in the modern global world:

- While participating in the international conference in Pakistan, one of the authors (Boronenko, 2013) thought: how can we compare, for example, the GDP of Pakistan and Latvia, if Pakistan does not produce/consume alcohol, does not use the services of sobering-up station and drug treatment, no discos, gambling houses, striptease bars (so-called "antigoods" (Rosefielde, 2002)) - anything that contributes a considerable share of GDP in Latvia as well as in the other so called "developed" countries?
- Reading about the experiences of the Soviet singer L.Zykina of her trip to the USA in 1965, the authors have found a description of a fashionable salon shop for dogs in New York City which offered besides other things, false eyelashes for poodles, pedicures for bichons, etc. Nowadays European market can offer another "important thing" for dogs – Yoga exercise.
- In the Netherlands there is a service - a bus city tour with a guide for favourite soft toys of rich people who, according to their owners, "are tired of sitting at home," in Moscow, there are also brothels for dogs.
- IT professionals around the world make a lot of money by creating electronic games of doubtful necessity which are in great demand and "eat up" the time of children and adults.

From all these observations, there is a strong feeling that the field of economics dealing with TD - Economics of Development (Sen, 1983; Todaro and Smith, 2011; Thirlwall, 2005, 2011), as well as the

international ratings (for example, The Global Competitiveness Report (GCR) of the World Economic Forum (WEF)) in their research make a systemic error losing the sight of the fact that it is not always correctly to divide countries into “developed” and “underdeveloped” territories, at least taking into consideration the following data (see Figures 1 and 2) which show the interconnection between economic issues and some indicators of human development.

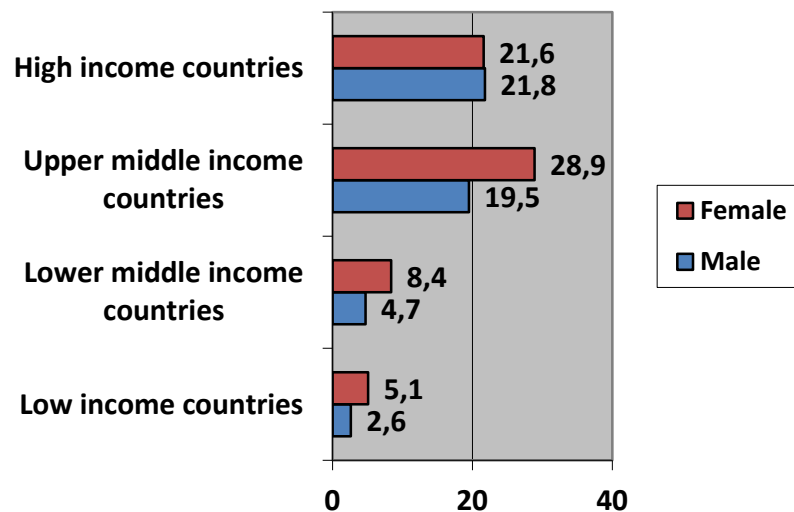
Figure 1 Interconnection between GDP per capita and life expectancy of people in the global world, 2010-11, n = 114 countries



Source: Schwab, 2012.

From the data presented on Figure 1 it can be concluded that despite a general direct positive interconnection between GDP per capita and life expectancy in the global world, the same level of life expectancy of a country’s population, which, in the authors’ opinion is one of the most significant indicators of the state of territory development, can be achieved under a really different level of production of goods and services in the economy of the country: the life expectancy in Latvia and Iran is the same – 73.8 years, but GDP per capita in Latvia is almost 3 times higher than in Iran – 15,205 USD and 4,751 USD respectively (Schwab, 2014); in Croatia the life expectancy is 76.9 years, in Albania – 77.4 years, but GDP per capita in Croatia is 13,562 USD, but in Albania – 4,610 USD (Schwab, 2014).

Figure 2 Interconnection between income level in a country and unit weight of obese people (adults aged >20 years who are obese, %), 2013



Source: World Health Organization, 2013.

As it can be seen from Figure 2, obesity can be referred to the so-called “civilization diseases” which start to occupy top places among human death factors in “developed” countries. These diseases increasingly depend on the lifestyle that people choose, as well as on their ability to use the available resources (Pakholok, 2013).

There are fundamental questions arising: Is it possible to consider the real development of a country, basing (at least partly) on human vices (alcoholism, drug addiction etc.) and desires of people which might be the subject of psychiatry (cosmetics and yoga exercise for dogs, excursions for toys etc.)?

Is it time to shift the focus from *how much* the economy produces, to *what* it produces, *how* (using what resources and in what quantities) and *why* (for what purposes?), that is, to replace an evolutionary (quantitative) paradigm of territory development by a pluralistic (qualitative) one, which considers the existence of different essential types (qualities) of TD, i.e. existence of many “developments” - instead of one quantitative path of territory development - in the global world?

The main aim of the article is to offer a new science-founded guideline for territory development in the global world on the basis of the analysis of the current countries' development. Why is the new guideline necessary? The answer to this question is quite simple, and it was already given decades ago in the first report by the Club of Rome "The Limits to Growth" which used the resource approach asking the mankind: "Are there enough resources to allow the economic development of the 7 billion people expected by the year 2000 to a reasonably high standard of living? Once again the answer must be a conditional one. It depends on how the major resource-consuming societies handle some important decisions ahead. They might continue to increase resource consumption according to the present pattern. They might learn to reclaim and recycle discarded materials. They might develop new designs to increase the durability of products made from scarce resources. They might encourage social and economic patterns that would satisfy the needs of a person while minimizing, rather than maximizing, the irreplaceable substances he possesses and disperses" (Meadows et al., 1972:67-68). "Most of policies operate by raising resource costs. Recycling and better product design are expensive; in most parts of the world today they are considered "uneconomic" (Meadows et al., 1972:68).

So, the limitation of natural resources which are not enough to provide comfort for all world population (to provide it not for everybody is inhuman and it is a permanent reason for conflicts and remodelling of the world) is a natural bound for the further increase in production and consumption, i.e. economic growth according to consumption-driven capitalist economy. Therefore, the latest option offered by the Club of Rome - to encourage social and economic patterns that would satisfy the needs of people under the minimal use of natural resources - generates some interest. As a hypothesis of the research, the authors assume that countries' development in the modern world is possible without accelerated resource-intensive production and consumption, and even without the increase in production and consumption as such, i.e. by the way of improvement of an institutional environment within the country. The authors suppose that the above mentioned "many developments" perceived within the pluralistic paradigm of TD can be described on the basis of a dominant resource or institutional "background" in one or another country (or a group of countries), as well as on the basis of the

outcomes of “realization” of this background, i.e. the achieved state of territory development.

The remainder of the article is organized as follows: Section 2 provides a theoretical background and literature review on territory development in the global world as well as outlines research methodology followed by the description of the empirical data and analysis in Section 3. Section 4 presents the results and discussion, and, finally, Section 5 offers conclusions.

2. THEORETICAL BACKGROUND, LITERATURE REVIEW AND RESEARCH METHODOLOGY

For the last twenty years, in the global research practice in the field of TD there prevails the view that in the course of time the society has already matured for a new approach to evaluation of territory development: the emphasis has to be switched from the evaluation of objective economic productivity to measuring the overall well-being, including the subjective well-being of people (Stiglitz et al., 2009) residing on the territory under review. There are two approaches to analyze the territory development: a linear or evolutionary (quantitative) approach (Alchian, 1950; Rostow, 1960; Hodgson, 1993; Friedman, 1998; Gregory and Stuart, 2005) and a non-linear or pluralistic (qualitative) approach (Braudel, 1967; Manschot and Suransky, 2009; Checkel, 2013), supplementing each other. The evolutionary approach mostly analyzes the material essence of territory development, while the pluralistic approach emphasizes the social essence of a territory, i.e. the cultural background and mentality. As the 2013 Human Development Report argues “*one-size-fits-all* technocratic policies are neither realistic not effective given the diversity of national contexts, cultures and institutional conditions” (UNDP, 2013).

First attempts of the new economic theory to use the pluralistic approach in the assessment of territory development were made by F.Braudel who argued that the world’s economic history is presented as an alternation of dominance of certain economically autonomous regions of the world - “world-economies” (Braudel, 1967). Then, in the 1970s the first report of the Club of Rome “The Limits to Growth” was published (Meadows et al., 1972), later the second report, which used the resource approach and developed the concept of “organic growth”, considering every

territory as a separate cell of the living organism of the world with resources of different quiddity and own function, which have to be fulfilled instead of aspiration for universal quantitative indices of development (Mesarovic and Pestel, 1974).

A “world-economy” is an economically independent part of the globe, which in general is able to be self-sufficient; that one, whose organic unity is based on its internal linkages and interchanges (Braudel, 1967). In the scientific literature on economics it is possible to find the suggestions on “the global economic order” or “global economic system” (Olsem, 2013). The world’s economy is an economic system of the whole world and of the whole mankind, “the market of the whole world” vice versa to the views that the modern world is a set of “world-economies” according to F.Braudel.

A “world-economy” is not a definite type of economy (socialist, capitalist etc.) which determines a type of society and civilization, but the economic activity is what leaves the most significant “imprints” on the history of mankind. On the results of the economic activity we can reconstruct the social structure of any society (Braudel, 1967). F.Braudel defines three characteristics of a “world-economy”: 1) a “world-economy” covers definite geographic space with natural, economic, cultural or mental borders; 2) a “world-economy” has a centre – capitalist city or country; this centre is not stable in a long-term period; 3) a “world-economy” has horizontal (spatial) and vertical (social) hierarchy (Braudel, 1967).

The main concept of the research which needs to be empirically interpreted is the territory development, but its conceptual scope – the existence of many “world-economies”, i.e. many “developments”. In order to create a methodological basis for the evaluation of territory development, the authors use the findings of Developmental Economics, according to which a territory can be considered to be developed, observing material and immaterial as well as subjective well-being of its inhabitants, which is the final aim of any territory development (Sen, 1983; Todaro and Smith, 2011; Mahbub ul Haq, 1995; Thirlwall, 2011). The authors claim that any objective indicator of the economic growth of the territory – either direct foreign investments, a level of production or a level of employment – should be transformed into the well-being of its

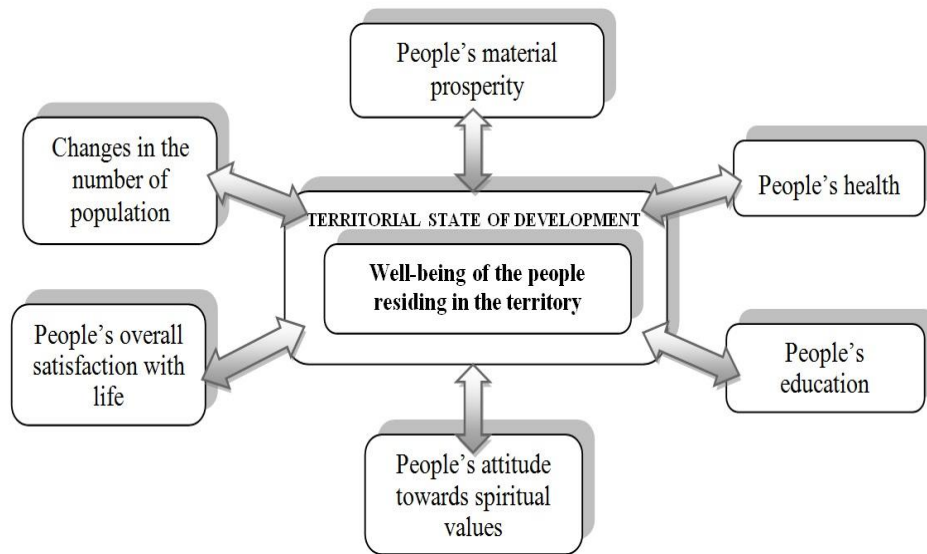
inhabitants, otherwise the territory's economic achievements do not make any practical sense.

As the state of development of any territory can conceptually be analyzed in relation to people residing there, the authors of the article offer to use in the evaluation of the results of TD process the indicators which embrace the sphere of a person's life, on which, in the case of a successful territory development, will certainly be reflected the quality of technical infrastructure as well as the increased rates of industrial manufacturing and work productivity, and other traditional indicators used in economics for the evaluation of the state of territory development.

Elaborating the methodological basis of the territorial state of development evaluation, the authors used also the findings of Developmental Economics, namely, Conception of Human Development, Happiness Economics' scientific insights on people's subjective well-being, Human Capital Conception, M. Porter's Theory of Competitive Advantage of Nations, conclusions of "knowledge-based economics", as well as R. Florida's Creative Class Theory.

Consequently, the authors offer to base the evaluation of the state of territory development on the fact that conceptually a territory can be considered to be developed when the number of population is constantly growing and the population is materially provided, healthy, highly educated, accepts spiritual values and is satisfied with life (see Figure 3).

Figure 3 Structural elements of the state of territory development



Source: Lonska, 2014.

The South has risen at an unprecedented speed and scale. For example, the current economic takeoffs in China and India began with about 1 billion people in each country and doubled output per capita in less than 20 years – an economic force affecting a much larger population than the Industrial Revolution did (UNDP, 2013). By 2050 Brazil, China and India combined are projected to account for 40% of world output in purchasing power parity terms. During these uncertain times, countries of the South are collectively bolstering world economic growth, lifting other developing economies, reducing poverty and increasing wealth on a grand scale. They still face formidable challenges and are home to many of the world's poor. But they have demonstrated how pragmatic policies and a strong focus on human development can release the opportunities latent in their economies, facilitated by globalization.

In fact, the fast economic growth as well as the growth of their competitiveness can be proved by the analysis of the data from the Global Competitiveness Reports of the World Economic Forum. The IT application „The Global Rating of Territory Development” worked out with the support of Marie Curie FP7-PEOPLE-2011-COFUND program - NEWFELPRO (The New International Fellowship Mobility

Programme for Experienced Researchers in Croatia) within the project „Rethinking Territory Development in Global Comparative Researches (Rethink Development)” (Grant Agreement No. 10, Scientist in Charge – Dr. Saša Drezgić), vividly demonstrates that the southern countries have been the leaders in the growth of competitiveness in recent years. For example, such countries as Qatar (+0.09 points annually), Ethiopia (+0.08), Cambodia (+0.07), Indonesia (+0.06), and China (+0.06) are in the list of top five countries in annual growth of competitiveness in the period 2005-2014. In these countries we can observe not only the growth of competitiveness but also the growth of population with a simultaneous growth of GDP per capita (see Table 1).

Table 1 Changes of number of population and GDP per capita in the countries – leaders of competitiveness’ growth

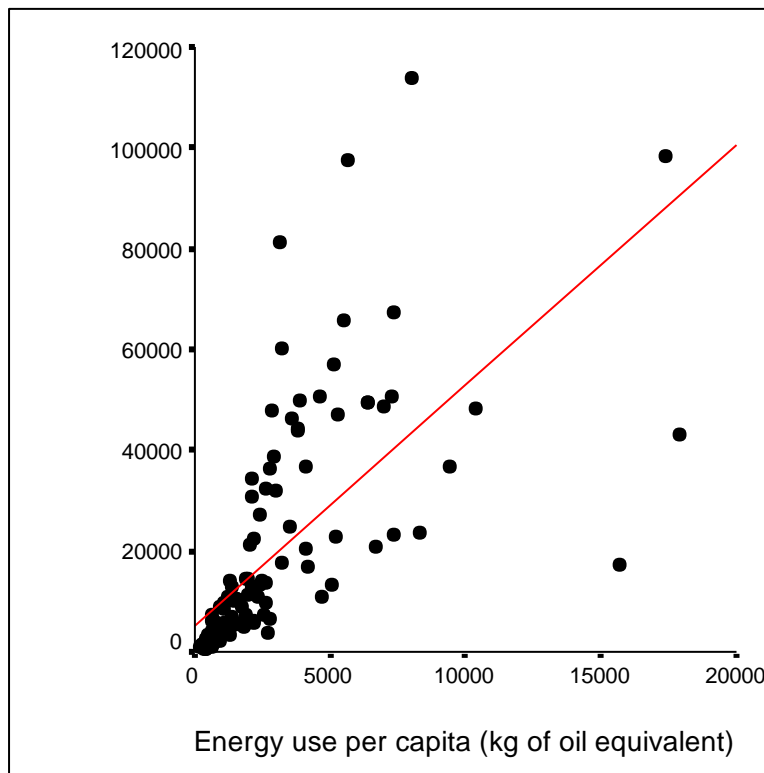
Country	Number of population, millions			GDP per capita, USD		
	2008	2013	2013/2008, %	2008	2013	2013/2008, %
Qatar	0.9	2.0	+122	93,204	100,260	+8
Ethiopia	85.2	88.9	+4	324	542	+67
Cambodia	14.7	15.4	+5	818	1,016	+24
Indonesia	234.3	248.0	+6	2,246	3,510	+56
China	1,336.3	1,360.8	+2	3,315	6,747	+104

Source: calculated by the authors on the base of Schwab, 2009, 2014.

But what does this rapid economic growth of the South account for? Decades ago the Club of Rome researchers found out that "although the nations of the world consume greatly varying amounts of energy per capita, energy consumption correlates fairly well with total output per capita (GNP per capita). The relationship is generally linear, with the scattering of points due to differences in climate, local fuel prices, and emphasis on heavy industry" (Meadows et.al, 1972:70). "For many resources the usage rate is growing even faster than the population, indicating both that more people are consuming resources each year and also that the average consumption per person is increasing each year"

(Meadows et.al, 1972:55). This direct linear interrelation between energy consumption and GDP per capita is still valid in the global world in general (see Figure 4).

Figure 4 Interconnection between GDP per capita (USD) and energy use (kg of oil equivalent), 2011, n = 119 countries



Source: The World Bank, 2015, Schwab, 2012.
Pearson correlation 0.665**, p=0.000

But in the same way as for the interconnection between GDP per capita and life expectancy (see Figure 1) there is a considerable number of exceptions when a relatively high index of GDP per capita is possible with a relatively small energy consumption. The authors divided the index of energy consumption per capita (in kg of oil equivalent) into GDP per capita (in USD) and received the “energy price of GDP” , i.e. they found out how much energy (in kg of oil equivalent) world countries use for producing of 1 USD of GDP per capita. Ten countries

with the most “energy expensive” and “the cheapest” GDP can be seen in Table 2.

Table 2 How much energy (in kg of oil equivalent) world countries use for producing of 1 USD of GDP per capita, 2011, n = 119 countries

TOP-10 with the „cheapest” GDP		TOP-10 with the most „expensive” GDP	
Countries	Energetic „price” of GDP, kg/USD	Countries	Energetic „price” of GDP, kg/USD
Switzerland	0.040	Ethiopia	1.058
Denmark	0.054	Zimbabwe	0.941
Norway	0.058	Trinidad and Tobago	0.915
Ireland	0.061	Tanzania	0.810
Hong Kong SAR	0.062	Ukraine	0.764
Cyprus	0.069	Mozambique	0.712
Luxembourg	0.071	Nepal	0.587
United Kingdom	0.077	Kenya	0.564
Italy	0.078	Cote d’Ivoire	0.545
Japan&Austria	0.079	Kyrgyz Republic	0.525

Source: calculated by the authors on the base of the World Bank, 2015, Schwab, 2012.

As it can be seen from the data presented in Table 2 the rapid growth of competitiveness in, for example, Ethiopia is provided by means of the intensive consumption of energy resources: “the energy price” of 1USD in Ethiopia is the highest in the world (at least among the countries the information on which is available). Therefore, the Club of Rome states that “it is possible to alter this growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential” (Meadows et al., 1972:24). How is it possible to achieve sustainable territory development not consuming much energy and other

resources but at the same time striving for the well-being of the population, i.e. for the “production of quality people”?

R.E. Hall and Ch.I. Jones in their article “Why do some countries produce so much more output per worker than others?” (Hall and Jones, 1998) argue that the primary, fundamental determinant of a country’s long-run economic performance is its social infrastructure, i.e. institutions and government policies (Hall, Jones 1998). Social infrastructure gives incentives for productive activities or predatory behaviour, and workers choose between production and diversion depending on existing quality of social infrastructure in their countries. Therefore, the thesis discussed in the introduction that the development depends not only on the availability of resources as such but also on the opportunity to efficiently and economically use them (Pakholok, 2013), although it directly depends on institutional environment within the country, i.e. on the country’s social infrastructure which can either promote or impede a productive use of the resources available in the country. Individual achievements in health, education and income, while essential, do not guarantee in human development if social conditions constrain individual achievements and if perceptions about progress differ (UNDP, 2013).

The World Economic Forum also argues that the importance of a sound and fair institutional environment has become all the more apparent during the recent economic and financial crisis and is especially crucial for further solidifying the fragile recovery, given the increasing role played by the state at the international level and for the economies of many countries. The quality of institutions has a strong bearing on competitiveness and growth. It influences investment decisions and the organization of production and plays a key role in the ways in which societies distribute the benefits and bear the costs of development strategies and policies. For example, owners of land, corporate shares, or intellectual property are unwilling to invest in the improvement and upkeep of their property if their rights as owners are not protected (Schwab, 2014).

Returning to “world-economies”, the above-mentioned The 2013 Human Development Report states that to a casual observer, the state of affairs in 2013 may appear as a tale of two parts of the global world: the resurgent South – most visibly countries such as China and India, where there is much human development progress, growth appears to remain

robust and the prospects for poverty reduction are encouraging - and the North in crisis – where austerity policies and the absence of economic growth are imposing hardship on millions of unemployed people and people deprived of benefits as social compacts come under intense pressure. At the same time it has been emphasized that the structure of the modern world is more complex than just the opposition “North-South” instead of having a centre of industrialized countries and a periphery of less developed countries, there is now a more complex and dynamic environment (UNDP, 2013).

“The transition from growth to global equilibrium” (Meadows et al., 1972) becomes the strategic task and at the same time the source of territory development in the global world under these circumstances. Following the 2013 Human Development Report which argues that “the South needs the North, and increasingly the North needs the South” it could be suggested that one of the best source of further development for every country is interconnection with other “world-economies”. “Key drivers and principles of development begin to emerge from the diversity of development paths that include deepening the developmental role of states, dedication to human development and social welfare, and openness to trade and innovation” (UNDP, 2013).

The prime methodological task of the further analysis of the empirical data within this research is to search for main characteristics of modern “world-economies” from the viewpoint of their resource consumption and social infrastructure as key determinants of different territory “developments” in the modern global world. Results of the development which are typical for the countries which belong to different “world-economies” in accordance with such indicators as the quality and growth of population, GDP level and competitiveness will be identified further. These three groups of indicators have been chosen on the basis that, according to the authors, the quality of population is the most reasonable and acceptable aim of territory development, the GDP level demonstrates a purely economic growth which is not an end in itself of territory development but characterises quite informatively its belonging to a consumer type economy. Competitiveness of a country in its turn is the most general indicator which characterises the position of one or another country in the modern global world.

3. DESCRIPTION OF THE EMPIRICAL DATA AND ANALYSIS

The empirical basis for this research was comprised of 89 world countries, the information on whose resource consumption was available, in particular, on energy consumption as the empirical indicator “energy use per capita (kg of oil equivalent) (The World Bank, 2015) for 2011, as well as the second indicator – the index of social infrastructure as the empirical indicator “institutions (score by the scale 1-7)” (Schwab, 2014) for 2013. The authors do not consider a 2-year difference between these indicators as a serious methodological problem, since these two indicators are quite inert. Therefore, the latest available data on energy consumption and social infrastructure published in the reports by the World Bank and the World Economic Forum have been used for the analysis.

First, the average indicators of energy use per capita and general index of social infrastructure (the world countries’ social infrastructure is measured according to 21 indicators in annual reports by the World Economic Forum) in the analyzed cluster of 89 world countries have been identified. The average energy consumption per capita in the world is 2947.01 kg of oil equivalent with the scatter from 205 kg in Bangladesh (the minimal level of consumption) to 17964 kg in Iceland (the maximal level of consumption). The average index of social infrastructure on a 7-point scale comprises 4.12 with the scatter from 2.15 in Venezuela (minimal, i.e. the worst value of the index) to 6.09 in New Zealand (maximal, i.e. the best value of the index).

Then the whole cluster of countries has been divided into groups in relation to the average values of energy consumption and social infrastructure (see Table 3):

- 1) Energy use per capita is higher than average, but the index of social infrastructure is lower than average, i.e. the bad situation in terms of both indicators;
- 2) Energy use per capita is lower than average and the index of social infrastructure is lower than average, i.e. the good situation in terms of energy use, but the bad one in terms of social infrastructure;
- 3) Energy use per capita is higher than average, and the index of social infrastructure is higher than average, i.e. the bad situation

in terms of energy use, but the good one in terms of social infrastructure;

- 4) Energy use per capita is lower than average, but the index of social infrastructure is higher than average, i.e. the good situation in terms of both indicators.

Table 3 Methodical matrix of countries' groups classified by energy use per capita and index of social infrastructure

Energy use Social infrastructure	<i>Higher than average ("bad" situation)</i>	<i>Lower than average ("good" situation)</i>
<i>Lower than average ("bad" situation)</i>	"Energy consumers with poor social infrastructure" (1st group)	"Ecologists with poor social infrastructure" (2nd group)
<i>Higher than average ("good" situation)</i>	"Energy consumers with strong social infrastructure" (3rd group)	"Ecologists with strong social infrastructure" (4th group)

Source: elaborated by the authors.

The outcomes of the authors' calculations demonstrated the following distribution of the 89 countries under review into the following groups which claim for the status of "world-economies":

- "energy consumers with poor social infrastructure" – Czech Republic, Kazakhstan, Korea, Kuwait, Russian Federation, Slovenia, Trinidad and Tobago (7 countries);
- "ecologists with poor social infrastructure" – Albania, Algeria, Argentina, Armenia, Bangladesh, Bolivia, Brazil, Bulgaria, Cambodia, Cameroon, Colombia, Croatia, Dominican Republic, Egypt, El Salvador, Ethiopia, Greece, Honduras, Hungary, India, Indonesia, Italy, Kenya, Kyrgyz Republic, Latvia, Lithuania, Mexico, Mozambique, Nicaragua, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Romania, Spain, Sri Lanka, Tanzania, Thailand, Turkey, Ukraine, Venezuela, Vietnam, Zimbabwe (46 countries);
- "energy consumers with strong social infrastructure" – Australia, Austria, Bahrain, Belgium, Canada, Denmark, Estonia, Finland,

France, Germany, Iceland, Ireland, Israel, Japan, Luxembourg, Netherlands, New Zealand, Norway, Qatar, Sweden, Switzerland, United Kingdom, USA (23 countries);

- “ecologists with strong social infrastructure” – Botswana, Chile, China, Costa Rica, Cyprus, Hong Kong, Jordan, Malaysia, Malta, Morocco, Namibia, Portugal, Uruguay (13 countries);

The largest group in the cluster under review (most likely also in the world) is comprised of the countries – “ecologists with poor social infrastructure”. The main feature of this so-called “world-economy” is a relatively low energy use per capita (partially because of the hot climate in the majority of countries within this group), although the development level of social infrastructure does not allow the countries of this “world-economy” to achieve the main aim of territory development – human welfare, as the available country’s resources cannot be used at their utmost for the territory development in general but not just for the development of certain privileged layers of society in the situation of the increase in crime, corruption, favouritism, etc. The second largest group (23 countries) is comprised of the countries opposite to the first group in terms of both indicators – “energy consumers with strong social infrastructure”. They are mainly the economically developed countries of Western Europe, Scandinavia and North America, as well as oil Muslim countries which consume quite a lot of energy (partially because of the cold climate in the majority of these countries) and they have a social infrastructure favourable for a person which enables the efficient distribution and use of the resources available and, therefore, the achievement of the main aim of any territory development (according to the authors of the article) – development of a person residing on this territory.

These two “world-economies” – “ecologists with poor social infrastructure” and “energy consumers with strong social infrastructure” – mainly correspond to developed and developing countries in the usual understanding of territory development within the framework of the evolutionary (quantitative) paradigm. A comparative analysis of some characteristic features of these “world-economies” allows to see some of the most vivid differences in the development of these territories (see Table 4):

- good social infrastructure of the countries – “energy consumers with strong social infrastructure” encourages a higher level of human

development in these countries as compared to “ecologists with poor social infrastructure” – the average Human Development Index is 0.898 and 0.672 respectively, and this difference is statistically significant ($p=0.000$);

- despite the fact that the countries –“energy consumers with strong social infrastructure” consume a relatively large amount of energy per capita, they use it with high efficiency, as the average “energetic price” of 1 dollar of GDP (kg of oil equivalent) in this “world-economy” is the lowest, but the GDP per capita – the highest (see Table 4);

- the countries –“energy consumers with strong social infrastructure” have the highest level of competitiveness which is nevertheless falling permanently (but it is not increasing more slowly than in the countries with the low level of competitiveness as it should be according to the law of convergence);

- the annual population growth in the countries –“energy consumers with strong social infrastructure” is virtually equal to that in the countries – “energy consumers with strong social infrastructure” and it is relatively low (it is interesting that these two indicators – Population Growth and Human Development Index – have a return interdependence).

Table 4 Comparison of some characteristics of the defined “world-economies”, average meanings

Indicator	“World-economies”			
	“Energy consumers with poor social infrastructure”, 7 countries	“Ecologists with poor social infrastructure”, 46 countries	“Energy consumers with strong social infrastructure”, 23 countries	“Ecologists with strong social infrastructure”, 13 countries
Human Development Index, 0-1, 2012	0.824	0.672	0.898	0.769
Average annual changes of the Global Competitiveness	+0.01	+0.02	-0.01	+0.01

ess Index, points, 2005- 2014				
Energy use per capita, kg of oil equivalent, 2011	6975.71	1190.58	6090.00	1726.53
“Energetic price” of 1 dollar of GDP,* kg of oil equivalent, 2011	0.363	0.320	0.128	0.147
Total index of institutions, 1-7, 2013	3.75	3.45	5.31	4.59
Changes of GDP per capita, current USD, 2008-2013	+1275.86	+223.62	+2163.82	-1693.33
Global Competitiven ess Index, 1- 7, 2013	4.41	3.93	5.15	4.45
Changes in population, million people, 2008- 2013	+0.86	+3.85	+0.90	+2.01
GDP per capita, current USD, 2013	23122.14	6933.93	54730.00	14283.53

* elaborated by the authors dividing energy use per capita by the GDP per capita

The analysis of the data shows that on the background of the above mentioned relatively large “world-economies” – “ecologists with poor social infrastructure” and “energy consumers with strong social infrastructure” – there appear the beginnings of new “world-economies” which most probably are new centres of the future “world-economies”. These two groups of countries – “energy consumers with poor social infrastructure” and “ecologists with strong social infrastructure” – from the viewpoint of territory development are the examples of complete opposites: the first group of countries is characterized by poor situation in terms of energy use as well as social infrastructure (they are, first of all, the countries “sitting on oil” but which have not established a good infrastructure, e.g. Russia); the second group of countries is vice versa characterized by a good situation in the sphere of energy use as well as social infrastructure (they are the groups of countries overspread around the world such as the groups of countries in South Asia, including China as the most significant part of this “world-economy”, in South-East Africa, Latin America and Mediterranean area).

What are these new “world-economies” characterized by? Firstly, the countries – “ecologists with poor social infrastructure” do not focus on intensive energy use but on the quality of social infrastructure, and they have already achieved good results in this field (see Table 4): they have quite high growth of population (on average 2m people a year), “average quality” Human Development Index = 0.769), one of the lowest “energetic price” of 1 dollar of GDP under low energy use per capita, and quite high level of competitiveness, which is increasing every year. In these countries there is no increase in GDP per capita, but there is its decrease, but on the basis of such a high level of development of social infrastructure and Human Development Index (see Table 4) it is possible to conclude that the countries-“ecologists with poor social infrastructure” have set a course for human development by means of improving the institutional environment but not by means of increasing standard of living at the expense of environment.

The countries-“energy consumers with poor social infrastructure”, in their turn, have a relatively high indexes of human development and standard of living, but it happens because of the intensive and inefficient use of energy under a relatively low level of development of social infrastructure, i.e. natural resources are used actively but inefficiently, and, theoretically speaking, it is much more convenient to steal than to

work in these countries—this is their institutional environment which impedes territory development.

4. RESULTS AND DISCUSSION

At the moment the world is undergoing an active transformation, when it is extremely important to understand into which “world-economies” the world is divided today and what the essence and role of each of them are. In the 2nd part of the article the opinion of the 2013 Human Development Report on the presence of two “worlds-economies” in the modern global world – the growing South and the crisis North has been discussed (UNDP, 2013). The Russian economist M. Delyagin, Director of the Problems Issued by Globalization Institute, in his report at the scientific-practical conference “China and Russia in a Changing World” (Beijing, May 4, 2015) states that “in the economy a shaping division of a global financial market into the dollar, Euro and yuan zones is already evident. In politics it is a restoration of a bipolar confrontation in the form of U.S. and China competition, with Russia, the EU, Japan, and India functioning as “second grade powers” (Delyagin, 2015). In general, M.Delyagin is inclined to divide the global world into the western and eastern “world-economies”.

Within the framework of the research the authors tried to detect the determinant features of “world-economies” in the modern global world which is constantly changing and therefore limiting the possibilities of this kind of research into the search for stable results. Nevertheless, certain dominants in territory development in the global world can and should be identified and analyzed. The authors tried to find more or less stable “worlds-economies” on the basis of two essential characteristics – energy use and social infrastructure, i.e. to what extent modern countries are nature-friendly and human-friendly.

The outcomes of the analysis of statistical data show that in accordance to these two characteristics – energy use and social infrastructure – the global world is divided into two main “worlds-economies”: nature-friendly “world-economy”, i.e. “ecologists with poor social infrastructure”, and human-friendly “world-economy”, i.e. “energy consumers with strong social infrastructure”. In its turn, within nature-friendly “world-economy” there emerge the growth centres with a well-developed social infrastructure, the best example of which is China. But

within human-friendly “world-economy” there is a group of countries which achieve high results in development by means of consuming natural resources they possess, the graphic example of which is Russia. The above mentioned report by M.Delyagin is titled: “The familiar world has crumbled: Russia and China must create a new one” (Delyagin, 2015). Probably, in the future China and Russian will become the centres of new global “world-economies”, although, even now the progressiveness of the “world-economy” of a “Chinese” type – for both environment and human – is evident, i.e. “ecologists with strong social infrastructure”, the growth centres of which are located in Asia, Africa, Latin America and Mediterranean area.

5. CONCLUSIONS

Assessing territory development in the modern global world, the authors suggest withdrawing from the quantitative understanding of this phenomenon which is specifically restricted to economics. The main focus and aim of any territory development are not the production of more goods and services, but the “production of quality people” on this territory, i.e. people who are healthy, educated, satisfied with their lives, spiritual and wealthy. Data of statistics and international monitoring show that a high level of production and other economic indicators in the world countries is not always transformed in a “high quality” of the population in these countries, i.e. it does not always enable the achievement of the main aim of territory development.

Taking into consideration the increasing importance of limitation of natural resources in the global world, as well as science-founded determinant role of social infrastructure in the process of use of resources, the authors emphasize two key drivers of countries’ long-term development: low use of resources (within the framework of this research – use of energy), and a high quality of social infrastructure. Using these two indicators the identification of qualitatively different but equally existent and capable in the global world so-called “worlds-economies” which from the viewpoint of a pluralistic (qualitative) paradigm of territory development cannot be considered by “developed” or “underdeveloped” territories – they are just essentially different but equally functional “developments” is possible.

The analysis of the empirical data on 89 world countries according to the indicators of the energy use per capita and quality of social infrastructure allowed the authors to single out two established and rather big and two emerging “worlds-economies”. “Ecologists with poor social infrastructure” and “energy consumers with strong social infrastructure” refer to the first ones, “ecologists with strong social infrastructure” and “energy consumers with poor social infrastructure” refer to the second ones. Despite the fact that within the framework of a pluralistic paradigm of territory development all these “worlds-economies” are functional, capable and have their own “mission” in the global world, the “world-economy” which is comprised of the countries-“ecologists with strong social infrastructure” is considered to be more progressive but not more developed from the viewpoint of a evolutionary (quantitative) paradigm of territory development.

Some indicators of the state of development of these “worlds-economies” - Human Development Index, Global Competitiveness Index and its changes, GDP per capita and its changes, “energetic price” of GDP as well as changes in population demonstrate that the “words-economies” identified within this research achieve human development, economic development and competitiveness by means of combining various strategies in the sphere of energy use and social infrastructure, and are divided into nature-friendly (those which focus on maximally low energy use in their development) and human-friendly (those which focus on creating institutional environment which enables the efficiency of economic activity and efficient use of resources in their development). Nevertheless, in the modern world there emerge “world-economies” of a new type – nature- and human-friendly (the core – China), as well as its opposite - “energy consumers with poor social infrastructure” (the core - Russia). The hypothesis of this research is that territory development in the modern world is possible without accelerated resource-intensive production and consumption, but through improvement of an institutional environment within a country, and it is proved by the example of the countries-“ecologists with strong social infrastructure” which despite the lack of GDP growth (on average in the group of countries) in the last 5 years, still have rather high indicators of general competitiveness, and human development (including “quality of population” and its quantitative growth). In the empirical sample of this research this “world-economy” is represented by such countries as

Botswana, Chile, China, Costa Rica, Cyprus, Hong Kong, Jordan, Malaysia, Malta, Morocco, Namibia, Portugal, Uruguay.

REFERENCES

Alchian, A.A. (1950), *Uncertainty, Evolution and Economic Theory*, Journal of Political Economy, 58 (3), 211-219

Boronenko, V. (2013), *Pakistan: Notes on International Conference and More*. Social Science Buletin, 16 (1), 94-104.

Available: http://du.lv/files/000/007/935/SZF_vestnesis_2013_1.pdf?1373448658

Boronenko, V., Lonska, J., Spulis, A. (2012), *The Research of Economic Determinants of the Regional Competitiveness and Development Sustainability*, Social Science Buletin, 15(2), 37-61.

Available: http://du.lv/files/000/006/966/SZF_vestnesis_2012_2.pdf?1358427994

Braudel, F. (1967), *Civilization and Capitalism, 15th–18th Centuries*. Translated by Siân Reynolds S. (1979), 3 vols. University of California Press, Berkeley.

Checkel, J.T. (2013), *Theoretical Pluralism in IR: Possibilities and Limits*, Carlsnaes, W., Risse, T., Simmons, B.A. (Eds.) [Handbook of International Relations, Second Edition](#).

Delyagin, M. (2015), *Usual Wprld is Broken: Russia and China Have to Create a New One..* [in Russian]

Available: http://svpressa.ru/politic/article/121275/?rss_mirtesen=1

Friedman, D. (1998), *On Economic Applications of Evolutionary Game Theory*, Journal of Evolutionary Economics, 8(1), 15-43.

Gregory, N., Stuart, J. (2005), *Comparing Economic Systems in the Twenty-First Century*, Seventh Edition, South-Western College Publishing.

Hall, R.E., Jones, Ch.I. (1998), *Why Do Some Countries Produce So Much More Output per Worker than Others?* Quarterly Journal of Economics, 114, 83-116.

[Hodgson](#), G.M. (1993), *Economics and Evolution: Bringing Life Back Into Economics*, Cambridge and University of Michigan Press.

Lonska, J. (2014), *Assessment of territorial state of development in Latvian regions. Summary of the doctoral thesis.*

Available:

http://du.lv/files/000/010/946/Jelenas_Lonskas_kopsavilkums_save.pdf?1422887116

Lonska, J., Boronenko, V. (2012), *Correlation of Objective and Subjective Territorial Development Indices in the World*. European Integration Studies, Vol. 6.

Available: <http://www.eis.ktu.lt/index.php/EIS/article/view/1468>.

Lonska, J., Boronenko, V. (2013), *What is the Key Element for the Territory's State of Development?* World Academy of Science, Engineering and Technology, Issue 76 (Part II), 187-192.

Mahbub ul Haq (1995), *Human Development Report 1995*. United Nation Development Programme, Oxford University Press, New York.

Available:

http://hdr.undp.org/sites/default/files/reports/256/hdr_1995_en_complete_nostats.pdf

Manschot, H., Suransky, C. (2009), *The Hidden Dimension of the Secular: Rethinking Humanism in an Age of Religious Revitalism*. Pluralism Working Paper No 2. Suransky, C. (Ed.) Pluralism Working Paper Series for the Promoting Pluralism Knowledge Programme.

Available:

<http://www.hivos.net/Hivos-KnowledgeProgramme/Themes/Pluralism/Publications/The-Hidden-Dimension-of-the-Secular.-Rethinking-Humanism-in-an-age-of-Religious-Revitalism>

Meadows, D.H., Meadows, D.I., Randers, J. & Behrens III, W.W. (1972), *The Limits to Growth: A Report to the Club of Rome*. Potomac Associates, Washington.

Mesarovic, M., Pestel, E. (1974), *Mankind at the Turning Point: The Second Report of the Club of Rome*. E. P. Dutton & Co., Inc, New York.

Olsem, J.-P. (2013), *Clear features and uncertainties in the dawning new economic system*, Conference proceedings „Economic Integrations, Competition and Cooperation”, p. 41-52.

Pakholok, O. (2013), *The Idea of Healthy Lifestyle and Its Transformation Into Health-Oriented Lifestyle in Contemporary Society*, SAGE Open, July-September, 1-10.

Rosefielde, S. (2002), *Comparative Economic Systems: Culture, Wealth and Power in the 21st Century*, Blackwell Publishers, London.

Rostow, W. (1960), *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge University Press, Cambridge.

Schwab, K. (Ed.) (2009), *The Global Competitiveness Report 2009-2010*, World Economic Forum, Geneva.

Schwab, K. (Ed.) (2012), *The Global Competitiveness Report 2012-2013*, World Economic Forum, Geneva.

Schwab, K. (Ed.) (2014), *The Global Competitiveness Report 2014-2015*. World Economic Forum, Geneva.

Sen, A. (1983), [Development: Which Way Now?](#) *Economic Journal*, Vol. 93 (372), 742-762.

Stiglitz, J. E., Sen, A., Fitoussi, J. P. (2009), *Report by the Commission on the Measurement of Economic Performance and Social Progress*.

Available:

http://www.stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf

The World Bank, (2015), *Energy use (kg of oil equivalent per capita)*.

Available: <http://data.worldbank.org/indicator/EG.USE.PCAP.KG.OE>

Thirlwall, A.P. (2005), *Growth and Development: With Special Reference to Developing Economies*, 8th edition, Palgrave Macmillan, London.

Thirlwall, A.P. (2011), *Economics of Development*, Palgrave Macmillan.

Todaro, M.P., Smith, S.C. (2011), *Economic Development*, 11th Edition, The Pearson Series in Economics, Prentice Hall.

UNDP (2013), *Human Development Report 2013, The Rise of the South: Human Progress in a Diverse World*,

World Health Organization, (2013), *World Health Statistics 2013*.

Available:

http://apps.who.int/iris/bitstream/10665/81965/1/9789241564588_eng.pdf.

CHAPTER 5

Igor Cvečić

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Petra Adelajda Mirković

University of Rijeka, Faculty of Economics, Rijeka, Croatia

FREE MOVEMENT OF LABOUR IN EU28 AND ITS IMPACT ON CROATIAN LABOUR MARKET

ABSTRACT:

This article analyzes the European and Croatian labour market, the potential for increased labour mobility within EU28 and the perspectives, costs and benefits for the Croatian labour market after it joined the EU. This article shows migration dynamics of Croatian labour pre and post EU accession. Croatia might face the risk of losing young and skilled labour force. Another challenge for Croatian labour mobility is the transitional period and the restrictions which may last up to seven years. In order to explain the current position of Croatian labour market and labour mobility, it is important to look at the trends of labour mobility, employment and general economic motions. To evaluate gains and losses of Croatian labour market it is necessary to analyze the experience of other CEE (Central and Eastern European) countries, which joined the EU in the last decade, as well as to accentuate current trends facing the European labour market, such as rising skills mismatches and migration flows from conflict zones.

Keywords: Labour mobility, Labour market, Croatia, EU

JEL classification: F15, J21, J61, R23

1. INTRODUCTION

The freedom of movement of workers is one of the four fundamental pillars of economic integration in the European Union. A central objective of free mobility is to enable EU citizens to seek employment, and any social benefits attached with it, in any of the EU Member States

(MS). From the economic perspective labour mobility improves the allocation efficiency of the labour market, supports the EU economy and alleviates some of its demographic challenges (Zimmermann, 2005; Kahanec and Zimmermann, 2010). The literature suggests that geographical labour mobility within the EU, as well as in Croatia, is fairly low, while the research problem includes the effects of labour market imbalances, such as high unemployment rates, labour supply and demand mismatches, which negatively affect the labour market and the economy in general. The inclusion of Croatia in the European labour mobility system is definitely affecting the Croatian labour market, and respectively should contribute to the reduction of unemployment (especially within the young population) and the labour supply and demand mismatch. Determining the relevant factors which affect the development of the labour mobility, it is essential to detect also the measures and potential outcomes within the framework of the 'Europe 2020' strategy, anticipated for the current and future needs of the EU economy and its labour market.

2. LABOUR MOBILITY AS A THEORETICAL AND LEGAL CONCEPT

Free movement of workers within the 'Common Market' was one of the first goals of the European integration process. The provisions governing the free movement of persons within the EU Internal Market are laid down in Directive 2004/38/EC.

However, the implementation of this directive continues to face many obstacles. It is designed to encourage EU citizens to exercise their right to move and reside freely within the MS, to cut back administrative formalities to the bare essentials, to provide a better definition of the status of family members and to limit the scope for refusing entry or terminating the right of residence (www.europarl.europa.eu).

The free movement of labour affords EU citizens the right to equal treatment in accessing employment, working conditions and all other social and tax advantages. Moreover, intra-EU mobility is also affected by the Services Directive. In particular, self-employed persons or posted workers may sell their services (temporarily) in another EU Member State through a company (of their own) or a placement agency that is established in another MS.

As is the case with the free movement of capital, greater labour mobility would improve factor allocation within the EU, thereby making the Internal Market more efficient (Kandžija & Cvečić, 2010). Better matching of labour supply and demand throughout Europe through mobility would ensure better allocation of workers, since individual workers could find jobs where they are more productive (Nello, 2012). It would also reduce the qualification mismatches seen in certain MS, where there are shortages or surpluses of certain qualifications. Furthermore, greater mobility would improve the prospects for growth for the EU as a whole.

Migration literature postulates several factors that can influence a decision to migrate internationally. As regards to theoretical determinants, there is no single theory. The models explaining international migration can be classified as micro-level, mezzo-level and macro-level (Hagen-Zanker, 2008). Micro-level models focus on individual behaviour and decisions on migration; mezzo-level models deal with a household or community level; and macro-level models address aggregate levels or country-level opportunity factors.

The empirical evidence concerning international migration indicates that migrants have a variety of reasons for migrating or moving. For example, regarding intra-EU mobility (Eurofound 2007; Bonin et al. 2008), labour market-related factors have been detected, such as higher wages, opportunities to find a suitable job, and better working conditions – as main determinants for East-West migration flows. But also family and network-related factors, as well as housing and local environment factors, play a role in migration decisions within the EU (Eurofound, 2006). There is also evidence that individual characteristics such as age, gender, education level or past migration experiences have an impact on individuals' propensity to be mobile. Recent studies propose that the primary drivers of out-migration include domestic labour market conditions. Besides supply and demand factors, it has been argued that labour market structure and broader institutional infrastructure, including welfare system generosity and targeting, reflect additional factors behind the observed trends (Kureková 2011; Kureková 2013).

Labour mobility contributes to the smooth functioning of the EU Internal Market by ensuring a better match between labour supply and demand,

which is necessary to reduce unemployment and increase productivity.³ The models usually attribute migration to wage differences, but in practice many other factors influence the decision to migrate (and the pattern of migration). Nello (2012) lists the causes of migration:

- The wage gap between the home and host country
- Political and ethnic disturbances (which emerge as the main cause of major large-scale migration flows in Europe)
- The employment possibilities in both countries
- Economic expectations
- The geographical proximity of the two countries
- Emigration traditions
- Ethnic and family networks
- Cultural and linguistic factors.

Although there are certain mobility models and theories which go in favour of labour mobility in both – sending and host countries, a unique theory is hard to determine and explain. Furthermore, a lot of cross-border mobility stays unrecorded as countries within the EU evaluate mobility differently. For example, Austrians consider emigrants when they are more than three months in a foreign country, Belgians if they are more than six months, Finns more than a year, Poles and Romanians – if they indicate that they are leaving for good. A high degree of variance in policies across countries and citizenship rules is not a reliable way to account for mobility.

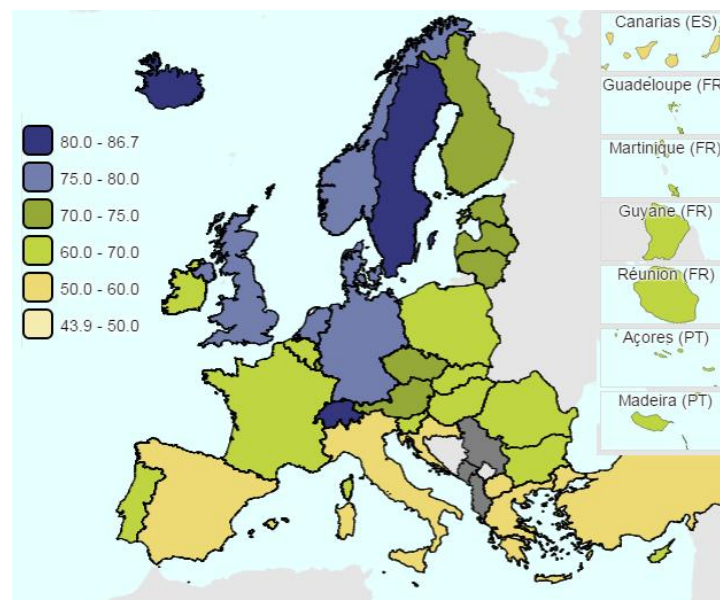
3. EU LABOUR MARKET OVERVIEW

As the EU is enlarging and ‘deepening’, the divergence between MS is becoming even more noticeable. It is especially present between the ‘core’ countries and ‘periphery’ countries. Furthermore, there is a high level of unemployment on the EU level, especially within young population. Despite the policies and directives trying to increase the labour mobility between the countries and regions, the mobility is still low (approx. 3-3.5%; European Commission). The EU is still facing the recession repercussions, thus a modest level of improvement is present – but geographically uneven.

¹Although the European Labour Force Survey (2013) shows qualification mismatch of nearly 15% of European employees that are overeducated, while 19% are under-educated, in the period after 2010.

Employment and unemployment rates are sensitive issues in the EU, and one of the main objectives of the ‘Europe 2020’ strategy is to increase employment. The divergence between MS is clearly visible on Map nr. 1. For example, Sweden, Denmark, the UK, Germany and the Netherlands are countries with the highest level of employment, between 75% up to 80%, while the lowest employment rates are recorded in Mediterranean MS – Spain, Italy, Croatia and Greece (lower than 60%). All other MS, including France, Austria and all the new MS from 2004 and 2007 enlargements recorded employment rates between 60% and 75%.

Map 1 Employment rates in 2014, age group 20-64 years



Source: Eurostat (2015)

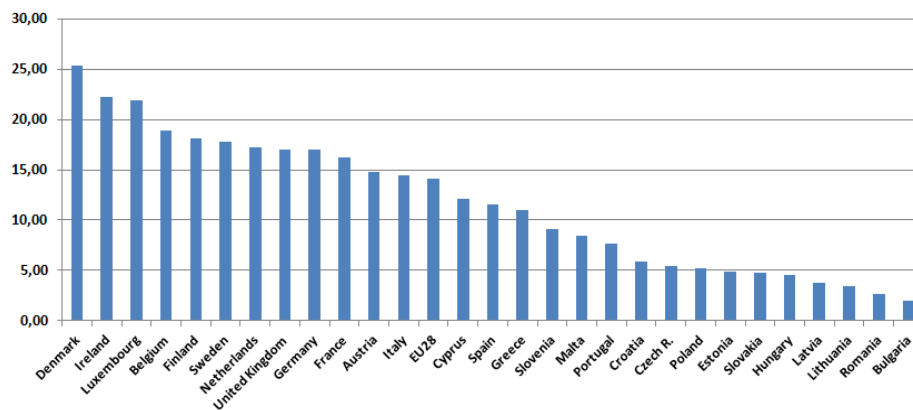
The unemployment is a great challenge for the EU. Since the start of the 2008 recession, the unemployment rate increased rapidly, especially within the young population segment. The unemployment problem is present in nearly all MS, as EUROSTAT (2015) figures show. Especially in Mediterranean MS (2014: Greece – 26.5%, Spain – 24.5%, Croatia – 17.3%, Cyprus – 16.1% and Portugal – 14.1%). Slovakia, Italy, Bulgaria, Ireland, Latvia, Lithuania and France were also above the EU average of 10.2%, while the lowest levels of unemployment were

recorded in Germany, Austria, Malta and Luxembourg (5-6%). Again, the divergence between MS and the differences in their labour market indicators are disturbingly high.

While deciding on migration and seeking a job in another MS, despite other push factors, one of the most important is job vacancies. While some EU countries have problems with unemployment, there are countries with available job opportunities. The purpose of labour mobility is a better job allocation, respectively to move from the area where there is higher job demand to areas where there is demand for labour force. Countries with the highest levels of job vacancies in 2013 were the UK, Benelux and Scandinavian countries, Germany, Austria but also Czech Republic, Lithuania and Hungary. The lowest levels of job vacancies were unsurprisingly present in Croatia, Spain, Portugal, Slovenia, Latvia and Poland: 0.3 – 0.6% (Eurostat, 2015).

A very important factor of labour mobility is better job conditions, in this case wages. Workers usually decide to migrate in countries with the highest level of earnings (Figure nr. 1). The countries with the highest wages are usually the countries where most of workers migrate. Together with the lowest unemployment rates, the most job vacancies and high earning rates – Germany, Austria and the UK are the top countries where most of workers from CEE and other countries migrate.

Figure 1 Mean hourly earnings in Euros (2010)

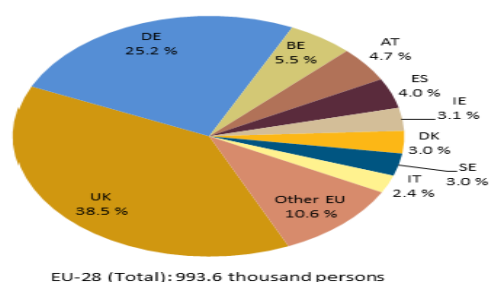


Notes: 10 employees or more; Industry, construction and services (except public administration, defence, compulsory social security)

Source: Eurostat (2015)

In 2013 there were 15.3 million non-nationals living and working in EU Member States: 6.9 million of them were citizens from another MS and 8.4 million were non-EU citizens (Labour Force Survey 2013). From 2011, almost one million people took up residence and worked in an EU Member State other than their country of citizenship (Figure 2).

Figure 2 Employed persons aged 15+ taking up residence in an EU Member State other than their country of citizenship or from outside the EU within the last two years, 2013 (in %)



Source: Labour Force Survey 2013

Of these, 38.5% took up residence and worked in the UK, 25.2% in Germany, 5.5% in Belgium and 4.7% in Austria. 620,000 foreign workers who migrated to or within EU countries from 2011-2013 were citizens from another MS and some 370,000 were non-EU citizens. Compared with 2011, the total number of employed non-nationals who had recently moved to an EU country other than their country of citizenship increased by 3.2%. The growth is due to increased mobility of EU citizens; the mobility of non-EU citizens has however declined (Labour Force Survey 2013).

The post-2008 recession had its impact on the changes in migration flows within EU countries. For example, in 2012, compared to 2008, there was a significant fall in immigration into Portugal (-51%), Slovenia (-51%), Spain (-49%), Ireland (-34%) and Italy (-34%); countries harshly hit by the crisis. Immigration flows to the Czech Republic (-68%) and the UK (-16%) also decreased (Table 1).

In contrast, immigration flows increased to countries with a declining or low unemployment rate, such as Germany (+71%), Austria (+24%), Malta (+18%), Luxembourg (+15%). Immigration also increased to

Lithuania (+113%), Romania (+20%) and Poland (+15%), partly due to the increasing number of nationals returning from abroad. Namely, after the enlargement in 2004, Romanians and Poles increased as immigrants in other EU countries, but the migration slowed down due to the crisis.

Table 1 Immigration flows in absolute numbers (percentage change in total) and as a percentage of the total population of the receiving country, 2008, 2011 and 2012

	Total immigration flows			Percentage change in total		As a percentage of the population		
	2008*	2011	2012	2008*/12	2011/2012	2008	2011	2012
Belgium	N/A	144 698	147 387	N/A	2 %	N/A	1.3 %	1.3 %
Bulgaria	N/A	N/A	14 103 (p)	N/A	N/A	N/A	N/A	0.2 %
Czech Republic	108 267	27 114	34 337	-68 %	27 %	1.0 %	0.3 %	0.3 %
Denmark	57 357	52 833	54 409	-5 %	3 %	1.0 %	0.9 %	1.0 %
Germany*	346 216	489 422	592 175	71 %	21 %	0.4 %	0.6 %	0.7 %
Estonia	3 671	3 709	2 639	-28 %	-29 %	0.3 %	0.3 %	0.2 %
Ireland	82 592	53 224	54 439	-34 %	2 %	1.8 %	1.2 %	1.2 %
Greece	N/A	110 823	110 139	N/A	-1 %	N/A	1.0 %	1.0 %
Spain	599 075	371 331	304 053	-49 %	-18 %	1.3 %	0.8 %	0.7 %
France	N/A	319 816	327 431	N/A	2 %	N/A	0.5 %	0.5 %
Croatia	N/A	8 534	8 959	N/A	5 %	N/A	0.2 %	0.2 %
Italy	534 712	385 793	350 772	-34 %	-9 %	0.9 %	0.6 %	0.6 %
Cyprus	14 095	23 037	17 476	24 %	-24 %	1.8 %	2.7 %	2.0 %
Latvia	N/A	10 234	13 303	N/A	30 %	N/A	0.5 %	0.7 %
Lithuania	9 297	15 685	19 843	113 %	27 %	0.3 %	0.5 %	0.7 %
Luxembourg	17 758	20 268	20 478	15 %	1 %	3.6 %	3.9 %	3.9 %
Hungary	N/A	28 018	33 702	N/A	20 %	N/A	0.3 %	0.3 %
Malta	6 043	5 465	7 111	18 %	30 %	1.5 %	1.3 %	1.7 %
Netherlands	122 917	130 118	124 566	1 %	-4 %	0.9 %	0.8 %	0.7 %
Austria	73 772	82 230	91 557	24 %	11 %	0.9 %	1.0 %	1.1 %
Poland	189 166	157 059	217 546	15 %	39 %	0.5 %	0.4 %	0.6 %
Portugal	29 718	19 667	14 606	-51 %	-26 %	0.3 %	0.2 %	0.1 %
Romania	138 929	147 685	167 266	20 %	13 %	0.7 %	0.7 %	0.8 %
Slovenia	30 693	14 083	15 022	-51 %	7 %	1.5 %	0.7 %	0.7 %
Slovakia	N/A	N/A	5 419	N/A	N/A	N/A	N/A	0.1 %
Finland	29 114	29 481	31 278	7 %	6 %	0.5 %	0.5 %	0.6 %
Sweden	101 171	96 467	103 059	2 %	7 %	1.1 %	1.0 %	1.1 %
United Kingdom	590 242	566 044	498 040	-16 %	-12 %	1.0 %	0.9 %	0.8 %

Source: European Commission 2014

In terms of emigration flows there was variation across countries (Table 2). Namely, between 2008 and 2012, there were sharp increases in emigration flows out of countries such as Portugal (+155%), Cyprus (+72%), Lithuania (+60%), Spain (+55%), Ireland (+36%) and Italy (+31%). During the same period, there was less emigration than before from countries such as Romania (-44%), the UK (-25%) and Germany (-16%). In 2012, Cyprus (2.1%), Luxembourg (2.0%) and Ireland (1.9%)

had comparatively high emigration rates as a percentage of the total population, Hungary (0.2%), Italy (0.2%) and Germany (0.3%) had relatively low rates.

The combination of the changes in flows (in and out) explains recent trends in net migration. In Germany, it has not been as high for many years, while net migration in Spain, Ireland, Portugal, and the Czech Republic has gone from being positive in 2008 to being negative in 2011 and 2012. According to the 2015 European Commission Report, such a trend is continuing.

Table 2 Emigration flows in absolute numbers (percentage change in total) and as a percentage of the total population of the country of origin, 2008, 2011 and 2012

Country	Total emigration flows			Percentage change in total		As a percentage of the population		
	2008*	2011	2012	2008*/12	2011/2012	2008	2011	2012
Belgium	N/A	67,475	74,720	N/A	11%	N/A	0.60%	0.70%
Bulgaria	N/A	N/A	16,615	N/A	N/A	N/A	N/A	0.20%
Czech Republic	51,478	55,910	46,106	-10%	-18%	0.50%	0.50%	0.40%
Denmark	38,356	41,593	43,663	14%	5%	0.70%	0.70%	0.80%
Germany	286,582	249,045	240,001	-16%	-4%	0.30%	0.30%	0.30%
Estonia	4,406	6,214	6,321	43%	2%	0.30%	0.50%	0.50%
Ireland	65,934	87,053	89,436	36%	3%	1.50%	1.90%	1.90%
Greece	N/A	125,984	154,435	N/A	23%	N/A	1.10%	1.40%
Spain	288,432	409,034	446,606	55%	9%	0.60%	0.90%	1.00%
France	N/A	280,556	288,331	N/A	3%	N/A	0.40%	0.40%
Croatia	N/A	12,699	12,877	N/A	1%	N/A	0.30%	0.30%
Italy	80,947	82,461	106,216	31%	29%	0.10%	0.10%	0.20%
Cyprus	10,500	4,895	18,105	72%	270%	1.30%	0.60%	2.10%
Latvia	N/A	30,311	25,163	N/A	-17%	N/A	1.50%	1.20%
Lithuania	25,750	53,863	41,100	60%	-24%	0.80%	1.80%	1.40%
Luxembourg	10,058	9,264	10,442	4%	13%	2.10%	1.80%	2.00%
Hungary	N/A	15,100	22,880	N/A	52%	N/A	0.20%	0.20%
Malta	3,719	3,806	4,005	8%	5%	0.90%	0.90%	1.00%
Netherlands	92,825	104,201	110,431	19%	6%	0.60%	0.60%	0.70%
Austria	51,563	51,197	51,812	0%	1%	0.60%	0.60%	0.60%
Poland	229,320	265,798	275,603	20%	4%	0.60%	0.70%	0.70%
Portugal	20,357	43,998	51,958	155%	18%	0.20%	0.40%	0.50%
Romania	302,796	195,551	170,186	-44%	-13%	1.50%	1.00%	0.80%
Slovenia	12,109	12,024	14,378	19%	20%	0.60%	0.60%	0.70%
Slovakia	N/A	1,863	2,003	N/A	8%	N/A	0.00%	0.00%
Finland	13,657	12,660	13,845	1%	9%	0.30%	0.20%	0.30%
Sweden	45,294	51,179	51,747	14%	1%	0.50%	0.50%	0.50%
United Kingdom	427,207	350,703	321,217	-25%	-8%	0.70%	0.60%	0.50%

Source: European Commission 2014

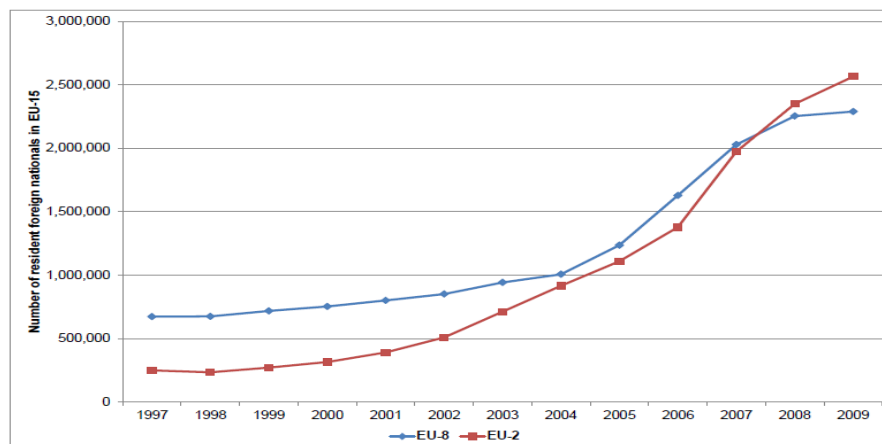
4. THE CASE OF CEE COUNTRIES LABOUR MOBILITY

The biggest EU enlargement from 2004, followed by the 2007 enlargement, both brought changes in the migration flows within EU

Member States. In 2004, ten new MS joined the EU and in 2007 Bulgaria and Romania became MS as well. There was a *misgiving* that the enlargement would cause labour market disturbance in both sending and host countries. The old MS (EU15) were afraid of the inflow of ‘cheap’ labour force, while the new MS were challenged because they could lose the most valuable young and skilled workers. In fact, in both cases the impact was quite positive. Although there was a substantial increase of immigration to EU15, it did not cause labour market disturbances, while in sending countries the GDP grew (for most countries) and high levels of unemployment were reduced. It is also significant to point out that between 2007 and 2010 more than half of MS experienced rising levels of skills mismatch. However, new MS mostly reduced it, especially in those MS which had the highest levels of skills mismatch as Bulgaria, Slovakia and Hungary (European Commission, 2014).

The following figures (including Figure 3) and tables depict the migration flows in CEE countries before and after their EU accession.

Figure 3 Stock of foreign residents from EU-8 and EU-2 in EU-15



Note: EU-8 – Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia (Cyprus and Malta not included); EU-2 being Bulgaria and Romania.

Source: Kahanec, M. (2012)

Table 3. shows that Germany, the UK and Spain were main destination countries for immigrants from the EU-8 in the pre-accession period. After 2004, the UK alone received almost half of all immigrants from the EU-8 countries. Germany was still among the main receiving

countries during this period, whereas Spain was replaced by Ireland. However, the main destinations for Bulgarians and Romanians used to be Spain and Italy prior to accession, and after it, as well. However, a few EU15 MS experienced a substantial increase in net-immigration from these accession countries, with Germany, Austria and the UK displaying the highest rates of increase.

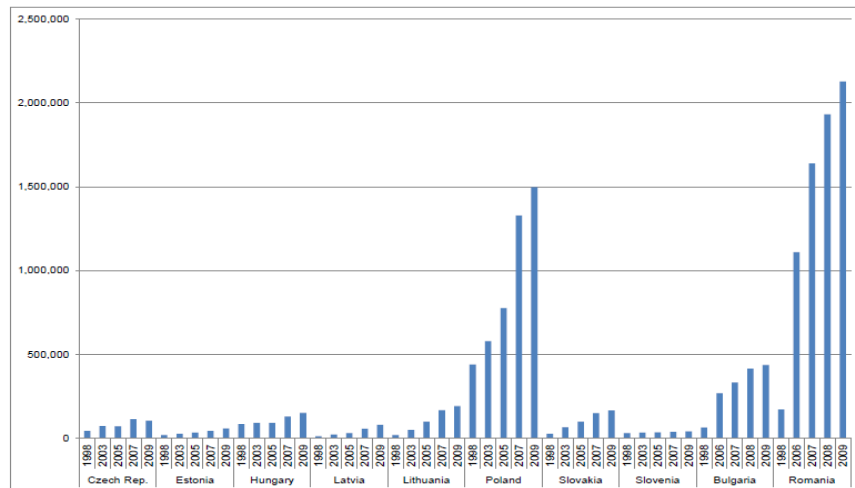
Table 3 Regional distribution of net inflows to EU-15 (%)

	Belgium	Denmark	Germany	Ireland	Greece
Net-migration from EU-8 between 1998 and 2003	3.5	0.8	29.5	6.1	5.4
Net-migration from EU-8 between 2004 and 2009	1.3	1.7	13.7	12.1	0.2
Net-migration from EU-2 between 1998 and 2006	1.0	0.1	-0.1	0.4	3.3
Net-migration from EU-2 between 2007 and 2009	1.9	0.7	6.3	0.7	6.0
	Spain	France	Italy	Luxem- bourg	Nether- lands
Net-migration from EU-8 between 1998 and 2003	13.3	0.6	7.2	0.2	1.4
Net-migration from EU-8 between 2004 and 2009	6.5	0.2	5.4	0.5	3.1
Net-migration from EU-2 between 1998 and 2006	57.8	3.6	28.3	0.0	0.3
Net-migration from EU-2 between 2007 and 2009	17.1	1.5	46.5	0.0	1.4
	Austria	Portugal	Finland	Sweden	UK
Net-migration from EU-8 between 1998 and 2003	2.3	0.2	1.4	-0.4	28.5
Net-migration from EU-8 between 2004 and 2009	1.8	0.1	1.1	2.7	49.5
Net-migration from EU-2 between 1998 and 2006	0.8	1.3	0.0	-0.1	3.3
Net-migration from EU-2 between 2007 and 2009	4.9	2.6	0.1	0.8	9.5

Source: Kahanec, M. (2012)

Figure nr. 4 indicate that Romania, Poland and Bulgaria experienced the largest net-outflow of workers toward the EU-15. In 2009, almost 1.5 million Polish citizens resided in one of the EU-15 MS, while for Bulgaria and Romania the numbers were: slightly less than 0.5 million and more than two million individuals. However, Poland and Romania are also the two new MS with the largest populations.

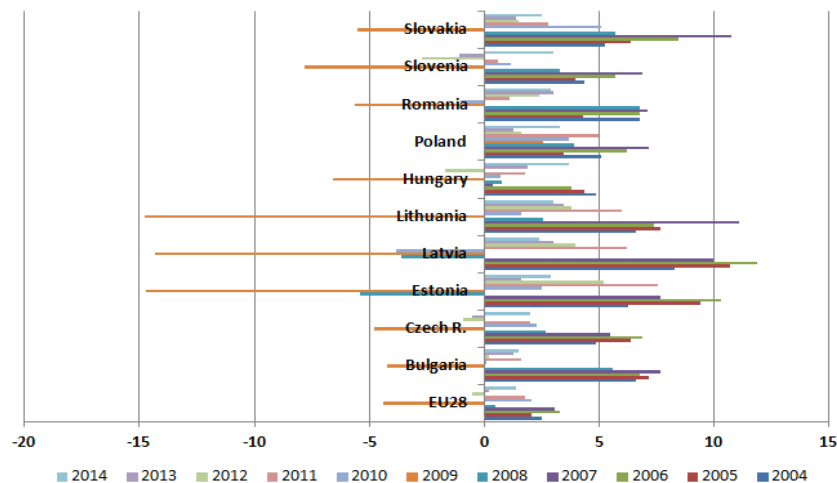
Figure 4 Absolute numbers of EU nationals from New MS residing in EU-15 countries



Source: Kahanec, M. (2012)

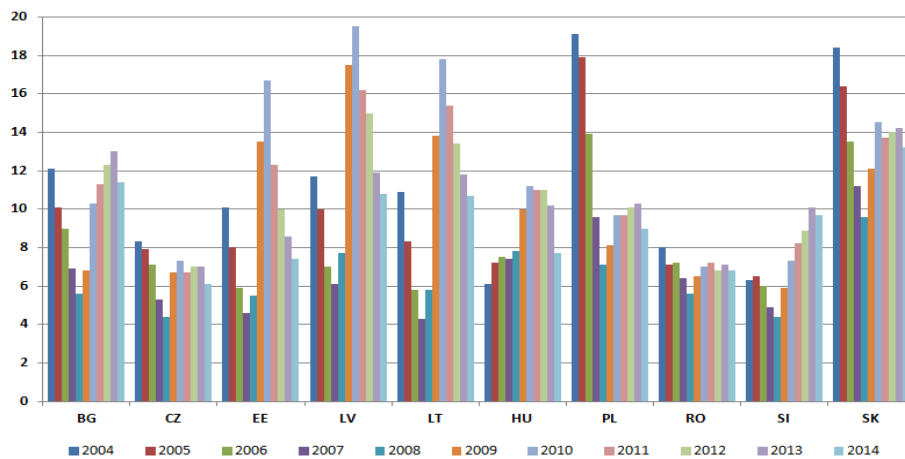
Figures nr. 5. and 6. depict GDP growth and unemployment rates in selected new MS. It is important not to underestimate the connection between net outflows, GDP growth and unemployment decrease. It is evident that labour mobility positively affects the labour market performance and indirectly the economic growth.

Figure 5 Real GDP growth rate – volume (% change on prev.year) in selected EU MS



Source: Eurostat (2015)

Figure 6 Total unemployment rate (%) in selected EU countries

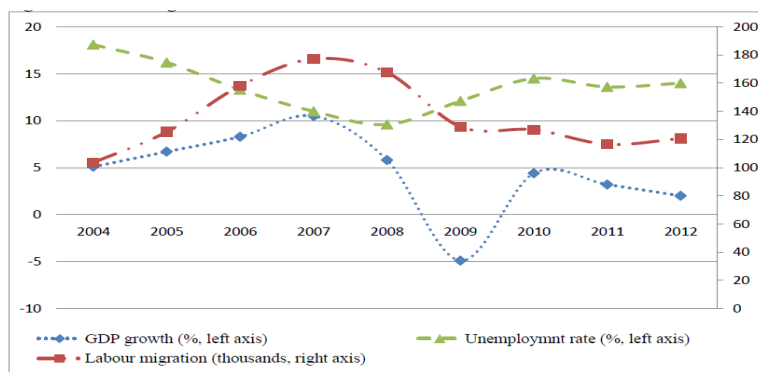


Source: Eurostat (2015)

Slovakia joined the EU in 2004, and is one of the MS which increased its labour outflows (Figure 7). In Slovakia, the link between economic growth and labour outflows appears to be positive, with migration on the rise during the period of strong GDP growth (2004 – 2007), declining

during the period of sharp economic slowdown in 2008-2009, and remaining relatively stable during the period of moderate recovery (since 2010). The overall pattern suggests that factors other than economic growth in Slovakia were key determinants of the magnitude of the outflows.

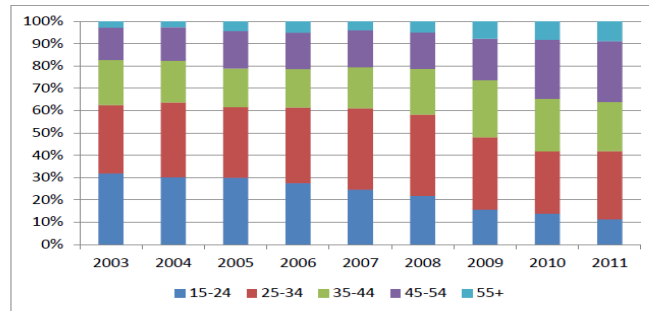
Figure 7 Labour migration and economic indicators (2004-2012) for Slovakia



Source: Kahanec & Kureková (2014)

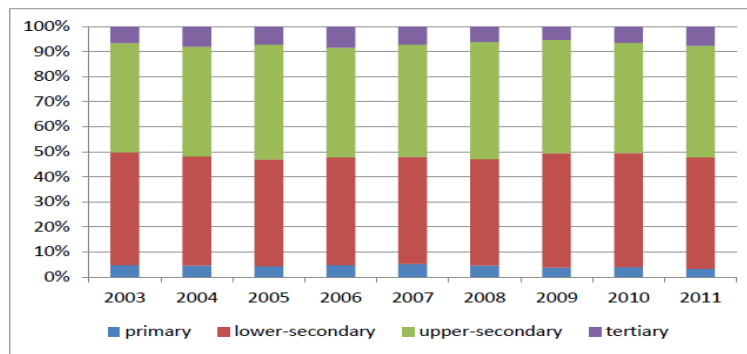
Although the emigration from Slovakia had positive impacts on the labour market and the economy, the composition of immigrants is also significant. Namely, according to LFS and Eurobarometer (2013), most of immigrants tend to be young and skilled, which can be challenging for each emigration country. In case of Slovakia (Figures nr. 8 and 9) it appears that the composition of migrants was mostly between 25-34 years of age and with the upper- or lower-secondary level of education.

Figure 8 Age composition of emigrants from Slovakia (to all destinations)



Source: Kahanec & Kureková (2014)

Figure 9 Education composition of emigrants in Slovakia



Source: Kahanec & Kureková (2014)

Ultimately, recent studies propose that the primary drivers of out-migration include domestic labour market conditions. Besides supply and demand factors, it has been argued that labour market structure and broader institutional infrastructure, including welfare system generosity and targeting, reflect additional factors behind the observed trends (Kureková 2011; Kureková 2013).

5. LABOUR MARKET AND LABOUR MOBILITY IN CROATIA

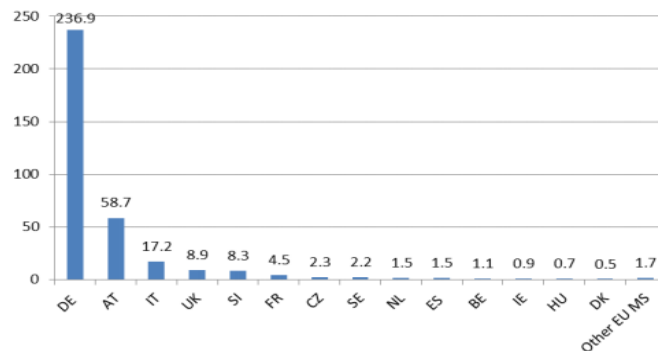
Croatia joined the EU on July 1, 2013. A lot of new opportunities opened since then for Croatian, respectively EU citizens. However, there is a transitional period for new MS which potentially restricts workers to freely access the labour market of 'older' MS. The transitional period may last up to seven years and it is divided into three phases (2 + 3 + 2 years). The first phase ended on July 1, 2015. During these two years, thirteen MS² introduced restrictions for Croatian workers, causing a reciprocal decision of Croatian authorities for their workers. The other fourteen MS did not apply any restrictions for Croatian workers.

In 2013, before the accession, there were around 347,000 Croatian migrants, accounting for around 0.07% of the total population (Figure 10). They were concentrated in Germany (68%), Austria (17%), Italy (5%), the UK (3%) and Slovenia (2%) (European Commission, 2015).

Croatian workers mostly tend to move toward Germany and Austria. Historically, Croatian migration largest waves lead to those countries: first in the 1960s and 1970s, and later in the 1990s because of the wars in the Balkan region (European Integration Consortium 2009). Around 8,700 portable documents A1 were issued for posting from Croatia to other MS in 2013, in particular for Germany (5,400), Austria (850), Italy (700), Slovenia (480) and Finland (380). More than 90% of these documents were issued for countries having introduced temporary restrictions.

² Austria, Belgium, Cyprus, France, Germany, Greece, Italy, Luxembourg, Malta, the Netherlands, Spain, Slovenia and the United Kingdom. After the first phase expired, only five MS decided to not to remove the restrictions (Austria, Malta, Netherlands, Slovenia and the UK).

Figure 10 Croatian citizens residing in other EU Member States in 2013 (thousands, by country of residence)



Source: European Commission, 2015

According to Croatian official data, the number of Croatian nationals moving to EU27 has increased from 3,216 (2012) to 4,058 (2013) (or +26%), mostly to Germany, Austria and Italy. However, official emigration statistics under-estimate outflows (Božić, 2007). The increase of Croatian citizens working in Austria and Germany in 2014 compared to 2013 is approximately 10% (Table 4). In the same time, Serbia and Bosnia & Herzegovina were even more important destinations for Croatian workers (3,805 and 3,580 respectively), most probably covering returnees from those countries because of unfavourable economic conditions in Croatia (Croatian Bureau of Statistics, 2014).

Table 4 Employment among Croatians in selected EU Member States

Country	Definition	2008	2009	2010	2011	2012	2013	2014	Changes over last year available	
									in unit	in %
Germany	Employees (social security data)	-	96,748	96,603	97,490	97,692	98,095	108,121	10,026	10
Austria	Employees (social security data)	16,453	16,576	17,529	18,574	19,426	20,427	22,450	2,023	10
Slovenia	Employees (excl. commuters)	-	-	5,392	5,796	5,490	5,229	4,105	-1,124	-21
Italy	Employed (excl. public sector and liberal professions)	15,690	15,391	14,954	14,682	14,081	13,181	-	-900	-6
Sweden	Gainfully employed (incl. self-employed)	-	838	851	882	906	984	-	78	9
Czech Republic	Employees	261	254	354	406	412	412	523	111	27

Source: European Commission 2015

Comparing the latest available figures, the increase of Croatian residents in several EU MS is quite significant after 2013 (Table 5), and especially toward Ireland and the UK.

Table 5 Inflows of Croatian citizens to selected EU Member States

Country	Definition	2008	2009	2010	2011	2012	2013	2014	Changes over last year available	
									in unit	in %
Germany	New residents of all ages	8,732	9,129	10,198	11,484	12,887	25,772	17,135*	12,885	100
Austria	New residents of all ages	2,022	1,937	1,894	1,908	2,008	4,183	-	2,175	108
Slovenia	New residents of all ages	1597	1442	928	945	1112	1197	-	85	8
Ireland	Personal Public Service Numbers allocated	123	60	51	60	86	486	2,091	1,605	330
Sweden	New residents of all ages	136	170	142	152	179	495	-	316	177
UK	Applications for a National Insurance Number	520	352	230	181	166	264	594	330	199

Source: European Commission 2015

In terms of push factors, the analysis of the economic and labour market situation in Croatia points to some clear, but somewhat declining, incentives to move abroad. Indeed, Croatia has the third lowest GDP per capita in the EU. However, since 2010 it started growing again and it stood at 61% of the EU-average in 2013.

Moreover, Croatia's Gross Household Disposable Income per capita (in PPS) grew steadily throughout the crisis and in 2012 amounted to 59% of the EU average (European Commission, 2015).

In 2014, Croatia had the third highest unemployment (17%) and youth unemployment rates (45%) in the EU. While it also had the fourth lowest employment rate (57% in the 3rd quarter of 2014), it had one of the highest year-on-year increase in employment rate (+3.2 percentage points). The percentage of persons at-risk-of-poverty or social exclusion in Croatia is above the EU average (29.9% vs. 24.5%, 2013). Wages in Croatia (compensation per employee) in 2013 were the second highest of the CEE MS.

The main reasons for the high unemployment incidence of young people in Croatia are lacking work experience and widespread skill mismatches: approximately 25-40% are overqualified and 7-13% under qualified (when finding their first job). As Bejaković and Mrnjavac (2013) suggest, investments in human capital would be necessary to keep pace with the growing demand for high skills in Croatia. Although the workforce is quite educated, employers in Croatia often find it difficult to match their needs with available skills, but also to keep the 'best' workers in the country. Besides, the skills mismatch and the new freedom to move elsewhere, Croatia has to do more to coordinate its education system and strategic planning of the labour market, including better planning of the active labor market policy. Otherwise the skills mismatch will only continue to grow.

According to the 2013 Eurobarometer, Croatians shared similar reasons with most other EU citizens while considering moving abroad: higher wages (80%), better working conditions other than salary (31%) and the difficulty to find a job in Croatia (30%). In 2013, around 43% of Croatian citizens aged 15+ said that they 'would consider working in another EU Member State in the next 10 years' (one of the highest shares across EU countries), but only half of those expressed a strong desire to do so (21%). Another survey conducted in 2014 indicated that around 3.3% of Croatian citizens interviewed declared that they are making concrete plans to move abroad. This is more than double compared to the 2009 results (1.5%).

Forecasts of net migration from Croatia to EU-27 over 2013-2019 (based on the macro-gravity model) indicate that it would range between +166,000 (a scenario where existing restrictions are maintained) and

+217,000 (if all MS opened their labour market by July 1, 2015), or between respectively 0.03% and 0.04% of the destination countries' population. Some destination countries would get a larger than average net migration from Croatia in % of their population but this ratio would be much below 1%, with, in the 'maximum scenario', 0.55% in Austria, 0.34% in Slovenia and 0.13% in Germany (Report from the Commission to the Council 2015). Therefore, the post-accession mobility impact from Croatia is likely to be small on other MS, regardless of the legal regime for their labour market.

Finally, the forecast indicated that the difference between the restrictions remaining in place and them being lifted from July 2015 amounts overall to +51,000 of Croatian citizens or just 0.01% of the EU-27 population. Regardless the future decisions on restrictions the three main recipient countries (Germany, Austria and Italy) are likely to receive more than 80% of the increased net mobility from Croatia. (Report from the Commission to the Council 2015)

The analysis of the impact of emigration on Croatian labour market did not indicate skills shortages in various sectors. Bottlenecks, however, were mostly focused in the sectors of the accommodation and food services, education and healthcare. Most occupations experiencing shortages in Croatia are due to a lack of technical and workplace competencies. In some cases, there is a lack of experienced specialists, notably in the healthcare sector. Inadequate regional adjustment and planning of capacities are also partially responsible for the identified shortages (Report from the Commission to the Council 2015).

A significant positive impact of Croatian citizens mobility on their country's economy are remittances sent back home. According the Report the net balance of remittances was + €702 million in 2013 or 1.6% of the Croatian GDP (the sixth largest ratio in the EU and the highest net remittances per person in the EU: almost 500 EUR per person residing in Croatia in 2013). The Report states there are present indications that remittances are mainly used for savings and investments, meaning that they could contribute to more long-term growth and that remittances helped decrease the level, depth and severity of poverty in Croatia. Moreover, along with compensations of seasonal and frontier workers they possibly play a significant role in shifting the negative balance of investment income.

However, whether the labor mobility would have the positive or negative scenarios it remains to be seen. According to Haque and Kim (1995) and Wong and Yip (1999) international migration negatively affects donor countries through the brain 'drain' of high skilled workers. The brain drain reduces the growth rate of effective human capital that remains in the economy. Considering the literature, permanent migration or brain drains would be a negative scenario for Croatian labor market and consequently whole economy. On the other hand, there is a possibility where Croatian labor would temporary migrate to other MS and achieve new skills and experiences which could be transferred back to Croatia when they return. Other research (Mountford, 1997; Vidal, 1998; Beine et al., 2001) suggest a 'brain gain' associated with that brain drain: a temporary loss of skilled workers may permanently increase the average level of productivity of the sending country (in this case Croatia), the possibility of migration of qualified educated people to a higher income country raises the return to education and, hence, increases the human capital formation which may be greater than the negative effect of a brain drain.

6. CONCLUSION

The free movement of labour has been and still is a sensitive research area. Although the main objective of labour mobility is better factor allocation and more efficient labour markets, the European labour mobility is still low (3-3,5%). However, it contributes to the smooth functioning of the EU Internal Market by ensuring a better match between labour supply and demand, which is necessary to reduce unemployment and increase productivity.

Since the recession of 2008, the EU and almost all MS are dealing with high unemployment, especially within the young population. Enhancing the labour mobility, by theory and practice, could be the solution for the labour market mismatches. As the EU is enlarging and 'deepening', the divergence between MS is becoming even more noticeable. It is especially present between its 'core' and 'periphery'.

Although there are certain mobility models and theories which go in favour of labour mobility in both – sending and host countries, a unique theory is hard to determine and explain. Furthermore, a lot of cross-

border mobility stays unrecorded as countries within the EU evaluate mobility by different criteria.

The 2004 and 2007 enlargement was a huge challenge for the EU and its labour market. Both 'old' and 'new' MS were cautious because of potential negative impacts caused by migration flows. The 'old' MS were afraid of the cheap labour force from the CEE countries, while the 'new' MS were dealing with the possibility of losing young and educated workers. The impact was quite positive for both sides, although it is noticeable, as in the case of Slovakia, that the most 'mobile' workers were young and skilled.

Since Croatia joined the EU in July 2013, there were many opportunities for its labour force within the European labour market. After two years of membership and the end of the first transitional phase, Croatians will be able to work without permits in 22 MS. It is a great opportunity, as Croatia is dealing with high unemployment rates, but again it is quite challenging as a possible 'brain drain' could have negative impacts on the Croatian labour market and the economic recovery.

Nevertheless, increased Croatian labour outflows could have positive effects because of reasons such as increased remittances, lower pressure on the local labour market, lower level of unemployment and better opportunities and experiences for the labour force. The positive scenario would be a circulation of workers where Croatians would temporarily migrate to other MS, but then returning to Croatia with better skills and experiences, which could improve the local labour market. Other MS experiences would also suggest that, although a longer period for adequate analysis would be more appropriate. Thus, many of these effects will be visible in the following years.

REFERENCES

Beine, M., Docquier, F. and Rapoport, H. (2001). Brain drain and economic growth: theory and evidence. *Journal of Development Economics*, 64, pp. 275–89.

Bejaković, P. & Mrnjavac, Ž. (2013) Croatia Skill Mismatches and Anticipation of the Future Labour Market Need: Case of Croatia, Zagreb

International Review of Economics & Business, Economics Faculty Zagreb, Vol. 17, No. 1, pp. 47-68

Bonin, H., W. Eichhorst, C. Florman, M. O. Hansen, L. Skiöld, J. Stuhler, K. Tatsiramos, H. Thomasen and K. F. Zimmermann (2008), Geographic Mobility in the European Union: Optimising its Economic and Social Benefits. IZA Research Report No. 19, Bonn.

Božić, S. (2007), Institute for Migration and Nationalities, Strengthening cross-border cooperation in the Western Balkan regarding migration management – Croatia. In: Petronijević, V. (ed.) Migration Flows in Southeast Europe, a Compendium of National Perspectives. Beograd: Grupa 484.

Croatian Bureau of Statistics, http://www.dzs.hr/default_e.htm.

Eurofound (2006), Mobility in Europe, Analysis of the 2005 Eurobarometer survey on geographical and labour market mobility, http://www.eurofound.europa.eu/sites/default/files/ef_files/pubdocs/2006/59/en/1/ef0659en.pdf.

Eurofound, Annual Report (2007)
<https://www.eurofound.europa.eu/publications/annual-report/2008/annual-report-2007>.

Eurostat (2015), Population and Social Conditions, Labour Market(including Labour Force Survey (LFS)).

European Commission (2014), Migration and Home Affairs, EMN Annual Policy Reports.

European Commission (2015), Report from the Commission to the Council on the Functioning of the Transitional Arrangements on Free Movement of Workers from Croatia (First phase: 1 July 2013 - 30 June 2015).

European Commission (2014) Skills Mismatch and Labour Mobility, EUROPE 2020

Available at:

http://ec.europa.eu/europe2020/pdf/themes/27_skills_gaps_and_labour_mobility.pdf

European Integration Consortium (2009), Labour mobility within the EU in the context of enlargement and the functioning of the transitional arrangements - Background reports, European Integration Consortium (IAB, CMR, fRDB, GEP, WIFO, wiiw), VC/2007/0293, Nuremberg

European Union Labour Force Survey - Annual Results (2013), Eurostat, Statistics Explained, Labour market and Labour Force Survey (LFS) Statistics

European Parliament, Free Movement of Workers

http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=F TU_3.1.3.html

Haque, N. and Kim, S. (1995). Human capital flight: impact of migration on income and growth. International Monetary Fund Staff Papers, 42, 3, pp. 577–607.

Hagen-Zanker, J. (2008), Why do people migrate? A review of the theoretical literature, MPRA Paper No. 28197, Maastricht Graduate School of Governance.

International Labour Organization (2014) Skills mismatch in Europe, ILO – Department of Statistics, Statistics Brief, September 2014, Geneva

Available at: http://www.ilo.org/wcmsp5/groups/public/---dgreports/--stat/documents/publication/wcms_315623.pdf

Kahanec, Martin and Klaus F. Zimmermann (2010), EU Labor Markets after Post-Enlargement Migration, Berlin: Springer.

Kahanec, Martin. (2012), Skilled Labor Flows: Lessons from the European Union, Report under the World Bank ASEAN Labor Markets program, IZA Research Report no.49.

Kahanec, Martin and Kureková, Lucia (2014), Did Post-Enlargement Labor Mobility Help the EU to Adjust During the Great Recession? The Case of Slovakia, Discussion Paper No. 8249, IZA Research.

Kandžija, V., Cvečić, I. (2010), *Ekonomika i politika Europske unije (Economics and Politics of the EU)*, Ekonomski fakultet Sveučilišta u Rijeci, Rijeka

Kureková, Lucia (2011), The Effects of Structural Factors in Origin Countries on Migration: The Case of Central and Eastern Europe, IMI Working Paper no. 45.

Available at:

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1962349.

Kureková, Lucia (2013), Welfare Systems as Emigration Factor: Evidence from the New Accession States.” *JCMS: Journal of Common Market Studies* 55 (4): 721–39. doi:10.1111/jcms.12020.

Mountford, A. (1997). Can a brain drain be good for growth in the source economy? *Journal of Development Economics*, 53, pp. 287–303.

Nello, S.S. (2012), *The European Union Economics, Policies and History*, Third Edition; Movement of Labour, Immigration and Asylum, 180.

Vidal, J. (1998). The effect of emigration on human capital formation. *Journal of Population Economics*, 11, pp. 589–600.

Wong, K. and Yip, C. (1999). Education, economic growth, and brain drain. *Journal of Economic Dynamics and Control*, 23, pp. 699–726.

Zimmermann, K.F. (2005) *European Migration: What do we know?* Oxford/New York:Oxford University Press.

PART II
CHANGING GLOBAL
COMPETITIVE BUSINESS
ENVIRONMENT – THEORY AND
PRACTICE

CHAPTER 6

Marco Galdiolo

University of Trieste, Economy Department, Trieste, Italy

EVOLUTION OF THE ECONOMIC SYSTEM OF THE EU

ABSTRACT

The current European economic environment and regulations of B3, applied with the recent asset quality review of the European Central Bank, require a reconsideration of the EU banking and lending models. Banking systems operating in economic contexts "market - oriented", in which firms cover the sources of funding through the intermediation of financial markets, have suffered less the decay of the assets.

The analyzes conducted show that the investment funds (increased by 27% in two years in the EU), are an effective and efficient ways to diversify the flow of savings to companies issuers of financial instruments. In a situation of limited prospective in the traditional lending offered by banking institutions (the stock of corporate loan decrease in UE from 4.76 trillions of euro in November 2011 to 4.28 trillions of euro in November 2014; source ECB), credit funds (in the US about 80% of corporate loans and to households is now intermediated by credit funds) represent, potentially, an efficient instruments of access, for companies, to alternative forms of financing than traditional banking loan and an efficient instruments of diversifying the savings from another point of view.

Keywords: European banking system, credit funds, asset quality review, asset management, credit capacity, mini bond

JEL classification: G21

1. INTRODUCTION

The current European economic environment and regulations of Basel 3, applied with the recent asset quality review (AQR) of the European

Central Bank (ECB), require a reconsideration of the EU banking models.

2. BANKING MODELS IN THE COMPETITIVE ENVIRONMENT OF THE EUROPEAN UNION

Traditionally the banks operating in European continent have adopted (and still take) a business model banking - oriented, with the relationship based on funding directly the economic and productive system through the forms of bank credit, typically supported by forms of collateral and real estate, considering only marginally, the effective lending capacity of long-term business; then considering marginally effective sustainability of income flows and prospective cash of corporate borrowers.

This approach has amplified the degeneration of bank assets to the status of non-performing loans, with consequent impacts on the economic perspective of the banks whose characteristic margin (gross income) is eroded not only by the decline, partly physiological, of the margin of interest related to the business cycle recession and the highly expansionary monetary policies adopted by the ECB, but also by the impacts of non-performing loans on the profit margins of banks.

This critical issues is occur above all in those banking systems classified as "banking - oriented"¹ in which there is a strong link between the lending banks and companies that have financed, de facto, moved the business risk to the banking system with the consequences described above.

By contrast, the economic systems in which the search for sources of business financing occurs predominantly using the intermediation of financial markets (systems market - oriented) have suffered in this way lower improper transfer of risk and banks operating in such systems reported a higher performance of banking assets, certified by the recent AQR conducted by the ECB that has awarded on average, in terms of capital requirements, those models more oriented to the financial

¹ "(...) there are two prevalent alternative financial systems, one oriented preferentially to the banks and one market-oriented; while in the first banks exert a fundamental role in meeting the needs of consumers and businesses, in the second banks are surrogate and limited by the financial markets, where they meet directly supply and demand of funds, outside of the banking system and without specific needs of institutional brokerage" M. Pines "Integrazione dei sistemi ed assetto della banca moderna" Cedam 2003)

markets (where the assets of financial statements of banks have a significant component in financial assets) with a mean ratio "Rwa / total assets" of 33% against a value of the ratio of 50% for those banking systems more oriented to the traditional credit relationship of system banking - oriented, where the assets of the banking balance sheet have a significant component in the direct lending business to customers); such circumstances, detailed in table nr. 2 below highlight the inevitable impacts prospective on the ability for these banking systems to continue to support, otherwise the weakness of capital requirements, the economic system with the funding arrangements historically adopted.

The AQR recent conduct has involved a total of 130 European banks, corresponding to a total asset of nearly 22 trillion of euro:

Table 1 Sample of EU banks involved in the asset quality review conducted by the ECB

Country	Number of Banks	Total asset	%
France	13	6.714	30,5
Germany	25	4.571	20,8
Spain	15	3.115	14,2
Italy	15	2.277	9,8
Holland	7	752	3,4
Belgium	6	605	2,8
Ireland	5	488	2,2
Austria	6	420	1,9
Others Countries	38	3.041	14,0
Total	130	21.983	100,00

Data in billions of euro

The results of the review, through the analysis of ratios RWA / total assets determined on aggregate values for each country of the EU, have shown that there are deep differences between the different business models of European banking systems, rewarding, in terms of lower risk-weighted assets (RWA) compared with the values of total assets on the balance sheet, banking systems characterized by greater diversification of income from financial instruments listed on regulated markets, that is, the banking models that show a confirmation of the assets closer to

economic systems type of market - oriented (just compare the data of the German and French banking systems, in which in the active balance sheet the weight of financial assets is certainly higher than in the balance sheets of the banking systems Italian and Spanish) as shown in the table below proposal (source of data processing Prometeia on data ECB):

Table 2 RWA calculated with the asset quality review by ECB

Country	Total asset	RWA	RWA / Total asset
France	6.714	2.340	35%
Germany	4.571	1.413	31%
Spain	3.115	1.554	50%
Italy	2.277	1.178	52%
Holland	752	673	31%
Belgium	605	221	29%
Ireland	488	211	35%
Austria	420	276	57%

Data in billions of euro

This reclassification of bank assets held by the ECB, inevitably, in order to maintain the appropriate capital requirements, will involve:

- the incentive for the adoption of a systematic banking models more oriented to the type market - oriented in order to optimize the asset and liability management of the bank,
- encouraging, therefore, the economic systems of the European Union to increase the diversification of sources of financing on the capital markets that receive in this way incremental cash flows,
- with the consequence, in order to reduce the cost of access to these markets for funding, which will be favored the growth in size of economic operators,
- generating, with these trends, a possible reclassification of the sources of income (gross income) of the banking systems, encouraging, ie, greater diversification in commissions from services offered to the economic system, to facilitate its access to the capital market, in the predictable lower incidence contextual perspective in the interest margin (which appears, however,

limited by the current structure of the curve spot and forward interest rates in the euro area and from expansive monetary policies adopted by the ECB).

These statements are also highlighted by the measurement of average common equity tier one recorded on individual banking systems in the country before the activity of AQR, which shows a more robust balance sheet in systems with higher content market -oriented and therefore a greater capacity to develop perspectly the credit function in these economies, though, it should be noted, these values are affected by government intervention to support individual banking systems, which it's recorded in some countries and that, therefore, make the comparison not fully homogeneous from the point of view of comparative efficiency of the different EU banking systems

Table 3 Cet 1 ratio and indication of state aid divided on individual banking systems of the EU

Country	Cet 1 ratio	State aid 2008 – 2012 to the financial sector (data in billion of euro)	
		Recapitalization	Asset Relief
France	17,4%	25	1
Germany	13,4%	64	80
Spain	10,7%	60	28
Italy	9,4%	6	0
Holland	23,5%	19	5
Belgium	16,3%	23	17
Ireland	13,4%	63	3
Austria	12,7%	9	1

Source: European Commission: State Aid Scoreband 2013 – Aid in the context of the financial and the economic crisis.

3. MUTUAL FUNDS (ASSET MANAGEMENT) AND IMPACTS ON CROATIAN ECONOMIC SYSTEM

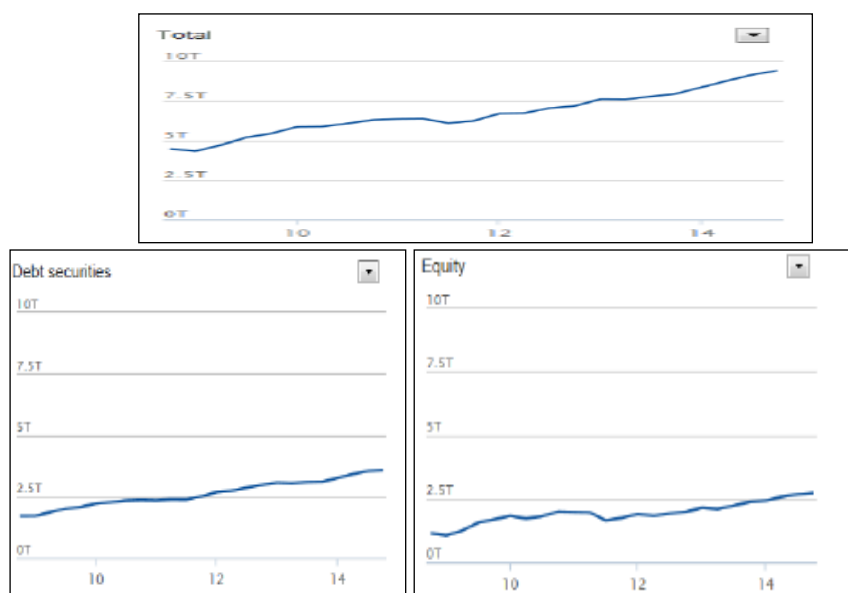
The points made above, and therefore the probable diversification perspective of the sources of financing through the intermediation of regulated financial markets, mean that enterprises have, in hypothesis of

evolution not recessionary of the economic cycles, to find alternative sources of funding in traditional bank credit, which inevitably will be reduced (even for the poor quality of mortgages acquired, related to elevated pro-cyclical nature of real estate values compared with the evolution of the economic cycle expected).

The mutual funds, and in particular those diversified in corporate bonds, are an effective answer to drive savings of families into business issuers bonds (so to businesses seeking a diversification of funding sources by accessing markets capital and then in ways typical of the economic market – oriented). The mutual funds, at the same time, represent an appropriate way to sustain and diversify the profit margins of banks, through their contributions to the growth in commissions from service (typical of financial advice provided to the operator family, holder of savings) needed to balance the inevitable reduction of interest margin.

The evolution recorded in the EU market in asset management (+ 11% annual growth from 2012 to 2013) shows that there is an ongoing trend of reallocation of the forms of savings into financial instruments traded on the capital markets and that this generates flows financing (additional or replacement) in favor of the enterprise, alternative than traditional forms of bank financing: that is an ongoing process of development on European economic models towards more market – oriented

Figure 1 Evolution in the Euro Area of stock of asset in investment funds



Source: ECB

Wanting to quantify this type of probable evolutionary trend in the Croatian capital market, was determined the average incidence of the stock of asset management of the EU than the EU's GDP and has been hypothesized that this ratio to be valid, prospectively, also for the Croatian economy. Comparing the current ratio "assets under management / GDP" of the country with that well simulated, we can say that, potentially, the Croatian economy has margins of development of the asset management industry in quantifiable in 160 billion euro over the assets under management currently in place, analyzing only the bond diversification of investment funds (see table calculation below).

Table 4 Estimates of growth in investment in bonds in the asset management Croatian funds

	<i>Current picture of asset management</i>	
	UE	Croatia
a) total asset under management	9,42	9,63
b) total bond / loan under management	3,58	6,54
c) GDP	2,42	43,59
a/ c	3,89	0,22
b / a	0,38	0,68
b / c	1,48	0,15

trillion of euro billion euro
(Source: ECB 2014) (Source: CNB 2013)

Table 5 Structure asset management Croatian assuming adoption of the EU average without change in GDP

	Values assumed	Difference with current picture
a) total asset under management	169,68	160,05
b) total bond / loan under management	64,49	57,95
c) GDP	43,59	

billion euro

This increase in assets under management (in the bond financial instruments) in the Country could, therefore, generate additional funding flows for companies, intermediated - through asset management instruments diversified on corporate bonds - on the capital markets, and then generate the development of forms of financing to companies typically market -oriented (the most prevalent form are corporate bonds) even, potentially, to 57,95 billion euro (this calculation was developed assuming: (1) an evolution of the Croatian asset management sector in line with what has been shown on average in EU markets in terms of value for asset management / GDP, in order to determine the potential incremental value developable in assets management by the Croatian economy; (2) assuming that the incidence of the corporate mutual funds

in the Croatian economy is equal to the weight that these types of investment funds have at Community level, in order to determine the amount of potential new funding flows available for the Croatian economy.

It's possible, at this point of the analysis, also determine an estimate of the potential impact on the Croatian GDP arising from potential major funding flows to the production system of the country, by applying a factor of credit multiplier estimated prudentially at 1,66²; so we can say that a structure of asset management in line with EU standards, could generate, in the long term, a potential impact on the country's GDP growth estimated at 96,19 billion of euro.

4. CREDIT FUNDS

Compared with the arguments expressed above, it should be also add a further consideration of efficiency, represented by the fact that institutional investors operating in the asset management market shall, in portfolio choices, approaches to financial analysis, aimed at determining the sustainability of the credit capacity of borrowers (through the purchase of corporate bonds) and then analyzes designed to evaluate and select those companies that, from the analysis of cash flows, through the use of discounted cash flow model, have the greatest chance of financial reliability, with an approach, therefore, quite different from that traditionally adopted by banks operating in the systems banking – oriented, where, historically, the valuation of real estate collateral has mistakenly been the main evaluation adopted in the activities of lending.

The trend for firms, then, to make their income flows sustainable (and thus the tendency to have a correct management of economic and financial aspects of the business - relevant to assume a sustainable reversal of the current recessive economic cycle) appears further enhanced by the growth, between the mutual funds family, of the new type called credit funds now established in the Anglo-Saxon markets (in

² The econometric estimation not conservative calculated of this indicator is 3.32. See Marco Galdiolo in "Accession of Bosnia & Herzegovina at economic system of European Union: impacts on the structure of interest rates, on competitiveness and growth prospects of GDP" at 3rd International Conference Economic System of European Union and Accession of the Bosnia & Herzegovina September 17-18, 2014 Vitez – Bosnia & Herzegovina

the US about 80% of credit to businesses and households is now intermediated by credit funds).

The credit funds adopt portfolio strategies similar to mutual funds on the liability side of the balance sheet (customer deposits), while they manage the assets of the funds not only through financial instruments traded on regulated markets (typically the type corporate bonds) but, above all, by providing long-term loans to businesses and households (for this reason the credit funds are configured in the type of closed-end funds) either directly or through securitization and asset backed securities (useful to the banking system to alleviate the inefficiencies of the conformation of the asset in the balance sheet, especially for banks operating in systems banking - oriented).

In a situation of limited (also perspective) dispensing traditional lending by the banking institutions, credit funds represented potentially access tools for businesses to alternative forms of financing to traditional banking (and alternatives to its mutual funds traditional investment) also for companies that, for reasons of size, does not have the ability to access, with the issuance of securities of the type corporate bonds, capital markets (keeping in consideration that in this paper, in the next pages, we'll analyze the mini bonds for companies not large).

The possible development in the economic context of the EU of credit funds will require the evolution perspective of Community legislation, to take in consideration the operation of these institutional investors, defined as entities belonging the shadow banking system, not requiring, however, operational limits to their development (they are nevertheless subject that bring efficiency to the offer of funding sources), but providing, preferably, that the supervision rules that currently governing balance sheet and communication/transparency to the Authority supervisory, are systematically provided for such operators, to make them completely equalized to the banking industry.

5. MINI BOND AND INTERCONNECTIONS WITH MUTUAL FUNDS

The financial instrument called minibond, represents an operational possibility of diversifying sources of financing for companies not large,

already developed in the Scandinavian economies, Germany and launched in Italy.

The objectives of the companies issuing mini bond are³:

- reduce the dependence of the issuer to the bank credit: in this way it reduces the risk of systemic crises, it increases competition among lenders, resulting in possible decrease prospective financing costs paid by firms;
- approach, also informative and cultural issuer to capital markets: this point, closely linked with the previous one, allows companies to access capital potentially more significant, without having to depend too much on a particular category of lenders;
- lengthening of the maturity of the loans payable: the issuance of debt instruments alternative to bank credit should allow an increase in the average duration of the liabilities resulting favourable impact in the balance of asset and liability management required to undertake investment projects in the longer term. It should also be pointed out the possible launch of a virtuous circle that can result in the medium to long term also a decrease in the cost of bank debt. It appears important to stress that the use of debt instruments alternative to bank credit does not necessarily mean the elimination of the latter. Indeed, the banks, in addition to look a reduction the risk associated with failure to return the capital loaned from a greater balance between investment and finance in the medium to long-term borrowing companies, would be in a new position of competing with "new" lenders resulting probable reduction in financing costs for businesses;
- the approach of economic operators to capital markets could facilitate reorganization of the forms of corporate governance to organizational modern and transparent, and therefore more attractive for investors looking for investments in venture capital type of private equity;
- the development forms of financing intermediated by regulated financial markets, also highlights the opportunities that will generate an improvement in the relationship between enterprises and financed lending banks: from a financing relationship could,

³ "L'evoluzione dell'asset management durante la crisi: lesson learnt" Giancarlo Giudici e Fabio Marchetto

so, shift focus more on advanced consulting in financial (as arranger and advisory). The transition from one model bank - centric to a model market-centric, encouraged by the development of a range of mini bonds, would enable banks to change the balance between the sources of profit: less dependence on lower interest margins and increased forms of income-related, mainly, to the provision of financing services. The new relationship between banks and enterprises become thus less connected to external factors (such as the trend of interest rates) and probably more stable over time, characterized by long-term partnership;

- transfer of resources from asset management to businesses: the allocation of the savings generated in enterprises would be an improvement of the local economic system, thanks to a higher and more constant relationship between finance and investment.

The issuance of minibond is typically aimed at supporting an investment project's long-term issuer, potentially able to change its profile and positioning in the market.

Enterprises that plan development plans, but that, however, does not have the funds required for their implementation (also in line with the reduction of bank credit in recent years and the expected development in the coming years is not a robust credit activities in systems banking - oriented, arising from the need to ensure adequate levels of balance sheet in banks as shown in the recent experience of the asset quality review carried out by the ECB), may issue mini bonds with the aim of finding the desired resources. Potential investors, on the other hand, judged themselves the project as well as the characteristics of the financial instrument and decide whether or not to invest in the company issuing the title, so offering, indirectly, a judgment feasibility of undertaking projects that want to be funded with this bond instrument.

REFERENCES

Galdiolo M. (2014), *Accession of Bosna & Herzegovina At Economic System of European Union: Impacts on the Structure of Interest Rates, on Competitiveness and Growth Prospects of GDP*, 3rd International Conference Economic System of European Union and Accession of the

Bosnia & Herzegovina September 17-18, 2014 Vitez – Bosnia & Herzegovina

Giudici G., Marchetto F. (2013), *L'evoluzione dell'asset management durante la crisi: Lesson Learnt*

Pines M. (2003), *Integrazione dei sistemi ed asseto della banca moderna*, Cedam

CHAPTER 7

Dunja Škalamera-Alilović

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Mira Dimitrić

University of Rijeka, Faculty of Economics, Rijeka, Croatia

OVER-INDEBTEDNESS MANAGEMENT IN THE EUROPEAN UNION: COMPETITIVENESS OF NATIONAL BUSINESS ENVIRONMENTS IN ENFORCING CONTRACTS¹

ABSTRACT

Over-indebtedness is a permanent companion phenomenon to insolvency, and is often argued to be its main cause, although certainly not the only one. The value of unsettled liabilities has been steadily rising in the past decade, increasing to a large extent the number of businesses that can be labeled as over-indebted. The legal business environment framework is considered to have an important facilitating/limiting role in treating the problems arising from businesses' over-indebtedness. The efficiency of the judicial system in resolving a commercial dispute is regarded as an essential part of such framework.

The goal of this paper is to detect the most reformative national economies in the European Union in regards to business over-indebtedness management. This includes the assessment of each country's time frame, cost levels and procedural burden imposed on businesses when enforcing contracts through courts. This should reveal the features of a business environment which would serve as a platform for finding better indebtedness management possibilities.

The methodology entails using the World Bank data on the efficiency in settling commercial disputes across all EU national economies in the

¹ * This work has been supported by the Croatian Science Foundation under the project 6558 Business and Personal Insolvency – the Ways to Overcome Excessive Indebtedness and by the University of Rijeka under the project: Approaches and Methods of Cost and Management Accounting in Croatian Public Sector (No. 13.02.1.2.09).

period of 12 years. The scoring system is developed and applied to the data. The indicators cover: time, expressed in days needed to resolve a commercial sale dispute through court; attorney, court, and enforcement costs, as percentage of the claim value; and the number of steps to file a claim, obtain and enforce court rulings.

Consequently, the countries are ranked according to the intensity of their reformative efforts in the field of over-indebtedness management, aimed at improving the practice in enforcing sale contracts in the researched period. The features of the highest ranking countries are analyzed, in order to determine the best practices in facilitating the role of such frameworks.

Key words: insolvency, business environment, enforcing contracts

JEL classification: P47, P52, G33

1. INTRODUCTION

Economic and social outcomes in each national economy are largely influenced by the conditions within the business environment in which the companies operate. The political and legal business environment sector is defined by the shifts and changes in the regulation and in institutions set by the governments as a framework for business activity. Today entrepreneurial economy is regarded as a means of solving both growth and unemployment issues in modern societies. Therefore, an attractive political-legal business environment sector enhances and does not constrain entrepreneurial activity. This research applies such a business environment approach to the political-legal segment in dealing with the ever-growing problem of over-indebtedness and insolvency of business entities. One of the principle causes of this problem is the weak enforcement of contractual rights. This is especially true in times of financial and economic crisis when debtors are more likely to become insolvent. Namely, weak enforcement leads to late payments, causing liquidity problems, enhancing insolvency and increasing unemployment. This is the time when efficient court actions in enforcing contracts are most needed. Possible synergy of different government-driven reforms and improvements in enforcing contracts management is elaborated in this research.

This paper focuses on a comparative analysis of the enforcing contracts indicators of EU countries during the last decade (2003-2014). The goal of the paper is to investigate whether the conditions for enforcing contracts in researched economies have evolved i.e. became stimulating rather than constraining.

The methodology used in the paper is based on the interpretation of secondary data collected by the World Bank in their Doing Business project. The results for 28 EU countries are gathered, presented and reinterpreted in search of reformative practices in treating contract enforcement in Europe.

2. BACKGROUND

The turmoil of recent global crisis and continuation of slow growth in the EU area reinforces the crucial role of smooth contractual relationships for the survival of many businesses. Freedom of contract should not be compromised because it promotes efficiency of resource allocation, maximization of individual welfare, and efficiency in the marketplace (Edwards, 2009). Yet, even high levels of freedom of contract can become irrelevant if the mechanisms for resolving commercial disputes are not effective. This occurs because businesses perceive such environments as the ones where complying to contractual obligations is not the norm (Ramello and Voigt, 2012).

Obvious relevance of efficient contract enforcement in the past decade can be supported by the data indicating a substantial increase in commercial courts workload. This phenomenon is documented in many countries worldwide: Iceland, New Zealand, Ukraine, United Kingdom, Ireland, Denmark, United States, China, Montenegro and Serbia. Increase in the number of commercial court cases ranges from 10 to 300 percent (World Bank, 2010).

There is strong evidence that efficient contract enforcement is an integral part of a healthy economy (Ramello and Voigt, 2012); it makes the business environment more attractive (Esposito et al., 2014); and it enhances growth of GDP (Djankov et al., 2008). Entrepreneurial economy, as a desirable framework, is also strongly dependent on judicial efficiency in enforcing contracts. The link has been established between entrepreneurship rates and the efficiency of the judicial system (Ardagna and Lusardi, 2008). The latest research (Ippoliti et.al, 2015)

confirms that judicial efficiency is a relevant factor in explaining entrepreneurship also when accounting for a set of various country-specific characteristics regarding not only the legal environment, but also the conditions in the political, economic, and social environment. Specifically, results show how the quality in solving dispute affects the nascent entrepreneur's perception of the reliability in enforcing contracts and the easiness in accessing credit. There is also evidence of contract enforcement impact on various stages of a business's life cycle: particularly its inception and growth. Garcia-Posada and Mora-Sanguinetti (2014) find that higher judicial efficiency increases the entry rate of firms and self-employed entrepreneurs. The firm size is also correlated with the quality of the judicial system. Firms tend to have weaker incentives to invest and hire if contract enforcement is uncertain (Kumar et.al, 2001, Beck et.al, 2006, Laeven and Woodruff, 2007). Giacomelli and Manon (2013) estimated that halving the time of contract enforcement in Italy would increase the average firm size by 8-12%. Dougherty (2013) confirmed the link between judicial quality and the firm size in different states of Mexico. Firms in states with higher judicial quality tend to be substantially larger than those in others, and this result is robust to a variety of alternative measures of firm size.

Many studies show the interconnection between enforcing contracts and various aspects of external business financing. A study on Eastern EU countries (Safavian and Sharma, 2012) found that firms tend to have less bank financing for new investments in economies with slower courts. Increased bank lending can be expected only if contracts can be enforced before the courts. More specifically, if the contracts are poorly enforced, banks tend to reduce loan amounts, shortening of loan maturities and increase loan spreads (Bae and Goyal, 2009). Laeven and Majnoni (2005) also found that judicial efficiency is one of the main drivers of interest rate spreads across countries and that weak contract enforcement has a detrimental impact on the depth of mortgage markets. They suggest that improvements in judicial enforcement of debt contracts are critical to lowering the cost of financial intermediation for businesses. Jappelli et.al (2005) confirmed that such improvements should reduce credit constraints and increase lending.

Several studies confirmed beneficial effects of efficient contract enforcement on the development of favourable international trade and production patterns. Berkowitz et al. (2006) established a positive link

between stronger institutions of contract enforcement and more complex exports and less sophisticated imports. Simplification of contract enforcement in Asia and the Pacific was associated with higher international trade (Duval and Utotham, 2009). Countries' global competitiveness is influenced by the quality of contract enforcement: evidence shows (Nunn, 2007) that better performers tend to produce and export more customized products. When courts are efficient, new technologies are adopted faster (Cooley et.al, 2004). Foreign direct investment (FDI) is the next phenomenon associated with the quality of national enforcing contract management. Bénassy-Quéré et al. (2007) confirmed the positive correlation between inward FDI and the quality of legal institutions. More recently, Ahlquist and Prakash (2010) analyzed 98 developing economies and related lower cost of contract enforcement in debt collection with greater FDI.

Finally, there is considerable evidence that better contract enforcement management leads to a reduction in the size of the informal sector in an economy. This is especially important for less developed EU countries where the burden of unofficial business operations is significant (e.g. Croatia) (Bejaković, 2004). In a study on Mexican microenterprises, Nugent and Sukiassyan (2009) found that if judicial efficiency is sufficiently low, the institutional formality will increase with the efficiency of judicial enforcement. Another study on a sample of 41 developing countries found that for each 10% improvement in the efficiency of commercial dispute resolution, the informal sector's share in overall economic activity falls by 2,3% (Dabla-Norris et al., 2008). Evidence from 27 transitional countries (out of which 11 EU member states), confirmed that the share of unofficial business operations in a country's total economic activity decreases with better quality of contract enforcement. This holds true according to two different measures of contract enforcement quality: the more general one - country-wide measure of rule of law, and the more specific one – the firm's perception of the fairness of courts (Dabla-Norris and Inchauste, 2008).

The lack of efficient contract enforcement through courts may not be an obstacle to economic development, but it is certain that the weak rule of law implies other important costs in holistic conception of development (e.g. detrimental effects on the various personal freedoms) (Trebilcock and Leng, 2006).

According to Djankov et al. (2003), the level of efficiency of enforcing contracts can be observed through three broad theories. Institutional or “development” theory holds that more developed countries with more educated people are expected to have more efficient courts. The rationale behind this preposition is that setting up institutions is a costly procedure. Namely more developed countries bear the cost easily, and an educated population itself raises the efficiency and the demand for judicial services. They find partial evidence for this theory: development hypothesis is supported, but the educational is not. The second, the incentives theory holds that weak or wrong incentives of judges, lawyers, defendants and other participants in enforcing contracts procedures cause lower judicial efficiency. The third theory, accepted as the theoretical background of the World Bank measurement of enforcing contract efficiency is procedural formalism. Performance of courts is determined by how the law regulates their operation. Formalism varies systematically among legal origins: civil law countries generally regulate dispute resolutions more heavily than do common law countries. In Djankov et al. (2003) empirical study, 40 percent of the formalism variation is explained by legal origins. Higher procedural formalism also predicts longer duration of dispute resolution, lower enforceability of contracts, higher corruption, lower honesty, consistency and fairness of the system.

Therefore, in order to enhance its economic performance, each country’s policy makers should engage in judicial reforms aimed at improving enforcing contracts efficiency. Reducing the procedural formalism of courts seems to be the theoretically underpinned and empirically confirmed way of upgrading the quality level of enforcing contracts management and, more broadly, the quality level of national business environment.

3. METHODOLOGY

Measuring the efficiency of the judicial system on a large scale started with the inception of the World Bank project Doing Business in 2004. The methodology adopted by the World Bank is based on the research previously conducted by a team led by Simeon Djankov, WB chief economist at the time (Djankov et.al, 2003). The project continued on a yearly basis with the 12th edition issued in 2014. The report evolved in sense of scope (number of indicators rose from 24 to 36), and

geographical coverage (number of economies rose from 132 to 189). From the very beginning, it dealt with judicial efficiency as a prerequisite of the ease of doing business and the indicators covering enforcing contracts have not changed since the 2005 issue.

Measures that capture court efficiency and its level of procedural formalism in resolving a commercial dispute are: time, cost and number of procedures needed. The time measure refers to the number of days it takes to resolve a dispute from the moment of filing the lawsuit until payment. The time period can be subdivided in three stages: service of process, trial and judgment, and enforcement of the judgment (recovery of the claim). The number of procedures measure refers to the total number of procedural steps needed to go through all of the three mentioned stages. The cost measure entails three groups of costs: attorney fees, court costs and enforcement costs, all expressed as a percentage of the claim (WB, 2015).

There are numerous limitations of the WB methodology (largest city approach, number of respondents/ experts per country² single case approach³), but will not be elaborated in further detail. Namely, the WB time series data is the largest dataset available on this research subject and its consistency in time gives valuable insights in enforcing contracts management dynamics worldwide. However, one limitation is worth pointing out: perfect information assumption. The WB methodology assumes that a business has full information on what is required in enforcing contracts. This implies that a business does not waste any time or money when completing procedures. Since this is not the case in real world (bounded/ procedural rationality assumption⁴), we believe that time and cost indicators are consistently underestimated.

For the purpose of this paper, which is to study the dynamics of the reforms of enforcing contracts management in EU countries, the

² In 60% of the countries, the number of respondents is up to 5 – relatively small sample.

³ Standardised case scenario refers to a specific set of issues and may not represent the full set of issues important for a business.

⁴ Concept of bounded rationality has been developed by Herbert Simon in his famous work: *Administrative behaviour*, first published in 1947 (1997). He argued that no maximizing behaviour is an inevitable consequence of limited possibilities of human mind. Later academics labelled such concept as procedural rationality, today both perceived as being synonymous (Lavoie, 1992). Procedural rationality means that in solving any problem there is a gap between suitable quantity of information and quantity of information that can be processed efficiently. Reasons are twofold: lack of information and intellectual capabilities of an actor.

mentioned three indicators will be taken into consideration. The scoring methodology is developed based on the evaluation of the rate and direction of changes in the studied indicators. The relative change is scored from 0-5, 0 meaning no change in indicator in comparison to the previous year's results. Scores from 1-5 are assigned as follows: 1 – a change in range from +0 – 20%; 2 – 21 – 40%; 3 – 41 – 60%; 4 – 61 – 80% and score 5 – for a change in range from 81 – 100% and more. The positive or negative scores denote the direction of change i.e. whether the changes are more stimulating or more constraining in regard to enforcing contracts management. Indicators are aggregated and the final reform score is obtained by adding up single indicator scores.

There are two main limitations of this approach. First, the scoring scale is discrete and therefore does not allow for fine-tune differences, e.g. a 20% change scores 1 while a 21% change scores 2. Second, all single indicators are given the same importance, which also limits the in-depth understanding of the researched topic, especially bearing in mind that the second indicator entails (to a certain extent) the effect of the first indicator.

4. RESULTS AND DISCUSSION

The results that follow try to capture both the quantitative and the qualitative dimension of the reforms being implemented with regards to enforcing contracts in EU countries. The quantitative measure takes into account the number of reforms a country has introduced in the field of national enforcing contracts management in the period of eleven consecutive years and is presented in Table 1. The quantity of reformative efforts of EU countries is compared to the total number of reformative efforts worldwide during each year in question. The EU countries that reformed in a particular year are listed.

Table 1 Reformative efforts in enforcing contracts

Year	No. of reformed countries (world)	No. of reformed countries (EU)	Reformed countries (EU)
2004	16	6	Bulgaria, Finland, Germany, Lithuania, Portugal, Slovakia
2005	14	6	Czech Republic, Germany, Latvia, Poland, Romania, Slovenia
2006	18	6	Croatia, Denmark, Estonia, France, Italy, Slovakia
2007	14	3	Bulgaria, Poland, Portugal
2008	12	5	Austria, Belgium, Bulgaria, Portugal, Romania
2009	15	1	Portugal
2010	13	1	United Kingdom
2011	11	0	
2012	11	2	Poland, Slovakia
2013	13	5	Croatia, Czech Republic, Estonia, Italy, Romania
2014	15	5	Czech Republic, Greece, Ireland, Lithuania, Portugal
Total	152	40	

Source: Author's calculations, based on World Bank (2004-2015)

The data presented in Table 1 indicates that the share of EU reforms in all reforms in the world varies from 0% (2011) to 43% (2005), and is in average 26%. The largest number of reformative efforts both: worldwide (18) and EU (6) is detected in 2006.

In the past eleven years, five countries have introduced three reforms (Bulgaria, Czech Republic, Poland, Romania, and Slovakia) six countries two (Bulgaria, Croatia, Estonia, Germany, Italy, and Lithuania), and ten countries one reform (Austria, Belgium, Denmark, Finland, France, Greece, Ireland, Latvia, Slovenia and United Kingdom). The country with the largest number of reforms (five) is Portugal. There are seven EU countries that have not introduced any enforcing contracts

reforms in this period (Hungary, Netherlands, Spain, Sweden, and three countries were observed during a shorter period: Cyprus, Luxembourg and Malta).

The size and scope of reforms varied a lot, from completely re-regulating civil proceedings (including contract enforcing) by passing a new law (Portugal) to many partial changes in different segments of enforcing contracts regulation. Referring to the previously mentioned three stages of a commercial dispute process, it is needed to turn to the analysis of the reforms conducted in the EU during the observed period.

The first stage includes filing and administration of court cases. The most common feature of the reforms in this segment is the implementation of ICT supported systems for filing and tracking cases during trial. These reforms were introduced in seven countries (Bulgaria, Germany, Finland in 2004, Austria in 2008, UK in 2010 and Greece in 2014).

The second stage (trial and judgment) was the main domain of reformative efforts. There are in total sixteen attempts to improve procedural efficiency at main trial court by streamlining the litigation process. Reformative activities were all directed towards simplifying and speeding up legal procedures. This was done in many different ways. The most popular include: introducing procedural deadlines and sanctions for non-complying judges (Poland - twice, Slovakia, Bulgaria, Belgium), changing monetary jurisdictions (Portugal - twice, Ireland, Czech Republic), streamlining the appeal process (Bulgaria, Romania, Slovakia, Estonia, Finland, Lithuania), and simple case management – by summary proceedings (Portugal) and by transferring cases from judges to court clerks (Germany, Slovakia). Several countries modified procedural rules: in general (France) or specifically (Italy and Slovenia - reduced hearings, Bulgaria – introduced stricter treatment of incomplete filings, Finland and Lithuania – flexible rules for presenting evidence, Slovakia and Slovenia – case management by one judge, and Belgium – expediting experts' reports by court control over their payment). Poland appointed additional personnel (judges and bailiffs) in order to cope with backlogs and in attempt to improve time dimension of efficiency.

The final stage of contract enforcement dispute is the execution of the judgment, including collection. The most common feature observed is

the transition of these activities from public (e.g. courts) to private sector (e.g. entrusted executors, private/ competitive bailiffs), or from higher (e.g. judge) to lower legal level (notary public).

In this problem area, eleven reforms were implemented in nine countries (Poland and Croatia – twice, Denmark, France, Slovakia, Bulgaria, Romania, Portugal and Czech Republic).

There were two direct attempts to reduce the cost dimension of efficiency of enforcing contracts: Estonia cut court fees and Italy put a ceiling on attorney fees.

Empirical evidence previously mentioned indicated interdependence between procedural formalism and corruption, honesty, consistency and fairness of the system (Djankov et.al, 2003). This line of reasoning was also transferred into reformative efforts of three countries. In 2007, Bulgaria introduced random allocation of cases, doubled judges' salaries, and made the selection and appointment of judges transparent. In the same year, Poland introduced sanctions for lawyers and parties who present false facts, and restricted counter claims. This shortened time for obtaining judgment from 730 to 580 days. In 2012, Slovakia amended its civil procedure code to limit obstructive tactics by the parties to a case.

Looking at the vast number and the wide scope of reformative efforts, it is legitimate to infer that the intention of reformers was to reduce procedural formalism therefore increase the efficiency of enforcing contracts and boost the economy. The data that was analyzed and the results that will be presented do not support such reasoning and expectation.

In Appendix 1, the start and end values of indicators in the time series are presented. Negative and positive changes are highlighted. The data presented indicate that EU countries did not improve the framework of enforcing contracts. On the contrary, the data show significant deterioration of evaluating indicators of national enforcement contracts management features. The number of procedures increased by 50% (in average from 22 to 32 procedures), time to enforce contracts increased by 69% (from 340 to 576 days) and cost of enforcing contracts increased by 65% (from 13 to 22% of the claim).

A downturn of judicial efficiency is further evident from the fact that out of the total 84 indicators (28 countries times 3 indicators), 72 (86%) worsened. The greatest average decline of the three indicators was recorded for the Netherlands (427%). Ten countries had an average three-digit decline. Eight indicators remained the same, but all for countries later included in the sample, thus with shorter data time series (Cyprus, Luxembourg, and Malta).

Only four indicators improved their value in the observed period. Austria shortened the time needed to enforce contracts by 9% (from 434 to 397 days). The reason for this probably lies in the establishment of e-courts in 2008. Electronic filing became mandatory in the civil courts. All filings from lawyers in civil litigation and enforcement proceedings have since then been going through an electronic data channel operated by the Ministry of Justice. Judgments are delivered by e-mail rather than by the old hard-copy notification process (WB, 2008:51).

Another improvement in contract enforcement time (32% cut) is recorded in Poland. This was the result of four consecutive reforms (one before the time frame of this study). Poland launched an information technology court management system in 2003, then security software in 2007, improving the internal operations of courts over time. The software system facilitates the circulation of documents and allows users to trace the history of the decision stage for particular documents. Within three years (2004-2007) these changes have caused the reduction of 36% in amount of backlog cases. Simultaneously, in 2005 Poland introduced a simpler procedure for small claims. In 2007, it started deregulating the bailiff profession, increasing the number of service providers. That same year, it created its first electronic court, which processes cases and assigns them to judges in only 2-3 weeks on average. Until 2013, this court has already dealt with more than 3 million cases. In 2012, Poland amended its civil procedure code, eliminating separate procedural steps in commercial cases, appointed more judges and bailiffs to the district and regional commercial courts, expanded the role of judges (introduction of evidence) and assistant judges (enforcement), introduced economic incentives for debtors to comply with judgments and allowed new electronic processes (WB, 2013: 92-93). Even though the time benefits of all implemented reforms are more than evident, they have also been very costly. The Polish cost indicator worsened by 123% (from 9 to 19% of the claim). New technology brings along temporal

efficiency, but total cost of ownership of information infrastructure is usually very high (high maintenance cost). Employing new staff certainly added to the long-term cost raise.

The Slovenian cost indicator is the third one that recorded an upgrade. It changed from 16 to 13% of the claim (22% raise). The main reason for such a progress is the establishment of the case management system in 2005, which involved two changes. Judges became responsible for following cases from start to finish rather than sending the parties from one court administrator to another. Next, a preliminary hearing clarifies the nature of the dispute, so that parties came to the main hearing prepared (WB, 2006: 63).

The fourth indicator that improved is the cost of procedure in Portugal that fell from 18 to 14% of the claim (21% improvement). This can be explained by the sequence of five reforms (2004, 2007, 2008, 2009, and 2014). The final, comprehensive reform included the adoption of a new code of civil procedure designed to reduce case backlogs, streamline court procedures, enhance the role of judges and speed up the resolution of standard civil and commercial disputes (WB, 2014:162). By the quantity of the reformative efforts, Portugal can be labeled as the most reformative EU country.

The outcomes of the described reforms in the four countries (Austria, Poland, Slovenia and Portugal) are visible in the dynamic analysis that follows.

Apart from comparing the start and the end results, reformative efforts are analyzed in a consecutive manner (year by year). The scoring methodology was applied to data available in the 12-year time series. Therefore, the scores capture the dynamics of reformative outcomes in the observed period (Appendix 2).

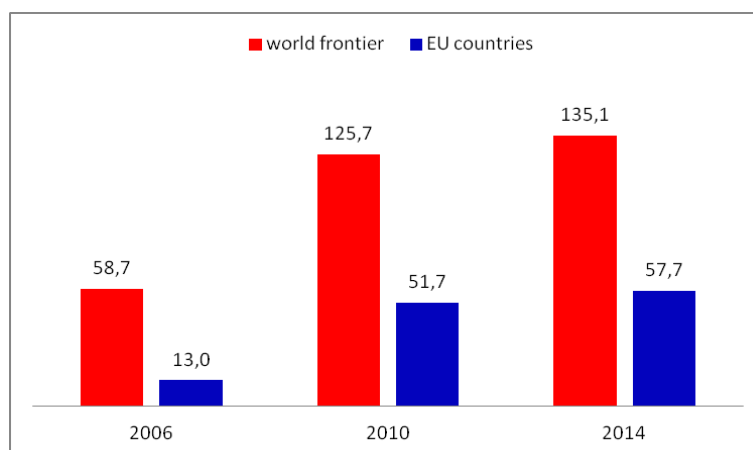
The scoring results clearly show the negative overall outcomes of enforcing contracts reforms in the EU in the past decade. The range of unexpected negative outcomes is surprisingly large. The total negative score sums up the worsening of outcomes to 314 negative points almost equally distributed among procedure, time and cost indicators.

Even the traditional legal origin argument that common law countries are more efficient in enforcing contracts, can be disputed. The United Kingdom is positioned at the very low end of the scale in this research

and shows considerable augmentation of procedural formalism (20 negative points) as measured here. Still, the top reformers described in the previous section – Slovenia, Austria, Poland and Portugal (countries showing improvement in the value of one indicator) are also the ones positioned best in the reformative scores results table (if we do not consider the first three countries – Cyprus, Malta, Luxembourg that were observed during a shorter period of time and are methodologically unsuitable for comparison).

The general assessment that the 28 implemented reforms were unsuccessful can be mitigated by the analysis of the world frontier results. The world leader's indicator values systematically rose during the observed period. The number of procedures rose from 11 to 21, time needed to resolve a commercial dispute was prolonged from 27 to 150 days, and the cost increased from 4 to 9% of the claim. The EU countries followed the world trend – enforcing contracts management is consistently burdened with higher levels of procedural formalism. The relative changes shed positive light on the EU reformative efforts. They are presented in the following figure:

Figure 1 Cumulative negative average changes (in %) of enforcing contracts indicators (2004 – 2014)



Source: Author's calculations, based on World Bank (2004-2015)

The world frontier changes were calculated by averaging the best scores per year regardless of the fact that each score belongs to an individual

country. Incidence of being the world leader is distributed as follows: Korea once, Australia and Norway twice, New Zealand three times, Ireland eight times, Iceland nine times, and Singapore twelve times (Ireland and Singapore shared the leading position four times). Noteworthy is that Singapore (mostly nominated leader) also reformed in 2014 by introducing a new electronic litigation system that streamlines litigation proceedings. EU changes were calculated by averaging the mean changes of indicators of all EU countries.

The results show that the world frontier worsened at more than double the pace of the EU. Measured by the distance to frontier, the EU is actually improving its position. Its reformative efforts may generate limited or no absolute improvements, but can still be regarded as role models when compared to others.

5. CONCLUSION

The goal of this research was to provide empirical support to the presumption that the reforms regarding judicial efficiency in the EU countries during the past decade would have led to a reduction in the level of procedural formalism, which would in turn have raised the efficiency of enforcing contract management and would have had a positive impact on countries' economic performances.

The link among procedural formalism, judicial efficiency and different aspects of performance of national economies is well established in previous research.

The efficiency in enforcing contracts, as a feature of national business environments, is observed by using three indicators: number of procedures needed to enforce contracts, time needed to resolve contract disputes, and the cost, as a percentage of the disputed claim. Observations of 28 EU countries during the period from 2003 to 2014 are subjected to the scoring methodology based on the dynamics of change in order to form partial and total reformative scores for particular countries and to derive other insights.

The common features of enforcing contracts reforms in EU countries in the past decade are: implementation and spread of information technology use in case tracking, jurisprudence and decision making,

streamlining litigation and execution phase of the dispute resolution process, and prevention of court abuse.

Surprisingly, the judicial efficiency that should have been increased through the reduction of procedural formalism is a goal that has not been achieved, despite the numerous reforms that have been undertaken. The presented research gives evidence that EU countries did not improve the framework of enforcing contracts; on the contrary, it shows significant deterioration of the evaluation indicators of the national enforcement contracts management features.

These results point to the conclusion that there is still no model of successful judicial reform, which is in line with the results of the previous, 25 year old comprehensive analysis by Messick (1999). Designing and implementing judicial reforms remains burdened with challenges: care is required and reforms should be preceded by diligent cost-benefit analysis. They should be monitored and their performance measured continuously.

In the absence of better theoretical understanding of the impact of the judicial reforms in the improvement of national business environment, the fact that the distance of EU countries to the world frontier is slightly decreasing can be comforting.

REFERENCES

Ahlquist, J. S. and Prakash, A. (2010), *FDI and the Costs of Contract Enforcement in Developing Countries*, Policy Sciences, Vol. 43 (2), 181-200.

Ardagna, S. and Lusardi, A. (2008), *Explaining International Differences in Entrepreneurship: The Role of Individual Characteristics and Regulatory Constraints*, NBER Working Paper 14012, National Bureau of Economic Research, Cambridge Massachusetts.

Bae, K. and Goyal, V. K. (2009), *Creditor Rights, Enforcement, and Bank Loans*, Journal of Finance, Vol. 64 (2), 823-860.

Beck, T., Demirguc-Kunt, A. and Maksimović, V. (2006), *The influence of financial and legal institutions on firm size*, Journal of Banking and Finance, Vol. 30, 2995–3015.

Bejaković, P. (2004), *The informal economy in Croatia and economic development*, SEER SouthEastEurope Review for Labour and Social Affairs, (3), 69-78. Retrieved from: www.ceeol.com (15-03-2015)

Bénassy-Quéré, A., Coupet, M. and Mayer, T. (2007), *Institutional Determinants of Foreign Direct Investments*, The World Economy, Vol. 30 (5), 764-782.

Berkowitz, D., Moenius, J. and Pistor, K. (2006), *Trade, Law and Product Complexity*, Review of Economics and Statistics, Vol. 88 (2), 363-373.

Cooley, T., Marimon, R. and Quadrini, V. (2004), *Aggregate Consequences of Limited Contract Enforceability*, Journal of Political Economy, Vol. 112 (4), 817-847.

Dabla-Norris, E., Gradstein, M. and Inchauste, G. (2008), *What Causes Firms to Hide Output? The Determinants of Informality*, Journal of Development Economics, Vol. 85 (1), 1-27.

Dabla-Norris, E. and Inchauste, G. (2008), *Informality and Regulations: What Drives the Growth of Firms?*, IMF Staff Papers, Vol. 55 (1), 50-82. Retrieved from: <https://www.imf.org/External/Pubs/FT/staffp/2008/01/pdf/dabla-norris.pdf> (10-04-2015)

Djankov, S., Hart, O., McLiesh, C. and Shleifer, A. (2008), *Debt Enforcement around the World*, Journal of Political Economy, Vol. 116 (December), 1105-1149.

Djankov, S., La Porta, R., Lopez-de-Silanes, F. and Shleifer, A. (2003), *Courts*, The Quarterly Journal of Economics, Vol. 118 (2), 453-517.

Dougherty, S. M. (2013), *Legal Reform, Contract Enforcement and Firm Size in Mexico*, OECD Working Paper 1042. Retrieved from:

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP\(2013\)34&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ECO/WKP(2013)34&docLanguage=En) (06-04-2015)

Duval, Y. and Utoktham, C. (2009), *Behind-the-Border Trade Facilitation in Asia-Pacific: Cost of Trade, Credit Information, Contract Enforcement and Regulatory Coherence*, Working Paper 67, Asia-Pacific Research and Training Network on Trade, Bangkok.

Edwards, C. (2009), *Freedom of Contract and Fundamental Fairness for Individual Parties: The Tug of War Continues*, Faculty Publications, Paper 281. Retrieved from: <http://scholarship.law.marquette.edu/facpub/281> (05-04-2015)

Esposito, G., Lanau, S. and Pompe, S. (2014), *Judicial System Reform in Italy – A Key to Growth*, IMF Working Paper, 32. Retrieved from: <http://www.imf.org/external/pubs/ft/wp/2014/wp1432.pdf> (02-04-2015)

Garcia-Posada, M and Mora-Sanguinetti, J. S. (2014), *Entrepreneurship and Enforcement Institutions: Disaggregated Evidence for Spain*, Banco de Espana Working Paper, No. 1405. Retrieved from: <http://ssrn.com/abstract=2413422> (02-04-2015)

Giacomelli, S., and Menon, C. (2013), *Firm size and judicial efficiency in Italy: evidence from the neighbour's tribunal*, Banka D'Italia working paper. Retrieved from: <http://www.bde.es/investigador/papers/sie1302.pdf> (04-04-2015)

Ippoliti, R., Melcarne, A. and Ramello, G. B. (2015), *The impact of Judicial Efficiency on Entrepreneurial Action: A European Perspective*, Economic Notes, Vol.44 (1), 57-74.

Jappelli, T., Pagano, M. and Bianco, M. (2005), *Courts and Banks: Effects of Judicial Enforcement on Credit Markets*, Journal of Money, Credit, and Banking, Vol. 37 (2), 223-244.

Kumar, K., Raghuram, R. and Zingales, L. (2001), *What determines firm size?*, NBER Working Paper 7208, National Bureau of Economic Research, Cambridge, Massachusetts.

Lavoie, M., (1992), *Foundations of Post-Keynesian Economic Analysis*, Edward Elgar Publishing Ltd., Aldershot.

Leaven, L. and Majnoni, G. (2005), *Does Judicial Efficiency Lower the Cost of Credit?*, Journal of Banking and Finance, Vol. 29 (July), 1791-1812.

Laeven, L. and Woodruff, C. (2007), *The Quality of the Legal System, Firm Ownership and Firm Size*, The Review of Economics and Statistics, Vol. 89 (4), 601–614.

Messick, R. E. (1999), *Judicial Reform and Economic Development: A Survey of the Issues*, The World Bank Research Observer, Vol. 14 (1), 117-136.

Nugent, J. B. and Sukiassyan, G. (2009), *Small Firms and Formality: The Influence of Judicial Efficiency and Regulation Costs*, Review of Industrial Organization, Vol. 34 (4), 349-371.

Nunn, N. (2007), *Relationship Specificity, Incomplete Contracts, and the Pattern of Trade*, Quarterly Journal of Economics, Vol. 122 (2), 569-600.

Ramello, G. and Voigt, S. (2012), *The Economics of Efficiency and the Judicial System*, International Review of Law and Economics, Vol. 32, 1-2.

Safavian, M. and Sharma, S. (2007), *When Do Creditor Rights Work?*, Journal of Comparative Economics, Vol. 35 (3), 484-508.

Simon, H. A. (1997), *Administrative behaviour: a study of decision making processes in administrative organizations*, The Free Press, New York.

Trebilcock, M. and Leng, J. (2006), *The role of formal contract law and enforcement in economic development*, Virginia Law Review, Vol. 92 (7), 1517-1580.

World Bank [WB] (2014), *Doing Business 2015: Going Beyond Efficiency*, The World Bank, Washington DC.

World Bank (2013), *Doing Business 2014: Understanding Regulations for Small and Medium-Size Enterprises*, The World Bank, Washington DC.

World Bank (2013), *Doing Business 2013: Smart regulations for Small and Medium Enterprises*, The World Bank, Washington DC.

World Bank (2012), *Doing Business 2012: Doing Business in a more transparent world*, The World Bank, Washington DC.

World Bank (2010), *Doing Business 2011: Making a Difference for Entrepreneurs*, The World Bank, Washington DC.

World Bank (2009), *Doing Business 2010: Reforming through Difficult Times*, The World Bank, Washington DC.

World Bank (2008), *Doing Business 2009*, The World Bank, Washington DC.

World Bank (2007), *Doing Business 2008*, The World Bank, Washington DC.

World Bank (2006), *Doing Business 2007: How to reform*, The World Bank, Washington DC.

World Bank (2006), *Doing Business in 2006: Creating Jobs*, The World Bank, Washington DC.

World Bank (2005), *Doing Business in 2005: Removing Obstacles to Growth*, The World Bank, Washington DC.

World Bank (2004), *Doing Business in 2004: Understanding Regulation*, The World Bank, Oxford University Press, Washington DC.

Appendix 1 Enforcing contracts indicators (time in days; cost in %)

Country	No. of procedures first	No. of procedures last	Time first	Time last	Cost first	Cost last
Austria	20	25	434	397	9,8	18
Belgium	22	26	365	505	6,2	17,7
Bulgaria	26	38	410	564	14	23,8
Croatia	20	38	330	572	10	13,8
Cyprus*	43	43	735	735	16,4	16,4
Czech Republic	16	27	270	611	9,6	33
Denmark	14	35	83	410	6,6	23,3
Estonia**	25	35	150	425	10,6	21,9
Finland	19	33	240	375	7,2	13,3
France	21	29	210	395	11,7	17,4
Germany	22	31	154	394	10,5	14,4
Greece	15	38	315	1580	12,7	14,4
Hungary	17	34	365	395	8,1	15
Ireland	16	21	183	650	21,1	26,9
Italy	16	37	645	1185	17,6	23,1
Latvia	19	27	189	469	11	23,1
Lithuania	17	31	74	300	14,1	23,6
Luxemboug ***	26	26	321	321	8,8	9,7
Malta****	40	40	505	505	35,9	35,9
Netherlands	21	26	39	514	17	23,9
Poland	18	33	1000	685	8,7	19,4
Portugal	22	34	420	547	17,5	13,8
Romania	28	34	225	512	12,4	28,9
Slovak Republic	26	33	420	545	15	30
Slovenia	22	32	1003	1270	16,3	12,7
Spain	20	40	147	510	14,1	18,5
Sweden	21	31	190	321	5,9	31,2
United Kingdom	12	29	101	437	15,7	39,9
Average Last = 2014	21,6	32,4	340,1	576,0	13,0	21,5
First = 2003 (number of procedures, time); 2004 (cost) for all countries						

except						
*, **, ***, ****						
* first observation 2009						
** first observation 2004						
*** first observation 2007						
**** first observation 2012						

Source: World Bank (2004-2015)

Appendix 2 Enforcing contracts reformative scores

Country	Number of procedures	Time	Cost	Total
Cyprus	0	0	0	0
Malta	0	0	0	0
Luxembourg	0	0	-1	-1
Slovenia	-3	0	1	-2
Austria	-1	1	-5	-5
Poland	-2	3	-6	-5
Portugal	-4	-1	0	-5
Bulgaria	-1	-3	-4	-8
France	-2	-3	-4	-9
Hungary	-5	0	-4	-9
Germany	-3	-5	-3	-11
Italy	-6	-3	-2	-11
Croatia	-5	-5	-2	-12
Slovak Republic	-5	-1	-6	-12
Czech Republic	-3	-3	-7	-13
Ireland	-3	-8	-2	-13
Netherlands	-3	-9	-1	-13
Sweden	-4	-5	-4	-13
Belgium	-2	-4	-8	-14
Greece	-5	-8	-1	-14
Spain	-6	-5	-3	-14
Estonia	-2	-8	-5	-15
Romania	-2	-6	-7	-15
Latvia	-4	-6	-6	-16
Lithuania	-5	-11	-2	-18
United Kingdom	-6	-7	-7	-20
Finland	-5	-3	-14	-22
Denmark	-7	-11	-6	-24
Total	-94	-111	-109	-314

Source: Author's calculations, based on World Bank (2004-2015)

CHAPTER 8

Ljubomir Drakulevski

Ss. Cyril and Methodius University in Skopje, Faculty of Economics –
Skopje, Skopje, Macedonia

Leonid Nakov

Ss. Cyril and Methodius University in Skopje, Faculty of Economics –
Skopje, Skopje, Macedonia

BUSINESS MODEL FOR DIAGNOSING AND CHANGING THE ORGANIZATIONAL CULTURE

ABSTRACT

Contemporary behavioural managerial tendencies lead to analyses of the fundamental organizational cultural values, beliefs, norms, standards, expectations, tendencies, motives etc. of all employees, focus the managers to creating and utilizing a methodological framework for determining the prevailing organizational culture model, on one hand, and manage the necessary changes of the model towards the overall desired organizational objectives, on the other hand. In its fundamentals lies the tendency for an entire professional engagement of all employees, particularly in maintaining an optimal integration between processes and behavioural employee manifestations.

Concept of diagnosing and changing the organizational culture leads to the sources of dissatisfaction with the existing organizational culture, as initial criteria for a successful cultural change, along with the ethical cultural prerogatives of common and shared organizational cultural virtues and customer - related elements. The importance of institutionalization of the changed organizational culture leads to the cultural trust and respect, which contribute to increased team performances, sound behavioural techniques for business cooperation, common organizational culture and utilizing it as an instrument for competitive advantage and sustainable business growth.

Keywords: Ethical cultural diagnosis and change, professional engagement, business culture.

JEL Classification: M14; D0

1. INTRODUCTION

In creating a managerial analyses for evaluating the achieved stage of the inter-dependence between the behavioural and process organizational components, the need for an objective analyses of the existing components of the organizational culture, i.e. values, norms, beliefs, standards, expectations, assumptions, motives, needs etc. is particularly focused on the potential to initiate and implement such changes in the organizational processes that would increase the organizational effectiveness and efficiency. As a model for paying particular attention to the visibility and viability of the organizational cultural potential, *intra-related influence of the basic assumptions, values and embedded artifacts and cultural creations, are assessed on an individual, group/team and organizational level, aimed at establishing an organic, not a mechanistic type of mutual behavioural dependences.*

Each organizational culture creates the real ‘*meaning of our relations*’, in terms that it gives the sense, orientation and importance of the way employees cooperate in a certain organizational environment. Therefore, its collective nature derives from the unified usage of the mutually acquired knowledge and experience and is critical in creating the ‘*shared cultural dimensions*’, which are critical in the way of interpreting the importance of the business events.

2. ENVIRONMENTAL DETERMINANTS TO THE ORGANIZATIONAL CULTURE

In the modern treatment of all the employees within the practice of the Human resource development, the key to managing the behaviour for increased business performances is the *human resource flexibility*. As an integral component of the overall organizational flexibility, it is fundamentally focus to the *potential of the managers to determine and develop such an applicative knowledge and skilled experience, through which the desired changes in the overall organizational culture would be most appropriately implemented and developed.*

Fundamentally, the overall managerial attempt for achieving an external adaptation and internal integration is analyzed within the framework of all the needed employee attributes which contribute to the organizational flexibility on the whole organization, in its attempt most appropriately to benefit from the transformation of the resources and capabilities.

The most important *categorization of the organizational flexibility*, as a pre-condition for every behavioural change, refers to its segmentation on the following *inter-related conceptual components* (Wright and Snell, 1998):

- *Employee skill flexibility* – leading to the *number of potential alternative manifestations if application of managerial and non-managerial skills and capabilities*, with an ultimate objective to create such a variable skills and capabilities that less employees would apply more combinations of performed desired scheme of behavioural capacities,
- *Employee behaviour flexibility* – referring to the *broad distribution of behavioural patterns for applying in various situational contexts*, as the first determinant of the organizational ability to implement various employee behaviours in accordance with the changes which derive mainly from external stimulating conditions, with an ultimate objective of establishing a context oriented behaviour,
- *Human resource flexibility (flexibility in HR practices)* – understood primarily as the *excessive scope for implemented limited number of Human resource practices to practically unlimited number of business situation*. It is the key to creating the ‘*new behavioural value*’ and is critical for profound changes within the organizational culture, with an ultimate objective to increase the employee responsiveness to all significant changes that lead to the strategic positioning of the organization.

The actual integration of the above sub-components of the organizational flexibility imply that if the employees possess higher number of combinations of skills and capabilities which can be used in various situations, and their behavioural manifestations are enough broad for implementing those skills and capabilities, the potential for increasing the applicative usage of the flexibility of the human resources raises. In practice of advanced business entities, it is usually called ‘*the*

first behavioural pathway for achieving sustainable competitive advantage’.

The very organizational culture implies to *unique combination of behavioural elements* which unify the employee business behaviour towards achieving various standards of superior performance, such as the following ones:

- *Guide of employees towards desirable behaviours as well as to develop high performers (Lau & Ngo, 1996)*
- *Pattern of basic assumptions that a given group has invented, discovered or developed in learning to cope with its problems of external adaptation and integral integration, and that have worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems (Schein, 1984)*
- *Diagnostics determination of dominant attributes that can generally be identified through the 4 C conceptual frameworks:*
 - ✓ *Control (hierarchy),*
 - ✓ *Compete (market),*
 - ✓ *Collaborate (clan), and*
 - ✓ *Create (adhocracy), (Cameron & Quinn, 1999).*

It is evident that the organizational cultural model that would be subject to diagnosis and change should possess a clear combination of the above frameworks of the last determination, particularly the potential to develop an *adaptable culture*, as a cultural model that is determined as ‘*characterized by strategic focus on the external environment through flexibility and change to meet customer needs, encouraging entrepreneurial values, norms and beliefs that support the capacity of the organization to detect, interpret and translate signals from the environment into new behaviour responses – it actively creates changes*’ (Daft, 2007). Our analyses would rely to this model of organizational culture, mostly owing to the fact that adaptability culture is often perceived as the most influential to achieving the Human resource flexibility, especially in planning and implementing the cultural changes for competitive advantage.

3. DIAGNOSING THE EFFICIENCY OF THE ORGANIZATIONAL CULTURE

In order to increase the effectiveness of the organizational culture, the prior intention is placed on assessing the efficiency of the existing, actual organizational culture. The process of achieving the desired level of performing of the organizational culture is in an entire dependence by the *learning capacity of the organization*, in terms that it is fundamental precisely to determine the *manifesting types of values and norms* that would lead to creating a *model for changing the organizational culture* (Gareis and Huemann, 2000), specified through the following approaching elements:

- *Empowerment of employees,*
- *Team work,*
- *Continuous organizational change,*
- *Process orientation,*
- *Customer orientation, and*
- *Networking with clients and suppliers.*

The first 2 elements create, in fact, the *organizational climate* for changing the organizational culture, the following 2 (3rd and 4th) enable *modelling the harmonization of processes with the ongoing behavioural changes*, whereas the last 2 (5th and 6th) are concentrated on *developing a permanent client-performing values and norms within the organizational culture*, i.e. external influence to the organizational culture.

In integrating the organizational climate, harmonizing change & process modelling and client – performing value and norms, the organizational climate refers to the *tangible, continuous and on-going every-day operations and tasks*, harmonizing modelling is the very concept of *leading the organizational changes for a proper combination of processes and behaviour*, whereas the client – performing cultural elements imply to the *added, visible to customer value of the organizational culture*.

The very *process of organizational cultural diagnosing* possesses its behavioural fundamentals in the *orientations of the organizational culture*. This concept is a symbol for evaluating the potential of the ‘*inner resources and capabilities*’, therefore implying to the first 4 elements of the above diagnostics learning model of organizational

culture. As an integrative concept, it encompasses the following components (Hammal & Vadi, 2010):

- *Task orientation* – related to all *procedures, practices, policies, plans etc.* that are precisely measured and evaluated for the purpose of *increasing the potential of the existing organizational culture to act as business culture*. It is *most applicable for solving group/team processes, as well as for conflict resolution*,
- *Relationship orientation* – implies to all *manifestations of behaviour of employees while performing their day – to – day operations, in terms of cooperating, communicating, team cohesion, innovative business methods etc.*, for the intention of *directing the employees towards the desired elements in the prior orientation*. This component is best used at *leadership challenges, and at the process of determining the collaborating potential of the human resources*, which is crucial for the organizational culture efficiency,
- *Metaphors* – it is an integrating component of the previous ones and is focused on *increasing the level of understanding of employee's perception of the organizational culture with the prevailing cultural values and norms*. Assumptions that are being created in this process of unifying the individual, group/team and organizational understanding of the culture are in fact connected with the *metaphors*.

While increasing the learning capacity of the organizational culture, the process of *measuring the efficiency of the organizational culture* is connected to one of the 4 C's conceptual cultural sub-element that is named *Collaborate*, and especially with *the formation of Clans*. The model of increasing the efficiency of the transactions among the members of the clans, in practice, requires the development of the following '*shared social knowledge*' in the following cultural areas (Wilkins & Ouchi, 1983):

1. *Paradigm* - this area enable the employees to be familiar with *important routines, that are aimed at understanding and further processing the importance of every information that they are aware of, as well as examples of good versus bad practices for their ongoing activities*. It is important for the process of creating '*the framework for*

applicative knowledge and experience of the employees', which in return is the base for determining the *most appropriate field for changing the organizational culture*,

2. *Goal congruence* – as an integral area, it implies to *the process of harmonizing the individual to the overall objectives and interest*, in terms that the collective actions and efforts are the best way for implementing both the individual and the group/team ambitions. This element determines the '*most suitable change concept or paradigm*' for the process of competitive changing the overall organizational culture.

The integration of the paradigm and the goal congruence is a process that leads to the basic assumption that as one organizational culture differs in its efficiency from another, the same way within the same organizational culture, it is more suitable for certain groups/teams, compared to another ones. Initial reason for it is the '*way of understanding the organizational culture*', as a behavioural concept which leads to increasing the ethical behaviour and professional engagement, not only of managers, but as well as of non-managerial employees.

In establishing the ethical cultural concerns, on a long – term basis, the most applicable theoretical determination of what it is expected to serve to, is the following definition (Trevino et.al., 1995), according to which, *ethical culture is perceived as a subset of organizational culture, representing a multidimensional interplay among various formal and informal systems of behaviour control that are capable of promoting ethical or unethical behaviour*. In this context, *the more the actual organizational culture possesses ethical prerogatives, the higher would be the overall ethical organizational behaviour*.

In practice exist several *behavioural areas in which is expressed the ethical attitude of all the employees*, while implementing the organizational culture. The most influential of them, in our profound analyses are the following ones:

- *Cognitive perception of the organizational environment,*
- *Clear, vivid manifestation of managerial support for ethical employee work actions,*
- *Group/team cohesion and collaboration,*

- *Experience role playing model, while performing various hierarchical and project – oriented tasks,*
- *Professional employee engagement etc.*

The permanent measurement of the achieved degree of ethics of the organizational culture is usually measured through the Ethical Culture Questionnaire (ECQ), and has been initially created by Trevino in 1995 and further on modified by Key in 1999. In it, one of the most challenging issues is clearing the path to an *increased professional engagement of managers and non-managerial positions*. Therefore, a critical step in developing this concept is identifying the most prevalent roots of dissatisfaction of the employees from the existing organizational culture. Precise manifestations at majority of tested business forms of organizations vary from *not feeling appreciated, enough valued for their quantitative and qualitative performances, insufficiently involved in the decision – making process, non reliable cross – departmental cooperation, formal change orientation from the managers etc.*

Our intention of classifying them in comparable behavioural categories determines that the most important sources of non – professional behaviour are *the lack of mutual trust and respect*, as one of the most important constitutive elements in building, as well in changing, the organizational culture. In analyzing which of the sources of mutual trust and respect affect most influentially to the professional engagement, we found out the *appreciation, integrity and innovation orientation*, as being far ahead of all other tested behavioural dimensions.

Harrison & Stokes in 1992 presented an *Instrument for diagnosing the existing and preferred organizational culture (Organizational Culture Index)*, in which 15 questions treat various values, beliefs and sentiments, which are shared by the employees, on the basis of comparison between the existing, current organizational culture and the preferred, desirable one. The ultimate objective is the calculation of *Existing Culture Index and Preferred Culture Index*, which latter are transferred into *Individual and Group Cultural Chart*.

The fundamental importance of this Instrument is clearly to categorize the type of the organizational culture, in accordance with the so called ‘*prevailing cultural orientations*’, on the following way:

1. *Power orientation* - refers to the *equality or not of the access to the resources of the precise organizational unit or individual*, it is

crucial for the type of leadership, in terms that if a vivid Power orientation exists, *leadership is based on justice, powerful rule application and paternalistic benevolence*. It is best applied in *start – up and entrepreneurial businesses*,

2. *Role orientation* - it usually is oriented towards *the number and quality of roles which the employees play, while applying the previous orientation* and particularly is related to an application of rationality, consistency, rule of order and mutual dependence to a strong leader. It is quite important to emphasize that this orientation is the most important one for the above mentioned *employee behaviour flexibility, and especially for the techniques of the total quality management (TQM)*,
3. *Achievement orientation* – implies to *the orientation of certain type of employees or organizational units to build up an intrinsic reward, which is worth for other stake – holders, such as the colleagues and/or customers*, moment that leads to the conclusion that it is rather qualitatively than quantitatively measured. The importance of this orientation is the fact that it acts as a *glue of the employees to the common and shared values and vision*.
4. *Support orientation* – the last of the cultural orientations relates to establishing an organizational climate, that has above been detailed through *empowering and team work*. In this orientation, both of them found their *source in the mutual trust* that has been identified as one of the most influential non – professional behaviour components, and contributes to creating a *warm, beloved working environment, that is continuously supportive by the managers*.

The overall Organizational Culture Index is a combination of all above 4 orientations and predominantly explains the orientation towards control, power, support and constraint, a moment that *indicates its relation to the attributes of the 4 C framework of organizational culture*, what leads to the importance of implementing the cultural orientations in the process of selecting the proper model for changing the organizational culture.

4. CHANGING ORGANIZATIONAL CULTURE FOR ACHIEVING A BUSINESS CULTURE

In creating a business model for changing the organizational culture, the most important attribute of the 4 C framework of organizational culture is the *Collaboration (Clan) type of culture*, as an initial pre-condition for

the efficiency of the culture. The orientation for this cultural modality is placed in the desired managerial tendency for *employee commitment and involvement, flexibility, teamwork etc.* – which in fact creates interdependence with the model of professional engagement.

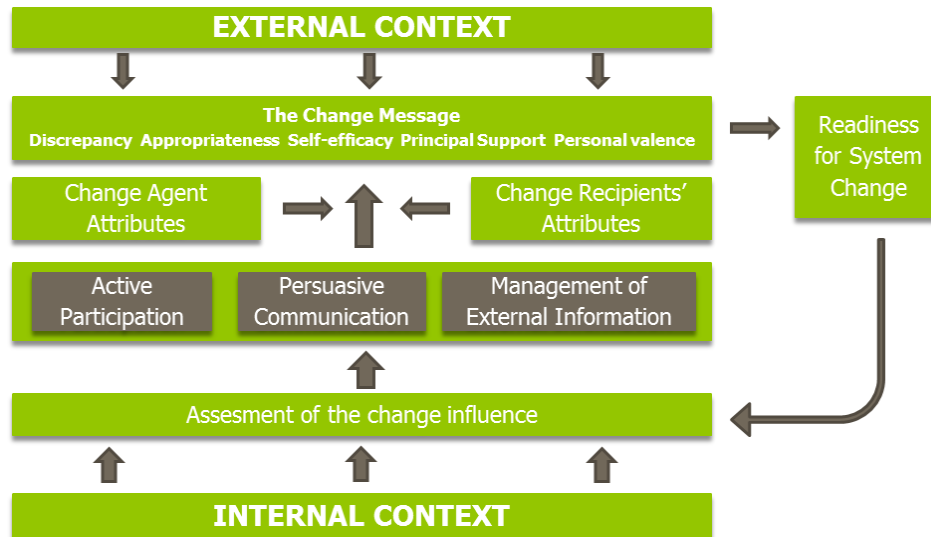
Each organizational culture change requires determination of proper stimulus, particularly those that are of an importance for a more intensive collaboration and cooperation, mainly internally. *The ultimate goal of the change model is an effective change of the employee behaviour, in such a way that would increase the organizational performances, and the preparation for a planned and continuous change program in future, what leads to the organizational development and competitive advantage.*

Every *organizational transformation* is consisted, at the same time, of the *change content* – indicating what the change focus is, and the *change process* – related to the phases, stages that need to be taken for a successful organizational change. In the case of the organizational culture, it implies to, in our explorations, the following application of the above organizational change segments:

- *Content change of the organizational culture* – usually done through the *change in the basic assumptions, values and embedded artifacts and cultural creations*, which in return leads to their applicative usage and public importance,
- *Process change of the organizational culture* – primarily performed through a *selection out of the majority of culture change models*, best illustrated through the *Readiness model* (Armenakis & Harris, 2002).

The analyses of the application of the *Readiness model* would best be illustrated through the Figure presentation of dependence of the change elements, with regards to the external and internal environment, on the following way:

Figure 3-1 Readiness organizational culture change model



Source: Modified according to Armenakis A. & Harris S., (2011), Organizational Culture: Assessment and Transformation, *Journal of Change Management*, September, Vol. 11 Issue 3, p308

It is evident from the above combining of the change cultural elements that *the central importance plays the change agent*, which in the above model, consists of the following manifestations:

- *Global change agents* – the first initiator for creating a *Readiness program*, these agents are played by the *top level managers*,
- *Local change agents* – it is usually performed by the position of the *subordinate managers*,
- *Horizontal change agents* – refers to the position of the *opinion leaders*, who support the activities of the above types of change agents, and at the same time express attributes for cultural change across all the employees.

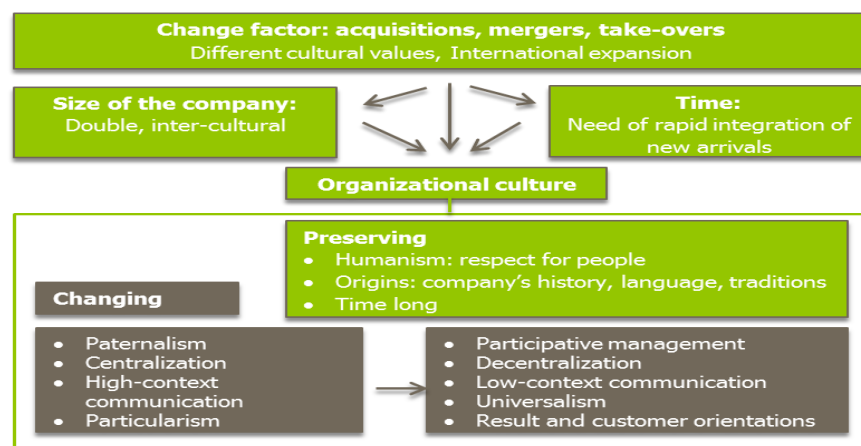
The most important change attributes are *competence, honesty, inspiration and vision* (Kouzes & Posner, 1993), which form an '*ideal attribute*'. Their function is to filter the change message, by the change agents, for an effective application of the '*influencing strategies*', in terms of *active participation, persuasive communication and*

management of external information, all of them assessed not only through the external, but in the light of the internal context.

The readiness model is *the first modelling attempt for achieving the state of excellence*, while changing the organizational culture. Owing to its transformational character, it is quite important to establish a ‘*organizational cultural state for continuous improvement*’, which means that the integration of the external and internal environment is expected to be permanent and anticipative, not only reactive and in times of organizational performance crisis.

In order for the managers to rely to one of the most important internal capacities, i.e. the competencies, it is important to make a full benefit from analyze of the changes of the organizational culture at multi - national companies, in a word, *changing the corporate culture*. In 2001, Lemma company created a ‘*competency – based leadership model for changing the corporate culture*’, which nowadays is one of the most applied in corporations, especially when facing the differences and constraints that derive from the corporate cultural features of various nations. The Figure illustration of this model would be done on the following way:

Figure 3-2 Integrated factors for organizational culture change



Source: Modified according to Muratbekova – Touron (2005), Permanence and change: case study of changes in organizational culture at a multinational company, *Journal of Change Management*, June, Vol. Issue 2, p. 213

Although this model has *initially been developed for advancement of leaders' behaviour*, it is nowadays more frequently used for *explaining*

the influence of the change factors, through the scope of the company and the time frame for implementing the change, towards the corporate culture. By preserving the humanistic cultural side, the corporations' origins and time length, formal attributes of the corporate culture are being transformed into employee involvement attributes, such as participation, low-context communication, result and customer orientations etc.

The applicative importance of above mentioned competency – based model of changing the organizational culture lies in *its relations to several performance management models, especially the model 360-degree feedback model*, where determination questions are formulated according to the specified competencies of the above cultural change model. Therefore, the areas of inter – connectivity of this model include *the leadership, management, strategy, human resources, organizational development and cross – cultural studies, predominantly at result – oriented cultural change models.*

In contemporary analyses of the effects of the business models that are dealing with diagnosis and especially with changes of the organizational culture, an important evaluation is framework is *whether the continuous cultural changes affect the majority of the business within a certain national economy, or the level of their influence is still limited.* In this context, besides the inter – connectivity of the organizational cultures of businesses that perform in the same industry sector, high influence possesses the activity of the multi – national companies, that are pretty active also in Republic of Macedonia.

The process of harmonizing the applicative approach of the value, norms, beliefs, assumptions etc. of the integral elements of the organizational culture, on one hand, with the tendency for an intensive '*business orientation*' within the society, on the other hand, leads to determining the concept of *business culture*. Fundamentally, it is determined as *the attributes, values and norms which underpin commercial activities and help to shape the behaviour of companies in a given country*' (Randlesome, 1990). Even though it is rather complex to determine and harmonize the unifying aspects of the various organizational cultures in a certain national economy, the intention of forming the business organizational culture, in our researches is used in order to fulfil several developmental cultural objectives:

- *To intensify the fullest usage of the organizational culture in majority of business sectors,*
- *To enable managers more transparently to interpret the core business values, norms and beliefs, particularly with its relation to higher business performances,*
- *To direct the individual, and group/team business development towards the behavioural elements, especially in developing a long – term relations with all stake – holders, including the customers and employees.*

By increasing the business orientation of the prevailing organizational culture, majority of businesses with a serious business tradition, would be in a more favourable position for successful solving of the ‘*transitional business problems*’, for reaching the more advanced levels of the business development.

5. CONCLUSION

Each organizational culture creates the real meaning of our relations, in terms that it gives the sense, orientation and importance of the way employees cooperate in a certain organizational environment. The most important categorization of the organizational flexibility, as a pre-condition for every behavioural change, refers to its segmentation on the following inter-related conceptual components: employee skill flexibility, employee behaviour flexibility and human resource flexibility (flexibility in HR practices).

The very organizational culture implies to unique combination of behavioural elements which unify the employee business behaviour towards achieving various standards of superior performance, whereas as the most applicable for our researches is the one that describes it through diagnostics determination of dominant attributes that can generally be identified through the 4 C conceptual frameworks: control (hierarchy), compete (market), collaborate (clan), and create (adhocracy).

It is evident that the organizational cultural model that would be subject to diagnosis and change should possess a clear combination of the above frameworks of the last determination, particularly the potential to develop an adaptable culture, as a cultural model that is characterized by strategic focus on the external environment through flexibility and

change to meet customer needs, encouraging entrepreneurial values, norms and beliefs that support the capacity of the organization to detect, interpret and translate signals from the environment into new behaviour responses – it actively creates changes.

The process of achieving the desired level of performing of the organizational culture is in an entire dependence by the learning capacity of the organization, in terms that it is fundamental precisely to determine the manifesting types of values and norms that would lead to creating a model for changing the organizational culture, specified through the following approaching elements: empowerment of employees, team work, continuous organizational change, process orientation, customer orientation, and networking with clients and suppliers. The first 2 elements create, in fact, the organizational climate for changing the organizational culture, the following 2 (3rd and 4th) enable modelling the harmonization of processes with the ongoing behavioural changes, whereas the last 2 (5th and 6th) are concentrated on developing a permanent client-performing values and norms within the organizational culture, i.e. external influence to the organizational culture.

The very process of organizational cultural diagnosing possesses its behavioural fundamentals in the orientations of the organizational culture, and this concept is a symbol for evaluating the potential of the 'inner resources and capabilities', through the task orientation, relationship orientation and metaphors. While increasing the learning capacity of the organizational culture, the process of measuring the efficiency of the organizational culture is connected to the 4 C's conceptual cultural sub-element that is named Collaborate, and especially with the formation of Clans, analyzed through the paradigm and the goal congruence.

Ethical culture is perceived as a subset of organizational culture, representing a multidimensional interplay among various formal and informal systems of behaviour control that are capable of promoting ethical or unethical behaviour. In this context, the more the actual organizational culture possesses ethical prerogatives, the higher would be the overall ethical organizational behaviour. A critical step in developing the concept of professional engagement is identifying the most prevalent roots of dissatisfaction of the employees from the existing organizational culture. Precise manifestations at majority of tested business forms of organizations vary from not feeling appreciated,

enough valued for their quantitative and qualitative performances, insufficiently involved in the decision – making process, non reliable cross – departmental cooperation, formal change orientation from the managers etc.

The Instrument for diagnosing the existing and preferred organizational culture is called Organizational Culture Index, in which 15 questions treat various values, beliefs and sentiments, which are shared by the employees, on the basis of comparison between the existing, current organizational culture and the preferred, desirable one. The ultimate objective is the calculation of Existing Culture Index and Preferred Culture Index, which latter are transferred into Individual and Group Cultural Chart. The overall Organizational Culture Index is a combination of all above 4 orientations and predominantly explains the orientation towards control, power, support and constraint, a moment that indicates its relation to the attributes of the 4 C framework of organizational culture, what leads to the importance of implementing the cultural orientations in the process of selecting the proper model for changing the organizational culture.

Every organizational transformation is consisted, at the same time, of the change content – indicating what is the change focus, and the change process – related to the phases, stages that need to be taken for a successful organizational change.

The Readiness model is the first modelling attempt for achieving the state of excellence, while changing the organizational culture. Owing to its transformational character, it is quite important to establish a ‘organizational cultural state for continuous improvement’, which means that the integration of the external and internal environment is expected to be permanent and anticipative, not only reactive and in times of organizational performance crisis. In the Competency – based leadership model for changing the corporate culture, which nowadays is one of the most applied in corporations, formal attributes of the corporate culture are being transformed into employee involvement attributes, such as participation, low-context communication, result and customer orientations etc., being in relations to several performance management models, especially the model 360-degree feedback model.

The process of harmonizing the applicative approach of the value, norms, beliefs, assumptions etc. of the integral elements of the

organizational culture, on one hand, with the tendency for an intensive 'business orientation' within the society, on the other hand, leads to determining the concept of business culture, as the attributes, values and norms which underpin commercial activities and help to shape the behaviour of companies in a given country.

REFERENCES

Armenakis A., Broen S. and Mehta A. (2011), *Organizational Culture: Assessment and Transformation*, Journal of Change Management, September, Vol.11, No.3, p.305-328

Cameron K.S. & Quinn R.E. (1999), *Diagnosing and Changing Organizational Culture, Based on the Competing Values Framework*, Addison – Wesley Publ., Reading, MA, USA

Daft R.L. (2007), *Organizational Theory and Design*, 9th Ed., South – Western Publ., Cincinnati, OH, USA

Gareis R. & Huemann M. (2000), *Project Management Competences in a Project - Oriented Company*, The Gower Handbook of Project Management, Gower, Aldershot, UK

Hammal Gerli & Vadi Maaja (2010), *Diagnosing Organizational Culture Through Metaphors and Tasks and Relationship Orientations*, University of Tartu - Faculty of Economics & Business Administration Working Paper Series, Issue 68, p3-41

Harrison Roger & Stokes Herb (1992), *Diagnosing Organizational Culture*, Pfeiffer, John – Wiley & Sons, San Francisco, USA

Kouzes J & Posner B. (1993), *Credibility: How Leaders Gain and Lose It, Why People Demand It*, Jossey – Bass Publ. San Francisco, CA, USA

Lau C.M. & Ngo H.Y. (1996), *One Country Many Cultures: Organizational Culture of Firms of Different Culture Origins*, International Business Review, Vol. 5, p.469-486

Muratbekova – Touron Maral (2005), *Permanence and Change: Case Study of Changes in Organizational Culture at a Multinational Company*, Journal of Change Management, June, Vol.5, No.2, p.207-219

Randlesome C. (1990), *Business Cultures in Europe*, Butterworth – Heinemann, Oxford, UK

Schein H. Edgar (1984), *Coming to a New Awareness of Organizational Culture*, Sloan Management Review, Winter, Vol.25, No.2, p.3-16

Trevino L.K., Butterfield K.D. & McCabe D.L. (1995), *Contextual Influences on Ethics – Related Outcomes in Organizations: Rethinking Ethical Climate & Ethical Culture*, Annual Academy of Management Meeting, August, Vancouver, BC

Wilkins L. Alan & Ouchi G. William (1983), *Efficient Cultures: Exploring the Relationship between Cultures and Organizational Performance*, Administrative Science Quarterly, Vol.28, p.468-481

Wright, P.M., and Snell, S.A. (1998), *Toward a Unifying Framework for Exploring Fit and Flexibility in Strategic Human Resource Management*, Academy of Management Review, Vol. 23, p.756–772

CHAPTER 9

Zerife Yıldırım

Dokuz Eylul University, Faculty of Economics and Administrative Sciences, Turkey

Şenay Üçdoğruk Birecikli

Dokuz Eylul University, Faculty of Economics and Administrative Sciences, Turkey

FINANCIAL LIBERALIZATION POLICIES AND EFFECTS IN TURKEY

ABSTRACT

In our globalizing world, a number of developed and developing countries are trying to get integrated into international markets. The size of international capital movements has caused the countries that want to take a share from this capital to show a tendency to liberalization in their financial markets. However, final outcomes of these policies differ from country to country.

In this study, we have examined the economic effects of capital flows and analyzed the effects of foreign capital in the Turkish economy upon macroeconomic variables via the VAR method.

Keywords: Financial Liberalization, Banks, Capital

JEL Classification: O16, E44.ö.ım

1. INTRODUCTION

Since the beginning of 1980's the liberalization movements has picked up speed all over the world. It has been seen that especially after the increasing liberalization of commodity trading, financial liberalization become widespread within the 1990's. The developing countries, trying to participate in liberalization politics in the world, let their markets to be open to the other countries.

However, increasing financial liberalization applications has brought on diversification of capital between the countries. Foreign capital, flowing

to countries markets, forms different effects on the economy according to its aims. In general, while short-term capital brings on unwanted effects in the country which has developing and vulnerable markets, the direct foreign investments bring on positive effects. In the frame of this study, the macroeconomic effect of the foreign capital flow with different aims on the countries was investigated.

Circulation of these effects among the countries has shaped financial liberalization policies. While the financial policies pursued by the government, this task fell to banks. Financial liberalization support with applications that are abolition of control on interests rates, privatization of financial institutions, promoting between the institutions and be allowed to entry and exit to financial markets, the reduction of reserve requirements and liberalization of open market operations. In the end of 1980's and in the beginning of 1990's, liberalization of capital account with financial liberalization was part of policies which applied in both developed and developing countries. In this study, the direct foreign capital investments in the Turkish practice are analyzed for the variables of import, export, national product and banks by using the trimester data and political inferences are made according to the analysis results.

2. FINANCIAL LIBERALIZATION AND CAPITAL FLOWS

Financial liberalization includes giving freedom to household and companies in terms of international scale finance for more consumption or investment. This situation has influence on economy's both sides as supply and demand; and additionally, financial liberalization would provide opportunity to spend more than available income (Hoggarth and Sterne, 1997: 19). Developments in financial movements can be observed throughout long history. Motility in capital has been matter of existence of several institutions. This was again possible subject to more borrowing or portfolio movement with government security such as foreign loans.

While policies followed in terms of financial aspect was determined by the government bodies, primary role concerning this situation has been undertaken by banks.

Significance of these developments was comprehended in the meantime and allowed different opinions regarding financial capital arise. One of the antecedents of economists who elucidated this path, Alexander Hamilton stated in 1781 that "banks been one of the best locomotive institutions which have been undertaking leadership in terms of the

activities ever done until today” so as to emphasize prominent role of banks in development of financial sector. As a contrary view to this opinion, President John Adams stated in 1819 that “banks damage morality, peace and even fortune of nations”. By emphasizing both opinions, Adam Smith claimed in ‘Wealth of Nations’ that excessive speculative investments and capital flows which cause extremities are required to be controlled as they were referred as extravagance and vanity (Petroulas, 2004:2).

In developing countries, development of international financial flows exhibit parallel structure with foreign borrowing. Especially, the period between end of 1800s and the First World War has been indicated as the period in which borrowing of developing countries have reached excessive amounts. Along with the finance transfer which has developed in parallel to motility in foreign borrowing, in the 1880-1914 period, international finance increased three times more compared to the figures observed in 1980s (Bal, 2001:25).

Globalization in financial markets has been one of the significant developments seen after the World War II. Influence of governments and banks in supply of international money used as an exchange tool in the international commerce and capital flows developed at global scale has exhibited variance according to the political environment, time and financial technology (Kılıçoğlu, 1998:6).

In 1970s, borrowings from banks have reached more extensive scale compared to capital entrances. The most essential receivers of these borrowings were public sector (Lopez-Mejia, 1999:1). Motility of capital flows among markets is only possible with certain level of financial liberalization. As financial liberalization reach desired level, finance needs among countries have been managed through several methods such as borrowing and loans. The capital flow to rising economies in 1970s was remarkable. Dramatic fluctuations in international capital flows in 1973-74 caused elevation in oil inventories.

This situation allowed development of Euro/Dollar market and expansion of bank borrowings in the period of 1979-81. This rapid growth in international borrowings ended up with increase in real interest rates by the end of 1982, which has not been observed since 1930s until the mentioned period. These developments have put rising countries in international capital markets in an undesired position. This result did not only end in refusal of capital markets, but also pushed

current account surplus in repayment of foreign debt. By the end of 1980s, Wall Street resumed international borrowing activities with Latin America which has been awaited long time. After changes in international capital flows composition, bank borrowings and syndication loans left their places to DFI and portfolio investments (Kaminsky, 2005b:2).

Across the world, while numbers of financial market have been attractive, for international investors, the most significant financial centers were New York, Tokyo and London (Kılıçoğlu, 1998:8).

Development and increase in the international trade has increased financial liberalization as well. This expansion increased liberalization of financial markets in developing countries further and it was strengthened dismissal of continuing bans and controls on capital (Taylor and Sarno, 1997:451). Policies strengthening financial liberalization have also affected compositions of financial entries. Whereas foreign funding was supplied through borrowings from banks and syndication credits in the former periods, they have evolved in 1990s. While the change in capital mobility have been mostly experienced as direct foreign investments, portfolio investments and government bonds, private sector has tended mostly to foreign debt (Lopez-Mejia, 1999:1).

In order to find solutions for issues such as balance of payments deficit, insufficient saving, and technology transfer, the developing countries have introduced campaigns to encourage international investments. To that end, regulations on opening capital markets to foreign investors and expanding their activity areas in developing countries have tried to be increased. In line with these efforts, one of the applications increasing depth of markets was financing through equity sales to foreign investors instead of fulfilling requirements of private sector through foreign borrowing and government incentives (Aslan, 2001:24).

Majority of developing countries have applied regulatory programs in the last period of 1980s and in the beginning of 1990s so that they could liberalize their financial systems. Financial liberalization can be described as removal of controls on interest rates, privatization of financial institutions, and encouraging competition among organizations, allowing freedom in entry into /exit from financial markets, reducing reserve requirements, and institutionalization and putting open market principles into force. In the last period of 1980s and in the beginning of

1990s, together with financial liberalization, liberalization of capital calculation has been part of policies applied in both developed and developing countries (Kabas, 2005:14).

Removal of restrictions, globalization and formation of novelties has increased variability and efficiency in financial markets over the time. Another variability added on the risk resources is not only relevant with the pricing of complicated financial assets, but also risk of formation of an unstable structure potentially created by portfolio flows (Taylor and Sarno, 1997:453).

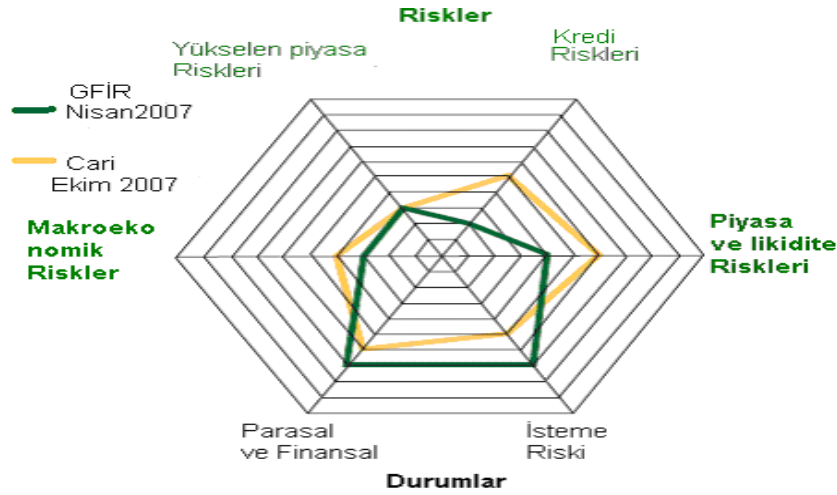
Along with intensive financial liberalization experienced than ever, international capital has started to move based on differences among returns. Developing countries which are expecting utilizing from the financial liberalization process have encountered several unprecedented issues. Although liberations in foreign exchange regimes were beneficent for developing countries and for development of international finance markets, they limited freedom of developing countries in determining their currencies, monetary and interest policies independently, and complicated to take decision along with their own targets and desires (İnandım, 2005:5).

Within the global framework, fast-paced integration of financial markets has been indicator of a structural development experienced in the last 20 years. Reduction in control of capital flows, financial liberalization policies experienced across the world, advancements in communication and information technologies have been effective in liberation of financial markets. Strengthening interconnections among markets owing to enhancements in technology and increasing depth in markets by means of new financial tools accelerated financial liberalization. In majority of developing countries, a process of integration to the international structure through financial liberalization and privatization has been experienced. This process accelerated formation of new markets; markets created opportunities promising high returns to foreign investors in short period of time (Kaya, 1998:6).

Together with capital mobility, globalization phenomenon of financial markets can result in disconnection of international capital flows from flow of goods; formation of capital circulation aiming arbitrage profit, which takes advantage of differences between return outside of the finance of payment balance; and direction of this circulation dominantly toward rising financial markets in developing countries. This situation

increases weight of the how money flow which circulates for arbitrage opportunities (İnandım, 2005:7).

Figure 1 Global Financial Stability Map



Resource: IMF, 2007: 2

Financial liberalization in terms of global meaning, while international markets constitutes removal of restrictions, efficiency of countries to apply their policies on macro variability has reduced. Established integration with international financial markets attempts some countries to take some risks into their consideration. The figure presented above indicates risks within the global financial situation.

Global financial stability map, which exhibit all circumstances with priorities and how variations on risk factors would occur, indicates possible speculation expectations on the global financial stability in the future. In risk circumstances, the most significant risks are exhibited as an increase in credit risks. Effects of the floods from other credit markets are also apparent. Concerning global financial stability risks, monetary and financial risks constitute the most significant risks together with demand risks. Risks associated with financial conditions causes increasing market with larger chaos for financial institutions and liquidity risks coupled with eruption of suspicions regarding current uncertainty and losses (IMF, 2007:2-3).

Capital flows and flights can be associated with several effects in literature. Volume and risk of international capital flows, especially

asymmetric distribution possibility of risk on domestic and foreign assets, create an average risk impact on global scale such as risk of nationalization of commodity markets and more larger and variable capital flows in developing countries, currency risk, and politic reliability issues (Fedderke and Liu, 2001:421).

In order to grab larger share from capital mobility, developing countries' preference for financial liberalization and move from planned economy to free market economy create some problems, which constitute a fast paced period of change politic and social fields. In these markets, suspension possibility of conveniences issued for foreign investors easily due to political reasons cause political risk concerns. Inflation and real return risks shorten periods of investments, which create some economic risks. Legal risks are result of inadequacy of current regulations and uncertainties. Reduction of this risk together with other systematically risks requires long and radical reforms; and but, it can only be possible through global variation (Aslan, 2001: 26-28).

3. CAPITAL FLOWS AND CAPITAL MARKETS

Another factor influenced by increase in the international capital mobility is capital market. Global connections can increase through financial flows among capital markets. Financial integration takes place connection of each country to international capital markets as chain rings (Prasad et.al., 2003:2). Thus, in these local economies international commerce can develop progressively owing to tendencies of liberalization and exteriorization; and this eventually accelerates international conglomerations and constitutes foundation for formation of global markets (Atalay and Turhan, 2001:78).

Entry of vast amount of capital into country economies intensifies financial markets. When financial markets in developing countries are not deep sufficiently, high amount of fund entries into these markets might create negative impacts on local economies. If capital entry is especially speculation-driven, it can take the first step of a possible financial crisis based on dynamism caused in local economy. Speculative capital which caused by differences in interest rates and which circulates for short-term profit creates artificial fluctuations on values of equities and increase their values (financial bubbles) (Kaya, 1998:39).

Due to globalization, developing countries that open their financial markets to international competition experienced increasing capital

flows. In order to liberalize their financial sectors, several reforms have been issued so as to restrictions before the foreign capital can be removed. However, lack of solid management and auditing in banking system of some developing countries causes not only leverage operation amounts in capital markets, but also cause more volatility in these countries (Celine, 2002:4).

Private capital markets (investor institutions such as banks, insurance companies, retirement pensions and investment funds) are preferred in leading developing countries by direct investors and usually in more strong countries that are known as “rising markets”. These are only channels opened for private sector by limited number of countries through their equity markets so that they could attract more investment. As another investment tool, bonds can be issued to limited number of countries in the exchange of public and private debts; and they might require larger bond markets for these countries. While numbers of markets from low-income countries are preferred for these types of investments, stock and bond markets constitute main channel leading to financial crises (Stallings, 2001:24).

In this framework, fixed-income markets are mostly deteriorated against the credit risk. In the meantime, U.S. monetary policy represents higher-run markets and it exhibits these effects on asset prices (Mathieson and Schinasi, 2001:4). A sharp decrease in the U.S. interest rates might result in flee of capital from the U.S. to other markets which are mostly rising markets, where it can find higher returns (IIF,2008:2).

Liberalization of capital accounts and extension of dependency of stock and equity markets, increases risks and opportunities of theses investable funds according to the variation in size of the relevant country and territory because appropriateness of global investment portfolio size to small portfolio adjustments can be associated with capital flows volatility situation and size (Mathieson and Schinasi, 2001:4).

It is usually expected that stock prices exhibit movements according to various performance criterions of companies such as productivity and profitability. It is desirable situation that a country with well-functioning capital markets to increase its savings through its economic development process and gaining efficiency in distribution of its resources, and then, observing reflections of consequences of this gaining on pricing process (Kaya, 1998:40).

Direct foreign investments can have different consequences on domestic economies that they enter. First of all, infrastructure and rigidity in

markets of the target country might cause decreases in commodity markets. Moreover, factors directing DFI to developing countries might have an effect on export figures of the target country. If the other motivating factor directing DFI is to dominate and taking control of domestic market of target country, this situation will neither contribute positively in export or growth of the target country. If DFI is motivated with low labor costs of target countries and expecting to take advantage of export markets, this situation would contribute positively on export and growth figures of target country; and positive expectations concerning this market would eventually increase (Bhanu and Usha, 2005: 6).

Financial liberalization induced debates about majority of effectively organized financial administrations differs across various types of financial activities and steering toward financial company groups including which include investment banking, commercial banking and insurance etc. In this regard, it is suggested that there is need for an independent administration in management of the inconsistency between financial stability and monetary policy tools. Financial groups might be consisted of banks, security companies, insurance companies and additionally brokerage companies (Mathieson and Schinasi, 2001:36).

4. CAPITAL FLOWS AND CAPITAL MARKETS IN TURKEY

Foreign capital investments on domestic country economies also affect capital markets of target countries. High amount of capital entry creates condensation on domestic financial markets.

A loaded fund entrance into developing countries with financial markets that has no adequate depth in developing countries would result in adverse consequences on local economy. Inefficient usage of funds causes problems in repayment process. Failure to repay credits on the relevant due date might result in bankruptcies; and if received funds have speculative nature warming caused by them in economy might cause economic crises in some countries (Kaya,1998: 9).

There three core actors in capital markets; investor, exporter and broker agent. Institution that wants to carry out brokerage operations to bring investor and exporter together and other capital market activities in the exchange of earning are required to follow legislation regulations regulating this market (Tanör, 2003:136).

Well-functioning capital markets increase savings and efficiency in distribution of resources through economic development process. This

situation contributes better utilization of resources in pricing process. However, short-term capital gross entrance and exits in Turkey has almost reached national income level in terms of volume; and mostly they do not act as they are anticipated in pricing process and cause returns to decrease on the long run and artificial fluctuations on their nominal values. Since fluctuations in foreign currencies are effective on returns of foreign investors, they are rather sensitive to fluctuations in markets. Moreover, as foreigners' share in capital markets increases, significant problems arise and financial sensitivity increases. As can be viewed from the Borsa Istanbul Index, excessive and anticipatory movement increases total credit volume instead of real manufacturing capacity; and solely might result in an economic crisis (Kaya, 1998:40). Fluctuations in national income are also reflected on Borsa Istanbul National 100 Index; especially afterwards of economic shrinkages, it can be observed that this index regress to the bottom levels of index. Additionally, it was observed that interest to the Borsa Istanbul has grown in parallel to the economic growth. When growth rates in gross domestic product reached 9.9 by 2004, foreign investor's share in Borsa Istanbul was 65.6% (İşeri and Aktaş, 2005:7). Moreover, positive expectations regarding developments in security market in Turkey has positive contribution on increasing portfolio investments (TÜSİAD, 2000: 81).

Increasing depth of capital markets in Turkey and economic growth increased attention of foreign capital on Turkish Capital Markets; and their weight in stock market has reached by 50% (İşeri and Aktaş, 2005:5).

5. ECONOMETRIC APPLICATIONS

Vector Autoregression (VAR) Model

In conventional econometric analysis, relationships among macroeconomic variables have been relying on large-scale econometric models until 1970s. These models have been used to test economic theories, making policy, and estimation.

However, Sims (1980) comprehensively criticized large scale macro econometric models. As Sims stated that variables are classified as internal-external in determination of simultaneous models and that there are arbitrary applications concerning putting restrictions on parameters, and therefore the researcher developed vector autoregression (VAR)

model. In this model, vector is consisted of two or more variables; autoregression is consisted of lagged values of dependent variable on the right hand side of the equation (Tari, 2006:434).

In a VAR model, all variable within the system are internal; and all variables residing in the system with their unique lagged values are defined as linear function of their lagged values. At this point, lagging number is determined according to the AIC and SC criterions. In case, all variables are congregating on a single vector, this vector can be seen as an autoregression (model) and this vector is exhibited as a linear function of its unique lagged values (with few laggings) plus error vector. Estimation is made for each variable through a regression model consisted of lagged values of itself and other variables (Kennedy, 2006:352).

According to VAR models, “all variables affect each other by means of their previous (or the one before) values.” Naturally, x, y, and z series with small absolute value, which exhibit so small variation along the years cannot be obtained by means of this specification. In this case, in each equation, not only previous value, but also former two or more values can be used. It is possible to observe this through trial-and-error method. Capability of computer software to give results in short period of time facilitates application of trial-and-error method (Private, 2000:125).

5.2. Stages of VAR Model

Selection of variables, determination and organization of their characteristics: variables are required to be organized from external to internal. Order is important because if order is determined in an erroneous way in matrix form, results might be misleading.

For instance, X and Y are determined internally.

Their orders are also determined separately within itself,

Fulfilling stagnation condition (it is not necessary to have equal levels).

Stochastic or deterministic trend is required to be eliminated,

Determination of lagging lengths,

Performing political analysis or estimation after system is operated (Tari, 2006:439).

5.3. Method

In analysis of economic impacts of capital flows for Turkey, VAR model analysis is utilized. In our model, effects of direct foreign investments on export, import, national income and banks will be investigated. In our model, stationary variables are investigated through unit root test; and variance and autocorrelation were examined. Organization of mentioned variables in model was conducted theoretically.

5.4. Analysis of Effects of Direct Foreign Investments on Export, Import, Growth and Banks

In our study, Direct Foreign Investments, Export, Import, National Product and Banks variables are used. Logarithm of model variables with high linearity was taken so that they can be stationalized. Furthermore, based on quarterly values of variables, data were included in model for period covering 1992/Q1 – 2014/Q4. In collection and organization of mentioned data, R.T.C.B. data published on its official website were utilized.

Direct Foreign Investments (DFI): Long term investments of multinational companies in foreign countries.

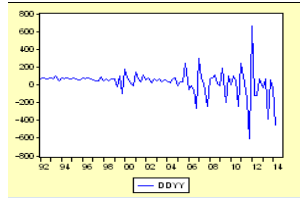
Import (İth): Represents annual import figures occurred in Turkey.
National Product: Gross domestic product growth rates explained by fixed prices were used.

Export (İhr): Represents annual export level occurred in Turkey.

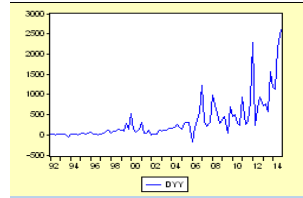
Banks: Represents amount of assets in possession of banks in Turkey.

For variables analyzed by means of VAR method, first of all, test of stationarity was conducted on data that will be used to acquire more realistic results in models to explain the relationship among variables in time series analyses.

Graphic 1 Graphics of Direct Foreign Investments Series



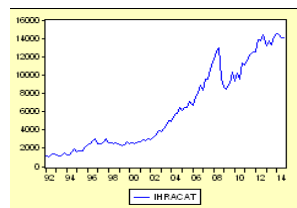
Graphic: 1-a



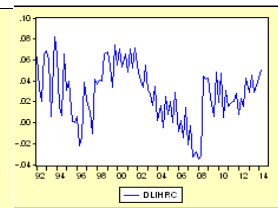
Graphic: 1-b

According to the test of stationarity for direct foreign investments, it was observed that the series has one unit root at the level, that is, series was not stationary. Graphic 1 after differencing on 1-b, the series became stationary.

Graphic 2 Graphics of Export Series



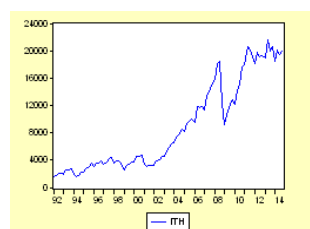
Graphic:2 -a



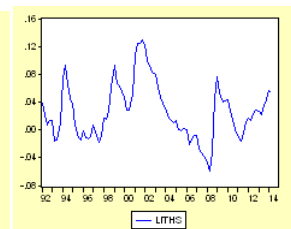
Graphic:2-b

It was determined that export series, whose logarithm was taken and seasonal adjustment was applied, was not stationary at level value. After differencing, export series were stationarized.

Graphic 3 Graphics of Import Series



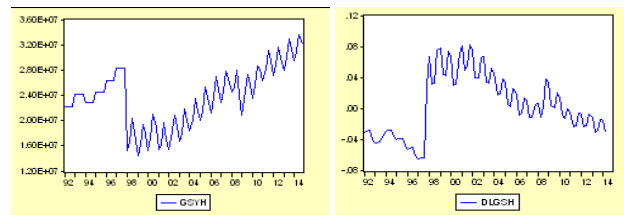
Graphic: 3-a



Graphic: 3-b

Seasonal adjustment was applied on import series whose logarithm was taken. Import series which are not stationary at the $I(0)$ level was stationarized after the first difference. According to our new differenced graphic, it can be observed that our series was stationarized.

Graphic 4 Graphics National Product Series

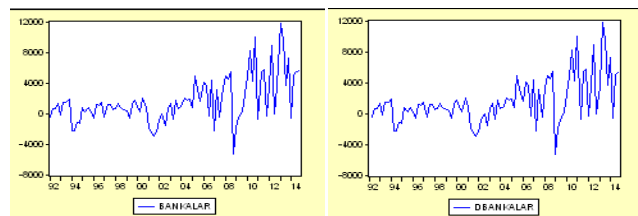


Graphic: 4-a

Graphic: 4-b

Seasonal adjustment was applied on the gross national product series. After the first difference, the national product series was stationarized.

Graphic 5 Graphics Banks Series



Graphic: 5-a

Graphic: 5-b

After the first difference, banks series was stationarized. After ensuring all of variables are stationarized, according to theoretical approach in the VAR analysis, variables are organized from external to internal order. Accordingly, order of the relevant variables of the model from external to internal is that: direct foreign investments, import, export, national product, and banks. There are no circumstances of autocorrelation and fluctuating variance; and (see Table 1 and Table 2) the VAR model, the smallest lagging, was used.

Table 1 Test of Stationarity Results

Variables	Coefficient	Lagging Lengths	Variables	Coefficient	Lagging Lengths	Decision
DFI	-0.999 = τ	ADF	DDFI	-11.830 = τ	ADF	I(1)
LITH	-1.105 = τ	ADF	DLITH	-7.237 = τ	ADF	I(1)
LHR	-2.447 = τ	ADF	DLHR	-15.473 = τ	ADF	I(1)
LMH	-3.024 = τ	ADF	DLMH	-16.084 = τ	ADF	I(1)
BANKS	-3.795 = τ	ADF	DBANKS	-11.080 = τ	ADF	I(1)

t = trend; c = constant;

Mac Kinnon critical values used as $\tau = -1.946$; $\tau_c = -2.905$; and $\tau_{t+c} = -3.473$ at 5% level.

According to test of stationarity results, lagging status of obtained variables were exhibited on the relevant table.

Table 2 VAR Residual Heteroscedasticity Tests

Joint Test		
Chi-sq	Df	Prob.
785.6858	750	0.1777

Heteroscedasticity test statistics result prob. value alpha was found greater than 5%; therefore H_0 cannot be rejected. Fixed variance assumption is valid.

Table 3 Var Residual Serial Correlation LM Tests

Lags	LM-Stat	Prob
1	20.27779	0.7321
2	28.78011	0.2732
3	19.53591	0.7707
4	38.24587	0.0438
5	27.51077	0.3309
6	22.44357	0.6100
7	28.19574	0.2989
8	30.89777	0.1924
9	21.37682	0.6714
10	28.36327	0.2914
11	31.85587	0.1622
12	27.19919	0.3460
Probs from chi-square with 25 df.		

When it is considered for all lagging situations, it was concluded that there is no autocorrelation in model. Since Prob values are greater than alpha 5%, H_0 cannot be rejected.

Table 4 Var Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	- 721.5942	NA	108.1154	18.87258	19.02477	18.93345
1	- 579.1118	262.7599	5.120654	15.82108	16.73426*	16.18634
2	- 536.3132	73.36893	3.251897	15.35878	17.03293	16.02843
3	- 480.8952	87.80517	1.506859	14.56871	17.00383	15.54273
4	- 451.6287	42.56951	1.403976	14.45789	17.65399	15.73630
5	- 427.9112	31.41794	1.552254	14.49120	18.44827	16.07399
6	- 409.7380	21.71345	2.055684	14.66852	19.38657	16.55570
7	- 380.8830	30.72872	2.165730	14.56839	20.04741	16.75995
8	- 350.5684	28.34611	2.344600	14.43035	20.67035	16.92629
9	- 305.1843	36.54298	1.874733	13.90089	20.90187	16.70122
10	- 239.9085	44.08238 *	1.011741*	12.85477	20.61672	15.95948
11	- 196.4680	23.69482	1.153514	12.37579	20.89872	15.78489
12	- 136.4733	24.93286	1.137350	11.46684*	20.75074	15.18032*

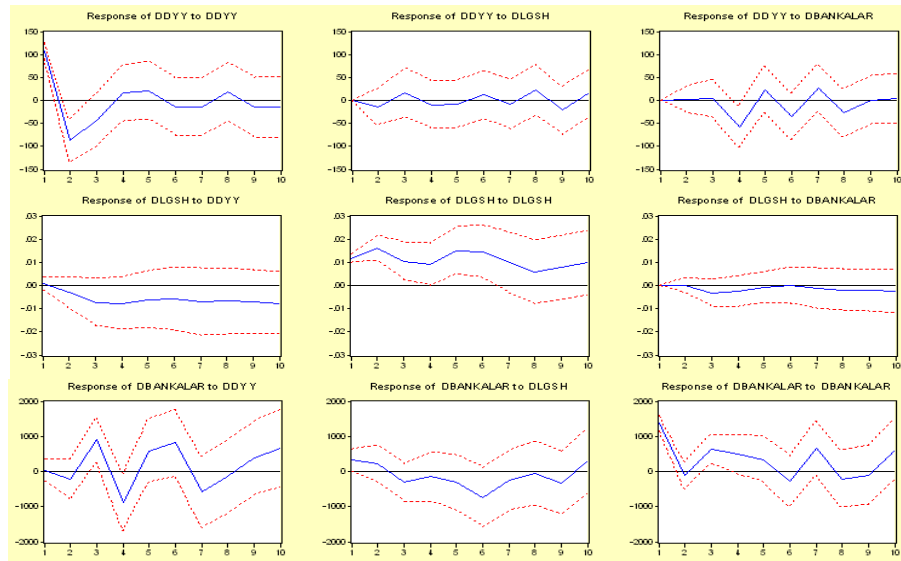
* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5%), FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion

Regarding determination of the most appropriate lagging for VAR model, the AIC and SC criteria are preferred. Concerning the present

model, for the most appropriate lagging status, 12 periods were investigated.

Graphic 5 Graphic of Responses of Growth and Banks Variables to Direct Foreign Investments



Graphics exhibit reciprocal responses of direct foreign investments, banks and national product. At first, direct foreign investments exhibits negative response to the developments arose in the GDP and Banks. Although banks and national product variables responded negatively to the direct foreign capital entries in the beginning, it exhibit rugged trend along with further periods.

Response of national product against foreign capital entry started at negative stance; then, it continued in the same way along with the following 3-month period. The fact that the recent direct investment entered in Turkey was in nature of acquisition instead of preferring fixed capital or increasing manufacturing capacity can be given as reason for this response remains at weak level. In terms of response of export to direct foreign capital entry, there has been usually a positive response observed. Owing to impact of increasing direct foreign investments, it also increased export level together with current manufacturing.

Table 6 Variance Decomposition Table of Direct Foreign Investments

Prd	S.E.	DDFI	DLITH	DLIHRC	DLGSH	DBANKS
1	112.5848	100.0000	0.000000	0.000000	0.000000	0.000000
2	134.5251	94.65245	0.882123	0.901610	0.322842	3.240971
3	141.4998	87.09488	3.403888	0.977882	0.326007	8.197343
4	158.9122	74.00263	2.722945	0.823623	0.269336	22.18147
5	161.4705	72.85330	3.940371	0.984622	0.270249	21.95146
6	168.2539	67.93259	3.702654	1.989510	0.850339	25.52491
7	171.3894	65.75831	4.216093	3.507791	1.714291	24.80352
8	174.6281	65.29101	4.090502	4.974298	1.748323	23.89586
9	178.7765	62.36072	4.268879	5.444801	1.678794	26.24681
10	180.4942	61.32782	4.190941	6.244201	2.024983	26.21205

Table exhibits variables that can explain the seasonal changes in direct foreign investments. According to the table, direct foreign investments explain the lagging in the 1st period by 100%. Along with periods, effects of import, export, national product and banks ratios in explanation of variations in the direct foreign investments can be observed.

Usually, it can be observed more clearly that the DFI is self-explanatory; and thus, direct investment was more external variable compared to the other variables. Variations in direct investments can be explained by its own laggings by 60%. Following the direct investment variable, banks variable is the second explanatory variable by 26% on average. Whereas the export variable can explain by about 5% and import is about 4%. Direct foreign capital entries are important since it is useful to exhibit that it has influence on manufacturing and consumption structures in the country.

Table 7 Variance Decomposition Table of Import

Prd	S.E.	DDFI	DLITH	DLIHRC	DLGSH	DBANKS
1	0.011653	0.581230	99.41877	0.000000	0.000000	0.000000
2	0.023171	0.676746	93.40347	5.540398	0.299579	0.079806
3	0.029131	0.447192	92.74373	6.250459	0.462378	0.096244
4	0.031693	0.898288	86.85857	10.53739	1.400204	0.305551
5	0.034592	1.770273	75.54238	15.93252	6.383117	0.371708
6	0.038592	1.900301	62.19126	22.53612	13.06811	0.304215
7	0.041285	1.723727	54.55594	25.51289	17.72419	0.483250
8	0.043160	1.727800	49.93492	26.96505	20.90725	0.464977
9	0.044797	1.757424	46.41467	27.09268	24.30303	0.432194
10	0.046174	1.708927	44.18947	26.83129	26.86178	0.408535

As it can be observed from Table above, direct foreign investments and banks cannot be considered as determinant on import variable. Except its own lagged values of import, the most effective variables on import are export and GDP. The prominent reason for limited explanatory effect of DFI on import is that DFI entry has not took place at desired level yet. Then, as second reason is the fact that direct investments enter usually in the form of acquisitions instead of an investment.

Table 8 Variance Decomposition Table of Export

Prd	S.E.	DDFI	DLITH	DLIHRC	DLGSH	DBANKS
1	0.018577	0.497183	12.62625	86.87657	0.000000	0.000000
2	0.021448	0.508432	29.97404	67.94312	1.513254	0.061151
3	0.023993	2.513763	24.40393	66.14899	4.096707	2.836612
4	0.024890	4.442453	23.10563	62.28646	6.836259	3.329199
5	0.027748	3.931742	22.88734	62.10153	7.460885	3.618505
6	0.029075	3.581665	23.90149	58.52787	9.900766	4.088209
7	0.029782	3.637811	22.83519	57.99638	11.62316	3.907465
8	0.030163	3.736974	22.26283	56.95653	13.23117	3.812497
9	0.030748	3.665657	21.64077	56.44369	14.57742	3.672467
10	0.031138	3.665660	21.25566	55.69353	15.59916	3.785993

According to the export variance decomposition table above, it can be seen that self-explanatory effect of export variable is at its highest level. While export variable is explained by import best, it is explained by the

GDP variable secondly. Explanatory strength of the DFI and bank variables regarding the export variable is 3% for each and this level is maintained.

Table 9 Variance Decomposition Table for Gross National Product

Prd	S.E.	DDFI	DLITH	DLIHRC	DLGSH	DBANKS
1	0.012897	0.519347	13.13605	3.549287	82.79532	0.000000
2	0.023507	1.845284	20.35937	4.781746	73.01298	0.000617
3	0.027899	8.160107	18.21373	6.290159	65.95895	1.377053
4	0.030994	12.80456	15.17646	8.260183	62.00024	1.758551
5	0.036263	12.16813	13.01979	10.89109	62.58517	1.335817
6	0.041577	11.20899	13.45464	14.23030	60.08848	1.017589
7	0.044015	12.58903	12.29567	15.61150	58.51930	0.984506
8	0.045516	13.96750	11.61660	17.04387	56.27982	1.092210
9	0.047212	15.17242	11.21591	17.39960	55.02155	1.190524
10	0.049193	16.40783	10.94394	16.62751	54.64278	1.377931

According to the variance decomposition table for gross national product above, except its lagging values, the most effective explanatory variables for growth are exhibited by direct foreign investment and export variables. Determinant impact of banks on growth remained at low level in general. As it can be seen on table, explanatory strength of banks on growth on the 1st period is almost zero. In this period, whereas national product can explain it's lagging by 82%; import explains it by 13%. In this period, while explanatory strength of direct foreign investment variable for growth was quite low, it has increased over the periods and reached to 16% at the 10th period. Effect of the bank variable on the national product remained at low level.

Table 10 Variance Decomposition Table for Banks

Prd	S.E.	DDYY	DLITH	DLIHRC	DLGSH	DBANKS
1	1510.230	7.944645	0.549514	6.175098	3.145695	82.18505
2	1713.495	7.162194	17.87122	4.798531	6.041241	64.12682
3	2042.371	21.47546	20.38355	3.380850	4.920177	49.83996
4	2451.932	32.67425	15.97754	8.996932	7.365357	34.98592
5	2880.702	34.19536	12.04185	19.09371	8.734270	25.93481
6	3205.648	29.93594	13.92963	16.40351	14.66639	25.06453
7	3378.458	30.50599	15.12344	16.01249	15.23183	23.12624
8	3431.349	29.60159	17.04369	15.77987	14.91723	22.65762
9	3518.675	29.55319	18.89488	15.45271	14.21233	21.88689
10	3716.456	29.18482	17.57282	14.77400	16.24636	22.22200
11	4050.227	32.78246	17.27730	13.00568	13.68583	23.24872
12	4109.091	32.87054	16.79397	12.70323	14.78301	22.84924

Table 10 shows what variables explain the changes in banks by periods. According to this table, the banks are explained by their own delay of 82% in the 1st period.

As the periods advance, the changes in banks are respectively explained by direct foreign investments, as well as import, export and national product rates. DYY has the highest rate of explaining the changes in banks, which highlights the financial effect. The rates of other variables are also theoretically highlighted according to their significance level.

6. CONCLUSION

The increasing developments in liberal policies in the world and the tendency of countries to opening to foreign countries have developed the process of opening financial markets to foreign countries. These tendencies have also accelerated the movement of capital between countries and brought a number of positive and negative outcomes in countries. In the study that was conducted for Turkey; the data of 1992:Q1-2014:Q4 trimesters regarding the variables of Direct Foreign Investments, Export, Import, National Product and Banks were obtained from the web page of the Central Bank of Turkey (TCMB). The financial liberalization applications for Turkey and the tendency of capital movements and outcomes of tendency in macroeconomics were analyzed by using the VAR method. Considering the results; it was

observed that exposure rates of the variables of DYY and Banks were remarkably higher than all other variables. Other macroeconomic variables also showed a positive exposure, which was, however, more limited. DYY inflows increase the level of national income. They also positively affect export and import even if at a lower rate. This condition explains that the capital inflow either has a limited potential for being investment-linked or is transformed into investment at a lower rate.

REFERENCES

Aslan, Serkan, (2001), “International Capital Flows to Developing Countries and Turkey Against”, T. C. Marmara University, Institute of Banking and Insurance Capital Markets and Exchanges Department, T. C. YÖK Documentation Center, Istanbul 2001.

Atalay, Mehmet ve Turhan, Mustafa, (2001), “Globalization, Emerging Markets and the Turkish Manufacturing Industry, State Planning Organization: Electronic Library Site, 2001

<http://ekutup.dpt.gov.tr/planlama/42nciyil/atalaym.pdf77>.

Bal, Harun, (2001), “International Finance, Debt Management and Turkey”, The Banks Association of Turkey, Publication No: 222. Istanbul, 2001.

Bhanu V., (2005), “Role of Foreign Direct Investment in India’s Manufacturing Exports and Fiscal Decentralisation”, National Productivity Council, Department of Commerce, Nizam College (Autonomous), Osmania University, Basheerbagh, Hyderabad 2005.

Celine, Liew Chern, (2002), “What is The Role of International Capital Market Volatility for, Growth?”, Masters Thesis, Department of Economics and Management Science, Humboldt-Universitat zu Berlin, July 2002.

Fedderke, J.W. and Liu, W., (2001), “Modelling the Determinants of Capital Flows and Capital Flight: With an Application to South African Data From 1960 to 1995”, Elsevier, Economic Modelling 19 (2002) 419-444, accepted 17 April 2001, www.elsevier.com/locate/econbase .

Hoggarth, Glenn and Sterne, Gabriel, (1997), "Capital Flows: Causes, Consequences and Policy Responses", Handbooks in Central Banking, Issued by the Centre for Central Banking Studies, Bank of England, London, December 1997.

IIF, (2008), "Capital Flows to Emerging Market Economies", Institute of International Finance, The Global Association of Financial Institutions, Economic Research & Data, March 6, 2008, <http://www.iif.com/emr/gma/>.

IMF,(2007), "Global Financial Stability Report; Financial Market Turbulence Causes, Consequences and Policies", World Economic and Financial Surveys, International Monetary Fund, Washington DC, October 2007.

İnandım, Şeyda, (2005), "Short-Term Capital Movements Interaction with Real Exchange Rate: The Case of Turkey", Expertise Proficiency Thesis, Central Bank of the Republic of Turkey, Market DG, November, Ankara, 2005.

İşeri, Müge ve Aktaş, Zeynep, "Movements in Foreign Portfolio Investment in IMKB (1997-2005 Period)" <http://www.conturk.org/Turkiyeekonomisi/muge1.doc>.

Kabaş, Tolga, (2005), "Factors Determining Financial Crisis on Developing Countries and International Financial System", M.Sc.,Economic Research Foundation, Ünal Aysal Thesis Competition Review 2005/8, Istanbul. 2005.

Kaminsky, Graciela, L. (2005), "International Capital Flows: A Blessing or a Curse?", George Washington University and NBER, ABCDE World Bank Conference (Paris, France) May 15-16,2003.

Kaya, Yasemin Türker, 1998, "Modeling of Short-term Capital Flows and Capital Flows: The Case of Turkey, DPT - Expertise Thesis, Economic Modelling and Strategic Studies Directorate General, Economic Modelling Agency, Publication No. DPT: 2487 August 1998.

Kennedy, Peter, (2006), (Translation: Sarımeşeli, Muzaffer ve Açıkgöz, Şenay), Econometrics Guide, Simon Fraser University, Gazi Bookstore, Fifth Edition, September 2006.

Kılıçoğlu, Devrim, (1998), “Foreign Portfolio Investment in Developing Countries and Turkey”, Istanbul Technical University, Institute of Social Sciences M.Sc., June 1998, TC Board of Higher Education Documentation Centre.

Lopez-Mejia, Alejandro, (1999), “Large Capital Flows: Causes, Consequences and Policy Responses”, A Quarterly Magazine of The IMF, Volume 36, Number 3, September 1999.

Mathieson D.J. and G. J. Schinasi, (2001), “International Capital Markets; Developments, prospects and Key Policy Issues”, World Economic and Financial Surveys, International Monetary Fund, August 2001.

Petroulas, Pavlos, (2004), “Short-Term Capital Flows and Growth in Developed and Emerging Markets”, May 24, 2004.
http://www.ne.su.se/paper/wp04_04.pdf.

Prasad, Eewar S.; Rogoff, Kenneth; Wei, Shang-Jin ve Kose, M. Ayhan, (2003), “Effects of Financial Globalization on Developing Countries: Some Empirical Evidence”, International Monetary Fund, Occasional Paper 220, Washington DC, 2003.

Stallings B,(2001),“Globalization and Liberalization: The Impact on Developing Countries”, Economic Development Division, Serie Macroeconomia Del Desarrollo, Naciones Unidas, Cepal Eclac, United Nations Publication, Santiago, Chile, December 2001.

Tanör, Reha, (2003), “Financial Crisis and Capital Markets”, TSPAKB, Association of Capital Market Intermediary Institutions of Turkey, First Edition, and Issue No: 8, İstanbul, February 2003.

Tarı, Recep, (2006), “Econometrics”, 4. Printing, İzmit, July 2006.

Taylor, Mark P. and Sarno, Lucio, (1997),“Capital Flows to Developing Countries: Long-and Short-Term Determinants”, The International Bank

for Reconstruction and Development, The World Bank Economic Review, Vol. 11, No. 3: 451-70. 1997.

TÜSİAD, (2000), “Turkey Economics 2000”, Turkey Industrialists' and Businessmen's Association, TÜSİAD-T/2000, Publication No: 283, June, 2000.

CHAPTER 10

Nicholas Olenov

Russian Academy of Sciences, Dorodnicyn Computing Centre, Moscow,
Russia

A RAMSEY TYPE MODEL WITH AN ENDOGENOUS PRODUCTION FUNCTION FOR STUDY OF ECONOMIC SYSTEMS

ABSTRACT

A Ramsey type simplest dynamic economic model adapted for statistical data of an open economy is used to analyse structural problems arise in study of integration and competition of countries. The model parameter identification problem is demonstrated on experience of Russian economy investigation that gave the prediction of Russian crisis in 2008. There are presented some results of study a forecasting stability for the model by the identification set method. The paper proposes to use an endogenous production function constructed by a model of investment policy for firms, a kind of vintage capital model that was proposed in the late 1980s at Dorodnicyn Computing Centre. This modification of the Ramsey type model is used to analyse dynamics of current economic systems for some countries.

Keywords: Ramsey model, economic growth, vintage capital, endogenous production function

JEL classification: C13, C63, F43, O11, E17

1. INTRODUCTION

The Ramsey (1928) model of economic growth is well known and studied. Frank Plumpton Ramsey constructed the model to find by calculus of variation "how much of its income should a nation save?" It was a kind of a central planner's problem for maximizing levels of consumption over successive generations.

Later in 1956 Robert Solow and Trevor Swan independently construct an exogenous growth model in attempt to explain long-run economic growth by capital accumulation, population growth, and technological progress. The Solow model successively fitted available data on the US economic growth. Later in 1965 David Cass and Tjalling Koopmans give significant extensions of the Ramsey model to adopt it for description of a decentralized dynamic economy.

The main difference of Ramsey-Cass-Koopmans model from the Solow-Swan one is that the choice of saving rate in the first one is endogenized and so it may not be constant along the transition to the long run steady state.

Olenev et al. (2007) have used a modification of Ramsey type model for open economy with CES production function to fit statistical data on Russian economic growth 2000-2006. This model predicted a crisis of Russian economy in 2008 by estimation the time of exhaustion of free production capacities.

Kamenev&Olenev (2015) used this model to analyze a problem of forecasting stability by the identification sets method: a visual approach to identifying model parameters based on the construction and visualization of a multidimensional graph of the identification error function, as well as of sets of quasi optimal parameters. In above mentioned models neoclassical aggregate production functions are used. Usually it was a Cobb–Douglas type function or CES function. But to have real contact with microeconomics it is better to use an endogenous production function. And such function we have. Olenev et al. (1986) were constructed a new production function based on micro description for a model of investing policy of firms in market economy. It is a kind of vintage capacity model. This endogenous production function depends of growth rate of economy and gives new implications. The presented work gives some first results of applying the model with our production function to analyze the economies of different countries and their ability to economic growth.

2. A RAMSEY TYPE MODEL FOR RUSSIAN ECONOMY AND DATA

An open dynamic Ramsay type model adapted for the current Russian economy was proposed in Olenev et al. (2007) and its forecast stability

was studied in Kamenev&Olenev (2015).

Assume that gross domestic product (GDP) $Y(t)$ (measured in constant 2000 prices) is determined by a homogeneous production function of total labour (the annual average number of employees in a country's national economy, in millions of people) $L(t)$ and capital (a country's fixed assets, in constant 2000 prices) $K(t)$ with a constant elasticity of substitution (CES production function)

$$Y(t) = Y_0 \left[\alpha \left(L/L_0 \right)^{-b} + (1-\alpha) \left(K/K_0 \right)^{-b} \right]^{-1/b}, \quad (1)$$

where $Y_0, L_0, K_0, \alpha \in (0,1), b > -1$ are initial values (corresponding to 2000) and parameters. As a rule the parameters of the production function are determined directly by time series of economic statistical data for output and production factors $Y(t), L(t), K(t)$. But in our case statistical values of the capital $K(t)$ are highly doubtful. Statistical data of capital barely change from year to year and they were extremely overestimated. In fact, these values mainly represent capital created in Soviet times, and in the early 2000s they were represented largely as "free" resources similar to some natural resources that could still be used without paying (air and in some cases water and land). However the output depends only on the capital involved in the production process, capital which has an objective value, i.e., certain "effective" capital, the possibility of which estimating is a goal of the work.

Assume that a labour which measured as a total employment in the economy in million people increases at a constant rate γ :

$$dL/dt = \gamma L(t), \quad L(0) = L_0. \quad (2)$$

Dynamics of an effective physical capital measured in constant 2000 prices is determined by accustomed equation

$$dK/dt = J(t) - \mu K(t), \quad K(0) = K_0, \quad (3)$$

where parameter μ is a rate of capital depreciation and $J(t)$ are investments (gross fixed capital formation measured in constant 2000 prices). The equations (1)-(3) with a relation $J(t) = sY(t)$ give us a simplest dynamic economic model type of which with a Cobb-Douglas

production function Ramsey has used to find an optimal value of s . Here a slightly more complicated model is used to take into account a substantial openness of Russian economy in nowadays that we should not ignore import and export when we want to identify the parameters of the model. Assume that in each year under consideration a productbalance in current prices is valid: the economy has a sum of GDP $p_Y(t)Y(t)$ and import $p_I(t)I(t)$ that equals a sum of investments $p_J(t)J(t)$, export $p_E(t)E(t)$ and final consumption expenditure $p_C(t)C(t)$ of households, general government, and public organizations.

$$p_Y(t)Y(t) + p_I(t)I(t) = p_C(t)C(t) + p_J(t)J(t) + p_E(t)E(t) \quad (4)$$

Here $p_Y(t), p_I(t), p_C(t), p_J(t), p_E(t)$ denote a deflator of GDP and price indexes on import, consumption, investment and export. They have statistical data for all components of balance (4). In order to solve this system of equations (1)–(4), it is necessary to determine volumes in current prices for the GDP, export, import, and investments, as well as the volumes in constant 2000 prices. The analysis of statistical time series for Russian economy in 2000–2006 (Olenev et al., 2007) has shown that the amounts of investment, export, and import in current prices were determined by constant GDP shares in current prices:

$$\sigma = \frac{p_J(t)J(t)}{p_Y(t)Y(t) + p_I(t)I(t)}, \quad \delta = \frac{p_E(t)E(t)}{p_Y(t)Y(t)},$$

$$\rho = \frac{p_I(t)I(t)}{p_Y(t)Y(t) - p_E(t)E(t)}. \quad (5)$$

It has appeared that $\sigma = 0.1346 \pm 0.0026$, $\delta = 0.3511 \pm 0.0103$, $\rho = 0.3532 \pm 0.0264$. To reduce the number of variables you can go to the relative price indexes on investment, import, and export:

$$\pi_J(t) = \frac{p_J(t)}{p_Y(t)}, \quad \pi_I(t) = \frac{p_I(t)}{p_Y(t)}, \quad \pi_E(t) = \frac{p_E(t)}{p_Y(t)}, \quad (6)$$

and you can measure the full consumption in constant price of GDP:

$$Q(t) = \frac{p_C(t)C(t)}{p_Y(t)} . \quad (7)$$

By statistical time series for Russian economy you can find heuristic functions for relative price indexes that fit well the statistics and are good enough for forecasting. As example you can take the functions each with two parameters:

$$\begin{aligned} \pi_E(t) &= a_E + (1 - a_E)e^{-b_E(t-2000)} , \\ \pi_I(t) &= 1 - a_I(t-2000)^2 e^{-b_I(t-2000)} , \\ \pi_J(t) &= a_J + (1 - a_J)(1 + t - 2000)e^{-b_J(t-2000)} . \end{aligned} \quad (8)$$

The normality conditions are such ones: $\pi_E(2000) = \pi_I(2000) = \pi_J(2000) = 1$. In (8) they are observed automatically. It has appeared (Olenev et al., 2007) that for Russian economy 2000-2006 the parameters found as minimum of average quadratic deviation have the values: $a_E = 0.6684$, $b_E = 0.6142$, $a_I = 0.0712$, $b_I = 0.2602$, $a_J = 0.811$, $b_J = 0.5276$.

You can rewrite the equations (4)-(5) in relative prices (6)-(8) so that the values of GDP components are:

$$\begin{aligned} E(t) &= \delta Y(t) / \pi_E(t) , \quad I(t) = \rho(1 - \delta)Y(t) / \pi_I(t) \\ J(t) &= \sigma(1 + \rho(1 - \delta))Y(t) / \pi_J(t) , \\ Q(t) &= ((1 - \delta)(1 + (1 - \sigma)\rho) - \sigma)Y(t) . \end{aligned} \quad (9)$$

For simplicity of calculations instead of initial value K_0 we search you can use a parameter

$$\alpha = Y_0 / K_0 . \quad (10)$$

By equations (1)-(3), (8)-(10) you can find macro indexes $K(t)$, $L(t)$, $Y(t)$, $Q(t)$, $E(t)$, $I(t)$, $J(t)$ if you set the parameters of the model

$a, b, \alpha, \mu, \gamma, \delta, \rho, \sigma$ from their intervals of changing and the initial values Y_0, L_0 . So we can find the parameters that fit the statistic time series the best and use them for forecasting.

The statistical data used are given in Table 1. Labour is measured by the average number of employees in the national economy in millions of people; the GDP components are given in constant 2000 prices in billion roubles.

Table 1 Statistical time series for Russian economy 2000-2006

Time	2000	2001	2002	2003	2004	2005	2006
L_t	65.273	65.124	66.358	67.247	67.244	68.719	69.600
$\pi_E t$	1	0.84442	0.76610	0.72863	0.68475	0.69651	0.67010
$\pi_I t$	1	0.89204	0.82339	0.73075	0.59196	0.52193	0.45556
$\pi_J t$	1	1.02043	1.00752	0.97393	0.93350	0.88821	0.85997
Y_t	7305.6	7676.9	8039.3	8625.8	9268.8	9817.6	10478.0
I_t	1755.8	2084.1	2388.4	2811.2	3466.2	4055.4	4878.7
J_t	1165.2	1265.7	1300.0	1462.2	1633.6	1807.2	2051.7
E_t	3218.9	3354.1	3699.6	4162.0	4653.1	4950.9	5297.5
Q_t	4677.3	5412.2	5861.9	6223.4	6609.5	6880.7	7386.3

Source: Olenev et.al. (2007).

To calculate the discrete version of the presented model it is necessary to determine a range for possible values of the model parameters which is listed here in Table 2.

Table 2 Ranges for parameters

Parameter	Min value	Max value
a	0.01	0.99
b	-0.99	3.00
α	0.01	0.99
μ	-0.25	0.25
γ	0.0105	0.0125
δ	0.3408	0.3614
ρ	0.3268	0.3796
σ	0.1320	0.1376

Source: Olenev et al. (2007).

3. A PROBLEM OF MODEL IDENTIFICATION

One of the formulas that Theil (1958) has proposed as a measure of forecast accuracy:

$$U_X = \sqrt{\frac{\sum_{t=t_0}^T (X(t) - X_s(t))^2}{\sum_{t=t_0}^t X_s^2(t)}}, \quad (11)$$

where $X_s(t)$ is the actual observations and $X(t)$ are the correspondent prediction. We can use here the Theil formula (11) as a measure of fitting accuracy for calculated by the model time series of macro index $X(t)$ and historical time series of its statistical analogue $X_s(t)$. The closer the value of the Theil index of inequality U_X is to zero the better is the fit of macro index $X(t)$ to statistical data $X_s(t)$.

To fit together all the calculated by model macro indexes to their statistical analogues in this work it will be better to use as a convolution of criteria the following power function we will maximise:

$$N = \prod_{X \in \{I, E, J, Q\}} (1 - U_X^2). \quad (12)$$

Such a record for convolution of criteria (12) will allow us to avoid a situation where one macro index entirely coincides with statistics ($U_X = 0$) but the rest are completely different ($U_X = 1$). The use squares of the Theil index in (12) would reduce our numerous computations.

In the work a method for macroeconomic model parameter estimation based on parallel processing is used. The unknown parameters are determined implicitly as those parameters, which provide maximal value of the used measure of fitting (12). Parallel processing on a supercomputer enables to perform exhaustive search of the model parameters within their confidence intervals (Table 2) and estimate their values for reasonable time.

In formal record

$$N(\alpha) \rightarrow \max_{\alpha \in A}, \quad (13)$$

where

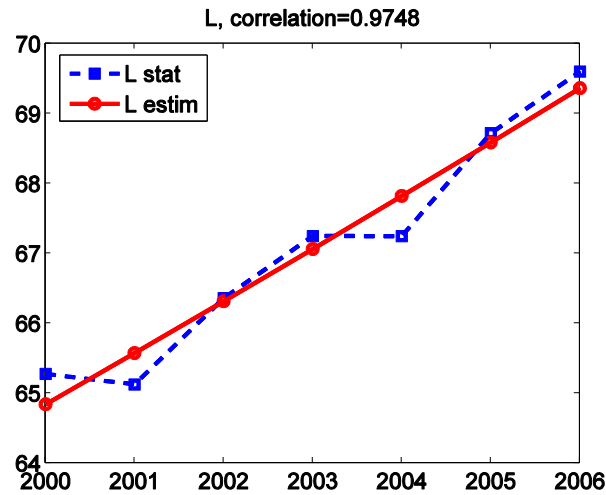
$$A = \{a, b, \alpha, \mu, \gamma, \delta, \rho, \sigma : a_i^- \leq a_i \leq a_i^+, i = 1, \dots, 8\}. \quad (14)$$

Parallel calculations with eight independent parameters (14) were made on supercomputer of Joint Super Computer Centre and in GRID distributed environment of workstations at Dorodnicyn Computing Centre of the Russian Academy of Sciences.

As a result of model identification for Russian economy 2000-2006 it was found (Olenev et al., 2007) the next values of parameters: $\alpha = 0.84$, $b = -0.78$, $\mu = -0.175$, $\gamma = 0.01124$, $\delta = 0.3511$, $\rho = 0.3532$, $\sigma = 0.1346$.

So that the initial value for effective capital $K_0 = Y_0/\alpha = 17819$ billion roubles.

Figure 1 Estimation of the labour L

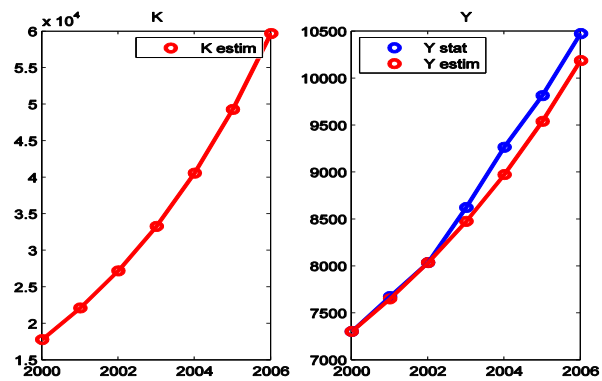


Source: Olenev et al. (2007)

As result of the model identification it was found the following relation for the labour:

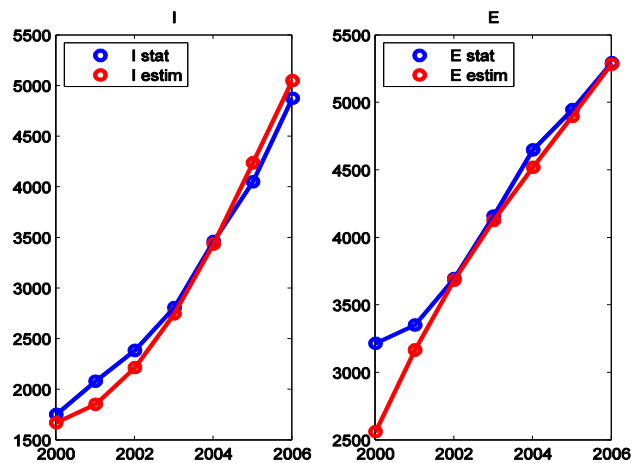
$$L(t) = 64.84e^{0.01124(t-2000)}. \quad (15)$$

Figure 2 Estimation of capital K and GDP Y



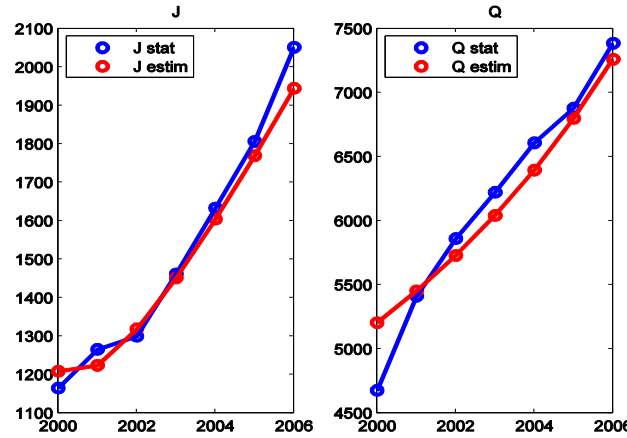
Source: Olenev et al. (2007)

Figure 3. Estimation of import I and export E



Source: Olenev et.al. (2007)

Figure 4 Estimation of investments J and consumption Q



Source: Olenev et.al. (2007)

A negative value of parameter μ means that the effective capital does not decrease by time but it increases due to loading of greatly underutilized production capacities which loading down up as a result of economic policies of 90s. But excess production capacity is not unlimited, so the growth by loading the old capacities built in Soviet time will stop and we can estimate the period in years when it will happen.

$$T = \frac{1}{|\mu|} \ln \left(\frac{K_{\max}}{K_0} \right) = \frac{\ln 4}{0.175} \approx 8.$$

So the model predicted problems in the Russian economy eight years after 2000, or in 2008. At first time such estimation was done in the late of 2006 and published in Olenev et.al. (2007:98).

After crisis of 2008 all BRIC countries except Russia only reduce the positive rate of growth. Russian GDP in 2009 fell down on 7.9 percents. This decline was blamed on the international financial crisis although the reason was our own. It was possible to change a model of economic growth before the exhaustion of the possibility of old capacities utilization but by building of new capacities and by a policy of innovation Olenev (2015).

If you have a model that describes dynamics of production capacities and their loading you can build similar forecasts for economies of other countries.

4. AN ENDOGENOUS PRODUCTION FUNCTION

In Olenev et al. (1986) was constructed a new production function based on description of dynamics for production capacities in a market economy and their loading, a kind of vintage capital model. See details in the works (Olenev et al., 1986), (Olenev&Pospelov, 1986). This production function is an endogenous and contains norm of investments as one of parameters.

This kind of vintage capital model uses notion of a production capacity instead of notion of a capital. Capacity is a maximal possible output. So equation on dynamics of total capacity $M(t)$ of economy changes the equation (2) on physical capital $K(t)$.

$$\frac{dM}{dt} = \frac{J(t)}{\varphi} - \beta M(t), \quad M(0) = M_0. \quad (16)$$

Here $\varphi > 0$ is a capital intensity ratio for transfer the investments in units of capacity, and $\beta > 0$ is a depreciation rate for capacity. We will get equation (16) of total capacity from micro description for capacities dynamics if it can be ignored the disposal of old capacity (Olenev et.al, 1986).

If we denote a ratio of the total labour $L(t)$ to the total capacity $M(t)$ as an average labour input

$$x = \frac{L(t)}{M(t)}, \quad (17)$$

then we can write the endogenous production function in the form

$$Y(t) = M(t)f(t, x), \quad (18)$$

where an intensive production function $f[t, x] \in \mathbb{Q}_1^1$ is a function of capacity loading. In general, the function can be calculated numerically on a basis of the initial microdescriptions (Olenev et.al, 1986).

In a special case when all investments are made in the best technology and the share of new investments in the total capacity is constant on time we can obtain an analytical expression for the production function (Olenev et al., 1986):

$$f(t, x) = 1 - \left[1 - (1 - \varepsilon - \varphi\beta/j) \frac{x}{v(t)} \right]^{\frac{1}{(1 - \varepsilon - \varphi\beta/j)}}, \quad (19)$$

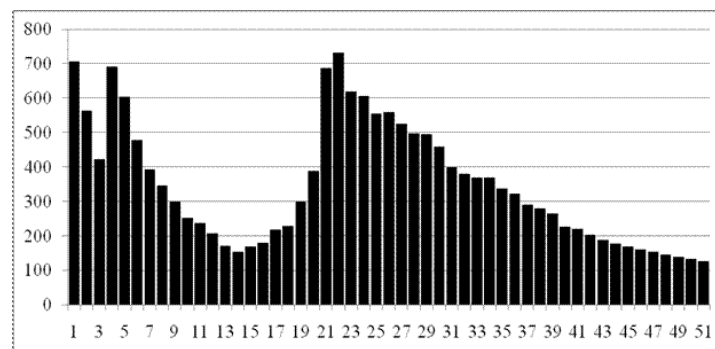
where, $j = J(t)/M(t) = \text{const}$, $\varepsilon \geq 0$ is a rate of scientific and technical progress expressed in the model in reduction of a minimal labour intensity $v(t) \geq 0$.

$$\frac{dv}{dt} = -\varepsilon v(t) \frac{j}{\varphi}. \quad (20)$$

The new production function (18) contains a rate of balanced growth n because accordingly (16) the rate of growth is equal $n = j/\varphi - \beta$. So Solow's golden rule saving rate is not trivial (Olenev et al., 1986) for the production function (18).

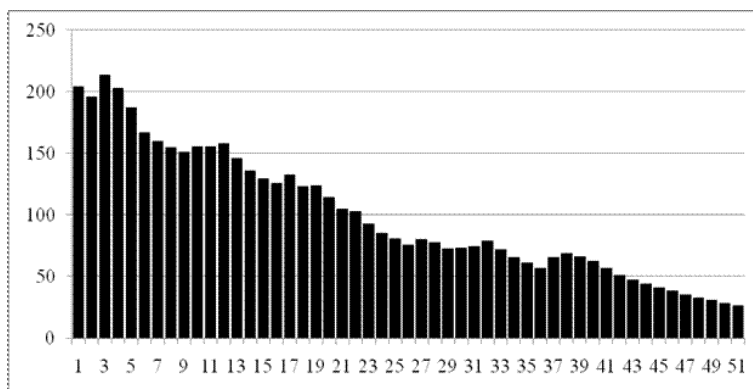
In general dynamics of production capacity or vintage capital can be quite quaint. See for example Figures 5-6 of instant distribution of capacities by age for Russia and Germany.

Figure 5 Distribution of production capacities by ages for Russia in 2012



Source: own calculations by official statistical data <http://unstats.un.org/unsd/snaama/dnllist.asp>

Figure 6 Distribution of production capacities by ages for Germany in 2012



Source: own calculations by official statistical data <http://unstats.un.org/unsd/snaama/dnllist.asp>

5. CONCLUSIONS

As a rule economic models contain a large number of unknown parameters on which value results of the forecast and of the political recommendations depend significantly.

It causes a need of a careful identification of the model parameters.

For indirect identification of parameters of mathematical models of economy there are used parallel algorithms of global optimization. An identified economic model can be used for analysis of specific economic problems, for the prediction of possible future development, for developing policy recommendations to decision makers.

A modification of Ramsey type model for open economy with CES production function has used to fit statistical data on Russian economic growth 2000-2006. This model predicted a crisis of Russian economy in 2008 by estimation the time of exhaustion of free production capacities. For real contact with microeconomics it is better to use an endogenous production function. A new production function based on micro description for a model of investing policy of firms in market economy is used to analyze the economies of different countries and their ability to economic growth.

The author of the work was supported by the Russian Science Foundation (project no. 14-11-00432)

REFERENCES

Kamenev G.K., Olenev N.N. (2015) Study of the Russian Economy's Identification and Forecast Stability Using a Ramsey Type Model // Mathematical Models and Computer Simulations, Vol. 7, No. 2, P.179-189.

Olenev N.N., Pechenkin R.V., Chernetsov A.M. (2007) Parallel calculations in MATLAB and its applications. Moscow: Dorodnicyn computing centre of RAS, 120 pp. In Russian.
Web: <http://www.ccas.ru/mmes/distcompbook.pdf>

[Olenev](#) N.N., [Petrov](#) A.A., Pospelov I.G. (1986) A Model of Production Capacity Changes and Production Function of an Industry. In: Mathematical Modelling: Processes in Complex Economic and Ecologic Systems /Ed. A.A. Samarsky, N.N. Moiseev, A.A. Petrov/. Moscow: Nauka. P. 46-60. In Russian.
Web: <http://www.ras.ru/ph/0004/0QATS8MN.pdf>

[Olenev](#) N.N., [Pospelov](#) I.G. (1986) A Model of Investment Policy of Firms in Market Economy. In: [Mathematical Modelling: Processes in Complex Economic and Ecologic Systems](#) /Ed. A.A. Samarsky, N.N. Moiseev, A.A. Petrov/. Moscow: Nauka. P. 163-173. In Russian.
Web: <http://www.ras.ru/ph/0004/MC7YOLMO.pdf>

Ramsey F.P. (1928) A mathematical theory of saving. The Economic Journal, Vol. 38, No. 152. P. 543-559.

Theil H. (1958) Economic forecasts and policy. Amsterdam. The Netherlands: North-Holland, 1961. 567 pp.

Olenev N. (2014) Identification of the Uzawa-Lucas Model for World Economy // International scientific conference "New challenges of economic and business development." Riga, University of Latvia. Abstracts of reports. P. 87-88.

Olenev N. (2015) A study of structural changes influence on Russian economy // PFUR Bulletin (Economics), № 1. P. 150-157. In Russian.
Web: <http://elibrary.ru/item.asp?id=2313385>

CHAPTER 11

Kâmil Tüğen

Dokuz Eylul University, Faculty of Economics and Administrative Sciences, Public Finance, Turkey

Ayşe Atılğan Yaşa

Dokuz Eylul University, Faculty of Economics and Administrative Sciences, Public Finance, Turkey

Fatma Yapıcı

Dokuz Eylul University, Faculty of Economics and Administrative Sciences, Public Finance, Turkey

THE EVALUATION OF THE EFFECTS OF GLOBAL TAX COMPETITION ON CENTRAL GOVERNMENT BUDGET IN TURKEY¹

ABSTRACT

International economic relations that have increased thanks to globalisation have had an effect on capital and labour force mobility, technological developments and the central government budget of countries. The effort of countries to reduce tax rates has led to the introduction of the concept of global tax competition. There are some disadvantages of this concept as well as its advantages. On one side, countries may attract more investment by reducing tax rates thanks to global tax competition; but they may have to spend much more for public revenues that increase the productivity of capital on the other side. Consequently, the public expenses that increased at first place lead to going into dept in order to finance those expenses. Many countries have experienced this process nowadays and this situation has led to the collaboration of countries in order to reduce the negative consequences of this above mentioned process.

Turkey has struggled to increase its level of integration to global economy since the beginning of 1980's. In this respect, within the last 35

¹ This paper was presented at 10th International Conference - Economic Integration, Competition and Cooperation-Accession of the Western Balkans region to the European Union, 22-24 April 2015

years it has legislated against all the commercial and financial obstacles against this integration; has entered into many bilateral and multilateral commercial agreements; has adopted international standards and practices; and has made great effort for the liberalisation of the market. Turkey has been supporting its place inside global tax competition in terms of subjects such as retirement of foreign investment, stability of economic growth, legal framework of regulations, decreasing tax burden, increased expenses for public infrastructure while the budget performance of Turkey has been also exposed to negative consequences of it such as foreign investment with low reliability and high mobility, reduction in tax revenues and growth of public expenditures.

The purpose of this study is to examine the changes that have occurred in the central government budget items due to the results of the efforts of to strengthen the global tax competition. In addition, this study pursues to introduce some suggestions for reducing the negative consequences of global tax competition. In first place, after conceptualising the term of global tax competition, we will consider the effects of global tax competition from various aspects, then will establish the relationship between the global tax competition and the budget instruments such as public revenues, public expenditure and borrowing. Lastly, these relations will be evaluated in terms of the central government budget system of Turkey.

Keywords: Global Tax Competition, Budget Execution, Revenues, Expenses, Debt.

Jel Classification: H87, H61, H63

1. INTRODUCTION

Global tax competition is occurring as a result of rising trade and investment flows in accordance with the capital and labour mobility between countries. The countries which seek to attract foreign capital investment tend to pursue the policies of reduction tax rates, or increasing quality of public services probably resulted in borrowing to finance it.

Global tax competition and the central government budget are associated with the budget instruments such as revenues, expenditure and borrowing. Even if the global tax competition seems to affect the budget instruments via tax aspects, for a country that seeks to attract foreign capital or avoids driving away the existing capital, an increase in public expenditure is required. In particular, as a country increases its public expenditure on infrastructure, security, education and environmental issues, that country becomes attractive to foreign direct investment and increases its capacity to compete within a globalised world. Although global tax competition has a positive impact for gaining the attraction of foreign capital, it also leads to reduction in tax rates, and creates financial problems for increasing public expenditure that leads into borrowing. Even though, for the developed countries, the sustained borrowing is a viable public policy likewise tax revenues are, for the developing and underdeveloped countries, there occur negative consequences of the tax competition.

This study examines the relation between the global tax competition and the central government budget of Turkey in terms of analysing the budget revenues, expenses, and debt.

2. THE CONCEPT OF GLOBAL TAX COMPETITION AND ITS EFFECTS

The concept of competition, in the current Turkish dictionary, is defined as “conflict between people pursuing the same goal, contest, race”. In economic jargon, competition is defined as “the race between vendors to maximise their profits by getting more customers or having more sales of goods and services”. Along with the globalisation trend that accelerates the liberalisation with it, the developing countries particularly enter into competition to benefit more from the resources with the help of applying new policies in economic and social fields.

The countries as a result of their new policies and the pace of the technology gain greater mobility of production factors as economic integration increases. Both the developed countries and developing ones enter into the global competition due to the mobility of production factors between countries and the policies of these countries in financial matters as well as in an economic manner have also been influenced. Global tax competition can be considered as the strengthening of the

mobility of labor and capital, and is manifested for the countries by their various interventions on taxes in order to remain attractive to foreign capital.

In other words, tax competition is defined as the low effective tax rate of countries, as a result of economic integration and gradually increasing financial integration (Yereli, 2005:19).

Global tax competition is reflected as the firms and administrative units with great competitiveness characteristic at the national level have the authority to entitle the taxpayers and to reduce the tax burden on them or to make the high mobilised production actors attractive for their administrative units (Aktan and Valdez, 2004:2). By this means, the countries that are in more disadvantaged positions in terms of benefiting from the tax aspects import both human and capital resources from other countries.

Based on the above-mentioned definitions of global tax competition, there occur three aspects of tax competition as listed below (Giray, 2005:95):

- Tax competition is a concept intended to attract foreign capital into the country by increasing the international competitiveness of enterprises or individuals.
- Tax competition includes international competition. The concept of global tax competition is used for a country which is affected by the tax policies of other countries or vice versa situation. Within tax competition, the taxpayers (investor, company or employees) are liable to determine their decisions with regard to choose a country with a more appropriate tax system.
- Tax benefits provided with tax competition are to be performed through various tax incentives.

Tax competition is classified as ‘horizontal and vertical tax competition’ in terms of which it belongs to federal states and economic integration or to centralisation and decentralisation, and as ‘beneficial and harmful tax competition’ in terms of the application policy and economic consequences. Horizontal tax competition is the competition of the same level of two or more units upon the tax source management (Aktan ve Dileyici, 2006:71). It is illustrated that if two or more nation states or

local units, supposed at the same level, receive taxes on tax revenues, one's receiving tax affects the other's tax revenues. Vertical tax justice is named when independent administrative units are taxed differently from each other. An example can be given that there is tax competition between different state structures at both local and national level at the federal states (Goodspeed, 2003:3).

The effects of tax competition may be summarised as follows:

Beneficial tax competition:

- Tax competition, for many reasons, is a condition that is requested. What the most important of these causes is the necessity of economic growth that gets policy-makers designed more viable tax policies (Mitchell, 4). Tax reforms thanks to the tax competition might provide a decrease in the rates of marginal income tax, and they prevent double taxation whereas they establish regional taxation (OECD is considered as harmful) (Mitchell, 6).
- Tax competition serves for the evolution of the tax policies which prompt economic growth and more opportunities (Mitchell, 5).
- Decrease in tax rates due to tax competition may lead to increasing tax revenues (Aktan and Vural, 2004: 16). When considering the Laffer curve, it is not surprising to reach to these results. For example; Ireland, in the mid-1980s, applied approximately 50 % corporate tax rate and it had GDP up to 1 %; on the contrary, by 2007, it applied 12.5 % corporate tax rate and increased its GDP up to 4 % (Engen and Hassett, 2003:27-29, Mitchell, 2003:5).
- Owing to the lowest taxes levied on corporate profits, the domestic firms strengthen their competitive aspects, and this is named as beneficial tax competition (Aktan and Vural, 2004: 2).
- The foreign capital that all countries pursue to attract into their countries by regulating tax reforms might provide the ability to access advanced technology provisions as well as labour capacity (Aktan and Vural, 2004:6). In addition, foreign investors supply management knowledge to the investee country.

- Tax competition enables the freedom of movement and creates residential preferences for the citizens. So, the citizens tend to choose more appropriate unit to settle or work in accordance with the best suited options offered for themselves. Thus, the administrative units would become more eager to offer the best public services to get the citizens satisfied at the highest level (Aktan and Vural, 2004:15).

Harmful tax competition:

- Harmful tax competition is named when a country realises its aim to attract foreign direct investment only through reducing tax rates (Aktan and Vural, 2004: 2).

- Tax havens derived from the aspects of tax competition lead to tax evasion by undermining the tax assessments of the countries that are the sources of income for companies which transfer the profits and revenues to these regions or countries (Aktan and Vural, 2004:11).

What is a common problem for both developed countries and developing ones is the decrease in tax revenues. However, that might create more negative consequences for the developing countries when compared to the developed ones. In the developing countries, where the funding of tax administration is more restricted, there can be probably seen more tax evasion and tax avoidance cases not to be easily punished by the authorities (Dietsch, 2010:10).

- Tax competition, especially in developed countries, increases the taxes obtained through labour and decreases the rates of taxes obtained through capital. Hence, there occurs capital revenue with constantly decreasing tax burden whereas the tax burden on labour and spending increases. In light of that circumstance, an increase in income injustice is observed (Dietsch, 2010:9). An increase on the tax burden upon the labour with its characteristic of high depreciation factor can be regarded as indication to observe the disability of the practice of the principle of separation efficiency in taxing.

- In today, the mobility of labour and capital between nation states has been easily knitted via the rapid technological developments as well as legal policies. The citizens of countries, that are members of international economic integration organisations such as EU and NAFTA, are free to choose where to live and work within the member

states. This freedom generally ends with the individuals' choice on the countries with the lowest tax rates or discount mechanisms (Aktan and Vural, 2004:11). The above mentioned type of labor mobility for the countries that need qualified labour force may result in either to preserve the existing qualified workforce inside the country or to attract the qualified labor force in other countries. Countries that owe more skilled-labor workforce within that competition affect the source country from which they have attracted the qualified labor force into their countries. The policies on low-fare in the developing countries that include less qualified labor force provide advantages within the competition. However, low tax regimes proceeded from the increases in labour costs coming with the economic progress create a competitive environment for them as well (Dietsch, 2010:9-10).

3. THE RELATION BETWEEN GLOBAL TAX COMPETITION AND BUDGET

Global tax competition has an impact on public revenues, public expenditures and borrowing.

3.1. Public Revenues

In a world with global tax competition, the taxes of high mobilised labour and capital are exposed to decline in tax rates as well as regulations on tax incentives, various exemptions of incentives. At first, that entails regression for the tax revenues, and creates great adverse effects on the budget. In this process, countries with very low or even zero-rate taxes are considered as the tax havens (Dietsch, 2010:11).

It is clear that companies and individuals seek to reduce tax obligations and tax burden on themselves. One of the methods for the reduction of tax burden is the transfer pricing. Transfer pricing is applied in the purchase or sale of goods or services associated with the low taxation (Revenue Administration, 2010:1-4)². The methods such as

² Associated people are used for the persons both with the corporate taxpayers and with the income taxpayers.

Associated people for enterprises: it refers to the self-reported partners, institutions or individuals of relevant partners or agencies, the real people or institutions that are associated directly or indirectly in terms of the control, administration or capital of the institutions or partners as well as those persons under the influence, the wives, partners or spouses as well as including people with linear kinship. Associated people for individuals: it refers to the wives of enterprises, and others with linear kinship, including the third degree

intercompany borrowing, royalty payments, dividend repayments, intercompany trade are applied to pay lower taxes within the transfer pricing policy in order protect the profits of firms (Desai, 2004:5). Specifically, the basic reason for branching out of the foreign capital in countries known as tax havens is to transfer their profits through these countries. To conclude, transfer pricing leads to loss of tax base in the countries that are the resources of the revenues of the firms or individuals, and thus causes the reduction in tax revenues.

Another method applied by the companies pursuing to reduce the tax burden is to transfer their earnings to the countries where there exist banks and tax administrations working with the privacy principle. Due to the lack of reliable information flow of the tax administrations working with the privacy principle in those countries that forge ahead inside the tax competition, the associated firms or individuals reach their desired tax burden with low rate (Deitsch, 2010:7).

Another effect of the tax competition on public revenues relies on the combination of the revenues. Decrease in profits and personal income tax rates as well as the basis depletion concludes in increase in the amount of the obligations on expenses, assets and other tax rates. Considering the annual statistics, it can be seen that there exists an increase in the rates of tax revenues over the expenses. That means that the level of injustice taxation intensifies.

Even though the tax competition has negative impacts on the public revenues as cited above, it is also thought of that the impacts of this competition can increase the public revenues as well. Indeed, we have emphasised that there is a positive way relationship between the decrease of the corporate tax rate and the increase of the corporate tax revenues in Ireland. Tax revenues are expected to increase in a country that performs to include foreign capital into the national economy and effectuates economic growth by compensating the loss of internal savings. Meanwhile, it is needed to say that after 2008 crisis, Ireland has lost a significant amount of foreign capital investors.

kinship, and the partner companies and their administrators of the partner companies, as well as the companies under the influence that are associated directly or indirectly in terms of the control, administration or capital of the institutions or partners. The Presidency of Revenue Administration, The Guide regarding the profit distribution thorough transfer pricing 2010: 1-4.

Thus for, it might be concluded that global tax competition is likely to have more negative effects on the public revenues.

3.2. Public Expenditure

Even if tax competition is a race on the basis of public revenues, it also affects public spending. As a result of tax competition, governments try to prevent their citizens from leaving the country by getting more sensitive to their needs as well as by offering a high quality of public services. In order to perform that, governments tend to increase the amount of public spending, and that can distort the balance of the budget in long term.

In these circumstances, the governments are to keep an optimal balance between the total tax burden and the supply of public services in order to decrease public expenditure to a reasonable level or to keep it low (Gallagher, 2005:99). In a global world, particularly from the standpoint of the countries within tax competition, tax policies affect the policymakers and interest groups, and they would enter into competition in order to reach to an optimal balance in terms of both revenues and expenses. Along with this struggle, an increase in the quality of life and prosperity would be seen around the world thanks to the effective distribution of resources (OECD, 1998:14).

Two hypothesis are given in order to examine the relation of the mobility of production factors from one country to the other country with the level of taxes and public expenditures. At first, efficiency hypothesis claims that as the mobility factor in capital increases, there can be seen a decrease in tax revenues obtained from capital, a decrease in public sector and an increase of the rate of public revenues providing efficient public spending inside the private sector. The second hypothesis is compensation hypothesis that predicts an increase in public spending and rate of taxes due to the fact that the mobility factor creates external shocks and the demand for social security of an individual increases accordingly (Schulze and Ursprung 1999:300). Considered these hypotheses, tax competition is regarded with the efficiency hypothesis. Indeed, within the existing literature of tax-spending issue, Milton Friedman has firstly examined that the total of tax revenues determines the amount of public expenditure. According to Friedman, if the policies for the expansion of taxation system increase the amount of

public expenditure, a decrease in tax revenues would lead to pressure and restrictions on public spending (Friedman, 1978:9).

3.3. Borrowing

The restrictions on public sector derived from the globalisation and the new settlement of market economy have been rooted on the reduction on public expenditure. However, for some countries within a globalised world, public expenditure has expanded rather than decreased. In particular, the increase of the debt interest payments based on the increase in public finance burden causes to get in vicious circle of deficit-debt-interest as well as to the inefficiency of public expenditure (Bakkal and Susam, 2011:38).

As a result of reduction in tax rates, a country is likely to deliver foreign capital into the country, but tax revenues are likely to decrease and this creates troubles in financing policies for the public spending. However, the reduction of tax revenues does not end up with the reduction of public expenditure. The global tax competition induces a global competition environment for the public spending as well. So, increasing public spending has raised the requirement for borrowing. In particular, as the rates of debt interests increases, borrowing, frequently used by the developing countries, leads to negative effects in the distribution of income (Öz, 2009:22).

4. THE EFFECTS OF GLOBAL TAX COMPETITION UPON CENTRAL GOVERNMENT BUDGET IN TURKEY

In this part of the study, how global tax competition impacts the budget instruments such as revenues, expenditure and borrowing inside the central government budget of Turkey is discussed.

4.1. The Relation between Global Tax Competition and Central Government Tax Revenues

As a result of export growth policy of open market structure starting from 1980, international capital movements have been intensified all through the world. It is possible to subsume the foreign direct investment policies implemented by the countries under three categories as shown in Table 1.

Table 1 Incentives for Foreign Direct Investment

I.FINANCIAL INCENTIVES		
Investment grants	Subsidized credits and credit guarantees	Government insurance at preferential rates, publicly funded venture capital participating in investments involving high commercial risks
II.FISCAL INCENTIVES		
Profit-based	Reduction of the standard corporate income tax rate or profit tax rate, tax holiday	
Capital-investment-based	Accelerated depreciation, investment and reinvestment allowances	
Labour-based	Reduction in social security contribution Deductions from taxable earnings based on the number of employees or other labour related expenditures	
Sales-based	Corporate income tax reductions based on total sales	
Import-based	Duty exemptions on capital goods, equipment or raw materials, parts and inputs related to the production process. Tax credits for duties paid on imported materials or supplies	
Export-based	Export tax exemptions, duty drawbacks and preferential tax treatment of income from exports Income tax reduction for special foreign-exchange-earning activities or for manufactured exports Tax credits on domestic sales in return for export performance, income tax credits on net local content of exports Deduction of overseas expenditures and capital allowance for export industries.	
Based on other particular expenses	Corporate income tax deduction based on, for example, expenditures relating to marketing and promotional activities.	
Value added based	Corporate income tax reductions or credits based on the net local content of outputs. Income tax credits based on net value earned.	
Reduction of taxes for expatriates	Tax relief to help reduce personal tax liability and reduce income tax and social security contribution.	

III.OTHER INCENTIVES (including regulatory incentives)			
Regulatory incentives	Subsidized services (in kind)	Market privileges	Foreign exchange privileges

Source: UNCTAD, World Investment Report, (2004) http://unctad.org/en/Docs/wir2004_en.pdf, 01.04.2015.

Countries have begun to reduce the rates of corporate tax along with the income tax in order to attract foreign direct investments due to the impact of global tax competition. From the 1980s to the current world, there have been seen significant reforms regarding that policy in most of the OECD member countries, and the rate of corporate tax has decreased from 48 % of 1980s to 20 % of nowadays. Even though general opinion on the reason of decrease in the rates is based on revenue losses, it is seen that corporate tax income has increased comparing with GDP and total income tax between 1980-2012 (Çelikkaya, 2010:36). Therefore, it can be reached that the change in tax revenues does not only depend on the changes in the tax rate, but also depends on the tax basis.

The most important regulation to attract foreign capital is Foreign Investment Incentives Law (Law no.6224 of 01/18/1954) in Turkey. In accordance with this Law, it is planned to encourage foreign direct investors benefit from the incentives on the behalf of economic growth of the country, work on an open environment to the private sector of Turkey, and avoid from the fields including the threat of monopoly or special concessions.

After 1980, the various administrative and legal arrangements that remove restrictions on foreign capital and goods movement have been implemented. As one of the long-term dynamic effects in European Union countries is the Customs Union that encourages foreign capital via incentives, Turkey became a part of it by 1996, and thus, it has removed all customs duties and equivalent effect measures for industrial products supplied by the member states of the European Union (Ministry of Foreign Affairs, Turkey-EU the Customs Union is <http://www.mfa.gov.tr>).

When it comes to mention about Direct Foreign Investment Law (Law no.4875 of 06/05/2003), it includes the basis to encourage foreign direct investment, to protect the rights of foreign investors, to adopt the definitions of international standards of investors, and to transfer the approval system for the foreign capital into the just information system for the inventors as well as to increase the foreign capital via dedicated policies.

Since Turkey has begun the negotiations for the accession process into European Union, it has become an important reference for foreign capital to invest in Turkey (Çeştepe and Mıstaçoğlu, 2012:127).

The corporate tax rate of Turkey was reduced in order to make both domestic and foreign capital benefit from within global tax competition. Corporate tax rate was 50 % in 1980, then between 1986 and 1995, there has been showed a decline to 44 %, and it was ended with 30 % in 2000. When the Corporate Tax Law (Law no.5520 of 06/21/2006) was promulgated, the corporate tax rate was determined as 20 %. This regulation is determined as the most important reform of Turkey within the context of global tax competition. Thus, Turkey has reached to lowest seventh country level in terms of tax burden on corporate tax revenues among the members of OECD countries (The speech of the Finance Minister on the representation of budget in 2015:102).

Corporate tax revenues in the central government budget revenues in Turkey after 2006, have been addressed in Table 2.

Table 2 The Place of Corporate Tax Income in the Central Government Income in Turkey (Thousands of Euros)

Years	Corporate Tax	Central Government Incomes	The Rate of Corporate Tax in the Central Government Income
2006	6.926.121	104.339.346	% 6,64
2007	8.841.181	117.503.727	% 7,52
2008	9.827.948	122.238.584	% 8,04
2009	9.629.145	111.529.375	% 8,63
2010	11.490.418	140.863.946	% 8,16
2011	12.582.877	141.279.321	% 8,91
2012	13.935.643	161.394.364	% 8,63
2013	12.436.156	170.905.378	% 7,28
2014	12.100.189	163.886.195	% 7,38

Note: Figures was turned over (based on relevant years's exchange rate) Euro by us.
Source: Revenue Administration, Budget Revenue, <http://www.gib.gov.tr>, 07.03.2015.

As can be seen from Table 2, there has occurred a significant increase in corporate tax since 2006, and the ratio of it inside the central executive revenues has also increased. After the reduction of the corporate tax rate to 20 % in 2006, the amount of taxpayers has been influenced as well so as to be shown in Table 3. A remarkable increase in the amount of taxpayers of corporation taxation is observed as shown below.

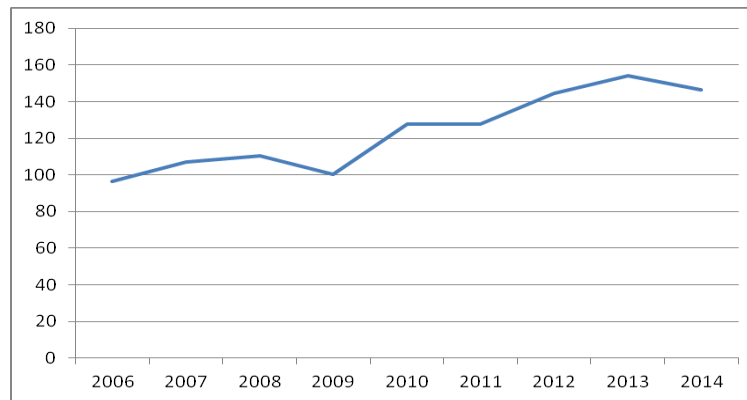
Table 3 The Amount of Corporate Taxpayers in Turkey (2006-2014) (December)

Years	The Number of Corporate Tax Taxpayers	Years	The Number of Corporate Tax Taxpayers
2001	565.556	2008	640.679
2002	585.981	2009	640.786
2003	605.020	2010	652.009
2004	632.093	2011	663.967
2005	593.166	2012	662.190
2006	608.981	2013	662.225
2007	634.569	2014	673.920

Source: Revenue Administration, <http://www.gib.gov.tr>, 07.03.2015.

From 2006 that the corporate tax rate was reduced to 20 % to 2014, the changes in the central executive budget revenues are shown in figure 1.

**Figure 1 The Central Executive Revenues in Turkey between 2006-2015
(Billion Euros)**



Source: Republic of Turkey Ministry of Finance, Directorate General of Budget and Fiscal Control, <http://www.bumko.gov.tr>, 07.03.2015.

Analysing the data of Figure 1, as the central executive budget revenues of Turkey were around 96 Billion Euros in 2006, it has been seen a decline in revenues due to the global crisis of 2008 and 2009, and the revenues increased from 128 Billion Euros in 2010 to 154 Billion Euros in 2013. In 2014, central executive budget revenues were around 146 Billion Euros.

Table 4 shows the foreign capital investments coming after 1980 that was the year of that global tax competition has begun to accelerate.

Table 4 Indications of Foreign Direct Investment in Turkey

Years	Foreign Direct Investment Permits (Millions of \$)	Foreign Investment Realisations (Net) ((Millions of \$)	Direct Investment/Current Account Balance (percent)
1980	97	18	-1
1985	235	99	-10
1990	1.861	684	-26
1995	2.938	885	-38
2000	3.477	982	-10
2001	2.725	3.352	89
2002	2.243	566	-90
2003*	1.208	688	-9
2004	-	1.092	-8
2005	-	8.134	-36
2006	-	16.982	-53
2007	-	18.394	-48
2008	-	14.712	-35
2009	-	6.170	-44
2010	-	6.261	-13

* Permission requirement was elevated since June 2003.

Source: Republic of Turkey Ministry of Development, Economic and Social Indicators, <http://www.kalkinma.gov.tr>, 09.03.2015.

When Table 4 is examined, we see that after the necessity permission for the foreign capital was demolished by 2003, the increase in foreign capital inflows has occurred. Moreover, the decrease of the tax rate in 2006 has also taken a significant role on these inputs. The regression in foreign capital inflows in 2009 and 2010 might be based on the effects of the global crisis.

The developments after 2010 are discussed in Table 5. It can be said by looking at the table that the foreign direct investment inflows have a great importance apart from the high level of foreign capital inflow in 2011.

**Table 5 Foreign Direct Investment Inflows (Actual Inflows)
(Million \$)**

	2010	2011	2012	2013	2014	January	
						2014	2015
Total Foreign Direct Investment (Net)	9.086	16.136	13.283	12.357	12.145	1.243	1.791
• Foreign Direct Capital	6.592	14.123	10.647	9.308	7.824	911	1.491
•• Capital(Net)	6.221	14.146	10.126	9.298	8.448	835	1.491
••• Input	6.256	16.137	10.759	9.866	8.702	835	1.599
••• Output	-35	-1.991	-633	-568	-254	0	-89
•• Other Capital	371	-23	521	10	-624	76	-19
• Real Estate (Net)	2.494	2.013	2.636	3.049	4.321	332	300

Source: Central Bank of the Turkish Republic, <http://www.tcmb.gov.tr>, 09.04.2015.

By 2014, there exists a total of 41.397 firms with foreign capital in Turkey. These firms are generally engaged in the fields of motor vehicles and motorcycles remaining wholesale trade and commission trade, retail trade, except of motor vehicles and motorcycles, repair services of personal and household goods, construction, mainly operate in areas such as real estate activities and transportation services³. The countries of origin of the foreign companies that engaged in Turkey are Germany, Iran, Britain, Netherlands, Syria and Russia, as most and Mali, Niger and Zimbabwe as last⁴. Furthermore, in light of the data of the World Bank Doing Business Report in 2014, Turkey is located in the second place as opening workplace to the foreign capital within 6 days, and in the third place in terms of the business cost levels⁵.

In summary, when the process of Turkey within the global tax competition is lightened, it is concluded for the country that global tax competition has a great impact on the reduction in the corporate tax rate and the increase of foreign direct investment as considering the

³ The Fields of Foreign Capital Firms in Turkey and The Number of Firms in Relevant Fields(31.12.2014) is given in Addition 4.

⁴ The Origin of Foreign Firms Engaging in Turkey and the Number of Firms in Related Fields(31.12.2014) is given in Addition 5.

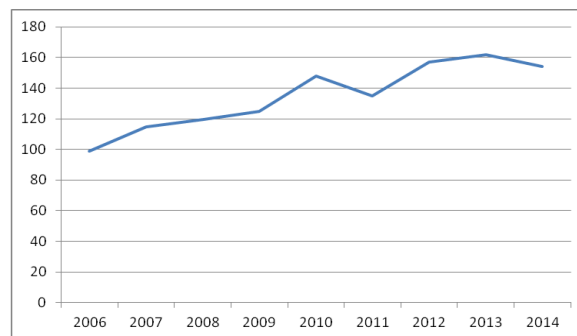
⁵ Open a Business Time&Day indicators is given in Addition 6 and also Open a Business Cost&GDP per capita indicators is given in Addition 7.

fluctuations out of either global economic conjuncture or the unique conditions of the country as exception (Şişman ve Öztürk, 2010:58).

4.2. The Relation of Global Tax Competition with Central Executive Budget Revenues and Borrowing in Turkey

Besides the rate of taxes, the economic situation of the country, the market size as well as the geography, the production of public goods is also an important parameter for the efficiency of the foreign capital within the context of global tax competition. There occurs an increase in the productivity of private capital when the resources of budget are used for the public infrastructure, education, health, security and environment (Göker, 2008:129). Therefore, public expenditure will be effective even in the productivity of capital apart from the attractive aspect for the foreign direct investment. So, it can be concluded that public expenditure affects the productivity of capital likewise the reduction of tax rates does. Global tax competition imposes the countries within the tax competition into changing policies on public expenditure and borrowing in order to create a suitable environment for foreign direct investment. To illustrate, although the rates of corporate and income tax in Germany and France are relatively high, the quality and effectiveness of public expenditures has attracted the interest of foreign capital. The situation of central government budget expenditures of Turkey between 2006-2015 in is shown in Figure 2.

**Figure 2 The Central Executive Budget Expenditure in Turkey
between
2006-2015 (Billion Euros)**

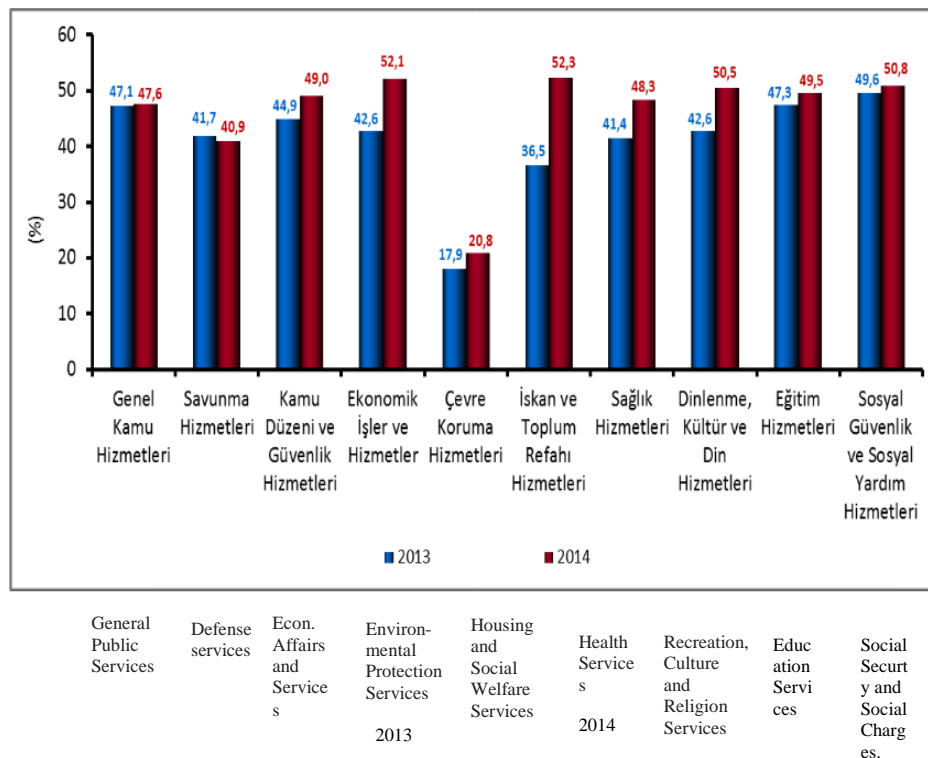


Source: Republic of Turkey Ministry of Finance, Directorate General of Budget and Fiscal Control
<http://www.bumko.gov.tr>, 10.04.2015.

By Figure 2, it can be seen that corporate tax rate has been reduced to 20 %, the central government budget expenditures have increased since 2006 while it has continued on that rising trend except some years.

The functional distribution of central government budget expenditures within the years of 2013 and 2014 is seen in Figure 3.

Figure 3 The Realization Ratio of Budget Expenditure in terms of the Functional Distribution of Budget



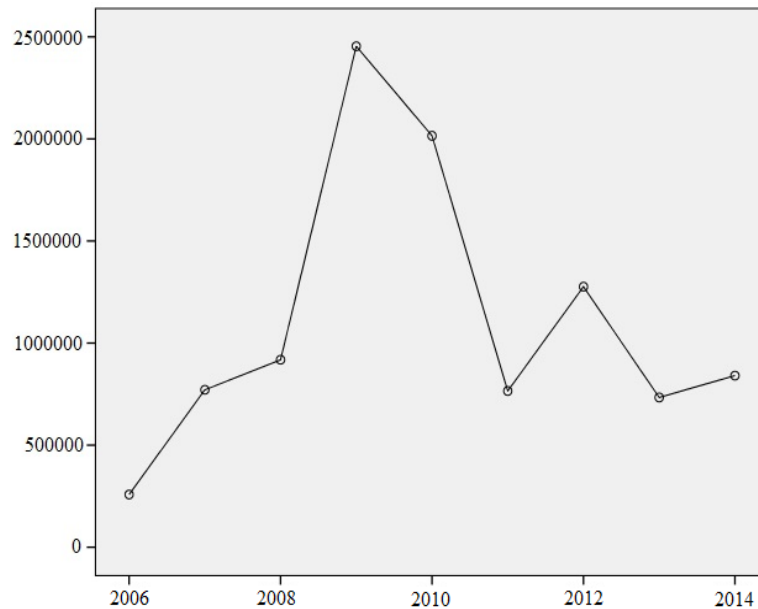
Source: Republic of Turkey Ministry of Finance, 2014BudgetRealizations and ExpectationsI
<http://www.bumko.gov.tr>, 10.04.2015.

Considered the distribution of functional classification of the central government budget expenditures in January-June period of 2013 and 2014 via Figure 3, the highest spending has been on housing and social welfare services with 52,3 % whereas the lowest spending has been on environmental and protection services with 20,8 %.

It is needed to say that the high level expenditures on the economic affairs and services, education, public order and safety, as well as health care services matter a lot in terms of the context of global tax competition.

In Figure 4, the public sector borrowing requirement of the central executive budget is considered.

Figure 4 The Public Sector Borrowing Requirement of the Central Executive Budget in Turkey (1975-2014) (Million Euros)

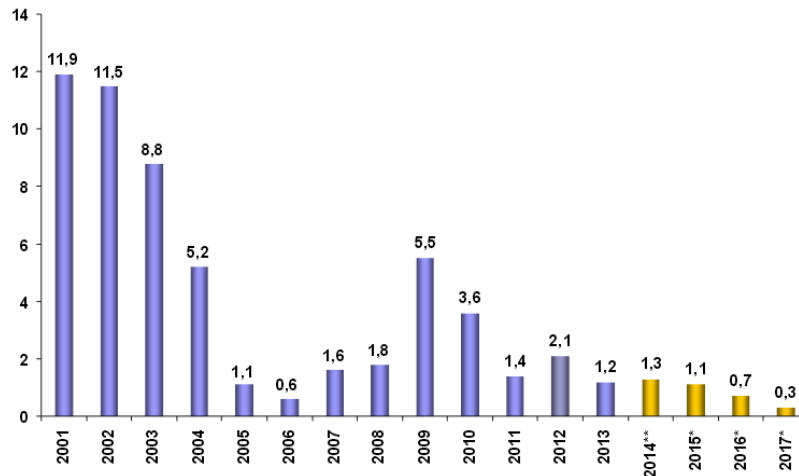


Source: Central Bank of the Turkish Republic, <http://www.tcmb.gov.tr>, 13.04.2015.

In Figure 4, it shows up that after 2006, the public sector borrowing requirement of the central executive budget of Turkey has only increased within the years of 2007-2011.

In Figure 5, the ratio of the budget deficit of the central executive unit to GDP is given. As seen from the figure, after 2006 with the exceptions of the years of 2008, 2009 and 2010, the trend of the budget deficit is a downward trend. It is predicted that it will fall below 1 % towards 2017.

Figure 5 The Budget Deficit of Central Administration/GDP (%)



(*) 2015-2017 shows medium-term goals.

Source: Republic of Turkey Ministry of Finance, 2015-2017 Medium-Term Program, <http://www.bumko.gov.tr/TR,42/orta-vadeli-program.html>, 13.04.2015.

5. CONCLUSION

In 1980s, with the accession of globalisation trend, the world enters into a single common market where the goods, services and capital movements are liberalised; and that situation makes countries compete with each other in order to adapt their new economic structures as well as to gain the highest share of foreign capital. At the initial stance, countries aim to reduce the tax rates in order to attract foreign direct investment that supplies new employment fields, new technologies, higher quality and diversity of production factors for the country. It is so clear that the reduction of tax rates is not the only parameter for determining the choice of foreign capital. The global economic conjuncture, social, economic and political situations, and geographic locations of countries are taken into consideration as well. However, apart from all these factors, if two countries with similar socio-economic environments are compared, the decisive factor for the foreign investment becomes of which country has the lowest corporate tax rate.

Global tax competition has an impact on the central government budget revenues, spending and borrowing. In particular, reducing the rate of corporate tax facilitates as well as increases the arrival of the foreign

investment to the country. A decline in the rates of corporate tax comes with an increase in the rates of corporate income tax. The increase in public expenditures that provides to attract foreign capital or prevent the existing capital out of the country may result in budget deficits out of raising the level of borrowing as a way of financing despite the positive impact of the rate of corporate tax.

However, in the long term, these negative consequences may lead to positive impacts in terms of production capacity and economic aspects.

Within the global tax competition context, Turkey has taken an important step by decreasing the rate of corporate tax up to 20 % in 2006. As the corporate tax rate decreases to 20 %, it has led to an increase in corporate tax revenues. The current corporate tax rate is lower than many European countries, and it positively affects the arrival of foreign capital into the country. Indeed, while there were 8.134 million dollars foreign investment inflows in 2005, which has increased up to 18.394 million dollars in 2007. In fact, it is difficult to say that the only variable is the tax rate in order to attract the foreign capital. However, it is clear that it has a great impact on investment decisions.

When looking at the public spending since 2006, there exists a significant increase in public expenditure for Turkey. The public expenditure was 98.958.907 Billion Euros in 2006, and it significantly increased to 154.044.648 Billion Euros in 2014. Considered the functional distribution of public expenses in Turkey, the high level of economic and social expenses compromised of general services, education, public order and national defence, etc are crucial in terms of global tax competition. Exempting the years of 2008, 2009 and 2010 from consideration, there has not been seen an increase in the level of budget deficit out of rising in public expenditure; but, on the contrary, there can be seen a decline in the level of budget deficit owing to the policies of fiscal discipline. Therefore, the global tax competition has an impact on the increase of the central government budget expenses and revenues whereas it does not have a negative impact for the level of borrowing and budget deficit as well.

REFERENCES

Aktan, C.C. ve D. Dileyici, (2006), *Kamu Maliyesinde Çağdaş Yaklaşımlar*, Seçkin Yayıncılık, Ankara.

Aktan, C.C. ve İ. V.Vural (2004), *Vergi Rekabeti*, Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, Sayı: 22, ss. 1-18.

Bakkal, U. ve N. Susam, (2011), *Küreselleşme Sürecinin Kamu Maliyesi Alanına Etkileri*, İktisat Fakültesi Mecmuası, Cilt:61, Sayı:2, ss.23-50.

Çelikkaya, A., (2010), *Globalleşmenin Neden Olduğu Kurumlar Vergisi Reformları ve OECD Üyesi Ülkeler Üzerine Bir Değerlendirme*, Maliye Dergisi, Sayı:159, Temmuz-Aralık, ss.36-52.

Çeştepe, H. ve Mıstaçoğlu, T., (2012), *Gümrük Birliği'nin Doğrudan Yabancı Yatırımlara Etkisi: Avrupa Birliği'nin Yeni Üyeleri ve Türkiye Üzerine Bir Panel Veri Analizi*, Marmara Üniversitesi İ.İ.B.F. Dergisi, Cilt:32, Sayı:1, ss.123-140.

Desai, A. Mihir, Fritz Foley and James R. Hines Jr. (2004), *Economic Effects of Regional Tax Havens*, Working Paper 10806 , National Bureau of Economic Research <http://www.nber.org/papers/w10806.pdf>, 01.03.2015.

Dietsch Peter (2010), *Tax Competiton and its Effects on Domestic and Global Justice*, Universite de Montreal, February http://archives.cerium.ca/IMG/pdf/3Tax_Competition_and_its_Effects_o_n_Domestic_and_Global_Justice.pdf, 05.03.2015.

Engen, Eric ve Kevin A. Hassett, (2002) , *Does the US Corporate Tax Have a Future?* , Tax Notes 30. Anniversary Issue, <http://www.aei.org/wpcontent/uploads/2011/10/Does%20the%20US%20Corporate%20Tax%20Have%20a%20Future.pdf>, 07.03.2015.

Friedman, M. (1978), *The Limitations of Tax Limitation*, Policy Review 5, pp.7-14.

Gelir Idaresi Başkanlığı, (2010), “Transfer Fiyatlaması Yoluyla Örtülü Kazanç Dağıtımı Hakkında Rehber”
http://www.gib.gov.tr/fileadmin/user_upload/yayinlar/transfer_fiyatlandirma2010.pdf, 10.05.2015.

Giray, F., (2005), *Küreselleşme Sürecinde Vergi Rekabeti ve Boyutları*, Akdeniz Üniversitesi İktisadi ve İdari Bilimler Fakültesi, Sayı:9, ss.93-122.

Goodspeed, T. J., Çev: Sağbaş, İ. (2003), *Vergi Rekabeti, Fayda Vergileri ve Mali Federalizm*, Maliye Dergisi.

Göker, Z., (2008), *Vergi Rekabetinin Kamu Harcamalarına Etkisi ve Harcama Rekabeti*, Maliye Dergisi, Sayı:154, Ocak-Haziran, s.121-134.

Karakaş, Cemal, Omar Genckaya , Subidey Togan, Roy Karadağ (coordinator)(2014), *Turkey Report*, SGI BertelsmenStiftung, p.9
http://www.sgi-network.org/docs/2014/country/SGI2014_Turkey.pdf, 03.04.2015.

Leibfritz, Willi, John Thornton ve Alexandra Bibbee (1997), *Taxation and Economic Performance*, OECD Economics Department Working Papers No.176, OECD Publishing,
http://www.keepeek.com/Digital-Asset-Management/oecd/economics/taxation-and-economic-performance_668811115745#page11, 10.04.2015.

Mitchell, David J., *The Economics of Tax Competition, Harmonization vs. Liberalization*,
<http://www.adamsmith.org/sites/default/files/images/stories/tax-competition.pdf>, 12.04.2015.

OECD, (1998), *Harmful Tax Competition: An Emerging Global Issue*, Paris.

OECD, (2014), *Revenue Statistics 1965-2013*, <http://www.oecd-ilibrary.org>, 07.04.2015.

OECD (1998), *Harmful Tax Competition, An Emerging Global Issue*,

<http://www.oecd.org/tax/transparency/44430243.pdf> , 12.04.2015.

Öz, E., (2009), *Global Bir Kavram: Vergi Rekabeti*, İstanbul Üniversitesi İktisat Fakültesi Maliye Araştırma Merkezi Konferansları”, 52.Seri, Prof.Dr. Şerafettin Aksoy’a Armağan Rekabet Kurumu, <http://www.rekabet.gov.tr/>, (27.01.2015).

Shulze,G.G.,H.Ursprung, (1999), *Globalization of the Economy and the Nation State*, World Economy 22,295-352, Aktaran:Zeliha GÖKER, *Vergi Rekabetinin Kamu Harcamalarına Etkisi ve Harcama Rekabeti*, Maliye Dergisi, Sayı:154, Ocak Haziran 2008, ss.121-134.

Şimşek, M., (2014), *2015 Yılı Bütçe Sunuş Konuşması*, T.C. Maliye Bakanlığı,http://www.bumko.gov.tr/Uygulamalar/Bakan_Konusmalari/2015/index.html, (09.04.2015).

Şişman, M. ve Öztürk, O., (2010), *Doğrudan Yabancı Sermaye Yatırımları ve Uluslararası Vergi Rekabeti: Bir Literatür Araştırması*, Marmara Üniversitesi İ.İ.B.F. Dergisi, Cilt:29, Sayı:2, ss.45-75

Türk Dil Kurumu, <http://www.tdk.gov.tr/>, (27.01.2015).

Yereli, A. B., (2005), *Macroeconomic effects of tax competition in Turkey*, South-East Europe Review, V:8, S:1, ss. 19-38.

Addition 1 Taxes on Corporate Income as % GDP

	1965	1980	1990	2000	2007	2008	2009	2010	2011	2012
Australia	3,4	3,2	4,0	6,2	6,8	5,8	4,8	4,7	5,2	5,2
Austria	1,8	1,4	1,4	1,9	2,3	2,4	1,6	1,9	2,2	2,2
Belgium	1,9	1,9	2,0	3,1	3,4	3,3	2,4	2,6	2,8	3,0
Canada	3,7	3,5	2,5	4,3	3,4	3,3	3,3	3,2	3,1	2,9
Chile	..	..	..	..	..	..	..	..	..	..
Czech Republic	..	..	..	3,2	4,5	4,1	3,4	3,2	3,2	3,3
Denmark	1,3	1,4	1,7	3,2	3,7	3,2	2,3	2,7	2,7	3,0
Estonia	..	..	..	0,9	1,6	1,6	1,8	1,3	1,2	1,4
Finland	2,4	1,2	1,9	5,7	3,7	3,3	1,9	2,4	2,6	2,1
France	1,8	2,0	2,2	3,0	2,9	2,8	1,4	2,1	2,5	2,5
Germany	2,5	2,0	1,7	1,8	2,2	1,9	1,4	1,5	1,7	1,8
Greece	0,3	0,8	1,4	4,0	2,4	2,4	2,4	2,4	2,1	1,1
Hungary	..	..	..	2,2	2,8	2,6	2,2	1,2	1,2	1,3
Iceland	0,5	0,7	0,8	1,2	2,4	1,8	1,7	0,9	1,7	1,9

Ireland	2,2	1,4	1,6	3,6	3,2	2,7	2,3	2,4	2,2	2,3
Israel	..	..	..	3,8	4,1	3,1	2,5	2,6	2,9	2,7
Italy	1,7	2,2	3,7	2,8	3,7	3,6	3,0	2,7	2,6	2,8
Japan	3,9	5,4	6,4	3,7	4,8	3,9	2,6	3,2	3,4	3,7
Korea	..	1,8	2,4	3,0	3,7	3,9	3,4	3,2	3,7	3,7
Luxemburg	2,9	5,5	5,4	6,6	5,5	5,3	5,7	5,9	5,1	5,2
Mexico	..	..	..	..	..	..	..	..	..	..
Netherlands	2,5	2,7	3,0	3,7	3,0	3,0	1,9	2,0	1,9	1,9
New Zealand	4,9	2,3	2,4	4,1	4,9	4,4	3,4	3,8	4,1	4,7
Norway	1,1	5,7	3,7	8,9	11,0	12,1	9,0	10,0	10,9	10,5
Poland	..	..	..	2,4	2,7	2,7	2,3	2,0	2,0	2,1
Portugal	..	..	2,1	3,7	3,5	3,5	2,7	2,7	3,1	2,7
Slovak Republic	..	..	..	2,6	2,9	3,1	2,5	2,5	2,4	2,4
Slovenia	..	..	..	1,1	3,2	2,5	1,8	1,8	1,7	1,2
Spain	1,3	1,1	2,8	3,0	4,5	2,7	2,1	1,7	1,7	2,0
Sweden	1,9	1,1	1,5	3,7	3,5	2,8	2,8	3,3	3,1	2,6
Switzerland	1,3	1,5	1,7	2,4	2,8	3,0	2,8	2,7	2,8	2,8
Turkey	0,5	0,6	1,0	1,8	1,6	1,8	1,9	1,9	2,1	2,0
United Kingdom	1,3	2,8	3,4	3,4	3,2	3,4	2,6	2,9	2,9	2,7
United States	3,9	2,7	2,4	2,5	2,9	1,9	1,7	2,3	2,2	2,5
OECD-Average	2,1	2,3	2,5	3,4	3,7	3,4	2,7	2,8	2,9	2,9

Source: Revenue Statistics 1965-2013/Statistiques Des Recettes Publiques 1965-2013 © OECD/OCDE 2014, p.98.

Addition 2 Taxes on Corporate Income as % of Total Taxation

	1965	1980	1990	2000	2007	2008	2009	2010	2011	2012
Australia	16,3	12,2	14,1	20,2	23,0	21,6	18,5	18,3	19,7	18,9
Austria	5,4	3,5	3,6	4,6	5,8	5,8	4,0	4,6	5,2	5,3
Belgium	6,2	4,7	4,8	7,2	8,0	7,6	5,6	6,0	6,6	6,8
Canada	14,9	11,6	7,0	12,2	10,6	10,4	10,6	10,6	10,3	9,5
Chile	..	..	..	..	..	..	..	..	..	..
Czech Republic	..	..	..	9,9	13,1	12,1	10,5	10,0	9,7	9,9
Denmark	4,5	3,2	3,7	6,6	7,7	6,9	4,9	5,9	5,8	6,3
Estonia	..	..	..	2,9	5,2	5,1	5,2	4,0	3,8	4,5
Finland	8,1	3,4	4,5	12,5	9,0	8,1	4,7	6,0	6,2	4,9
France	5,3	5,1	5,3	6,9	6,8	6,7	3,5	5,0	5,7	5,6
Germany	7,8	5,5	4,8	4,8	6,2	5,4	3,7	4,3	4,7	4,8

Greece	1,8	3,8	5,5	12,0	7,9	7,8	8,1	7,7	6,5	3,3
Hungary	..	..	..	5,7	7,0	6,6	5,7	3,3	3,3	3,4
Iceland	1,8	2,5	2,8	3,3	6,1	5,2	5,2	2,7	5,0	5,4
Ireland	9,1	4,5	4,9	11,7	10,7	9,5	8,6	9,0	8,2	8,4
Israel	..	..	..	10,6	11,8	9,8	8,3	8,5	9,5	8,9
Italy	6,9	7,8	10,0	6,9	8,8	8,6	7,0	6,6	6,3	6,5
Japan	22,2	21,8	22,4	13,8	16,8	13,7	9,6	11,6	11,8	12,5
Korea	..	11,0	12,8	14,1	15,1	15,9	14,4	13,9	15,5	14,9
Luxemburg	11,0	16,2	15,8	17,8	14,8	14,4	14,8	15,4	13,5	13,4
Mexico	..	..	..	..	..	..	..	..	..	..
Netherlands	8,1	6,6	7,5	10,1	8,4	8,1	5,3	5,6	5,4	5,1
New Zealand	20,7	7,8	6,5	12,4	14,2	13,1	11,0	12,2	12,9	14,1
Norway	3,8	13,3	9,0	20,9	25,7	28,8	21,5	23,5	25,5	24,8
Poland	..	..	..	7,4	7,9	7,9	7,2	6,3	6,4	6,6
Portugal	..	..	8,0	12,1	11,0	11,2	9,3	9,1	9,8	8,7
Slovak Republic	..	..	..	7,7	10,1	10,7	8,7	8,9	8,5	8,4
Slovenia	..	..	..	3,1	8,6	6,8	5,0	5,0	4,6	3,4
Spain	9,2	5,1	8,8	8,9	12,5	8,4	7,2	5,6	5,5	6,4
Sweden	6,1	2,5	3,1	7,6	7,8	6,4	6,4	7,6	7,3	6,1
Switzerland	7,7	6,4	7,1	8,8	10,8	11,1	10,5	10,2	10,5	10,5
Turkey	4,8	4,1	6,7	7,3	6,8	7,3	7,7	7,3	7,5	7,4
United Kingdom	4,4	8,4	9,9	9,7	9,4	10,0	8,1	8,8	8,6	8,1
United States	16,4	10,8	8,9	8,7	10,8	7,5	7,3	9,8	9,3	10,2
OECD-Average	8,8	7,6	7,9	9,6	10,6	10,0	8,4	8,5	8,7	8,5

Source: Revenue Statistics 1965-2013/Statistiques Des Recettes Publiques 1965-2013 © OECD/OCDE 2014, p.99.

Addition 3 Corporate Tax Income Rate in OECD Countries (1981-2014) (%)

	1981	1984	1987	1990	1993	1996	1999	2002	2005	2008	2011	2014
Australia	46	46	49	39	33	36	36	30	30	30	30	30
Austria	55	55	55	30	30	34	34	34	25	25	25	25
Belgium	48	45	43	41	40	40	40	40	34	34	34	34
Canada	38	36	36	29	29	29	29	26	22	20	17	15
Chile	-	-	-	-	-	-	-	15	17	17	20	20
Czech Republic	-	-	-	-	45	39	35	31	26	21	19	19
Denmark	40	40	50	40	34	34	32	30	28	25	25	25
Finland	43	43	33	25	25	28	28	29	26	26	26	20
France	50	50	45	42	33	37	40	35	35	35	34	34
Germany	56	56	56	50	50	48	42	26	24	16	16	16

Greece	45	45	49	46	35	35	40	35	32	25	20	26
Hungary	-	-	-	40	40	18	18	18	16	20	19	19
Iceland	-	-	-	-	-	-	-	18	18	15	20	20
Ireland	45	50	50	43	40	36	28	16	13	13	13	13
Israel	-	-	-	-	-	36	36	36	34	27	24	27
Italy	40	52	52	52	52	53	37	36	33	28	28	28
Japan	42	43	42	38	38	38	30	30	30	30	30	28
Korea	-	-	-	-	-	-	-	27	25	25	22	22
Luxembourg	40	40	38	34	33	33	30	23	23	23	22	23
Mexico	42	42	41	36	35	34	35	35	30	28	30	30
Netherlands	48	43	42	35	35	35	35	35	32	26	25	25
New Zealand	45	45	48	33	33	33	33	33	33	30	28	28
Norway	30	30	30	30	17	21	28	28	24	28	28	27
Poland	-	-	-	-	40	40	34	28	19	19	19	19
Portugal	47	52	45	37	36	36	34	30	25	25	27	30
Slovak Republic	-	-	-	-	45	40	40	25	19	19	19	22
Slovenia	-	-	-	-	-	-	-	25	25	22	20	17
Spain	33	35	35	35	35	35	35	35	35	30	30	30
Sweden	40	52	52	40	30	28	28	28	28	28	26	22
Switzerland	10	10	10	10	10	10	9	9	9	9	9	9
Turkey	-	-	-	-	-	-	-	33	30	20	20	20
United Kingdom	52	45	35	34	33	33	30	30	30	28	26	21
United States	46	46	40	34	35	35	35	35	35	35	35	35

Source: OECD, http://www.oecd.org/tax/tax-policy/tax-database.htm#C_CorporateCapital and KPMG, <http://www.kpmg.com/global/en/services/tax/tax-tools-and-resources/pages/corporate-tax-rates-table.aspx>, 10.04.2015.

Addition 4 The Fields of Foreign Capital Firms in Turkey and The Number of Firms in Relevant Fields,(31.12.2014)

The Fields of Foreign Capital Firms	Number
Except the wholesale trade and commission trade of motor vehicles and motorcycles	10.013
Retail trade, except of motor vehicles and motorcycles, repair services of personal and household goods	3906
Construction	3698
Other business activities	2840
Real Estate Activities	2429
Supporting and Auxiliary Transport Activities; Activities of Travel Agencies	2271
Hotels and Restaurants	2058
Computer and Related Activities	1239
Distribution of the Electricity, Gas, Steam and Hot Water Production	1018
Transport by Road Transport and Pipeline	682
Manufacture of chemicals and chemical products	639
Sale of motor vehicles and motorcycles, Maintenance, Repair; Retail Sale of Motor Vehicle Fuel	636

Entertainment, Recreation, Culture and Sports-Related Activities	568
Food and Beverage Manufacturing	546
Health and Social Services	533
Manufacturing of textiles	532
Furniture Manufacturing; B.Y.S. Other Manufacturing	531
Post and Telecommunications	516
Agriculture, hunting and related service activities	495
B.Y.S. Manufacture of machinery and Teçhisat.Y.S. Makine ve Teçhisat İmalatı	480
Other Mining and Quarrying	453
Other Service Activities	442
Education Services	342
Waterborne Transportation	297
Plastics and Rubber Products Manufacturing	293
Except Machinery and Equipment, Metal Products Industry	287
B.Y.S. Manufacture of Electrical Machinery and Apparatus	279
Motor vehicles, trailers and semi-trailers Manufacturing	273
Manufacture of Other Transport Equipment	258
Printing and Publishing Services	233
Basic Metal Industry	206
Radio, Television and Communication Equipment and Devices Manufacturing	194
Except of insurance and pension funds, the financial intermediation activities	194
Medical Instruments, Time Manufacturing Precision and Optical Instruments	194
Manufacture of Other Non-Metallic Products	171
Air Transportation	156
Research and Exploration Excluding Crude Oil and Natural Gas Extraction and Associated Services	141
Activities Auxiliary to Financial Intermediation	134
Apparel Manufacturing, Processing and Staining Fur	131
Public administration, defense and compulsory social security	124
Tanning of leather, Processing and Manufacturing in Related Items	119
Manufacture of Paper and Paper Products	101
Forestry, logging and related service activities	77
Metal Ore Mining	75
Research and Development Services	73
Water Collection, Treatment and Distribution	72
Imports of wood and cork products	66
Lease of Personal Household Goods without operator of machinery and tools	56

Except of compulsory social security, Insurance and Pension Funds and Related Activities	56
Fishing, operation of fish hatcheries and fish farms and fisheries Related Services	51
Coke, Refined Petroleum Products and Nuclear Fuel Production	50
Sewage, Waste Waste collection and so on. Services	47
Re-Assessment (recycling services)	37
Manufacture of Tobacco Products	23
Membership organizations nec of Service	19
Office, Accounting and Computing Machinery Manufacturing	15
Mining of coal and lignite, peat	15
When making reservations Service Jobs at Home	10
International Organizations and Representatives	3
Total:	41.397

Source: Republic of Turkey Ministry of Economy, <http://www.ekonomi.gov.tr>, 15.04.2015.

Addition 5 The Origin of Foreign Firms Engaging in Turkey and the Number of Firms in Related Fields (31.12.2014)

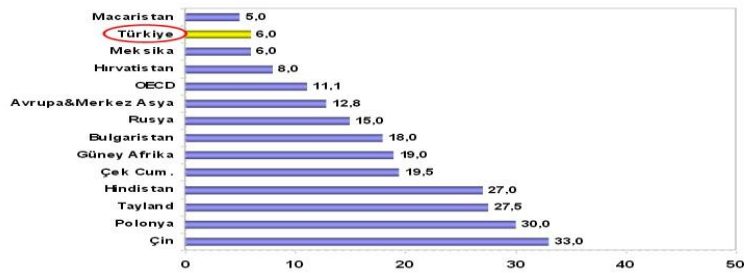
COUNTRY	NO	COUNTRY	NO	COUNTRY	NO
GERMANY	6015	TUNISIA	76	LIBERIA	7
IRAN	3570	HONG-KONG	69	SENEGAL	7
UNITED KINGDOM	2760	BELARUS	68	SRI LANKA	7
NETHERLANDS	2433	MOROCCO	68	ARGENTINA	6
SYRIA	2106	BOSNIA AND HERZEGOVINA	65	BARBADOS	6
RUSSIAN FEDERATION	1811	HUNGARY	64	HOLLAND.AME. CONT.	6
AZERBAIJAN	1577	SUDAN	62	SEYCHELLE	6
USA	1502	ALBANIA	60	St.Christopher&TYPE	6
IRAQ	1392	YEMEN	58	VENEZUELA	6
FRANCE	1277	QATAR	56	CHANNEL ISLANDS	5
ITALY	1205	PORTUGAL	56	CUBA	5
AUSTRIA	788	CZECH REPUBLIC	55	MAURITIUS	5
SWITZERLAND	715	BAHRAIN	47	SOMALI	5
GREECE	660	MALTA	47	NETHERLANDS ANTILLES	4
CHINA	646	MALAYSIA	42	SAN MARINO	4

DENMARK	625	REPUBLIC OF SOUTH AFRICA	38	ST.VINCENT	4
SPAIN	580	SLOVENIA	38	URUGUAY	4
SAUDI ARABIA	546	LICHTENSTEIN	36	ANGOLA	3
BELGIUM	529	PANAMA	35	ECUADOR	3
BULGARIA	520	SLOVAKIA	35	IVORY COAST	3
UKRAINE	488	TAJIKISTAN	34	KONGO	3
KAZAKHSTAN	463	LATVIA	33	MAURITANIA	3
NORTHERN CYPRUST. C.	389	BRITISHJERSEY ISLANDS	32	PERU	3
LUXEMBOURG	388	LITHUANIA	30	TATARISTAN	3
IRELAND	339	CAYMAN ISLANDS	29	BRUNEI	2
SWEDEN	331	KOSOVO	28	DJIBOUTI	2
UNITED ARAB EMIRATES	327	CROATIA	25	CHECHEN REPUBLIC	2
LIBYA	325	NEW ZEALAND	21	EL SALVADOR	2
JORDAN	322	ESTONIA	20	GABON	2
ISRAEL	312	BRAZIL	19	GHANA	2
EGYPT	311	ICELAND	18	ENGLAND.EUR.COUN.	2
CANADA	297	TAIWAN	18	NAMIBIA	2
LEBANON	292	BELIZE	17	SIERRA LEONE	2
REPUBLIC OF SOUTH KOREA	285	OMAN	17	TOGO	2
GEORGIA	236	ARMENIA	16	OTH.COUNT. IN AFRICA	1
NORWAY	219	BANGLADESH	15	ANDORRA	1
INDIA	211	ETHIOPIA	15	ARUBA	1
TURKMENISTAN	210	MARSHALL ISLANDS	15	CHAD	1
ROMANIA	203	THAILAND	15	REPUBLIC OF DAGHESTAN	1
UZBEKISTAN	200	KENYA	14	GUINEA	1
AFGHANISTAN	194	PHILIPPINES	13	GRENADA	1
JAPAN	192	BAHAMAS	12	GUATEMALA	1
KUWAIT	190	INDONESIA	12	HONDURAS	1
MOLDOVIA	187	GIBRALTAR	10	JAMAICA	1
AUSTRALIA	180	MEXICO	10	TENTATIVECOUNTRY.	1

BRITISH VIRGIN ISLANDS	160	BERMUDA	9	COSTA RICA	1
KYRGYZSTAN	142	MONACO	9	MADAGASCAR	1
MACEDONIA	133	CHILE	9	MALDIVE ISLANDS	1
PAKİSTAN	133	TANZANIA	9	MALİ	1
NIGERIA	105	DOMINICAN REPUBLIC	8	NIGER	1
ALGERIA	102	CAMEROON	8	TURKS CAICOS ADALARI	1
FINLAND	102	ISLE OF MAN	8	VIETNAM	1
POLAND	102	MONGOLIA	8	ZAMBİA	1
PALESTINE	93	GUERNSEY ISLAND	7	ZİMBABVE	1
SERBIA	89	MONTENEGRO	7		
SINGAPORE	82	COLOMBIA	7		

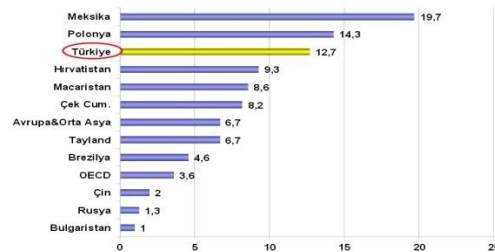
Source: Republic of Turkey Ministry of Economy, <http://www.ekonomi.gov.tr>, 15.04.2015.

Addition 6 Open a Business (Time, Day)



Source: The World Bank, Doing Business Report, 2014, <http://www.doingbusiness.org/reports>, 16.04.2015.

Addition 7 Open a Business (Cost, % GDP per Capita)



Source: The World Bank, Doing Business Report, 2014, <http://www.doingbusiness.org/reports>, 16.04.2015.

CHAPTER 12

Jasmin Bajić

Croatia Airlines, Zagreb, Croatia

Ivan Mišetić

Atlantic Grupa, Zagreb, Croatia

Mirko Tatalović

Croatian Civil Aviation Agency, Zagreb, Croatia

SOUTHEAST EUROPE AIR TRANSPORT IN THE LIGHT OF GLOBAL MARKET CHANGES - CHALLENGES FOR CROATIA

ABSTRACT

Efficient international mobility has becoming more necessary in modern globalizing world processes, which cannot be imagined without civil aviation role. Processes of deregulation, liberalization and privatization were leading by cost efficiency, productivity improvements and technology changes at the same time marked by a considerable increase of jet fuel prices. The essential parts of the structural changes in air transport industry are mergers and acquisitions trends that led to the consolidation, showing positive results primarily in the US market. The European market is characterized by airlines restructuring processes, mostly in line with the European Union state aid rules. Fragmented airline market in the Southeast Europe region are facing challenges of non harmonized aviation value chain, financial losses, network and fleet optimization, in order to implement the privatization process. Analysis of air transport infrastructure within the region shows low level of performance indicators compared to 140 countries worldwide. The Republic of Croatia's transport development strategy 2014-2030 in aviation sector emphasizes main goals and measures unfortunately without appropriate traffic forecast.

Traffic and positive financial results of Croatia Airlines in 2013/2014 after successful implementation of restructuring program are optimistic leading to sustainable future business model.

Keywords: EU accession, airlines, development strategy, competition, performance indicators.

JEL classification: F15

1. INTRODUCTION

Air transport, in the context of the transportation needs growth from population all around the world, is increasingly becoming a feature of modern society. Thanks to implementation of modern and efficient technologies, air transport in the world is showing continuous growth and more significant traffic results. Leading by the liberalization processes the demand for air transport services has risen much faster than demand for most other goods and services in the world economy, but the airline industry has found it difficult to make an adequate level of profit. That fact leads to further consolidation activities characterizing the existing airline industry competitive landscape, especially at the fragmented European market. Airline mergers have catalyzed industry consolidation and enabled carriers to remain competitive. Such trend will continue in the future. In the light of global market changes and European Union accession processes, Southeast Europe air transport factors are facing challenges from increasingly competitive environment including necessity of market changes in Croatia.

2. BENEFITS OF AIR TRANSPORT

In the year 2014 civil aviation industry was celebrating one hundred years of the first scheduled flight with a paying passenger done across the bay from St. Petersburg to Tampa, Florida. Traffic results for year 2014, record more than 3.3 billion passengers and 51.3 million freight tonnes on 33.4 million flights between 16,161 unique city pairs (IATA, 2014). Some 1,400 airlines around the world operate a total fleet of 26,051 aircraft. They serve some 3,864 airports through a route network of several million kilometres managed by about 173 air navigation service providers. Air transport facilitates world trade, helping countries participate in the global economy by increasing access to international markets and allowing globalisation of production. The total value of goods transported by air represents 35% of all international trade (ATAG, 2014). Leading determinant of traffic is the scale of economic activity measured by Gross Domestic Product (GDP). Economic growth

has enabled more people to afford travel, stimulating the development of the high value industries that have the greatest need for fast long distance travel (ICAO, 2013:22). According to Airbus research in the period 1995-2012, aviation has been the first contributor to international tourist arrival growth with a 5.5% yearly average growth of tourists arriving by air (compared with 4.1% for road transport, 2.3% for sea transport and 1.5% for rail transport). As a result, the share of tourists travelling to their final destination by air has grown from 45% in 1995 to 58% in 2012 (Airbus, 2014:21).

The air transport industry generates a total of 58.1 million jobs globally, through direct, indirect, induced and catalytic impacts. Direct jobs represent 8.7 million employees (7.3 million airline and airport industry, 1.2 million of aircraft systems manufacturers, frames and engines and 195 thousand air navigation service providers). Indirect jobs represent 9.9 million employees through purchases of goods and services in its supply chain. Induced jobs represent 4.6 million through spending by industry employees. Jobs through air transport's catalytic impact on tourism represent 34.9 million people. Aviation's global economic impact (direct, indirect, induced and catalytic) is estimated at USD 2,434 billion, equivalent to 3.4% of world GDP (ATAG, 2014:4-11). According to ICAO the future growth of air transport will likely depend primarily on (ICAO, 2013): (1) Sustained world economic and trade growth; (2) Declining airline costs and ticket prices; (3) Institutional factors, particularly the regulatory regime; (4) Aircraft technology; (5) Improvements in airline resource management; (6) Price of fuel; (7) Airport and airspace congestion.

Civil aviation plays also an important role in the European economy supporting 11.7 million jobs and 860 billion USD in GDP. These include 387 airline operators with 6,306 aircraft in service and 959 airports with a 26,2 percent share of global passenger traffic in the year 2012 (ATAG, 2014:4-11). In general, air transport is a highly efficient user of resources and infrastructure. Capacity utilization rates exceed by far those of road and rail transportation. It is very important for the Southeast Europe (SEE) region characterized by very poor surface traffic infrastructure (Steiner et.al, 2010: 536). But, SEE air transport market is still undeveloped with weak connections within the region and increasing competition on the main traffic directions with stable demand.

3. GLOBAL AIR TRANSPORT MARKET TRENDS

In the last twenty years airline industry worldwide is passing through dynamic and structural changes. Processes of deregulation, liberalization and privatization transformation were leading by cost efficiency, productivity improvements and technology changes. The volatility of fuel prices during the period was a strong additional factor that sped up changes. Implemented measures of consolidation and restructuring have given positive financial results at the airline industry level and recover from heavy losses began from the year 2010 (Table 1).

Table 1 Selected airline performance indicators 2004-2015

System-wide global commercial airlines	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	AAGR*
REVENUES, \$ billion	379	413	465	510	570	476	564	642	706	717	751	7.1%
Passenger, \$ billion	294	323	365	399	444	374	445	500	541	571	598	7.4%
Cargo, \$ billion	47	48	53	59	63	48	66	67	64	61	62	2.8%
<i>Sched passenger numbers, millions</i>	2,078	2,225	2,350	2,556	2,594	2,479	2,681	2,845	2,977	3,134	3,306	4.8%
<i>Freight tonnes, millions</i>	36.2	37.1	39.4	41.9	40.5	40.2	47.9	48.9	48.2	49.3	51.3	3.5%
World economic growth, %	4.0	3.5	4.0	4.0	1.5	-2.0	4.1	2.9	2.4	2.5	2.6	-
EXPENSES, \$ billion	376	409	450	490	571	474	536	623	687	692	713	6.6%
Fuel, \$ billion	65	91	116	133	187	123	138	174	208	208	204	12.1%
Crude oil price, Brent, \$/b	38.3	54.5	65.1	73	99	62	79.4	111.2	111.8	108.8	101.4	10.2%
Jet kerosene price, \$/b	49.7	71.0	81.9	90.0	126.7	71.1	91.4	127.5	129.6	124.5	116.6	8.9%
Non-fuel, \$ billion	311	318	335	357	384	351	398	448	479	484	509	5.0%
Flights, million	23.8	24.9	25.5	26.7	26.5	25.9	27.8	30.1	31.2	32	33.4	3.4%
Break-even weight load factor, %	60.9	61.2	60.7	60.3	62.2	61.8	63.5	64.1	64.7	64.5	63.7	0.5%
Weight load factor achieved, %	61.5	61.8	62.7	62.7	62.1	62	66.8	66.1	66.4	66.9	67.1	0.9%
Passenger load factor achieved, %	73.5	74.9	76	77	76	76	78.5	78.4	79.4	79.7	79.9	0.8%
OPERATING PROFIT, \$ billion	3.3	4.4	15	19.9	-1.1	1.9	27.6	19.8	18.4	25.3	38.3	27.8%
% margin	0.9	1.1	3.2	3.9	-0.2	0.4	4.9	3.1	2.6	3.5	5.1	18.9%
NET PROFIT, \$ billion	-5.6	-4.1	5	14.7	-26.1	-4.6	17.3	8.3	6.1	10.6	19.9	-
% margin	-1.5	-1	1.1	2.9	-4.6	-1	3.1	1.3	0.9	1.5	2.7	-
per departing passenger, \$	-2.68	-1.85	2.13	5.75	-10.1	-1.86	6.45	2.92	2.05	3.38	6.02	-
RETURN ON INVESTED CAPITAL, %	2.9	3.0	4.6	5.5	1.4	2.0	6.3	4.7	4.3	4.9	6.1	7.7%
AAGR* - Annual Average Growth Rate												

Source: IATA Economic Performance of the Industry Dec 2014 (modified and prepared by authors).

Airline financial and traffic results for the period 2004 – 2014, plus forecast for the year 2015 show significant improvement in most of performance indicators (IATA 2014). In spite of the average annual world economic growth rate of 2.7%, it is fact that growth rate of expenses (6.3%) was slower compared to growth rates of revenues (6.8%). Crucial contribution to this fact was fuel expenses decrease in 2014 and 2015 together with improvements in non-fuel cost efficiency and productivity. Passenger load factor shows big improvement from 73.5% in 2004 to 79.9% in 2014, together with weight load factor (61.5% in 2004 to 68.8% in 2014). It can be concluded that the

consolidation and restructuring of through the airline industry shows results, but net profit margins and return on invested capital (ROIC) are still weak and inadequate. Investor should expect to earn at least the normal return at the level of weighted average cost of capital (WACC). In year 2014 difference between airlines average ROIC and WACC was -1,2% (IATA, 2014). Further improvement of those performance indicators is especially important in the context of investment needs for the coming period which will be helpful in attracting investor's processes.

Recent Boeing forecast for the period 2014–2033 predict long-term demand for 36,770 new airplanes, valued at USD 5,200 billion supporting passenger traffic average annual growth rate at 5.0 percent and air cargo traffic at 4.7 percent. About 15,500 of these airplanes (42 percent) will replace older, less efficient airplanes. The remaining 21,270 airplanes will be for fleet growth, stimulating expansion in emerging markets and development of innovative airline business models (Boeing, 2014:3-15). Airbus for the same period predicted demand for 31,358 new airplane deliveries valued at USD 4,600 billion. Airbus forecasts imply a slightly lower demand average annual growth rates at the level of 4.7 percent for passenger traffic and 4.5 percent for air cargo traffic (Airbus, 2014:63, 154). Despite the forecast differences, the fact is that it is necessary to secure financing for a high level of future investment needs in airline industry, to support more than double demand level in year 2033. These processes must be accompanied by investments in infrastructure of airports, air traffic management and IT technologies. For sure aviation uses large amounts of resources, and whereas it generates much value, it is not free from waste or from large potential losses. Managers, regulators and planners need to make informed choices and appropriate economic evaluation of the investment have to identify areas of risk. Comprehensive view, about the intrinsic viability of an investment, is including consequences to wider society and to the investor (Jorge-Calderon, D. 2014:227).

Airline business conditions are very different around the world. An essential part of the structural changes in air transport industry are mergers and acquisitions trends that led to the consolidation, which show positive results primarily in the US market.

According to the US DOT analyses the accumulated net losses of traditional network carriers in the United States, from the first quarter of

2001 to the fourth quarter of 2011, amounted to -60.7 billion USD. At the same time low-cost carriers have accumulated net profit in amount of 2.9 billion USD. How consolidation took place, it is evident from the fact that in 2000, 10 airlines offered capacity at the level of slightly more than 90 percent of available seat miles of the US domestic market. By the beginning of 2012, mergers and acquisitions reduced number of airlines from 10 to 5 airlines that control about 85 percent of the market. Moreover, the current merger of American Airlines and US Airways will further reduce the number of dominant airlines in only four (US DOT, 2012).

In an attempt to answer on causes and consequences of the airline industry results one of the most interesting items is to analyze the correlation between natural and financial performance indicators. Pearson correlation coefficient “*r*” is a measure of the linear correlation of two variables (Black, K. 2010: 466-469):

$$r = \frac{\Sigma(x - \bar{x})(y - \bar{y})}{\sqrt{\Sigma(x - \bar{x})^2 \Sigma(y - \bar{y})^2}} = \frac{\Sigma xy - \frac{(\Sigma x \Sigma y)}{n}}{\sqrt{\left[\Sigma x^2 - \frac{(\Sigma x)^2}{n} \right] \left[\Sigma y^2 - \frac{(\Sigma y)^2}{n} \right]}}$$

formula (1)

Using the data from Table 1 and additional productivity indicator (TKM/Employee) it is possible to create correlation matrix (Fraser, C. 2013:210).

Table 2 Correlation Matrix - global civil aviation selected indicators 1991-2014

	WLF %	TKM / Employee	Revenues	Operating Profit	Net Profit
WLF %	1				
TKM / Employee	0.897085129	1			
Revenues	0.946620690	0.948758745	1		
Operating Profit	0.750961569	0.553872834	0.654552537	1	
Net Profit	0.538108292	0.311697100	0.377496951	0.898934752	1

Source: Prepared by authors – based on data from Table 1 and IATA data for the period 1991-2003.

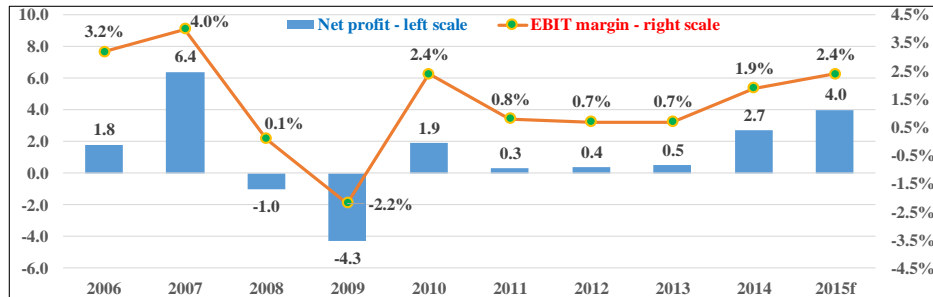
Specifically, the correlation analysis for the period 1991 – 2014¹ identifies a strong correlation of natural productivity indicators, i.e. weight load factor² and tonne kilometres per employee (0.897) regarding the revenue level (WLF – revenues 0,947, TKM per employee – revenues 0.973). Intensity of the correlation regarding the WLF and operating result (0.751) and TKM per employee versus operating result (0.554) is medium strength. The weak correlation results of covariance are regarding WLF versus net profit (0.538) and TKM per employee versus net profit (0.312). The conclusion is that high productivity level obviously does not guarantee profitability of an airline. It guarantees only high level of revenues. Accordingly, changes in mechanic workforce (mechanic per aircraft) and higher productivity in sense of total employees per aircraft does not guarantee profitability of an airline (Rhoades, D.L. 2014:211,212).

Key points of actual air transport market trends are (IATA, 2014): *(1) Consumers benefit from lower oil prices with lower fares, more routes; (2) Economic development big winner from the doubling of city pairs and halving of air transport costs in past 20 years; (3) Governments gain substantially from \$125bn of taxation in 2015 and from 58 million 'supply chain' jobs; (4) Equity owners see a far better 2015 with a 7% average airline ROIC, but still earn \$5.7 billion less than they should; (5) Fuel use per ATK to fall a further 1.6% y-o-y, saving 12 million tonnes of CO2 emissions and \$3 billion of fuel costs; (6) Load factors forecast to slip as capacity accelerates; new aircraft deliveries represent a \$180 billion investment; (7) Jobs in the industry should reach 2.45 million, productivity will be up 4.8% and Gross Value Added /employee almost \$109,000.*

European air transport market is marked by dynamic changes, but consolidation processes in Europe are going more slowly than in the United States (Figure 1).

¹ 1991 is Croatia Airlines starting operation year.

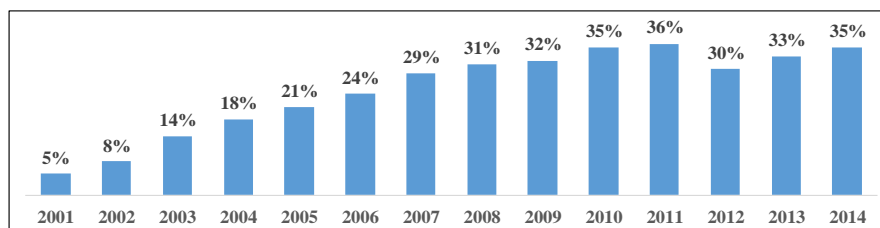
Figure 1 European airlines EBIT margin and net profit 2006-2015



Source: IATA Economic Performance of the Industry Dec 2014 (modified and prepared by authors).

From Figure 1 it could be perceived that European airlines financial performance indicators are under world average. Some signs of recovery exist, but market is still very fragmented and the airlines are forced to implement measures of increased efficiency derived from economies of scale, economies of scope and density economies. Thus they retain control over the market and profit potentials on the most important route areas (e.g. North Atlantic). Air transport liberalization in Europe initiated recapitalization and privatization of the biggest carriers (Lufthansa, British Airways, Air France, KLM, Iberia, SAS, Alitalia...), but all of them keep their slots on the biggest European airport hubs, as a market value with highest degree (Tatalovic, M. et.al 2012:228). On the demand side, the passengers enjoy more destinations, better connectivity, higher frequency of service and new business models, such as was the entrance of low cost carriers (LCC) to the EU market in the second half of the 1990s. Ryanair and easyJet are the most important and biggest players of LCC sector, which expansion, significantly changed competition environment in Europe (Figure 2).

Figure 2 LCCs capacity share of total seats within Europe 2001-2014



Source: ICAO (2013) for period 2001-2010; capstats.com (2015) for period 2011-2014.

Authors Mason et.al made empirical study of entry and exit in the European airline LCC sector for the period 1995-2011. From a single airline (Ryanair) prior to 1995, sector has grown to 32 airlines in operation in February 2011. During the period, a total of 110 airlines entered the sector, but 78 airlines exited. An interesting finding was the fact that 30 airlines (38.5 percent) existed for less than one year and in some cases never flew a single flight (Mason, K.et.al, 2013:142-143). LCCs generate their competitive advantage by ability to control or even reduce their non-fuel costs. But, full service network carriers have become much more efficient on non-fuel unit cost and the gap comparing LCCs has narrowed and will continue to narrow. Increasing competition is forcing LCCs to adopt product and service improvements, in an effort to differentiate themselves. For example easyJet is offering connectivity via London Gatwick; Ryanair joined Amadeus global distribution system, Norwegian introduced premium product, etc. All this changes affects the cost structure and they are increasing unit costs of LCCs.

For European full service network carriers which are facing strong competition from LCCs mainly on intra-European routes, additional big competition challenge are the growing airlines from the Middle East and Turkey. In such market environment European Airline landscape (full service network carriers), in principle can be divided in three categories (Tatalović, et.al, 2013): (1) The first group consists of the strongest players formed by the merger (British Airways & Iberia - IAG, Air France / KLM) and acquisitions (Lufthansa Group - Swiss, Austrian, SN Brussels, Germanwings, Air Dolomiti ...). All are in the process of restructuring, reducing the number of employees, and optimizing flight network within Europe. (2) The second group includes airlines that are characterized by restructuring, in order to avoid the Malev and Cyprus scenario - SAS, TAP, LOT, Air Baltic, Estonian, Adria Airways, Finnair, Tarom, Montenegro, Croatia Airlines... All of them are characterized by the search for a strategic partner. (3) The third group consists of airlines in which strategic partner have entered, like Czech Airlines (Korean Air - 44%) and Etihad's acquisitions of minority stakes in Air Berlin (29.21%), Aer Lingus (2.987%), Air Serbia (49%), Darwin Airline (33%) and Alitalia (49%). European restructuring airline story will continue in 2015, which is obvious from selected airlines net financial results in 2014: Air Lingus -126 mill USD; Air France/KLM - 261 mill USD; Finnair -109 mill USD; Norwegian -165 mill USD;

Lufthansa +72 mill USD (net margin 0.2%). Positive examples are: IAG +1,322 mill USD and Turkish Airlines +845 mill USD (Dunn, G. 2015: 47).

4. SOUTHEAST EUROPE AIR TRANSPORT MARKET

Countries in the Southeast Europe region over the last 25 years have passed violently through a period marked by war events, global and regional economic crisis of different magnitudes and more or less successful transition processes. Defining the region with total 11 countries (Albania, Bosnia and Herzegovina, Croatia, Macedonia FYR, Montenegro, Serbia, Kosovo, Romania, Bulgaria, Moldova and Slovenia) i.e. without Greek and Turkey intention of authors was to emphasize and differentiate the level of air transport market development indicators. Namely the level of air passengers on above mentioned 11 countries airports is only 35-40 mill. Comparison of average SEE country annual achievement of 3.5 mill passengers with Turkey achievement of 166 mill passengers in year 2014 (anna.aero, 2015) i.e. 1:47 is definitively inadequate. Similar is the case with Greece airports which recorded 45 mill passengers in year 2014 (anna.aero, 2015). Macroeconomic analysis of the SEE region countries (2008 vs.2014) is shown in Table 3 including population, levels and trends of GDP, GDP per capita at Purchasing Power Parity - PPP, annual inflations and unemployment rates.

**Table 3 Selected macroeconomic indicators of SEE region countries
2008 vs. 2014**

Country	Population (000)		GDP (USD mill) current prices		GDP per capita (USD at PPP)		Annual inflation %		Unemploy- ment rate %	
	2008	2014	2008	2014	2008	2014	2008	2014	2008	2014
Albania	3,170	2,894	12,683	13,591	8,436	11,055	3.4	1.6	12.6	17.5
Bosnia & Herzegovina	3,911	3,832	18,712	18,985	8,825	9,808	7.5	-0.9	23.4	27.5
Bulgaria	7,602	7,260	52,143	55,084	14,907	17,115	12.0	-1.6	5.6	11.5
Croatia	4,435	4,250	69,679	58,325	21,241	20,392	6.1	0.2	9.0	17.3
Kosovo	1,805	1,820	5,714	7,485	6,200	9,150	5.3	0.4	40.0	30.0
Macedonia FYR	2,048	2,075	9,890	10,923	11,016	13,204	8.3	-0.3	33.8	28.0
Moldova	3,573	3,557	6,055	7,744	3,720	4,830	11.5	5.1	2.1	6.0
Montenegro	628	623	4,541	4,660	13,687	15,219	7.4	-0.5	17.2	19.0
Romania	21,517	19,930	205,790	202,467	16,308	19,397	7.9	1.4	6.0	7.0
Serbia	7,350	7,147	47,669	42,648	11,361	12,605	11.7	2.9	14.0	17.6
Slovenia	2,040	2,061	55,853	49,927	29,999	29,359	5.5	0.4	4.4	10.0
Total	58,079	55,449	488,729	471,839						

Source: Prepared by authors from different sources – Mišetić et.al, (2009); IMF, (2014); Business Monitor International, (2015); wiiw, (2015).

Table 3 is showing dynamic changes of population, GDP, inflation and unemployment during the period 2008-2014. It is interesting that the population in all SEE countries is falling down or stagnating. The key reasons are migrations (Table 4) from the region to the developed EU countries (dominantly Italy with 1.8 mill, Germany and Spain with approx. 1 mill migrants). The most active migrant country is Romania (2.1 mill), followed by Albania (0.5 mill) and Bulgaria (0.4 mill). In the context of air transport specified migrations imply additional potentials. Annual inflation has better score in the year 2014 compared to the year 2008, but unemployment rate is still very high. The worst situation is in Kosovo (30%), Macedonia FYR (28%) and Bosnia and Herzegovina (27.5%), followed by Montenegro (19%).

Table 4 Migrations from SEE region countries to main European Union countries

Citizens from (000)	Destination							Total
	Germany	France	Spain	Italy	UK	Ireland	Netherlands	
Albania	10	6	2	482	13	0	0	513
Bosnia and Herzegovina	162	13	1	32	0	0	2	210
Bulgaria	80	14	171	51	43	1	14	374
Croatia	233	9	2	21	0	0	1	266
Kosovo	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Macedonia FYR	70	4	1	90	0	0	1	166
Moldova	13	5	17	131	0	1	0	167
Montenegro	14	0	0	0	0	0	0	14
Romania	135	50	843	968	84	12	8	2,100
Serbia	193	67	3	0	0	0	0	263
Slovenia	21	2	1	3	0	0	1	28
Total	931	170	1,041	1,778	140	14	27	4,101

Source: Bjelicic, B. (2013), Low Cost Carriers in Eastern Europe, p.p. 52 (Prepared by authors).

International Monetary Fund GDP growth forecast (Table 5) are relatively solid, but it is evident that Croatia is at the bottom with the lowest dynamic rate of grow, continuing thus very poor economic performance in the period 2008-2014.

Table 5 GDP growth forecast rates (%) for SEE region countries 2012-2019

Country	2012	2013	2014	2015	2016	2017	2018	2019
Albania	1.1	0.4	2.1	3.3	4.2	4.5	4.5	4.7
Bosnia and Herzegovina	-1.2	2.1	0.7	3.5	3.7	4.0	4.0	4.0
Bulgaria	0.6	0.9	1.4	2.0	2.5	3.0	3.0	3.0
Croatia	-2.2	-0.9	-0.8	0.5	1.4	2.1	2.2	2.0
Kosovo	2.8	3.4	2.7	3.3	4.0	4.0	4.0	4.0
FYR Macedonia	-0.4	2.9	3.4	3.6	3.9	4.0	4.0	4.0
Moldova	-0.7	8.9	1.8	3.5	3.8	4.0	4.0	4.0
Montenegro	-2.5	3.5	2.3	3.4	3.3	3.3	3.3	3.0
Romania	0.6	3.5	2.4	2.5	2.8	3.3	3.4	3.5
Serbia	-1.5	2.5	-0.5	1.0	1.5	2.2	2.5	3.0
Slovenia	-2.6	-1.0	1.4	1.4	1.5	1.8	1.9	1.9

Source: International Monetary Fund (IMF), *World Economic Outlook October (2014)*.

Tables 6 and 7 are showing dynamic changes in the level of transported passengers in the last nine years by the dominant airports in the SEE region (criteria more than 500.000 passengers per year).

Table 6 Passengers on dominant airports in the SEE region 2006-2014

Airport	Passengers										AAGR	Runaway
	2006	2007	2008	2009	2010	2011	2012	2013	2014	%	(m)	
Bucharest OTP	3,514	4,979	5,064	4,481	4,803	5,049	7,102	7,643	8,317	11.4	3,500	
Belgrade	2,222	2,513	2,650	2,384	2,699	3,125	3,364	3,543	4,639	9.6	3,400	
Sofia	2,209	2,746	3,231	3,135	3,297	3,475	3,467	3,504	3,815	7.1	3,600	
Burgas	1,702	1,949	1,937	1,684	1,873	2,229	2,357	2,456	2,530	5.1	3,200	
Zagreb	1,728	1,922	2,192	2,062	2,072	2,319	2,342	2,300	2,431	4.4	3,252	
Tirana	906	1,107	1,267	1,395	1,537	1,817	1,665	1,757	1,810	9.0	2,750	
Pristina	883	990	1,131	1,192	1,306	1,422	1,527	1,629	1,427	6.2	2,500	
Split	1,096	1,191	1,204	1,115	1,220	1,300	1,426	1,582	1,753	6.0	2,550	
Dubrovnik	1,120	1,143	1,191	1,122	1,270	1,350	1,480	1,523	1,584	4.4	3,300	
Chisinau	548	689	848	809	938	1,044	1,221	1,321	1,781	15.9	3,590	
Ljubljana	1,334	1,524	1,673	1,434	1,389	1,369	1,199	1,321	1,307	-0.3	3,300	
Varna	1,400	1,493	1,450	1,207	1,199	1,164	1,211	1,308	1,387	-0.1	2,500	
Cluj	244	391	753	834	1,029	1,005	932	1,035	1,182	21.8	2,200	
Skopje	542	627	652	658	681	760	829	984	1,211	10.6	2,950	
Tivat	451	574	568	532	542	647	725	868	911	9.2	2,500	
Timisoara	754	837	957	974	1,138	1,201	1,036	757	735	-0.3	3,500	
Podgorica	382	460	541	450	652	612	620	681	702	7.9	2,500	
Sarajevo	466	505	506	530	563	600	580	666	710	5.4	2,600	
Total	21,504	25,640	27,816	25,998	28,205	30,488	33,084	34,879	38,232	7.5		

Source: Prepared by authors and based on data: Steiner et.al (2010), anna.aero, (2015).

Leading regional airport is Bucharest reaching over 8.3 mill passengers in the year 2014. Second position holds the Belgrade airport (over 4.6 mill passengers) followed by airport Sofia (3.8 mill passengers). All three mentioned airports had much higher growing rates compared to airport Zagreb, having ambition to be leading airport in the region (only modest 4.4% of AAGR). Besides, ongoing processes include examples of partial and full airport privatizations in the SEE region (Graham, A. and Ison, S., 2014: 88): (1) Share flotation model – Ljubljana; (2) Concession – Zagreb, Pristina and Skopje; (3) Build Operate Transfer (BOT) – Tirana, Varna and Burgas. Including all airports traffic results in the SEE region having in mind that only Croatia, Romania and Bulgaria are implementing domestic scheduled traffic leading country is Romania. Same conclusion is valid when monitoring the freight air transportation results.

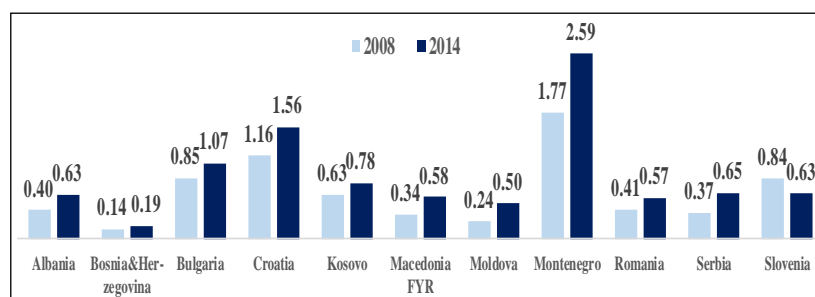
Table 7 Passenger and cargo traffic in the SEE region 2008 vs. 2014

Country	Passengers (000)						Cargo tonnes (000)	
	2008			2014			2008	2014
	Interna-tional	Domes-tic	Total	Interna-tional	Domes-tic	Total		
Albania	1,267	0	1,267	1,810	0	1,810	2.9	20.1
Bosnia & Herzegovina	550	0	550	710	0	710	2.4	2.2
Bulgaria	6,200	290	6,490	7,533	200	7,733	19.8	16.7
Croatia	4,610	554	5,164	6,160	480	6,640	13.9	7.9
Kosovo	1,131	0	1,131	1,427	0	1,427	-	-
Macedonia FYR	697	0	697	1,211	0	1,211	2.8	2.1
Moldova	848	0	848	1,781	0	1,781	0.8	4.6
Montenegro	1,109	0	1,109	1,612	0	1,612	1.5	3.7
Romania	8,250	500	8,750	10,764	650	11,414	26.7	49.5
Serbia	2,694	0	2,694	4,639	0	4,639	9.1	18.4
Slovenia	1,705	0	1,705	1,307	0	1,307	12	7.3
Total	29,061	1,344	30,405	38,954	1,330	40,284	91.9	132.5

Source: Prepared by authors from various sources

Figure 3 is indicating very interesting data of air transport market mobility leading to the conclusion that Montenegro inbound/outbound flows per capita are at the top (2.2 passengers per inhabitant) followed by Croatia.

Figure 3 Air transport passengers per capita in SEE region countries



Source: Prepared by authors from Table 3 and Table 7 data.

Analysis of dominant air carriers in the region is explaining very difficult situation of small regional operators (Table 8). The level of passengers transported decreased in the 2014 compared to 2008 in spite of fact that most of them increased productivity results (Passenger Load Factor - PLF and passengers per employee indicator). The total number of job losses in the period were 2,028.

Table 8 Selected capacity and productivity indicators of airlines in the SEE region 2008 vs. 2013/2014

Airline	Fleet Aircraft N ^o		Passengers (000)		PLF (%)		Employees		Passenger per Employee	
	2008	2014	2008	2013	2008	2013	2008	2013	2008	2013
Adria Airways	14	11	1,302	1,030	63	72	719	392	1,811	2,628
Air Moldova	4	5	402	540	61	73	658	500	611	1,080
Air Serbia (JAT)	15	20	1,330	1,320	62	66	1,697	1,527	784	864
Albanian Airlines	4		220	0	51	0	165	0	1,333	-
BH Airlines	2	2	73	32	66	66	90	80	811	400
Bulgaria Air	20	10	1,185	1,285	65	77	1,064	434	1,114	2,961
Croatia Airlines	10	12	1,869	1,797	65	69	1,114	1,041	1,678	1,726
Kosova Airlines	-	-	-	-	-	-	-	-	-	-
MAT	2		215	0	71	0	159	0	1,352	-
Montenegro Airlines	6	5	498	566	64	67	409	443	1,218	1,278
Tarom	24	24	1,900	2,200	62	65	2,482	2,112	766	1,042
Total	101	89	8,994	8,770	65	69	8,557	6,529	1,051	1,343

Source: Prepared by authors and based on IATA WATS (2009, 2010, 2011, 2012, 2013, 2014).

Evident improvement in productivity indicators did not result with appropriate and successful financial performance. Analysis dynamic of net margin for six dominant airlines in the SEE region is showing very negative overall level of 13.1 percent for the period 2008-2013 (Table 9) with total net losses of over 1.1 billion USD (Table 10).

Table 9 Net margins for selected airlines in the SEE region 2008-2013

Net margin %	2008	2009	2010	2011	2012	2013	Total
Adria Airways	-1.6	-7.7	-30.2	-7.0	-6.9	-2.0	-9.8
Air Serbia / JAT	-45.5	-8.4	-26.1	-21.4	-24.2	-41.0	-29.0
Bulgaria Air	0.0	0.3	0.1	0.5	-8.9	0.0	-1.5
Croatia Airlines	-5.4	-13.1	-10.6	-4.7	-28.2	0.0	-10.3
Montenegro Airlines	-1.1	-6.2	-4.4	-13.4	-9.0	-7.2	-6.6
TAROM	8.2	-30.2	-24.9	-20.9	-18.2	-11.7	-16.3
Total	-7.9	-12.4	-18.4	-11.9	-17.4	-11.0	-13.1
Note: Bulgaria Air operating margin for 2012							

Source: Prepared by authors and based on IATA WATS (2009, 2010, 2011, 2012, 2013, 2014).

Table 10 Total net results selected airlines in the SEE region 2008-2013

in 000 USD	2008	2009	2010	2011	2012	2013	Total
Revenues	1,588,380	1,208,046	1,213,124	1,305,694	1,252,068	1,297,196	7,864,508
Expences	1,587,762	1,301,688	1,455,133	1,477,521	1,413,220	1,401,288	8,636,612
Operating result	618	-93,642	-242,009	-171,827	-161,152	-104,092	-772,104
Net profit/loss	-124,723	-161,322	-268,161	-175,576	-225,131	-153,443	-1,108,356

Source: Prepared by authors and based on IATA WATS (2009, 2010, 2011, 2012, 2013, 2014).

In addition it could be remarked also the BH Airlines net losses 2008-2011: -60.7 million USD, Dubrovnik Airlines net losses 2008-2010: -10,6 million USD - bankrupt in 2011, (Tatalović et.al, 2013) and several bankruptcies MAT Macedonian Airlines, Belle Air, Albanian Airlines, Carpatair, Air Adriatic... One of the explanations is out of any doubt appearance of LCCs in the region (Table 11). Overall 15 of LCCs are serving 78 airports in the SEE region. Leading airports in that sense are Dubrovnik and Split.

Table 11 LCCs on SEE region airports (summer timetable 2012)

<div><div>Airport</div><div>LCC</div></div>	Bucharest	Belgrade	Sofia	Burgas	Zagreb	Tirana	Pristina	Split	Dubrovnik	Chisinau	Ljubljana	Varna	Cluj	Skopje	Tivat	Timisoara	Sarajevo	Pula	Zadar	Constanta	Rijeka	Osijek	Plovdiv	Arad	Sibiu	TirguMuz	Bacau	Satu Mare	Total
Ryanair - FR																	1	1	1	1	1	1						6	
Easyjet - GO			1		1		1	1	1		1																	6	
Air Berlin - AB	1	1	1				1	1	1					1	1		1	1	1					1				11	
Norwegian - DY		1		1	1		1	1	1			1					1	1			1				1			11	
Vueling - VY	1				1			1	1																			4	
Wizzair - W6	1	1	1	1				1			1	1	1	1		1										1		11	
Aer Lingus - EI	1			1					1																			3	
Germanwings - 4U	1	1			1	1	1	1	1								1	1	1		1							11	
flybe - BE									1																			1	
Transavia - HV				1				1	1																			3	
Jet2 - LS								1	1									1										3	
bmi baby - WW									1									1										1	
Air Baltic - BT										1																		1	
Windjet - IV	1																											1	
Blue Air 0B	1												1												1	1	1	5	
Total	7	4	3	4	4	1	4	8	9	1	2	2	2	2	1	1	2	5	3	2	3	1	1	1	2	1	1	1	78

Source: Bjelicic, B. (2013), Low Cost Carriers in Eastern Europe, p.p. 45-48 (Prepared by authors).

Only one SEE region LCC is coming from Romania. Blue Air, founded 2004 with 10 Boeing 737 aircraft serving 25 destinations mostly to the Western Europe destinations - Italy, Spain, UK etc. (Bjelcic, B. 2013:48). All together explains why the number of the routes and number of SEE routes in the year 2014 decreased (-9.3%) compared to the year 2008 (Table 12) leading to the conclusion that ONLY 10% of existing routes are within SEE region. Even more average weekly frequency on half of the routes within the region is less than one daily flight.

Table 12 Destinations and frequencies within region – 2008 vs. 2014

Airline	No. of routes		SEE routes		SEE freq.		Destinations / Weekly frequency	
	2008	2014	2008	2014	2008	2014	2008	2014
Adria Airways	27	21	6	21	46	35	Ljubljana - SJJ 7x; TGD 3x; TIA 7x; SKP 11x; OTP 4x; PRN 14x	Ljubljana - SJJ 5x; TGD 6x; TIA 10x; SKP 8x; PRN 6x
Croatia Airlines	36	29	4	29	28	28	Zagreb - SJJ 14x; SKP 7x; TDG 3x; PRN 4x	Zagreb - SJJ 13x; SKP 8x; PRN 4x; Split - BEG 3x
Bulgaria Air	34	24	3	24	9	0	Sofia - TIA 2x; SKP 2x; OTP 5x	-
Air Moldova	16	23	1	23	5	-	Chisinau - OTP 5x	-
Albanian Airlines	4	0	1	0	3	0	Tirana - SKP 3x	-
Belle Air	19	0	1	0	12	0	Tirana - PRN 12x	-
BH Airlines	6	6	1	6	3	7	Sarajevo - SKP 3x	Sarajevo - BEG 7x
MAT	6	0	0	0	0	0	-	-
Tarom	38	37	2	37	15	38	Bucharest - SOF 11x; KIV 4x	Bucharest - SOF 14x; KIV 17x; BEG
Carpatair	34	0	1	0	-	-	Timisoara - KIV 6x	-
Montenegro Airlines	14	18	3	18	37	30	Podgorica - BEG 21x; LJU 2x; Tivat - BEG 14x	Podgorica - BEG 14x; LJU 2x; Tivat - BEG 14x
JAT / Air Serbia	33	47	4	47	89	85	Belgrade - SKP 18x; LJU 7x; TGD 33x; TIV 31x	Belgrade - SKP 14x; LJU 7x; TGD 13x; SJJ 7x; OTP 7x; TIV 13x; TIA 3x; SOF 7x; DBV 6x; SPU 5x; PUY 3x
Total	267	205	27	205	247	223		

Source: According Mišetić et.al (2009) for 2008 and various sources for 2014 prepared by authors

5. CROATIA AIR TRANSPORT MARKET CHALLENGES

The Croatian economy saw in the year 2014 further fall of gross domestic product (-0.4%) in spite of the announced and expected recovery. Macroeconomic indicators of the economy starting from the year 2008 with the GDP level of 48.5 billion EUR dropped to the level of 43.1 billion EUR in the year 2014 At the same time Croatian gross external debt increased to 45.9 billion EUR followed by 741 million EUR of foreign direct investment, which is five time less compared to the year 2008 (HGK, 2015:4) The unemployment rate in 2014 was 17 %

again much more unfavorable when compared to the EUs 10.2%. Economic dynamics in the period after the global and regional economic crisis (2008) in Croatia was the worst compared to the Middle and Southeast European countries. There is no doubt that all mentioned facts and figures negatively influenced on achievements on the Croatian air transport market. In spite of the economic crisis touristic results in Croatia were pretty good leading to the record achievement in the year 2014. Over 66.5 million tourist nights or 16% more compared to the year 2013 was the best year in the last 25 years, dominantly as a 25% increase of foreign tourist nights. At the same time domestic tourist nights increased by 9%. The most frequent tourist arrivals came from Germany (approx. 2 mill), followed by Italians, Slovenians and Austrians (approx. 1 mill tourist arrivals). Tourist arrivals from France and Netherlands stagnated. From the air transport point of view it is important to notify very high increase of USA (+16%) and Canada (+20%) tourist arrivals in the year 2014 (HGK, 2015:42,43), positively influencing long range air connections using hub and spoke system via European airport transfer points.

Main characteristics of Croatian air transport market are: huge seasonality, high level of competition and the fact that demand is generated by foreigners. Actual data for 2014 shows that number of passengers on Croatian airports in August was 7.2 times more than in February (Croatian Bureau of Statistics, 2015). Close to one hundred airlines are competing for about 6.7 million passengers and almost half of them are scheduled well known European full service network carriers or low cost carriers. The rest are charter operators. More than 85% of passengers on international traffic are foreigners, and that fact is important challenge for Croatia Airlines to find a way to attract them to use our network when they decide to come to Croatia (Bajić et.al. 2014: 182-184). Croatia joined European Union on 1st of July 2013, but liberalization of aviation sector happened much earlier, during the period from 2004 to 2006 when Croatia signed European Common Aviation Area agreement. Table 13 shows international scheduled passenger traffic dynamic developments in Croatia in the period 2003-2014 for Croatia Airlines and foreign competition.

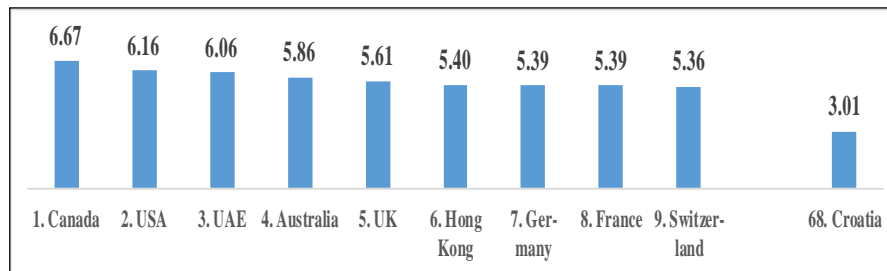
Table 13 International airline passengers in Croatia 2003-2014

Passengers (000)	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014e	AAGR
Competition	325	482	879	1,355	1,757	1,821	1,836	2,308	2,636	2,879	3,636	3,945	25.5%
Croatia Airlines	796	866	897	942	1,055	1,209	1,188	1,136	1,307	1,372	1,243	1,280	4.4%
Total	1,121	1,348	1,776	2,297	2,812	3,030	3,024	3,444	3,943	4,251	4,879	5,225	15.0%
Croatia Airlines Market Share	71%	64%	51%	41%	38%	40%	39%	33%	33%	32%	25%	24%	-9.2%

Source: Croatian Bureau of Statistics, Airports statistics, Croatia Airlines (Prepared by authors).

Based on the huge significance of tourist sector in Croatia and its indisputable development potential in this field of economy, consequently air transport shall be absolutely in a position to have even more important role. This is confirmed also by recent researches of the World Economic Forum (WEF), ranking Croatia based on travelling and tourism competition index to the 35th position, among 140 countries of the world included into this research (WEF, 2013). At first sight, it seems a fairly good result. However, in deeper analysis of certain indicators, some potentials could be identified and their use could improve the achieved score. Methodology of the competition index calculation is based on analysis of 14 basic fields within which various indicators shall be assessed. One of basic fields refers to the air transport infrastructure, where Croatia is ranked at the 68th position with mark 3.01 (Figure 4). Only in three basic fields worse ranking has been achieved, those being: [1] competition and price in travelling and tourism industry (sector), (109th position); [2] policy of rules (provisions) and regulations (96th position); [3] human resources (93rd position). Basic field of the air transport infrastructure includes indicators: [1] air transport infrastructure quality (79th position); [2] available seat kilometers in domestic traffic (60th position); [3] available seat kilometers in international traffic (86th position); [4] number of departures per 1000 inhabitants (54th position); [5] airport density at 1 million inhabitants (26th position); [6] number of air carrier operators (67th positions); [7] international flight networks (99th position), (WEF, 2013:146-147). Namely (consequently), it is evident from the World Economic Forum report that Croatia is using insufficiently its available potentials in air transport.

Figure 4 Ranking and assessment of individual countries regarding the air transport infrastructure efficiency



Source: According to WEF (2013) prepared by the authors.

It is obvious that the presented results of Croatia when it comes to total air transport infrastructure are real and expected ones, as there is a continuous lack of strategic approach in sense of the existing potentials activation. The authors Tatalović et al. (2012b) characterized the air transport development in Croatia as “strategy without strategy”, mainly because the market liberalization process has been implemented on the principle: who of those factors contained in the air transport value chain happens to be at certain position in that moment. In such an environment the factors holding monopoly position, like airports, INA (fuel supplier) and the Croatian Air Traffic Control took advantage of the situation, while Air Adriatic and Dubrovnik Airline bankrupted, and Croatia Airlines was submitted to significant losses. Since the end of 2010 to 2014 the Republic of Croatia was without any transport strategy. With joining the European Union, the significance of traffic development strategy has increased, as for utilization of the European funds for improvement of traffic systems and infrastructure such a document becomes indispensable. The Croatian Ministry of Maritime Affairs, Transport and Infrastructure (MMPI) has engaged foreign consultants and the document was adopted in October of 2014 (MMPI, 2014). Therefore, it can be concluded that unfortunately the Document does not contain any transport forecasts for any of transport sectors and that after “strategy without strategy” in air transport, now we have “strategy because of strategy”.

Croatia Airlines strategy in next few years are defined through it restructuring goals and based on company’s strength recognized in: full membership in Star Alliance, good customer relations and good quality

brand accuracy, reliability and safety of operations, network product quality, favorable workforce education level structure etc. Network strategy is focused on a clear definition of primary, secondary and tertiary routes. That includes the fleet and frequency optimization, especially on the expanding Southeast European market. The implementation of all restructuring measures generated a positive financial result in year 2013 and in 2014. The restructuring measures are strictly realized as defined in restructuring plan. Compensation and self-contribution measures are in line with EU competition, restructuring and state aid rules (Croatia Airlines, 2015).

Comparison of correlation matrix showed in Table 2 transferred to Croatia air transport market is showing similar results concerning first two parameters (productivity/ productivity) and (productivity/revenue). However, the rest of the correlation matrix indicators are less statistically indicative in Croatia compared to worldwide results.

Table 14 Global civil aviation / Croatia Airlines correlation comparison

	WLF- TKM/Employee	WLF- Revenue	WLF- Operating result	WLF- Profit/Loss	TKM/Empl yee - Revenue	TKM/Empl yee - Oper. result	TKM/Empl yee - Profit/Loss
Croatia Airlines	0.935	0.889	-0.002	-0.130	0.884	-0.088	-0.193
World Aviation	0.897	0.947	0.751	0.538	0.949	0.554	0.312

Source: Prepared by authors.

6. CONCLUSIONS

Air transport industry is channel for economic flows of tourists, workers, goods, investment and ideas, creating social cohesion, competition and diversification of market players and bridge to distant markets. The Southeast Europe undeveloped economic and air transport market and weak connectivity is calling for improvement of cooperation between the existing players following to consolidation in the sector.

It is necessary to understand the importance of privatization, acquisition, merging and integration processes as a crucial management challenge of highest degree as a surviving mode of small Southeast Europe airlines.

Challenges of the Croatian future air transport development are in direct connection with identification of unused potentials as a key point of future traffic and economic strategy.

REFERENCES

Airbus (2014), *Global Market Forecast 2014 -2033 - Flying on demand*, Airbus SAS, Toulouse.

Anna.aero (2015), European Airport Traffic Trends, <http://www.anna.aero/databases/>, updated 14 April 2015.

ATAG (2014), *Aviation Benefits Beyond Borders*, Air Transport Action Group, Genève.

Bajić, J., Tatalović, M. and Kučko, K. (2014), *Analiza zrakoplovne konkurencije u Hrvatskoj*, Suvremeni promet, god. 34, br. 1-2/2014, Zagreb: Hrvatsko znanstveno društvo za promet. pp. 178-186.

Bjelicic, B. (2013), *Low Cost Carriers in Eastern Europe*. In S. Gross and M. Luck (editors), *The Low Cost Carrier Worldwide*, Ashgate, Farnham, pp.39-58.

Black, K. (2010), *Business Statistics: For Contemporary Decision Making*, Sixth Edition, Willey, Hoboken.

Boeing (2014), *Current Market Outlook 2014-2033*, Boeing, Seattle.

Business Monitor International – BMI (2015), *Emerging Europe Monitor South East Europe*, Vol 22 Issue 2 February 2015, Business Monitor International, London.

Capstats.com (2015), <http://www.capstats.com/capacityreports.aspx>, updated 11 April 2015.

- Croatia Airlines (2015), [http://www.croatiaairlines.com/hr/O-nama/Financijske informacije/Izvjesca-o-poslovanju](http://www.croatiaairlines.com/hr/O-nama/Financijske-informacije/Izvjesca-o-poslovanju), updated 11 April 2015.
- Croatian Bureau of Statistics (2015), *Traffic in Airports*, First Release 5.1.5/1.-12., http://www.dzs.hr/default_e.htm, updated 7 March 2015.
- Dunn, G. (2015), *European network returns stall*, Airline Business April 2014, Reed Business Information, Surrey, pp. 47.
- Fraser, C. (2013), *Business Statistics for Competitive Advantage with Excel 2013*, Third Edition, Springer, New York.
- Graham, A. and Ison, S. (2014), *The role of Airports in Air Transport*. In A.R. Goetz and L. Budd, *The Geographies of Air Transport*, Ashgate, Farnham, pp. 81-101.
- HGK (2015), *Gospodarska kretanja 1/2 2015*, Hrvatska gospodarska komora, Zagreb.
- IATA WATS (2009, 2010, 2011, 2012, 2013, 2014), *World Air Transport Statistics Editions: 53rd, 54th, 55th, 56th, 57th and 58th*, International Air Transport Association, Montreal-Geneva.
- IATA (2014), *Economic Performance of the Industry Dec 2014*, International Air Transport Association, Geneva-Montreal, <http://www.iata.org/whatwedo/Documents/economics/IATA-Economic-Performance-of-the-Industry-end-year-2014-report.pdf>, updated 10 January 2015.
- ICAO (2013), *Global Air Transport Outlook to 2030 and trends to 2040*, International Civil Aviation Organization, Montreal.
- IMF (2014), *World Economic Outlook Database October 2014*, <https://www.imf.org/external/pubs/ft/weo/2014/02/weodata/index.aspx>, updated 16 April 2015.
- Jorge-Calderon, D. (2014), *Aviation Investment - Economic Appraisal for Airports*, Air Traffic Management, Airlines and Aeronautics, Ashgate, Farnham.

Mason, K., Morrison W. G. and Stockman I. (2013), *Liberalization of Air Transport in Europe and the Evolution of 'Low-cost' Airlines*. In P. Forsyth, D. Gillen, K. Hüscherlath, H.M. Niemeier and H. Wolf (editors), *Liberalization in Aviation: Competition, Cooperation and Public Policy*, Ashgate, Farnham pp. 141-156.

Mišetić, I., Tatalović, M. and Bajić, J. (2009), *Public Service Obligation Model on European Southeast Air Transport Market*, In I. Kikerkova (editor) *Proceedings from the Third International Conference Regional Cooperation and Economic Integration Challenges and Opportunities*, October 15th - 17th 2009. Skopje Ss. Cyril and Methodius University, Faculty of Economics –Skopje, Skopje. pp. 251-264.

MMPI (2014), *Transport Development Strategy of the Republic of Croatia 2014-2030*, Ministry of Maritime Affairs, Transport and Infrastructure of the Republic of Croatia, http://www.mppi.hr/UserDocsImages/TR-DEVLP%20STRAT-M-DOC3010-14%20FINAL%2025-12_15.pdf, updated 17 December 2015.

Rhoades, D.L. (2014), *Evolution of International Aviation - Phoenix Rising*, Ashgate, Farnham.

Steiner, S., Tatalovic, M. and Bajic, J., (2010), *Competition and Cooperation on European Southeast Air Transport Market*. In V. Kandžija, A. Kumar (editors), *Economic integrations, competition and cooperation*, Research monograph, University of Rijeka, Faculty of Economics, Rijeka, pp. 534-552.

Tatalović, M., Bajić, J. and Šimunović, S. (2012.a), *Razvoj zračnog prometa u Hrvatskoj: strategija bez strategije*, *Suvremeni promet*, časopis za pitanja teorije i prakse prometa, Vol. 32, No 1-2, Hrvatsko znanstveno društvo za promet, Zagreb, str. 11-21.

Tatalović, M., Bajić, J and Šimunović, S. (2013), *Fitting The Fleet and the Service to the SEE Market Demand Future of Small European Airlines*. In V. Kandžija and A. Kumar,(editors), *Proceedings from the 9th International Conference Economic integration, competition and cooperation*, April 17 - 19, 2013., Opatija, University of Rijeka Faculty of Economics, Rijeka, pp. 356-370.

Tatalović, M., Mišetić, I. and Bajić, J. (2012.b), *Menadžment zrakoplovne kompanije*, Mate d.o.o., Zagreb.

U.S. DOT-Department of Transportation, (2012.), *Aviation Industry Performance: A Review of the Aviation Industry, 2008–2011*, Controlled Correspondence No. 2012-029, <http://www.oig.dot.gov/sites/dot/files/Aviation%20Industry%20Performance%5E9-24-12.pdf>., updated 26 March 2014.

WEF (2013), *The Travel & Tourism Competitiveness Report 2013: Reducing Barriers to Economic Growth and Job Creation*, Blanke, J., Chiesa, T. (editors), World Economic Forum, Geneva.

WIIW (2015), *Countries Overview*, The Vienna Institute for International Economic Studies

CHAPTER 13

Ricardo Ferraz

Lisbon School of Economics & Management, Lisbon, Portugal

António Portugal Duarte

Faculty of Economics, University of Coimbra, Coimbra, Portugal

PORTUGAL AND THE ‘PIIGS’: ECONOMIC GROWTH AND PUBLIC DEBT IN THE LAST FOUR DECADES, 1974-2014

ABSTRACT

Portugal is a member of the group of peripheral economies of the European Union (EU) designated by investors as the ‘PIIGS’ (Portugal, Italy, Ireland, Greece and Spain). Based on an extended time horizon, 1974-2014, we analyze the behavior of the Gross Domestic Product (GDP) and public debt of Portugal, and compare this with the average of the PIIGS. This reveals that in the last four decades, in Portugal, as well as in the average of the ‘PIIGS’, the public debt grew more rapidly than the wealth produced. A second aim of the study was to explore empirically, the relationship between economic growth and public debt in the same period. In the light of the empirical results, we can confirm that in the last four decades there has been a negative relationship between economic growth and public debt, both in Portugal, and in the ‘PIIGS’ average. These conclusions not only contribute to the economics literature, but are also seen as another argument in favor of existing policies in Europe, which prioritize the sustainability of public finances of several Member States of the European Union as an important condition for economic growth.

Keywords: Economic Growth, Portugal, PIIGS, Public Debt

JEL Classification: E62, E65, H6.

1. INTRODUCTION

Portugal is within the group of economies referred to as the PIIGS¹. Although attracting some controversy, the acronym PIIGS is commonly used in the world of international investors to refer to the peripheral and weaker economies of the European Union (EU). Whilst it is not possible to identify the creator of the acronym, it is known that it originated in the 1990s, when the PIIGS were only the PIGS², and before the global crisis that began in 2007 caused Ireland to be included in the group, thereby adding another 'I' to the acronym³.

Practically all these economies, with the exception of Italy, recently received financial assistance from the designated 'troika'⁴, in the context of difficult access to funding in the capital markets, and after a less positive trend in certain of their macroeconomic indicators, among them, those related to the public debt and economic growth⁵.

Consequently, based on a relatively broad time horizon (1974-2014), we statistically examine the behavior of GDP and public debt for the case of Portugal, and compare these with the average of the PIIGS. Using an empirical approach, we then study the existing relationship in the same period⁶, between economic growth and public debt, both in the case of Portugal, and the average of the PIIGS.

The work is presented in four sections. After the introduction, Section 2 presents a brief framework within which to understand the relationship between economic growth and public debt in Portugal, and in the PIIGS in the period 1974-2014. In Section 3, the same relationship is empirically studied by estimating a simple linear regression using the ordinary least squares (OLS) method. Finally, the main conclusions are presented.

2. FRAMEWORK: ECONOMIC GROWTH AND PUBLIC DEBT IN PORTUGAL AND IN THE PIIGS

¹ *Portugal, Italy, Ireland, Greece and Spain.*

² *Portugal, Italy, Greece and Spain.*

³ See Krouse (2012).

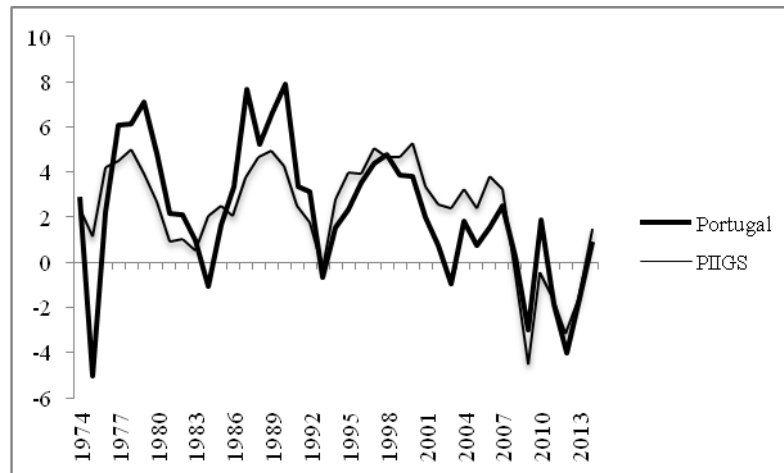
⁴ The troika is composed of the European Commission (EC), European Central Bank (ECB), and International Monetary Fund (IMF). In 2010, Greece and Ireland agreed their respective adjustment programs with the 'troika', and were followed by Portugal in 2011. Finally, in 2012, it was Spain which agreed a financial assistance program exclusively for the recapitalization of its financial institutions. See European Commission (2013).

⁵ See Roubini and Mihov (2011).

⁶ Data are available for all countries.

In the period under analysis, 1974-2014, it is possible to identify a downward trend in real growth of Portuguese GDP since the end of last century, as well as in the real growth rate of the average of the countries in the PIIGS, as can be seen in Figure 1.

Figure 1 Real Growth Rates of GDP (at 2010 prices), 1974-2014



Source: AMECO (2014) and the authors' own calculations.

From the analysis of the values of real average annual growth rates of GDP documented in Table 1, it can be concluded that the Portuguese economy grew in real terms, over the past forty one years, at an average of 2.2% per year, a value lower than the average of the PIIGS, however higher than a few of the more developed economies, such as for example, Spain, Sweden and the United Kingdom.

Table 1 Real Average Annual Growth Rates of GDP (at 2010 prices), 1974-2014

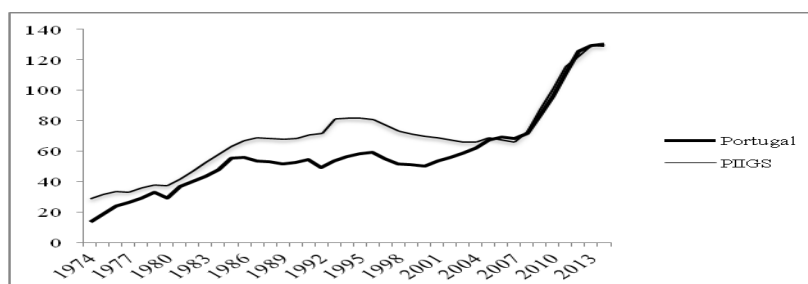
Countries	Real Average Annual Growth Rates of GDP
Portugal	2.2
Italy	1.5
Ireland	4.2
Greece	1.4
Spain	2.1
Average of PIIGS	2.3
United States	2.8
Japan	2.3
United Kingdom	2.1
Sweden	2.0

Source: AMECO (2014) and the authors' own calculations.

Regarding the evolution of public debt as a percentage of GDP during the same period, the conclusions are precisely the inverse of those obtained from the analysis of the real growth rate of GDP.

Indeed, both in the case of Portugal, and the average of the PIIGS, a clear growing trend emerged in their respective public debt/GDP ratios. It should also be noted that before 2006, Portugal always had a lower ratio than the average of the PIIGS. However, from this year, this is no longer the case, as can be observed in Figure 2.

Figure 2 Public Debt/GDP Ratios, 1974-2014



Source: AMECO (2014) and the authors' own calculations.

The values documented in Table 2 depict a better picture of this reality. As can be seen, in the period concerned, the growth of the public debt/GDP ratio was faster in Portugal, when compared to the average of the countries comprising the PIIGS, as well as when compared with the growth of some of the most developed countries, such as for example, the United States and Japan. It is still possible to conclude that between 1974 and 2014, the ratio of public debt/Portuguese GDP increased by approximately 117 percentage points (excluding Greece, this represented the biggest change in the group).

Table 2 Growth Rates and Changes in the Public Debt/GDP Ratio, 1974-2014

Countries	Average Annual Growth Rate of the Ratio Public Debt/GDP	Variation in the Ratio Public Debt/GDP (percentage points)
Portugal	5.9	116.9
Italy	2.5	83.8
Ireland	2.0	59.4
Greece	5.6	157.1
Spain	5.5	86.2
Average of PIIGS	3.3	100.7
United States	2.4	64.6
Japan	6.9	229.7
United Kingdom	0.9	26.6
Sweden	1.3	17.1

Source: AMECO (2014) and the authors' own calculations.

In short, from all the statistical analyses performed so far, it can be concluded that on average, real GDP growth rates, were less accelerated in Portugal than the average of the PIIGS. By the opposite, public debt/GDP growth rates were more accelerated in Portugal than the average of the PIIGS. Additionally, and even more important, it is possible to conclude that in Portugal, as in the average of the PIIGS, the public debt grew more rapidly than the wealth produced. The question thus remains as to how, in the period under analysis (1974-2014), economic growth and public debt are actually related, both in the case of Portugal, and in the average of the PIIGS. And, a further question is

whether this relationship was more intense in Portugal than in the average of the PIIGS. In the next section, we attempt to answer these questions.

3. ECONOMIC GROWTH AND PUBLIC DEBT, 1974-2014: WHAT IS THE RELATIONSHIP?

One of the reference studies in the international literature on the relationship between economic growth and public debt is that of Reinhart and Rogoff (2010). Using a broad sample of countries⁶⁷, and having as a reference a time horizon of more than one hundred years, these authors concluded that a moderate level of public debt as a percentage of GDP, corresponded to higher economic growth rates (verifying the reverse for higher levels of public debt). Similarly, Checherita and Rother (2012), took a sample of twelve countries of the Eurozone⁸, and using the period 1970-2010 as a reference, concluded that there was a negative relationship between economic growth and public debt, in which the latter amounted to between 90% and 100% of GDP.

The IMF also considers high levels of public debt to have negative effects on economic growth (see IMF 2013a). Actually, as explained by the Fund “*high debt also makes public finances more vulnerable to future shocks, both by constraining the ability of governments to engage in countercyclical policies and by increasing the primary surplus needed to stabilize the debt ratio following an adverse shock to growth or interest rates. Indeed, when debt is high, there is a risk of falling into a bad equilibrium caused by self-fulfilling expectations*”(see IMF 2013b). However, neither the IMF, nor the previous authors specifically discussed the Portuguese economic growth and public debt in relation to that of the PIIGS in the last four decades, 1974-2014. Consequently, that is precisely what is studied in this section, using an alternative methodology based on the estimation of simple linear regressions using the Ordinary Least Squares method (OLS).

Thus, and since it is a basic assumption in a regression analysis that the time series are stationary, we started by analyzing the characteristics of

⁷ The sample consists of forty-four countries and includes, among others, Spain, United States, France, Italy, and Portugal. This study was the subject of a correction in 2013 by the authors who were, nonetheless, able to retain the validity of the conclusions obtained in the initial study.

⁸ Countries like Germany, Spain, France, and Portugal are part of the sample.

stationarity of the series based on a set of unit root tests, the designated Augmented Dickey-Fuller Generalised Least Squares (ADF-GLS) and Augmented Dickey-Fuller (ADF)⁹. In the ADF-GLS and ADF tests the null hypothesis is the presence of a unit root¹⁰.

The results obtained after applying this tests are documented in Table 3.

Table 3 Results of the ADF-GLS and ADF Tests –Annual Frequency

ADF-GLS				
Test with constant and without trend ⁷				
Variable	Lags ⁸	Test statistic	p-value	Conclusion
Real growth rate of Portuguese GDP	1	-3.26649	0.001065** *	S
Real growth rate of the average of the	2	-2.19968	0.02682 **	S
Growth rate of the ratio public	2	-3.71021	0.0001***	S
Growth rate of the ratio public debt/average of the	1	-2.57366	0.009755** *	S

⁹ See Dickey and Fuller (1979) and Elliott et al. (1999).

¹⁰ For all variables we used data with an annual frequency obtained from AMECO (2014).

⁷ We do not include a trend, because by using growth rates of the variables the trend is diluted.

⁸ Number of lags selected automatically by Gretl (2014) for a maximum number of lags equal to 4.

ADF				
Test with constant and without trend				
Variable	Lags	Test statistic	p-value	Conclusion
Real growth rate of Portuguese GDP	1	3.21514	0.01916**	S
Real growth rate of the average of the PIIGS	2	-2.13637	0.2304	NS
Growth rate of the ratio public	2	-3.58692	0.006046***	S
Growth rate of the ratio public debt/average of the	1	-2.73277	0.06847*	S

Source: Authors' own calculations using the programme GRETL (2014).

Note: The notations *, ** and *** were used to represent the rejection of the null hypothesis of the ADF and ADF-GLS tests at a significance level of 10%, 5% and 1%, respectively. S=Stationary; NS=Non Stationary. The final results are in bold in the column 'conclusion'

Because the ADF-GLS test usually leads to obtaining more robust results in the case of small samples we have chosen to validate ADF-GLS conclusions⁹.

Taking into account the results obtained with the unit root tests, we now seek to assess the relationship between the real growth rates of GDP and the growth rates of the ratios of public debt/GDP. Therefore, the objective becomes to estimate, in the Portuguese case, the following simple linear regression through the OLS method¹⁰:

$$yP_t = \alpha_0 + \alpha_1 pdP_t + u_t \quad (1)$$

where the independent variable pdP_t is the growth rate of the public debt/Portuguese GDP ratio in the period 1974-2014, the dependent variable yP_t is the real growth rate of Portuguese GDP in the same period, α_0 being the constant, and u_t the error term.

In turn, in the case of the average of the set of countries which comprise the PIIGS, the goal is to estimate the corresponding regression to the equation (2), using the same estimation method for this purpose:

$$yPI_t = \beta_0 + \beta_1 pdPI_t + e_t \quad (2)$$

⁹ "This test is similar to an (augmented) Dickey-Fuller t test, as performed by *dfuller*, but has the best overall performance in terms of small sample size and power, dominating the ordinary Dickey-Fuller test. See Baum (2000).

¹⁰ Note that when the variables included in the model are stationary, the properties of the OLS model are the usual. See, e.g., Baffes (1996), and Martins (2009).

where the independent variable $pdPI_t$ is the growth rate of the public debt/PIIGS GDP ratio in the period 1974-2014, the dependent variable yPI_t is the real growth rate of PIIGS GDP in the same period, β_0 is the constant, and e_t the error term.

Table 4 presents the results obtained with the estimation of the first regression.

Table 4 Results Obtained with the Estimation of Equation (1) by OLS

Independent variables	Dependent variable: yP_t			
	Coefficient	Standard Error	t ratio	p-value
Constant	3.18901	0.476490	6.693	5.68e-08***
Growth rate of the ratio public debt/Portuguese GDP	-0.154270	0.0401687	-3.841	0.0004***
Adjusted R squared: 0.255812				

Source: Authors' own calculations using the programme GRETL (2014).

Note: *, ** and *** represent the statistical significance of the regressor, respectively, to 10%, 5% and 1%.

From the analysis of the values documented in Table 4, it can be concluded that an increase of 1 percentage point (pp) in the growth rate of public debt/Portuguese GDP ratio was associated, on average, with a reduction in real growth rate of Portuguese GDP approximately 0.15 pp. However, it should be noted that the explanatory power of the model (measured by adjusted R-squared) was only 26%. This is a low explanatory power and, therefore the results should be interpreted with some caution.

The results obtained with the estimation of the second regression are presented in Table 5.

Table 5 Results Obtained with the Estimation of Equation (2) by OLS

Independent variables	Dependent variable: yPI_t			p-value
	Coefficient	Standard Error	t ratio	
Constant	3.42002	0.300356	11.39	5.71e-014***
Growth rate of the ratio public debt/average of the PIIGS GDP	-0.220433	0.0331688	-6.646	6.59e-08***
Adjusted R squared: 0.519038				

Source: Authors' own calculations using the programme GRETL (2014).

Note: *, ** and *** represent the statistical significance of the regressor, respectively, to 10%, 5% and 1%.

From the analysis of the values documented in Table 5, it can be concluded that the increase of 1 percentage point in the growth rate of the public debt/PIIGS GDP ratio was associated, on average, with a reduction in real growth rate of PIIGS GDP of about 0.22 pp, being the explanatory power of the model of approximately 52%, which is higher than that reported in the first model, but still a low value.

Hence, it is possible to say that both in the isolated case of Portugal, and in the average case of the PIIGS, the public debt (estimated by the growth rate of the public debt/GDP ratio) was associated negatively with economic growth (measured by the real growth rate of GDP), although it should be noted that in the case of the PIIGS, this relationship was even more negative.

4. CONCLUSION

Based on an extended time horizon, last four decades (1974-2014), it was possible to identify a downward trend in real growth of Portuguese GDP, since the end of last century. However, the evolutionary trend of the public debt/GDP ratio was verified as being exactly the reverse, a growing trend in both cases being observed during the same period. More specifically, in the time horizon 1974-2014, real average annual growth rates of Portuguese GDP and the average of the PIIGS GDP

grew, respectively at 2.2% and 2.3%, while the growth rates of the public debt/GDP ratios grew, respectively at 5.9% and 3.3%. This means firstly, that on average, economic growth rates were more accelerated in the average of the PIIGS than in Portugal. Secondly, that public debt/GDP growth rates were more accelerated in Portugal than the average of the PIIGS. Third, that both in Portugal and in the average of the PIIGS, the public debt grew more rapidly than the wealth produced. In order to study, from an empirical viewpoint, the relationship between economic growth and public debt in the Portuguese case, and in the case of the average of the PIIGS, we proceeded to the estimation of simple linear regression models through the OLS method. Regarding the Portuguese case, it might be concluded that the increase of 1 percentage point in the growth rate of its public debt/GDP ratio was associated, on average, with a reduction in real growth rate of GDP of about 0.15 pp, in the period 1974-2014. In turn, in the case of the PIIGS, this variation was even more pronounced, more specifically at 0.22 percentage points. However, the results should be interpreted with some caution because the explanatory power of the models (measured by adjusted R-squared) was not too high.

In the light of the empirical results, we can say that in the last four decades, both in Portugal and in the other economies comprising the PIIGS group, a negative relationship between economic growth and public debt has existed. This finding not only contributes to the economics literature on the subject, but especially highlights the need by the various Member States of the European Union to conduct rigorous budgetary policies to ensure the sustainability of public finances as a precondition to growth.

REFERENCES

- Baffes, John (1996), "Explaining stationary variables with non stationary regressors", *Applied Economics Letters*, Vol. 4, No. 1, pp. 69-75.
- Baum, Christopher (2000). "Stata techical bulletin". N° 57.
- Checherita, Cristina and Phillip Rother (2012), "The impact of high and growing government debt on economic growth: an empirical investigation for the euro area", *European Economic Review*, Vol. 56, No.7, pp. 1392-405.

Dickey, David and Wayne Fuller (1979), “Distribution of the Estimators for time Series Regression with a UnitRoot”, *Journal of the American Statistical Association*, Vol. 74, No. 366, pp. 427-31.

Elliot, Graham; Rothenberg, Thomas and James Stock (1996), “Efficient tests for an autoregressive unit root”, *Econometrica*, Vol 64, No. 4 pp.813-36.

European Comission (2013), “Financial assistance in EU Member States.http://ec.europa.eu/economy_finance/assistance_eu_ms/index.htm Viewed in July 2014.

Gretl (2014), “Gnu Regression, Econometrics and Time-series Library”. <http://gretl.sourceforge.net/>.

Gujarati, Domodar and Dawn Porter (2003), Basic econometrics, *McGrawHill*, Boston.

IMF (2013a), “Fiscal Monitor April 2013 – Fiscal Adjustment in an Uncertain World, World Economic and Financial Surveys”, International Monetary Fund.

IMF (2013b). “Dealing with High Debt in an Era of Low Growth”, International Monetary Fund.

Martins, Filipe (2009), “Modelos em time series (parte 2)”, Departamentode Métodos Quantitativos, ISCTE-IUL.

Nusair, Salah (2003), “Testing the validity of purchasing power parity for Asian Countries during the currentfloat”, *Journal of Economic Development*, Vol. 28, No. 2, pp. 129-47.

Krouse, Sarah (2012), “Investing in PIIGS: Portugal”. <http://www.efinancialnews.com/story/2012-03-19/investing-in-piigs-portugal?ea9c8a2de0ee111045601ab04d673622>. Viewed in June de 2014.

Reinhart, Carmen and Kenneth Rogoff (2010), “Growth in Time of Debt”,

American Economic Review, Vol. 100, No. 2, pp. 573-8.

Roubini, Nouriel and Stephen Mihm (2011), "Can Europe be Saved?".
http://www.slate.com/articles/business/project_syndicate/2011/05/can_europe_be_saved.html. Viewed in July, 2014.

PART III
WESTERN BALKANS: TRADE,
BUSINESS, DEVELOPMENT AND
INTEGRATION PERSPECTIVES

CHAPTER 14

Andrej Kumar

ECSA Slovenia, Ljubljana, Slovenia

Vinko Kandžija

University of Rijeka, Faculty of Economics, Rijeka, Croatia

EU TRADE STRATEGY AND THE BALKANS

ABSTRACT

The EU accession process for the countries belong into the Balkan region is long and in different phases. Some countries from the region are already the EU members and some from the region are still in the phase of potential candidates for the EU membership. Among the countries waiting for the EU membership, which is promised by the European Council Thessaloniki declaration from 2003, are countries in economic and political transition with the largely different economic and trade potentials. The EU development strategy Europe2020 and the trade strategy are not specifically focusing on supporting the countries from The Balkan region to realize the accession activities fast and eventual together. Based on historic and some other elements it look like that collective-in package, access into the EU could be them most beneficial solution for the countries in the region. Beside historic, language and other similarities there are economic reasons for the package orientation in the future accession process. Unfortunately economic data together with the relevant EU strategic documents give limited hope for the change in the EU orientation and support to the accession process of the countries from the region. Based on such facts and limited economic interest of the EU for the region, membership of the states from the region in the EU is in reality moved into a distant and foggy future.

Keywords: Western Balkans states, EU, accession process

JEL clasification: F13

1. INTRODUCTION

The European Union (EU) is the biggest global player in international trade and investments. As economic integration and even more complex cooperation of 28 states the EU's impact on global trade and investments is based on its large size combined with the economic and political specifics and interests of its member state. The EU trade policy orientation is based on its three basic integration development concepts; continuous enlargement of the integration, deepening of the integration's functioning and opening of the EU market on reciprocal or preferential bases to the global partners. The first concept has created integration's growth from six member states in 1957 to 28 states in 2015. The present membership structure has been widely expanded after 2004, when 11 transitional states joined the EU (2004 - 8, 2007 - 2, and 2013 - 1). Two of the new EU members were part of ex SFR Yugoslavia, and both are part of the Balkans geographical region¹.

The EU membership growth in 2004 and after was mostly related to the so called transitional states (11 of 13 new members), that were changing their economic, political, and social systems from specific forms of their socialist systems into a market, and democracy based systems. The fact is that all new members, especially the transitional countries were less developed as the average of the "old" EU of 15 members, if measured by GDP/capita levels. In the past a number of other transitional countries, especially from the Balkan region, have been expressing their interests to join the EU too. The EU declared its willingness and determination in accepting all states of the Balkan region into the EU. The EU decision to enlarge towards states from the Balkan region was declared by accepting

¹ The term Balkan Region has its geographic, economic, and political connotation. In the EU used terminology the geographic area and the states that belong to the region of the Balkan Peninsula (see; <http://www.britannica.com/EBchecked/topic/50325/Balkans>) were named as Western Balkans. In the case of the EU political use of the term Western Balkans the list of the states that have been included into the region was changing. For the EU the states that belong to the Western Balkans are those states from the geographic region that have not yet successfully concluded the EU accession process. The Western Balkans country list by the EU definition use in the Thessaloniki Declaration in 2003, for example includes Croatia. The EU documents from 2014 or 2015 already exclude Croatia from the Western Balkan countries list. The new, non Balkans "geographic" position of Croatia, according to the EU official stand, follows the fact that Croatia successfully acceded to the EU in 2013. (see; <http://ec.europa.eu/trade/policy/countries-and-regions/regions/western-balkans/>). In the paper we use term Balkans for all states in the region of the Balkan Peninsula, and focus the analyses on those who are not yet members of the EU.

the EU-Western Balkans Summit Declaration in Thessaloniki on June 21, 2003. The Declaration was based on decision taken by the European Council “recalling its conclusions in Copenhagen (December 2002) and Brussels (March 2003), reiterated its determination to fully and effectively support the European perspective of the Western Balkan countries, which will become an integral part of the EU, once they meet the established criteria. It endorsed the Council conclusions of 16 June on the Western Balkans, including the annex "The Thessaloniki Agenda for the Western Balkans moving towards European integration", which aims at further strengthening the privileged relations between the EU and the Western Balkans, also drawing from the enlargement experience. Countries all the way to their future accession“ (www.europa.eu)

Implementation of the Thessaloniki agenda content takes a long time already. From the list of the Thessaloniki Western Balkans states that might expect the EU membership up to today only Croatia was removed after its EU membership in 2013. Presently all other Western Balkans states listed in Thessaloniki agenda are still only in the different stages of the EU accession process. The realization of the EU membership for the remaining Balkans states is expectedly going to take rather long time. Actual length of the accession process depends on two sets of factors:

- Abilities and interests of the each individual EU candidate or potential candidate country to fulfil the EU accession criteria (requirements),
- Actual general economic and political interest of the EU expressed by segments where common EU policies and obligations are accepted and implemented. Further the accession of the new member states from Balkans will depend on individual interests and decisions of each of the 28 member states.

Both sets of factors have different economic or political setbacks that can make the accession process even slower and extremely longer. The new global political and economic developments of the last couple of years, together with the internal EU economic and political developments and changes, create an environment which is less and less supportive to the EU accession process of the Western Balkans States (WBSs).

2. SPECIFICS OF THE BALKAN COUNTRIES RELATIONS WITH THE EU

In 2015 the Balkans is divided into states that are already the EU members, like Slovenia from 2004, Bulgaria and Romania from 2007, and Croatia from 2013, and some other states from the region that are in the different stages of approaching towards the EU future membership. Such duality of formal and economic positions of the states in the Balkans is a challenge for regional economic and all other cooperation activities. The uncertainties and differences of the EU accession perspective realization for the rest of the Balkans states leads to decreasing interests and reduced potentials for regional trade cooperation, investment, and regional growth. Non supportive regional economic cooperation environment of the Western Balkans make economic position of individual states less favorable and so less able to fulfil the effective market economy criteria that is one of the enlargement condition. The countries from the region have a number of limitations in their own abilities to enhance their economic efficiency and growth. Among limitations are relative political instability and limited efficiency of the political and legal systems, small capital accumulation combined by instability that reduces interest and actual level of FDIs. Such national domestic situation of the WBSs develops conditions which objectively lead to the largely extended process of the accession to the EU. The EU interest and help could certainly support the economic growth of the WBSs and by that could shorten the accession process. Unfortunately such stimulating EU attitude towards the accession of the WBSs is highly limited by certain economic developments and by some EU internal relationship facts. The substantial number of transitional states in the present EU membership structure (13 of 28) together with the fact that part of them are from the Balkans region (4) create economic and functional environment where positive and negative results created by the economic functioning of the EU are getting increasingly unevenly distributed among the 28 EU member states. Such situation diversifies the EU members' interests for the enlargement towards the WBSs, especially when considering that all new eventual future EU members again belong to the group of countries in economic and political transition. Potentially future EU with 4 new most perspective members from the WB region will have 17 transitional countries, meaning that more than half of the EU members (by number but not by economic potential) will belong to transitional countries

group. Uneven distribution of integration benefits and large and potentially increasing number of transitional countries in the EU eventually explains reasons for the voices of the enlargement fatigue that could be heard from time to time in the EU. Long process of WBS accession on the other side has started to create “accession fatigue” among certain groups of people and more and more evidently in some states from the Balkan region too.

The present increasingly polarized distribution of the EU integration benefits could be further accelerated in the case when new member states from the Balkans will finalize their accessional struggle towards the full EU membership. The unequal distribution of integration benefits could be measured in a number of different ways. Wages and income differences are one way; taking the study of DG Internal Policy from 2015 – “Wage and income inequality in the EU” - suggests that wages and income differences among member states are increasing. GDP growth rates, GDP/capita, employment rates, and other economic indicators could serve to further explain differences among EU member states. Often the transitional members of the EU are on the lower part of any of the selected indicators.

In such economic environment the EU perspectives of the future EU members from the Balkans present interesting challenge and potential problem for the future development of the entire EU. At the same time it leads to increasing uncertainties related to the stability and prosperity of the states in the Balkans region in the future. The WBSs are affected by different EU policies among them in relation to the accession perspective the EU Trade Policy is possibly one of the most influential. The EU Trade Strategy as part of the EU Development Strategy Europe 2020 is a framework for the EU common Trade Policies. Its implementation and objectives are vital for the trade and welfare development of the WBSs too. EU trade strategy concept, its focuses and their ways of implementation reflect, at least indirectly, the EU actual interest to realize reasonably soon the Thessaloniki Agenda goals for the WBSs’.

WBSs are members of the CEFTA integration where they gradually create and develop trade and other cooperation links among themselves (Moraliyska, Monika, 2015). The present economic and treaties’ with the EU formal differences among WBSs suggest that each of them will

be able to fulfil accession criteria in rather different period of time in the future. The EU strategy of enlargement is accepted and is supporting such expectation. “The enlargement strategy 2013-14 proposed a new approach to help the enlargement countries tackle the economic fundamentals and to meet the economic criteria. The new approach implies a change in the dialogue and improved reporting in order to give clearer guidance on the reforms needed to support long-term growth and competitiveness.” (Enlargement Strategy and Main Challenges 2014-15, p. 7)

The economic differences among WBSs (Table 1) further support the probability of the separate timing for joining the EU by individual WBSs. All together the GDP levels compared to the EU average, especially in relation to the growth rates, suggest a really extremely long period of the potential future WBSs’ economic catching up with the EU.

Table 1 Economic indicators for Western Balkans and Turkey in 2013

	GDP per capita in PPS (% of EU)	GDP growth (%)	Inflation (%)	Unemployment (%)	Employment rate, age 20-64 (%)	Participation rate, age 20-64 (%)	Exports (goods & services % of GDP)	Gov. debt (% of GDP)	Gov. deficit (% of GDP)
Albania	30	1.4	1.9	15.6	57.2	68.0	40.2	62.0*	-3.4*
Bosnia and Herzegovina	29	2.5	-0.2	27.5	n/a	n/a	30.0	n/a	-2.2
the former Yugoslav Republic of Macedonia	35	2.9	2.8	29.0	50.3	70.4	53.9	36.0	-4.1
Kosovo	n/a	3.4	1.8	30.0	n/a	n/a	17.4	n/a	n/a
Montenegro	42	-2.5*	1.8	19.5	52.6	65.1	44.1*	58.0	-2.3
Serbia	36	2.5	7.8	22.1	51.2	66.0	44.7	63.2	-5.0
Turkey	55	4.0	7.5	8.8	53.4	58.4	25.7	36.2*	-0.3*

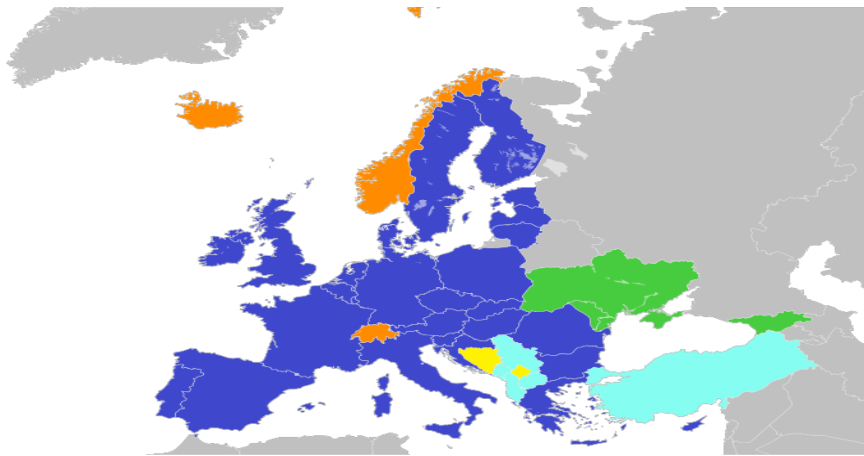
Source: Eurostat. Reference year 2013 except (*) 2012.

Source: EU Commission, Brussels, 8.10.2014., COM (2014.), 700 final

Formal status differences of the WBSs in their EU accession process (Fig.1.) provide additional evidence for the expected substantial differences in the actual accessing dates to the EU by the individual WBS. Realistically, expected time differences in the EU accession dates by individual WB states create negative economic impacts for each of

them and similarly for the entire Balkan region in the future. In case of state by state EU accession the negative economic impacts will be produced by the changes in the WBSs' trade regulating rules. For each state from the Western Balkan its actual trading rules will be substantially changed by the date of the EU accession.

Map1 The EU membership and (enlargement) relations with the WBSs and other European states; 2015



Source: https://commons.wikimedia.org/wiki/File:Further_European_Union_Enlargement.svg, and adjusted by the author.

- Current member states
- Recognized EU candidates; countries from the WB region are; Albania, FYR Macedonia, Montenegro, and Serbia, recognized by the EU as potential candidates which have submitted an application
- Recognized by the EU as potential candidates which have not yet applied for membership; from the WB region are; B&H, and Kosovo (not being recognized as a sovereign state by all EU member states)
- States which have frozen or withdrawn applications for the EU membership
- Ratified an Association Agreement and recognized by the EU as having a European perspective

Each new EU member state from the WB group will automatically lose preferential access to other CEFTA states markets on the day of accession. Additionally each new EU member state from WBS region

will have to open its market to the remaining CEFTA member states on the day of accession. Further the openness of their markets towards the global environment will be similarly over the night strongly increased because they will have to implement on the national level the much lower trade protection measures that are part of the common EU trade policy.

Increased opens of the new EU member's domestic market with no reciprocity from the remaining CEFTA members or from all other countries global wise will result in an instant large increase in the foreign competitive pressure. Such over the night change in market competitive environment forces will no doubt have negative economic consequences on the new EU member state(s) and on the remaining CEFTA member states that are going to lose their free trade partner from their economic integration membership. The problem will be increasingly negative parallel with the actual length of the accession process for the remaining WBSs. Eventual positive EU political decision might be the decision to accept WBSs in one package. Such EU decision is not highly probable although it might be helpful to reduce the WBSs' economic setbacks created by expected negative effects of the state after state accession pattern. Such political decision could be especially positive, and to some extent logical, especially in the cases of the WBSs from the territory of the ex SFR Yugoslavia. These states were part of the same economic system, with well-developed business relations, production, and different cooperation activities and with a number of other connections among them. The economic, business and other cooperation was supported by a number of similarities among the ex-SFRY nations like; similar language for the most of the people from the region, rather high level of historic, cultural and social similarities, together with some other characteristics connecting people leaving in different republics of ex-SFRY. Part of such backgrounds for economic and other cooperation is still available but is divided among a number of independent states. The eventual package entrance into the EU of the states that were parts of ex SFR Yugoslavia could enhance the latent historic connecting elements. Those elements could be important for faster and better adjustment of these countries to the challenges of the EU internal market competition together with the challenges of more open competition coming from the third markets. In last quarter of a century many of mentioned elements which could be supportive to improved economic success of the WBSs after the EU accession have been probably already reduced or lost. However language, cultural and

even production, and infrastructure elements are still at least partially in place offering eventually better bases for joint economic activities that could help the states in the region to create higher economic growth. By the time elapsing more and more of the mentioned elements potentially supporting the WBSs economic success after the EU accession will be getting reduced and lost. If such assessments are correct than the non-defined time perspective of the WBSs (especially from ex SFR Yugoslavia Territory) to join the EU are affecting negatively those elements which could be important for economic success of the new EU members in the future. It is obviously reasonably hardly acceptable for the EU to set reasonable time line for accession of the all WBSs together. Such option is problematic based on dilemmas that all WBSs will not be able to fulfil accession conditions at the same time somewhere in the selected future. Although if such rules for reaching conditions to join the EU at the same date could be accepted as the rules of the game then the activities and efforts of the WBSs might find new interest and new responsibility in fulfilling the EU accession conditions.

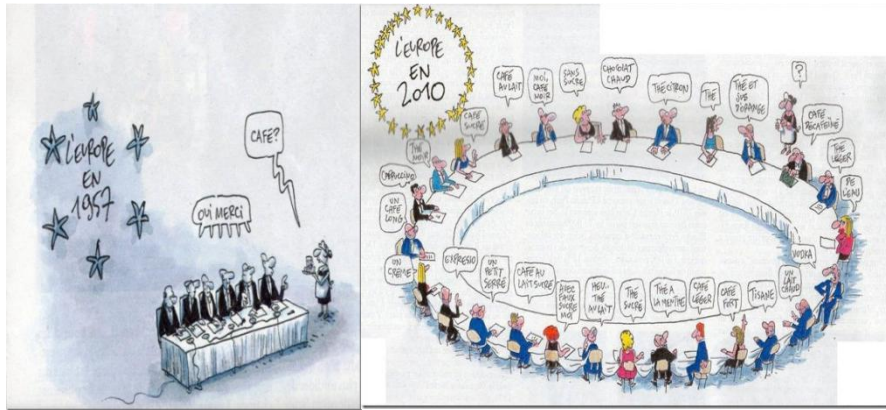
The present EU position asking each nation to do its own adjustments in the process of the accession is no doubt totally logical. But such attitude unfortunately is not supporting the regional revitalization of the economic and of other cooperation activities. The EU perspective is actually far away and entirely individually perceived by each of the WBSs. So at present there is no element inbuilt in the EU accession process that would stimulate the active regional economic and other cooperation growth as the essential element for the successful future conclusion of the EU accession process. The present promise of the far away future potential EU membership evidently has lost most of its attractiveness for the people and for the politicians in the area. With a new concept and with some new ideas included into the accession process from the EU side could be introduced some new and attractive challenges for the WBSs. The new challenges could positively affect their efforts to speed up accession process based on increased regional cooperation that will intently utilize the past but still remaining elements of similarities and of the cooperation potentials. Such eventual EU adjusted accession orientation might introduce new accession criteria based on developing and utilizing regional economic, business, and other cooperation elements. Such new approach might create new energy and new hopes that will reduce the increasing fatigue of the present WBSs aspirations towards the EU membership.

The eventual new accession criteria should be, on the other side, entirely clear of any kind of eventual negative manipulations or suggestions that might be connected with the ideas that enhanced regional cooperation in reality intends to lead towards some kind of reestablishment of the ex-SFR Yugoslavia. Suggestions and support to closer economic cooperation in the region from the EU side must be that way clearly related to the accession and to the final membership in the EU for ALL states from the region.

3. ECONOMIC AND SPECIFIC ASPECTS OF THE WBS ACCESSION

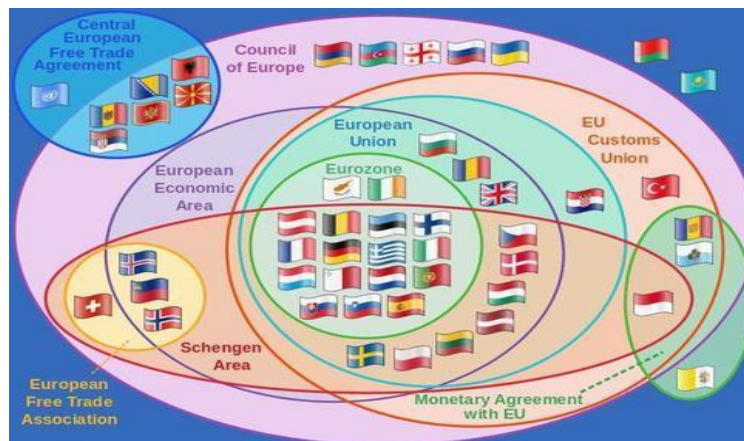
The new transitional members (2004, 2007, and 2013) of the EU brought into the integration new economic challenges, together with cultural and other differences. Transitional countries based on their historic, cultural, and economic backgrounds at least occasionally are not responding in the best and most efficient way to the general EU orientation towards integration's deepening and economic opening of the EU market. The increasing functional and cultural differences of the EU based on the past enlargement processes could be illustrated by the following picture, which is by itself explanatory enough. An element documenting the „progress in the EU complexities“ that has been developed during the EU 1957/2013 enlargement processes is among the others as well the increase in the number of the official EU languages. The number grew from 4 to 24 official languages-

Picture 1 Increasing cultural and other complexities based on the EU enlargements 1957-2010



Enlargement with the WBSs could no doubt enhance the cultural and other complexities of the EU. Some other complexities of the EU and changes that will be caused for WBSs after their joining the EU, and later the € zone and eventually Schengen, could be illustrate by the following figure

Scheme 1 Complexity of European does the EU in 2014



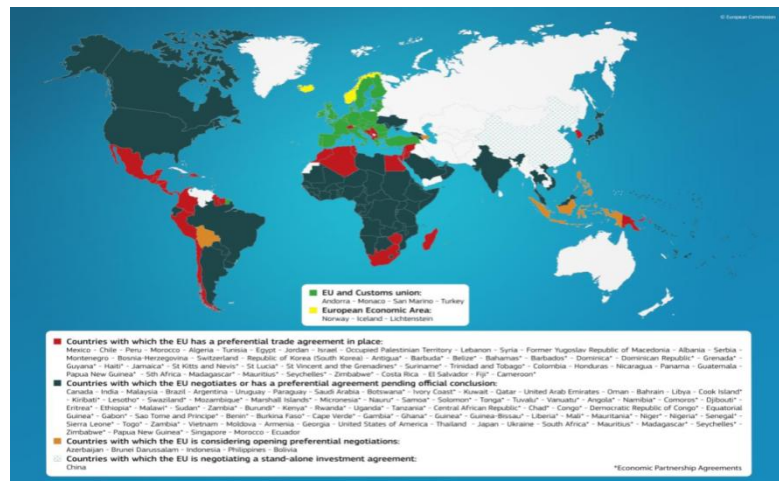
Source: http://www.germany.info/Vertretung/usa/en/02_GIC/GIC/05/07-Germany-in-Europe/00-CampusWeeks/ComplexityofEurope.html

(Note: The diagram in does not include Latvia, which introduced the euro as its currency on January 1, 2014.)

Obviously joining the EU will create a number of complex changes in the WBSs formal options, and obligations.

Diversity in culture, language and in other formal, social, or economic aspect is and could be simulative in a number of aspects. But a (too) big number of such differences could as well create some additional cost in functioning and in the efficiency of the decision making process of the EU. The contemporary emigrants' crises for example shows clearly all the difficulties related to the reaching of the necessary EU decisions for joint actions that are necessary for the future harmonious and safe EU development and existence. Focusing on business aspects of enlargement and diversity of the EU member states with regard to the WBSs one might realize certain development aspects which are not affecting positively the economic growth and efficient business development. In the present state of the EU functioning, with its problems of public debts, especially in the Eurozone, and with growing problem of the increasing number of emigrants coming from Middle East and Africa, the EU enlargement interests towards WBSs could realistically not be in the first plane and interest. That is especially true when WBS' economic potentials and economic and other problems are related to EU global trade growth interests. EU trade policy is characterized by the interest to get foreign markets more open on reciprocal or preferential bases for the eligible countries according to the WTO roles. The following figure suggests the size and importance of such EU trade strategy orientation.

Map 2 EU's trade opening of the markets worldwide–2014



Source: http://trade.ec.europa.eu/doclib/docs/2012/june/tradoc_149622.jpg

EU strategic trade orientation towards more open global markets is reasonable in the period of fast growing economic globalization and as well in relation to the theoretically and practically provided facts that economic growth can be substantially supported by the trade growth. More open markets should lead to more trade and that to faster economic growth and more newly created jobs. Obviously that is correct if all necessary conditions (assumptions) are in place. Based on economic and other diversities of the EU member states, including the impacts of the economic and political transition, the all necessary conditions for open markets positive effects are not present at the same level in each of the EU member states. Some can better and some can only partially utilize the positive potentials of the expected trade growth based on the increasing openness of the EU and other global markets. For the WBSs the increasing global openness of the EU internal market creates two impacts. The first one is directly related to the intensity of the economic interests of the EU member states to conclude the accession process with the WBSs fast. The present size of economic cooperation and trade between WBSs and the EU together with the future economic potentials for cooperation are relative unimportant and unattractive compared to the large potentials for trade and economic growth of the present EU that are offered by the new FTAs and other agreements created by the EU in the global arena. The second impact for the WBSs in relation to

accelerated EU market opening is more distant although as well important for the economic success of the accessing WBSs. After the process of accession the WBSs will join the EU internal market which will be much more open to a big part of the world economies and to the largest global companies including the American and Canadian multinationals at the least. By the EU membership the openness of the WBSs' markets will be largely increase over the night. The WBSs' market will get opened to a great number of the new competitors coming from countries where EU has concluded FTAs or other agreements. Specifically the competition will be increased as well from all countries that EU has specific arrangements like with the ACP countries or with the countries eligible to the GSP treatment². The reason for potential growth and employment problems of the new EU members from Balkans after accession are expected to be similar to those which were noticed in the cases of Slovenia or Croatia. One of the problems related to the growing competition after accession is related to the size of the new EU members' economies and to their business structure. Most of businesses are small or medium size in Slovenia, Croatia and similarly in other Balkan states. Relative small business entities create two major

² ACP – African, Caribbean and Pacific countries, having special trade preferential relations with the EU based on the Cotonou Agreement. All EPAs have their origins in the trade chapter of the Cotonou Agreement – a broad agreement between the EU and African, Caribbean and Pacific (ACP) group of 79 countries. EPAs are aimed at promoting sustainable development and growth, poverty reduction, better governance and the gradual integration of ACP countries into the world economy. (see; <http://ec.europa.eu/trade/policy/countries-and-regions/regions/africa-caribbean-pacific/>)

GSP - The EU's "Generalized Scheme of Preferences" allows developing country exporters to pay less or no duties on their exports to the EU. This gives them vital access to EU markets and contributes to their economic growth. (<http://ec.europa.eu/trade/policy/countries-and-regions/development/generalised-scheme-of-preferences/> and http://trade.ec.europa.eu/doclib/docs/2015/august/tradoc_153732.pdf). The GSP is subject to WTO law, in particular to the GATT and the so-called "Enabling Clause" which allows for an exception to the WTO "Most-Favoured Nation" (MFN) principle (i.e. equal treatment should be accorded to all WTO Members). From January 1, 2014, EU made changes to its GSP treatment of eligible countries. The changes introduced by the new regulation can be divided into five main areas:

1. Country Coverage: countries are not eligible for the GSP anymore if
 - According to the World Bank, these have more than a certain minimum income per head of the population - Already entitled to preferential EU market access on the basis of a free trade agreement with the EU; or
 - Qualified as Overseas Countries and Territories, which are already eligible for preferential EU market access
 This means that 89 countries from the original 176 beneficiary countries will remain eligible to more open or free access to the EU market. For the WBSs these countries represent additional and increased competition on their national markets after the day of EU accession. Depending on the actual economic development level and business flexibility within the WBS such additional over the night increased competition might be more or less harmful for their economic growth and employment at least for some time after the accession.

difficulties for the present or for the (potential) future EU member states from the Balkan. First expected business disadvantage after the increased market openness based on the EU accession is produced by the highly limited human and financial capacities of the companies to adjust and properly react to the increased competition on their domestic markets. In 2015 the problem is evidently present for companies in Slovenia and Croatia and is, based on similar economic and business environments, potentially relevant for the future EU member states from the Balkan. In Slovenia a great number of “old” large Slovenian companies are under bankrupt procedures or are financially non stable based on increased market openness and on increased competition. Such companies, who are in weak business position additionally because of some specifics of Slovenia privatization process, are transferred at The Bank Assets Management Company (BAMC/DUTB – Družba za Upravljanje Terjatev Bank) which was established in March 2013 as a government-owned company with the task of facilitating the restructuring of banks with systemic importance that were facing severe solvency and liquidity problems. However the functioning and business problems of these companies would be smaller in case of the less open national market and in the case of less EU limitations to support their restructuring by the state economic measures.

Not just that small business entities have problems to adjust to increased competition as explained, they have additional problem with the fact that they are often not interesting business or investment partners for the bigger companies from the other EU member states or from the global environment. The increased openness of the third markets after the accession has in such environment limited chances to create additional trade and economic growth for the new EU member states. On the other side potentials develop by expected growth of the third countries competitive imports could oppositely create negative impacts for success of domestic companies on the national market and further could negatively affect the national level of employment. General theoretical believes into the benefits of growing competition created by increasingly open trade could in reality not be automatically materialized in the situation of the specific economic and business circumstances that are typical for the WBSs. Such are circumstances where investments are scarce and restructuring of the individual national economy is mostly realized through closing of domestic companies. Unfortunately such similar circumstances are often seen already in some newer EU member

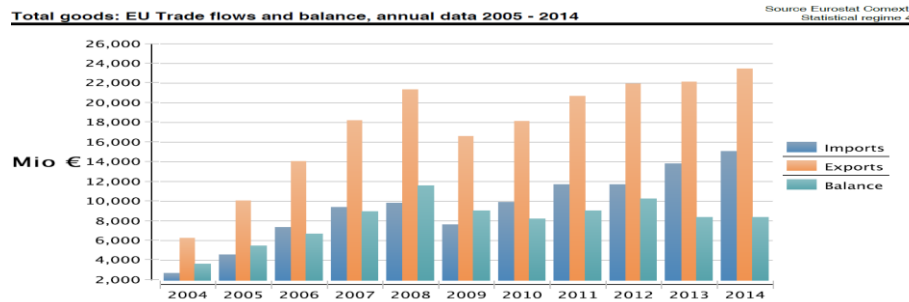
states including Slovenia and Croatia. It is therefore possible that similar negative developments will materialize in the highly open national economies of the Balkan states after their future (potential) accession to the EU.

Accession to the EU is not just an issue which determines the economic and business future of the new EU member states. The accession process and its speed are as well related to economic and political interests of the partners on the both sides of the equation. We might assume that interest for the fast accession to the EU is still somehow strong among the WBSs. What about the interest among the EU member states for the WBS accession? If leaving political interests aside the future EU accession interest is mostly related to the expected economic impacts that might be created by the next EU enlargement. The support to fast accession of the WBSs might be larger when economic benefits for the present EU members could be expected bigger. Assessing the trade relations between WBSs and the EU, may shed some realistic light into the EU future interests to support and speed up the accession process of the Balkan region.

3.1. The Western Balkan States Trade and accession interests

Trade is a driving engine of economic growth and as such its growth and expansion are the major cooperation interest of the EU members' since the Treaty of Rome (1958). The internal market introduction on January 1, 1993, was a big step towards creating four freedoms (goods, services, capital, and people) that should further enhance the trade among the EU member states. The EU enlargements in the past were appreciated and accepted by member states, among the other reason, due to creation of the new and increased EU internal market potential which secured larger new potentials for accelerated internal trade growth. The bigger is potential of the new candidate's market to contribute to the increased and growing internal EU trade, the bigger is interest among the EU members to support and finalize faster the accession process of the candidate country. Unfortunately the markets potential of the WBSs to support increase of the internal EU trade are generally not substantial.

Figure 1 Trade between the EU and Western Balkan Countries*2004-2014 (mio.€)



* Western Balkans (5); Albania, Bosnia-Herzegovina, For.JRep.Macedonia, Kosovo, Montenegro, Serbia
Source: http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_111477.pdf

The trade between the EU and WBSs is small in absolute terms. Total trade in 2014 was 38,454 mio € and it represented 0.9% of EU extra imports and 1.4% of the EU extra exports (source of the data as for the Fig. 5)

Table 1 The top 10 WBSs' world trading partners in 2013

Total Goods: Top trading partners 2013

Source: Eurostat/DTF

Imports			Exports			Total trade		
Partner	Value	Share in World	Partner	Value	Share in World	Partner	Value	Share in World
	(Mio €)	(%)		(Mio €)	(%)		(Mio €)	(%)
World	30,423	100.0	World	16,881	100.0	World	47,304	100.0
1 EU 28	22,215	73.0	1 EU 28	13,521	80.1	1 EU 28	35,735	75.5
2 Russia	2,111	6.9	2 Russia	920	5.4	2 Russia	3,031	6.4
3 China	1,705	5.6	3 USA	477	2.8	3 China	1,985	4.2
4 Turkey	1,143	3.8	4 Turkey	379	2.2	4 Turkey	1,522	3.2
5 Kazakhstan	681	2.2	5 China	280	1.7	5 USA	871	1.8
6 USA	394	1.3	6 Switzerland	206	1.2	6 Kazakhstan	692	1.5
7 Switzerland	295	1.0	7 Ukraine	169	1.0	7 Switzerland	501	1.1
8 India	171	0.6	8 India	132	0.8	8 Ukraine	315	0.7
9 South Korea	148	0.5	9 Belarus	73	0.4	9 India	304	0.6
10 Ukraine	145	0.5	10 Jordan	61	0.4	10 Brazil	173	0.4
1 EU 28	22,215	73.0	1 EU 28	13,521	80.1	1 EU 28	35,735	75.5

World trade: excluding intra-region trade

Top partners: excluding region member states

Growth: relative variation between current and previous period

Source: http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_111477.pdf

The EU is by the large the biggest and most important trading partner of the WBSs. In the 2013 73.0% of all imports and 80.1 % of all imports were from the EU – Table 2. Similarly the opposite is true. The WBSs are not an important trading partner for the EU. With the largest share of the total world trade of the WBSs that is conducted with the EU, still it is small in absolute terms (Table 2). The total trade of the WBSs with the world was 47,304 mio. € in 2013, which is only 0.3% of the total world trade.

Among the WBSs there are certain difference in relation to their trade and economic potentials. If the accession will be conducted in the state by state pattern, which is probable, based on present differences in accession stages among the WBSs, then differences in the national trade potentials might influence the actual dynamics of the individual accession process in the future. Among the WBSs only Serbia has some,

although small, potential for more substantial trade with the EU. For the EU Albania, B&H, and Macedonia present highly limited trade potentials. Kosovo and Montenegro are even not „visible “as the EU trade partners (T3).

Evidently Serbia is the strongest trade potential among the WBSs for future trade and economic cooperation growth with the EU. Probably the EU has the largest economic interest among the WBSs to support accession of Serbia.

Table 2 WBSs Merchandise Trade with the EU; export and import in the EU extra trade-value%, 2014

**Client and Supplier Countries of the EU28
in Merchandise Trade (value %)
(2014, excluding intra-EU trade)**

WBSs	Value of EU total	Value of EU M	Value of EU X
Serbia	0.5	0.4	0.6
FYR	0.2	0.2	0.2
B&H	0.2	0.2	0.3
Albania	0.1	0.1	0.1
Montenegro	0.0	0.0	0.1
Kosovo	0.0	0.0	0.0
TOTAL	1.0	0.9	1.3

Source: author calculations from http://trade.ec.europa.eu/doclib/docs/2006/september/tradoc_122530.pdf

On the other side paradoxically Serbia might have some reservations related to the speed and impacts of its accession to the EU. Serbia is in customs union agreement (CU) with Russia. In present situation of economic tensions between Russia and the EU, following the impacts of Ukraine crisis, the CU agreement brings specific trade advantages to Serbia. Such advantages will be ended with the day of the EU accession. Serbia has to strategically balance between advantages of the CU agreement with Russia and future benefits of being a new member of the EU. The EU at present, beside Serbia's trade potentials with Russia, is unfortunately not too attractive choice due to slow and inconstant dealing with the Middle East and African migration crises. Other WBSs might have similar reservations in relation to future dynamics of the

accession process. Macedonia for one, has a year's long history of the stand still situation in the accession process, and is recently additionally faced with uncontrolled inflow of emigrants from Middle East passing through Greece who is the EU member state. The EU support to cope with the related problems does practically not exist. So the believes into the EU efficiency and democracy are at least shaken in Macedonia.

Some other reservations for the EU accession dynamics might be related as well to the other states of the WB region. Among them is possibly the fact that trade cooperation with the CEFTA countries is rather developed. The member states of CEFTA are listed by their flags in the Fig. 3.

Table 3 WBSs merchandise trade with the CEFTA partners- % in 2013

	Share of exports to CEFTA as % of total exports	Share of imports from CEFTA as % of total imports
Albania	11	7
Bosnia and Herzegovina	16	11
Kosovo	36	28
Macedonia	17	10
Serbia	21	5
Montenegro	43	47

Source:http://www.unwe.bg/uploads/Alternatives/9_Moraliyska.pdf

For WBSs trade with CEFTA is rather important. Trade importance of CEFTA (Table 4) is even more relevant for the WBSs because the data do not include for example trade of Serbia with Russia or other WBSs' trade with their other preferential partners. Again the importance of the CEFTA trade is different among the WBSs, so as well the impacts on their interests related to the accession process dynamics are different.

Such differences in the interests among the WBSs make somehow problematic our previous suggestion that for the WBSs the collective accession to the EU might be the most beneficial solution for them. With no recognition of such (eventual) advantages of the package joining the EU the actual efforts of the WBSs in the accession process will

obviously not support economic regional cooperation as a device to prepare them better for the competitive environment after the accession.

3.2. The accession future of the WBSs

As suggested already the EU interests based on its trade strategy and the interest of the WBSs to join the EU might differ substantially. The trade strategy orientation of the EU is not supporting the WBSs accession explicitly. The EU's general development strategy „Europe 2020“ is based on the triple objectives;

- smart,
- inclusive and
- sustainable growth of all EU member states.

The external **dimension** of the „Europe 2020“ strategy specifies how trade and investment policies should support the three Strategy's objectives realization. As such The EU Trade Strategy in fact sets the economic framework of the EU interests towards the WBSs accession process.

The WBSs are included into the EU external trade strategy based on asymmetric trade opening defined by the Stabilization Association Partnership Agreements. The present focus of the EU external trade strategy on negotiating different global FTAs including among others the one with USA (TTIP), and Canada (CETA), reduces the EU ability and its interest to create new and enhancing trade and investment opportunities for the WBSs. Based on the EU Trade Strategy the WBSs are not in the main focus of the EU Trade Strategy, neither they are among the top strategic development goals of the EU up to 2020, such facts limit the EU future WBSs' support for faster realization of their market efficiency and of their other accession criteria requirements fulfilment.

4. CONCLUSION

At present the EU doesn't show any specific eagerness to enlarge towards the WBSs. The limited EU enlargement interest towards the WBSs is caused by the EU's Foreign Trade Strategy orientation and by WBSs' highly limited trade potentials. At present the EU Trade strategy

is focused on East and South Asia and USA with Canada. The WBSs are not an evident part of the present EU Trade Strategy.

Among the WBSs exist substantial objective economic and political differences and in some cases they are enlarged by specific national political or economic reservations towards their interests and abilities to join the EU by fulfilling the accession criteria. WBSs have a number of different reasons and limitations for their slow realization of the accession process requirements. The main WBSs limitations are:

- Internal difficulties to speed up the fulfilling of the accession criteria - the case of B&H,
- The limits in overcoming the external obstacles to proceed with negotiations – the case of FYR Macedonia,
- Specific internal and external impacts that reduce economic interests to join the EU – the case of Serbia,
- Highly limited national economic potential relative to the EU – the case of Montenegro,
- National sovereignty is not recognized by all the EU member states – the case of Kosovo

The contemporary EU economic and political tensions with Russia created new challenges for Serbia on the bases of the Serbia-Russia customs union treaty. Similarly Montenegro is strongly influenced by Russia FDI inflows.

WBSs general dilemma is about the actual content and type of the EU functional framework that they will join in the future. The worries are enhanced by the size and dynamic of expected changes in the EU external trade environment that will occur before their actual membership. WBs are not part of the ongoing EU external trade environment changes but will have to join and accept all their extended impacts that will be based on the EU new and enlarged trade openness.

The EU trade strategy to open its market to worldwide competition creates increased economic setbacks for the WBSs. As states still in economic transition, with limited economic support from the EU, they might enter the EU with low level of economic ability to resist the increased global competition on their national markets. The experiences gained after the past EU enlargements by the other countries that were in

economic transition (from 2004 to today 11 of 28 EU members) are at least partially documenting different negative national economic impacts that have been created after their entering into the strongly open EU market.

When in the future the WBSs will join the EU its global market openness will be more extensive and more complex as it is for example in 2015. That expectedly leads to substantially increased development problems for the future new EU members from the WB region.

Considering economic and political limitations of the WBSs to successfully engage into the EU accession activities, and combined with objectively highly limited interests of the EU to support financially and in other ways the necessary adjustment of the WBSs to the new and increased competition created by enhanced EU market openness in the future, leads to the situation where objectively the EU membership of the WBSs is in fact moved into the foggy and probably very distant future.

REFERENCES

ACP Countries;

<http://ec.europa.eu/trade/policy/countries-and-regions/regions/africa-caribbean-pacific/>

Enlargement Strategy and Main Challenges 2014-15

Available on:

http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-strategy-paper_en.pdf

EU relations with the Western Balkans;

http://eeas.europa.eu/western_balkans/index_en.htm 4. GSP and the EU;

<http://ec.europa.eu/trade/policy/countries-and-regions/development/generalised-scheme-of-preferences/> and

http://trade.ec.europa.eu/doclib/docs/2015/august/tradoc_153732.pdf).

Moraliyska, Monika; Regional Economic Cooperation in the Western Balkans and Its Impact on Bulgaria, Economic Alternatives, Issue 1, 2015

Stabilization Association Partnership agreements

Available on:

<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=URISERV:r18008&rid=1> and <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:r18003>

The EU Trade Strategy:

http://eurlex.europa.eu/summary/chapter/external_trade.html?root_default=SUM_1_CODED=07

Wage and income inequality in the EU, GD Internal Policy, 2015

Available on:

[http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536294/IPO_L_STU\(2015\)536294_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2015/536294/IPO_L_STU(2015)536294_EN.pdf)

WTO: 2014 PRESS RELEASES; World Trade,

https://www.wto.org/english/news_e/pres14_e/pr721_e.htm

CHAPTER 15

Christophe Boogaerts

University of Antwerp, Europacentrum Jean Monnet, Antwerp, Belgium

Evrard Claessens

University of Antwerp, Antwerp, Belgium

Vesna Stavrevska

University of Antwerp, Antwerp, Belgium

INFORMATION THEORY, GLOBAL TRADE & EU INTEGRATION A REVISED THEIL-INVESTIGATION

ABSTRACT

Since about half-a-century, international trade & traffic flows can be assessed by a matrix configuration, which fits the sum-constraints and thus solves the correlation (concordance) issue by providing an origin-destination structure by export information only. These matrices are ready for scenario-forecasts by updating the internal elements from the only information on the marginal totals (rAs-method). On the one hand, these forecasts can be checked against the actuals by providing an acceleration matrix (rAsam). On the other hand, the aggregate growth rates become instrumental when comparing individual country-based growth rates to a reference aggregate pattern. In this sense, regional totals, such as the EU, may serve as a normative integration scenario with leads and lags to be calculated for individual countries. This contribution starts from a most basic trade matrix which is 'adapted' from the initial Theil-structure into causality logic by a basic regression model. First, a WTO application is confined to regional acceleration patterns. Two EU-applications highlight the eventual use of causal models in comparing the Hanseatic trade acceleration to the tragic lags in the PIGS area. As usual an initial exercise clarifies the basic technical fundamentals.

Keywords: EU, global trade, information theory, integration,

Jel classification: F13

1. A SIMPLIFIED EXERCISE ON THE THEIL ANALYSIS

About half a century ago, major statisticians conducted trade studies, based on what then was available on information about the origin and destination of trade flows. Most studies were selected country studies or a number of world ‘regions’ which different definitions in line with the organization, e.g. UN (Unido, Unctad etc.) or GATT. Now, the WTO has seven regions with a stable geographical definition only since 2004. The emphasis, then and now, relies on the distributive structure of the trade flows and the predictability of their trends.

Any trade flow can be defined in a matrix between origin (i) and destination (j) as:

$x(ij)$ is the percentage of world trade between two specific regions,

$x(.j)$ is the row total, giving total departures (exports) by region j, or

$$x(.j) = \sum_{i=1}^n x(ij),$$

$x(i.)$ is the column total, giving total arrivals (imports) by region i, or

$$x(i.) = \sum_{j=1}^n x(ij),$$

$x(..)$ is the grand total of world trade or 100%, or $x(..) = \sum_{i=1}^n \sum_{j=1}^n x(ij) = 1$.

A “very simple answer” (Theil’s quote) to the question whether to predict the $x(ij)$ flow from the marginal totals is: $x(ij) = x(i.)x(.j)$ which assumes import-export independence. When $x(ij)$ are trade flows in the base year and $y(ij)$ in a future year, a ‘neutral’ prediction consists in expecting future trade flows being bi-proportional updates of the marginal totals, or:

$$y(ij) = \frac{y(i.)y(.j)}{x(i.)x(.j)} x(ij)$$

These expected flows should add up to one. If not, the results can be adjusted by a number of corrections, as described in THEIL (o.c. pp.358-360). As an alternative, from the beginning this rAs procedure can be followed which THEIL (o.c. pp. 388-389) defined as follows: “One multiplies each $x(ij)$ by a number $r(i)$ which is specific for the exporting region and by a number $s(j)$ which is specific for the importing region. These numbers are to be chosen such that the marginal constraints are satisfied. Hence: $y^*(ij) = r(i).x(ij).s(j)$, where $y^*(ij)$ is the rAs forecast of $y(ij)$ (The rAs name originates from an earlier application

in which an A matrix was used for the activity-elasticities in input-output applications instead of the $x(ij)$ here). In previous studies, we adopted a rAs-procedure to intra-European flows (CLAESSENS, 2007) of which we summarize the matrices (Table 1) with three regions, of which A features a trade deficit of 6, which equals the surplus of C, whereas the B region features a trade balance:

Table 1 Initial (t^o) A-B-C matrix with first (horizontal) updates (t^*) of export growth

From/ to	A	B	C	Export $^o > ^*$	growth	A	B	C	Total
A	1000	2000	3000	6 > 12000	2.0	2000	4000	6000	12000
B	4000	5000	6000	15 > 2100 0	1.4	5600	7000	8400	21000
C	7000	8000	9000	24 > 2700 0	1.125	7875	9000	10125	27000
Import o	12000	15000	18000	45000	$t^o > t^*$	15475	20000	24525	60000
Import *	18000	21000	21000	> 60000	1.333	18000	21000	21000	60000

The new totals (t^*) fit a scenario with a one third overall growth yet by keeping the trade imbalances, i.e. the surplus of C compensates the deficit of A, with B in balance. The first (*horizontal*) update of export growth ($t^o < t^*$) sums up to the grand total of 60,000 but the marginal column totals of regional imports do not fit the required sub-totals. So, in Table 1 the row-based updates generate a A-column total of 15475, which has to be upgraded by a factor 1.1632 to reach the requested 18000. Likewise, the B-column needs a 5% push to get the 21000 total. At the opposite, the overestimated column C is corrected *downward* by a correction factor of 0.8563 (i.e. 24525 / 21000).

Table 2 First iteration with vertical and second horizontal updates

From/to	A	B	C	Export	Correction	A	B	C	Total
A	2326	4200	5138	11664	1.029>	2393	4321	5286	12000
B	6514	7350	7193	21057	0.997>	6496	7330	7174	21000
C	9160	9450	8670	27280	0.990>	9066	9353	8581	27000
Imports	18000	21000	21000	60000		17955	21004	21041	60000
Imports	18000	21000	21000	60000		18000	21000	21000	60000

After these corrections (Table 2) the row totals show much smaller imbalances compared to the initial updates. Then, similarly the column corrections are smaller than those of the first iteration. After a few iterations, a final matrix $Y(ij)$ is found (Table 3) which is correlated to the initial one $X(ij)$ in the next deterministic ($R^2=1$) formula :

$$\ln Y(ij) = a + b \cdot \ln X(ij) + do(i=2) + do(i=3) + dd(j=2) + dd(j=3)$$

This means that from the initial Theil-formula $y(ij) = r(i) x(ij) s(j)$ the constant suggests the base elements' growth factor or: $e^a = s(1)=r(1)$, whereas the b-elasticity ($b=1$) assumes proportionality. The (*dummy*) variables reflect similar comparative growth corrections of the remaining regions by origin, do or $r(i=2,3)$ and by destination, dd or $s(2,3)$. This reworked version has the advantage that one may focus on a few selected regions or countries of the grand total and related them to all others (*i.e. in the constant term*).

Table 3 Final trade matrix with initial (*in 1,000 with actual growth rates between brackets*)

From/to	Ax1000	Bx1000	Cx1000	Export	Growth	A	B	C	Total
A	1(2.40)	2(2.16)	3(1.76)	6000	2.0	2400	4322	5278	12000
B	4(1.63)	5(1.46)	6(1.19)	15000	1.4	6512	7328	7159	21000
C	7(1.30)	8(1.17)	9(0.95)	24000	1.125	9087	9350	8563	27000
Import	12(1.5)	15(1.4)	18(1.33)	45000	1.333	18000	21000	21000	60000

The results of the simple exercise reflects the ideas of the Theil-generation.

a/ The C-region with the lowest actual growth suggests a constant term with indeed a dip of 5% down ($e^{-0.052} = 0.9494$). The faster growth of regions B and especially A is expressed by positive dummies such that they reproduce the actual growth factors in combination with the constant, e.g. the growth rate from A to B of $2.16 = 0.95 \times 1.85$ (DoA) $\times 1.23$ (DdB):

$$\log Y(i,j) = -0.05 + 1.00 \log X(i,j) + 0.61 \text{ DoA} + 0.23 \text{ DoB} + 0.31 \text{ DdA} + 0.21 \text{ DdB}$$

$$y(i,j) = 0.95 x(i,j)^1 1.85 (\text{DoA}) \cdot 1.25 (\text{DoB}) \cdot 1.36 (\text{DdA}) \cdot 1.23 \text{ DdB}$$

b/ When the A-region with the highest growth (240% for the intra-A) is taken for constant term, the dummies all cope for the negative growth differential of regions B and C:

$$\log \text{FIN}(i,j) = 0.87 + 1.00 \log \text{BAS}(i,j) - 0.39 \text{ doB} - 0.61 \text{ DoC} - 0.11 \text{ DdB} - 0.31 \text{ DdC}$$

$$y(i,j) = 2.40 x(i,j)^1 0.68 (\text{DoB}) \cdot 0.54 (\text{DoC}) \cdot 0.90 (\text{DdB}) \cdot 0.73 (\text{DdC})$$

c/ Finally, the B-region can produce the constant term with the dummies referring to the highest (A) and the lowest (C) growth rates. This produces a mixed result with accelerations, related to the A-regions, and downgrading the flows to and from C:

$$\log \text{FIN}(i,j) = 0.38 + 1.00 \log \text{BAS}(i,j) + 0.38 \text{ dOA} - 0.23 \text{ DoC} + 0.11 \text{ DdA} - 0.21 \text{ DdC}$$

$$y(i,j) = 1.46 x(i,j)^1 1.47 (\text{DoA}) \cdot 0.80 (\text{DoC}) \cdot 1.11 (\text{DdA}) \cdot 0.81 (\text{DdC})$$

The use of one dummy per region complicates the analysis once a large number of regions or countries are activated. For example the current EU covers 28 countries with $28^2 - 28 = 756$ intra-EU traffic flows and may require 54 dummies. In country studies the diagonal elements are zero since the intra-national traffic are not counted in international statistics. Even in the case of a regional analysis, the question is which region to take as base for the constant (the largest, the smallest, the fastest growing etc.) The answer is quite practical: one may select a few countries (or regional totals), each with a specific dummy, and take the rest of the total to activate the constant. The application of WTO world regions may benefit from a rAs update in order to check the relevant accelerations. The dummy-analysis may be less relevant because the aim of the analysis consists rather in identifying individual trade deflections. The latter become more relevant for intra-EU patterns, in which selected

groups (*Benelux, Hanseatic, Baltic, PIGS, CEEC etc.*) can be compared to the ‘rest’ of the Union.

2. WTO APPLICATIONS TO THE MILLENNIUM DECENNIUM ERA

This first application list the regional totals of WTO based regional totals in 2008 and 2012 in current dollars of the grand totals which rose from 15514 to 17563. Among the major point is the falling weight of Europe after the great enlargement and the shift of Asian imports from especially the Middle East, Africa and South America.

Table 4 World trade between the WTO regions in 2008 and 2012 in Billions of current US \$

a/ 2008

From/To	N-America	L-America	Europe	CIS	Africa	Mid-East	Asia	World	sum
World	2708	583	6736	517	458	618	3903	15717	15523
N-America	1015	165	369	16	34	60	376	2036	2035
L-America	169	159	121	9	17	12	101	600	588
Europe	475	96	4695	240	186	189	487	6447	6368
CIS	36	10	406	135	11	25	77	703	700
Africa	122	19	218	2	53	1	114	558	529
Mid-East	117	7	126	7	37	122	569	1021	985
Asia	775	127	801	108	121	196	2181	4353	4309
Sum	2709	583	6736	517	459	605	3905	15718	15514

b/ 2012

From/To	N-America	L-America	Europe	CIS	Africa	Mid-East	Asia	World	sum
World	3035	787	6564	550	580	714	5333	17930	35493
N-America	1151	217	380	18	38	75	488	2371	2367
L-America	187	202	128	8	21	17	172	750	735
Europe	492	124	4383	245	211	208	643	6385	6306
CIS	37	7	430	149	14	20	127	805	784
Africa	74	30	240	2	81	17	160	630	604
Mid-East	118	11	148	7	39	116	732	1349	1171
Asia	975	196	855	121	177	260	3012	5640	5596
Sum	3034	787	6564	550	581	713	5334	17930	17563

c/ rAs

based on true totals	N- America	L- America	Europe	CIS	Africa	Mid- East	Asia
N-America	1132,5	220,3	376,5	17,3	43,8	71,6	504,9
L-America	196,3	221,0	128,5	10,1	22,8	14,9	141,2
Europe	489,5	118,4	4424,5	239,5	221,5	208,5	604,1
CIS	41,4	13,8	426,7	150,3	14,6	30,8	106,5
Africa	135,1	25,2	220,7	2,1	67,8	1,2	151,9
Mid-East	123,9	8,9	122,0	7,2	45,3	138,3	725,4
Asia	915,2	179,5	865,0	123,5	165,1	247,7	3100,0

d/ Acceleration:

	N- Amer.	Lat.- Amer.	Europe	CIS	Africa	Mid- East	Asia
North America	1,02	0,99	1,01	1,04	0,87	1,05	0,97
Latin America	0,95	0,91	1,00	0,79	0,92	1,14	1,22
Europe	1,01	1,05	0,99	1,02	0,95	1,00	1,06
CIS	0,89	0,51	1,01	0,99	0,96	0,65	1,19
Africa	0,55	1,19	1,09	0,93	1,19	14,35	1,05
Mid-East	0,95	1,24	1,21	0,97	0,86	0,84	1,01
Asia	1,07	1,09	0,99	0,98	1,07	1,05	0,97

This matrix of accelerations is quite informative on the real ‘unexpected’ growth rates, at least according to the proportional upgrades, especially related to the zero-sum setting.

3. COMPARATIVE GROWTH PATTERNS OF INTRA-EU TRAFFIC

The 1993-restructuring of the European Union made a clear difference between *TRADE* with external partners and *TRAFFIC* between member states. The external trade of the EU-28 amounted 1,728 billion imports in 2012 (*EU-27 without Croatia, 1,721*) and 1,554 exports (*without Croatia 1,550*). On the one hand, this small deficit is smaller than the basic imports of fuels, ores and other minerals. On the other hand, the visible trade must be corrected by surpluses in (pure) services other invisible entries of the current account balance (which is positive at € 36 billion) and capital accounts.

The intra-EU trade now amounts to 2.75 trillion Euro. This includes some double counts of foreign extra-EU imports in a member state of inbound clearing, which are leaving (*called expeditions*) that member state after an industrial or commercial transformation (the so-called *embodied services*) and arrive in another EU member state (*intra-EU*

traffic arrivals). In the pre-1992 EEC extra-trade (*i.e. geonom code 1010*) and intra flows (*geonom code 1011*) could be added to code 1000 (= world), but now this includes this double counting, especially transit with or without the embodied services (*value-added logistics*) or real industrial transformation. The WTO trade statistics publish every year the global trade patterns, with and without these kind of transit flows in the EU and also the so-called ‘re-exports’ of Hong Kong and Singapore, a difference of 22% in 2012.

Nevertheless, it remains an informative to keep both items together somehow, in order to compare the weights. Especially the landlocked countries have a low extra trade which is dominantly air freight and maritime transit with special customs procedures which allow inbound extra-EU trade to be cleared in the country of arrival. Table xx compares those extra and intra flows, each with their balances. The balances can be added to a ‘dividend’ which is not purely ‘trade’, but includes the local economies and the so-called embodied-services to external trade flows as well (*i.e. value-added logistics, customs clearance, ticketing & labeling etc.*). On the one hand, the Dutch negative extra-EU trade balance is compensated by a twice as big intra-EU traffic surplus which features the inbound transit function of airports and ports (*European Distribution Centres*), the latter ‘product or mixed EDC’ especially to the German Rhineland and to nearby Flanders-Belgium (Atzema & Wever, 1999). On the other hand, the positive balances are found in Germany; for the internal market this is the well-known Merkel-slogan “*wir machen noch etwas*”. Also in more general terms, Germany is a ‘*visible economy*’ with a negative service balance, as opposed to the UK, featuring a negative visible balance (*both extra and intra*). Most other EU-members follow these benchmarking examples, sometimes only in specific industries or trades the 1993-restructuring of the European Union made a clear difference between *TRADE* with external partners and *TRAFFIC* between member states. The external trade of the EU-28 now amounts to 1,728 billion imports (*EU-27 without Croatia, 1,721*) and 1,554 exports (*without Croatia 1,550*). On the one hand, this small deficit is smaller than the basic imports of fuels, ores and other minerals. On the other hand, the visible trade must be corrected by surpluses in (pure) services other invisible entries of the current account balance (which is positive at € 36 billion) and capital accounts. The intra-EU trade now amounts to 2.75 trillion Euro. This includes some double counts of foreign extra-EU imports in a member state of

inbound clearing, which are leaving (*called expeditions*) that member state after an industrial or commercial transformation (the so-called *embodied services*) and arrive in another EU member state (*intra-EU traffic arrivals*). In the pre-1992 EEC extra-trade (*i.e. geonom code 1010*) and intra flows (*geonom code 1011*) could be added to code 1000 (= world), but now this includes this double counting, especially transit with or without the embodied services (*value-added logistics*) or real industrial transformation. The WTO trade statistics publish every year the global trade patterns, with and without these kind of transit flows in the EU and also the so-called ‘re-exports’ of Hong Kong and Singapore, a difference of 22% in 2012.

3.1. The EU-trade & traffic-balances

Nevertheless, it remains an informative to keep both items together somehow, in order to compare the weights. Especially the EU landlocked members show a low extra trade which is dominantly air freight and maritime transit with special customs procedures which allow inbound extra-EU trade to be cleared in the country of arrival. Table xx compares some of those extra and intra flows, each with their balances. The balances can be added to a ‘dividend’ which is not purely ‘trade’, but includes the local economies and the so-called embodied-services to external trade flows as well (*i.e. value-added logistics, customs clearance, ticketing, labeling etc.*). On the one hand, the Dutch negative extra-EU trade balance is compensated by a twice as big intra-EU traffic surplus which features the inbound transit function of airports and ports (*e.g. Rotterdam*), the latter especially to the German Rhineland and to neighbouring Flanders-Belgium. On the other hand, the positive balances are found in Germany; for the internal market this is the well-known Merkel-slogan “*wir machen noch etwas*”. Also in more general terms, Germany is a ‘visible economy’ with a negative service balance, as opposed to the UK, featuring a negative visible balance (both extra and intra). Most other EU-members follow these benchmarking examples, sometimes only in specific industries.

Table 5 EU-28 trade 2012 values (billion €) compared to intra-EU traffic

Extra-EU trade			EU – dividend		Intra-EU traffic		
iMport	eXport	Balance	member	dividend	Arrivals	expedit.	Balance
332	471	139	Germany	196	573	650	57
172	181	10	France	-77	349	261	-87
251	181	-97	Un. King.	-150	236	183	-53
231	110	-121	Netherl.	49	119	370	170
107	95	-12	Belgium	7	228	246	19
21	30	9	Denmark	12	48	53	5
42	58	16	Sweden	4	87	75	-12
22	26	4	Finland	-1	37	32	-5
50	34	-16	Poland	-16	106	106	0
563	497	-66	Others				

The positive current account of the EU (€ 36 billion) hides a visible extra-EU trade deficit of 112 billion Euro; member states vary but the highest is the Netherlands with 121 billion Euro or 9 billion larger than the EU as a whole. The table indicates the basic logic of ‘inward logistics’; the Dutch external deficit is sold through the internal market for 370 billion €, producing a surplus of 49 billion or almost € 2.898 per capita. The German surplus of 196 is only € 2.415 per capita! The point is now how to put this simple logic into a rAs-model of the previous chapter.

3.2. The regions

A first initiative is to construct a matrix as we did before (CLAESSENS & STORME, 2007) for the aftermath of the enlargement, now for the whole ‘millennium decennium’ 2000-2012 and this in a partly ‘reconstructed’ EU-28 context (this means that the data for 2000 have been arranged in a EU-28 context. Table 2 lists the acceleration matrix, say the ratio between the actuals and the RAS updates, as we did before for the WTO data.

Table 6 RAS-accelerations for Germany, France & eight ‘coastal’ regions

↔	F	D	BnX.	Atlc.	Med.	Iber.	Scan.	Vigr.	Dan.	Balk.
F		1.01	<i>0.90</i>	1.23	1.00	<i>0.87</i>	<i>0.74</i>	<i>0.97</i>	<i>0.88</i>	1.07
D	1.47		<i>0.94</i>	<i>0.98</i>	<i>0.94</i>	<i>0.89</i>	<i>0.88</i>	<i>0.93</i>	<i>0.98</i>	<i>0.92</i>
BnX	<i>0.66</i>	1.18	1.10	0.91	1.11	1.09	1.03	1.41	1.06	1.19
Atlc	<i>0.91</i>	<i>0.96</i>	1.17	1.00	<i>0.89</i>	1.01	<i>0.86</i>	<i>0.94</i>	1.01	<i>0.92</i>
Med.	1.25	<i>0.92</i>	<i>0.97</i>	<i>0.81</i>	1.13	1.03	1.04	1.06	1.10	<i>0.75</i>
Iber	1.21	<i>0.86</i>	<i>0.83</i>	<i>0.79</i>	1.12	1.15	<i>0.78</i>	1.01	<i>0.98</i>	2.68
Scan	<i>0.81</i>	<i>0.89</i>	1.10	<i>0.91</i>	<i>0.80</i>	<i>0.84</i>	1.23	1.01	<i>0.86</i>	<i>0.84</i>
Vgr.	1.08	<i>0.90</i>	1.03	1.71	1.16	1.77	1.12	<i>0.82</i>	1.08	1.08
Dan	2.55	<i>0.89</i>	<i>0.68</i>	<i>0.89</i>	1.07	<i>0.97</i>	1.01	1.29	<i>0.89</i>	1.27
Balk	<i>0.81</i>	1.21	<i>0.78</i>	<i>0.81</i>	<i>0.74</i>	2.41	1.08	2.28	1.26	<i>0.91</i>
Note: France (F) and Germany (D), BnX = Benelux (Belgium, Netherlands & Luxembourg), Atlc. (UK & Ireland), Mediterr. (Italy, Greece, Malta & Cyprus), Iber.(Spain & Portugal), Scan (Denmark, Sweden, Finland, Latvia, Lithuania & Estonia), Visegrad (Poland, Slovakia & Czech Republic), Danube-Adria (Austria, Hungary, Croatia & Slovenia), Balkan (Romania & Bulgaria).										

A number of highlights can be remarked:

First, the diagonal marks accelerations within some homogeneous regions, such as the Baltic and the Benelux. This contrasts to the former CEEC (i.e. Visegrad, Danube-Adriatic and Balkan) accelerating the traffic with the adjacent regions, e.g. from Danube-Adriatic to Visegrad, but not within the regions itself. This could indicate a ‘transit’ function from coastal areas to landlocked countries;

Second, some distance (decay) effect seems to activate the accelerations between France and the Mediterranean and also between the Baltic and the Benelux. This could indicate that vicinity on coastal patterns (i.e. the ‘motorways of the sea’ may compensate for some overland routes;

Third, some regions take the lead. The Benelux clearly accelerates to all other regions except France, whereas a German expedition only accelerates to France and fall short of the expectations to all other. This simple calculation questions the recent all too easy presumptions of “export fetishism” from the German part;

Fourth, these leads and lags may be symmetrical or asymmetrical, hence revealing the right DOT size of “Direction Of Trade” by leg instead of route. The Balkan is a good example of revealing all kinds of (a) symmetrical evolutions;

Fifth, the only two individual countries (France and Germany) in this exercise show that a country base may provide some extra evidence. For large countries this is evident, but the question remains what to do with the mini states which often are only the size of a region or a province of others.

3.3. Country accelerations

This full exercise on the country base produces a 28^2 matrix of which the diagonal is zero, such that $(28^2-28)= 756$ traffic flows are analyzed. Most of the previous findings are confirmed, except that the regional base hides sometimes performances of specific countries. A few striking facts are found in a careful inspection of Table 3, which hardly reproduces a quart of a full 28^2 -matrix:

The Dutch performance is real on coastal links and close vicinity;ermany activates accelerations to specific countries rather than regions; the intra-regional balances may reveal dominant asymmetries in which it may appear that a good neighbor is better than a distant friend;

It shows that combinations between countries and regions may be solutions to this “issue of parsimony”. Then, there is the problem of a relevant choice. The initial Theil-approach (cf. supra) may suggest a solution in selecting a few countries and taking the rest of the Union as relevant ‘region’. The idea is thus to reduce the whole 28^2 matrix into a few selected countries and a ‘rest’ group which then produces the constant term. Two extreme cases are explored. The ‘Hanseatic’ rim, or the countries with the coastal port zones the North Sea between Hamburg and Le Havre, and the crisis-shaken PIGS group (Portugal, Italy, Greece and Spain). Instead of the ‘rest’

Table 6 RAS-acceleration matrix 2000-2012 between the EU-28 (€-base)

⇔	F	D	NL	B	L	UK	Ir	I	Gr	Mt	Cy	P	Es	⇔
F	---	1.12	0.96	1.04	0.62	0.87	0.75	1.09	1.16	0.49	0.50	0.75	0.94	F
D	1.04	---	1.06	0.84	1.40	1.12	1.01	0.97	0.86	1.48	1.49	1.03	1.04	D
NL	0.89	1.05	---	1.02	1.25	0.89	1.08	0.97	0.86	1.48	1.49	1.03	1.04	NL
B	1.00	1.11	0.97	---	0.92	0.89	0.69	1.01	0.97	1.03	0.95	0.88	0.83	B
L	0.88	0.92	0.79	1.23	---	0.89	0.96	1.43	4.81	1.79	10.0	0.47	0.87	L
UK	0.88	1.04	1.11	0.98	0.74	---	1.20	0.85	0.80	1.38	0.88	0.87	0.89	UK
Ir	0.66	0.72	0.59	2.76	1.49	0.94	---	0.90	1.24	0.95	0.57	1.96	1.42	Ir
I	1.07	0.97	0.94	1.00	1.04	0.95	0.49	---	0.94	1.64	0.84	0.93	1.03	I
Gr	1.07	0.76	0.86	1.02	1.01	0.86	0.49	1.41	---	0.49	1.51	1.55	1.16	Gr
Mt	1.02	0.98	2.10	0.18	0.34	0.52	1.53	1.64	7.28	---	1.81	2.38	3.69	Mt
Cy	0.49	0.42	0.45	0.76	5.93	6.68	0.16	1.68	2.95	0.81	---	0.94	0.26	Cy
P	1.09	0.77	0.98	0.53	1.47	0.62	0.77	1.24	2.05	0.97	0.70	---	1.53	P
Es	0.97	0.95	0.84	1.00	0.65	0.98	0.54	1.14	1.03	0.83	0.85	1.15	---	Es
DK	0.80	0.92	0.91	0.88	0.26	1.22	0.70	1.06	0.96	1.05	0.59	0.88	1.09	DK
SW	0.97	0.97	1.02	1.07	1.93	1.01	0.84	0.75	0.45	1.77	0.20	1.13	0.68	Sw
SF	0.76	0.93	1.81	1.54	0.62	0.81	0.54	0.83	0.43	1.11	1.06	0.58	0.84	SF
EE	1.97	0.75	1.27	2.67	4.43	0.78	0.75	2.47	1.47	2.79	1.34	0.44	3.45	EE
⇔	F	D	NL	B	L	I	Gr	Mt	Cy	E	P	UK	Ir	⇔

A first exercise addresses the ‘Hanseatic rim’, the well-known Hamburg-Le Havre range, or, roughly, the EU traffic with Germany, France, Belgium and the Netherlands.

Here, the expeditions from this hanseatic group to the rest of the EU marks striking differences. The Dutch expeditions grew by a massive 88% and this especially with the vicinity (Belgium and Germany). The bigger countries (France & Germany) dominate their expeditions to the rest of the Union, which follows from their evident geography.

Table 7 Expeditions within the Hanseatic rim and with the rest of the Union

HANSE	France	Germany	Netherl.	Belgium	total	Rest EU	EU total
France	0	55	15	24	94	< 135	229
2012	0	72	18	32	122	< 138	260
Germany	67	0	39	30	136	< 252	388
2012	103	0	70	44	217	<406	623
Netherl.	27	67	0	31	125	> 80	205
2012	44	132	0	68	244	>142	386
Belgium	36	35	26	0	97	> 60	157
2012	54	61	43	0	158	>85	243
Total	189	240	122	135	686		
2012	201	265	131	144	741		
Rest EU	130	157	80	85			
EU total	120	206	59	39			

The regressions results produce an R^2 of 0.99 for the growth relation with an elasticity of only 0.967 (*t-statistic 14.12*) which should be one in a perfect deterministic model.

This may follow from the constant of 0.74 (in logarithm) which stands for a growth factor of 2.1, or neatly above the EU average in this period. This not only compensates for the 0.97 elasticity, which is below proportionality, but may influence as well the dummies, as shown below:

Log $y(ij) = 0.74 + 0.967 \ln x(ij) + \text{two dummies (DA=arrival, DD=departure for each country):}$

Arrivals: $0.03 \text{ DANL} + 0.01 \text{ DAD} - 0.06 \text{ DAF} - 0.11 \text{ DAB}$

Departures: $0.05 \text{ DDNL} + 0.01 \text{ DDD} - 0.03 \text{ DDF} - 0.03 \text{ DDB}$

Which are given the next growth factors, after transformation of the log-equations.

Table 8 summary of the growth of the ‘Hanseatic’ rim related to the EU (2008-2012)

Parameter	Belgium (B)	Germany (D)	France (F)	Netherlands	Constant
Arrivals	-0.10812	0.012938	-0.05520	0.03099	0.74117
<i>Growth factor</i>	0.896	1.013	0.946	1.031	2.1
Departures	-0.03028	0.01003	-0.03367	0.05147	R ² =0.99
<i>Growth factor</i>	0.970	1.010	0.967	1.053	

The table strikes especially for the growth acceleration which results from the dummies. The German economy seems to lead by a 1%-point but the Netherlands keep accelerating by more than 3% in their arrivals and even more than 5 % on the side of departures; we know already that this is not the national production but especially the transit related to extra-EU trade. It may question why the EU funding keeps consolidating this trend by subsidizing TEN-T infrastructure projects, especially since the neighbours (*France & Belgium*) lag behind.

A similar exercise can be conducted by comparing these simple OLS regressions with the Mediterranean PIGS-countries which produce the next table. The constant (0.83) is a bit higher (producing a growth rate of 2.3) and the elasticity equals 0.97 (t-statistic 13.65). Especially the dummies reveal the PIGS-tragedy! Whereas Spain still manages to restrict the dip to a bit more than 10% lag, Greece exceeds 20% on the arrival side and almost half the EU growth standard on the departures; whether this relies on the local economy or inbound value-added logistics, it shows that the financial and fiscal crisis only adds to a ‘visible-trade’ crisis as well! The only solution is to revitalize the external trade basis of the ‘club med’.

Table 9 Summary of the PIGS decline related to the EU (2008-2012)
m

Parameters	Spain	Greece	Italy	Portugal	Constant
Arrivals	-0.12526	-0.23481	-0.02366	0.03221	0.82741
<i>Growth factor</i>	0.88	0.79	0.98	1.03	2.3
Departures	-0.14379	-0.62196	-0.25194	-0.33529	R ² =0.997
<i>Growth factor</i>	0.87	0.54	0.78	0.72	

4. EVALUATION

The rAs-method offers a major input in detecting kinks and shifts in trade deflection both for world trade and intra-EU traffic. A number of second thoughts apply to the next items:

- First, the problem remains for selecting relevant ‘pivot years’ or turning points;
- Second, a certain stable pattern must prevail. For example zero-flows which can never become positive and structural jumps will not be predicted in full;
- Third, there is a matter which degree of aggregation is best. For macro-regions, just as the WTO regions or a EU 10x10 matrix the method works fine. Individual countries are a bit too detailed in a 28x28 matrix, but may help as a secondary input after the regional study has produced the major patterns;
- Fourth, the detailed study of the $r(i)$ and $s(j)$ vectors is less conclusive. On the one hand, there are less useful in the regional totals, because the acceleration n matrix provide better information on leads and lags. On the other hand, when applied to individual countries, the identification of asymmetries is clear. Nevertheless, the definition of a ‘rest region’ becomes important in the relevance of the dummies; therefore we took the EU-28 as a whole rather than the rest, which is also the logic of similar techniques, such as the ‘shift-share’ method. Especially, the

application of traffic flows to individual industries may constitute a vital initiation for eventual industry studies and eventual causal models as well.

In short, half a century after its first applications, the ras method gains new momentum in both detecting the trade deflections between the macro regions of World Trade and the regional asymmetries within trade blocks, such as the EU internal market. It remains restricted to acceleration patterns with leaders and laggards, but it constitutes a vital preparation for both prospective studies and more academic model-based research. But it will therefore never replace the search for the underlying causal relationships.

REFERENCES

- Allen R.I.G. (1974) Some experiments with the RAS method of updating input-output coefficients, *Oxford Bulletin of Economics and statistics*, vol. 36/3, pp.215-228;
- Atzema O.A.L.C. and Wever E. (1999) *De Nederlandse Economie*, Van Gorcum, Assen;
- Bacharach M. (1970) *Bi proportional matrices and input-output change*, Cambridge, University Press, 170 p.;
- CIA 'The World Factbook' (2014), March 15th 2014 from: <https://www.cia.gov/library/publications/the-world-factbook/geos/hk.html>
- Claessens, E. (2006), *European Trading Relations*, Antwerpen, Universitas, 79 p.
- Claessens, E (1975/1980) Forecasting commuter flows, in 'Principles of applied railway economics', Doctoral manuscript, 1022 p.; chapter 3.2, pp. 530-588 on 'forecasting commuter flows, partly published in Nonneman, W., R. Bellens. & E. Claessens *Stedelijke Economie en vervoer*, SESO publicaties, Antwerp, 1978;
- De Saeyere W. (1969) Schatting van een array door middel van marginale totalen, (*array estimation by marginal totals*) *Tijdschrift voor Economie*, pp.28-73 ;

Destexhe M., P. Kestens & J. Waelbroeck (1970) Matrice d'échanges industriels de la Communauté Economique Européenne, en 1975, C.E.B. , pp.19-45;

Encyclopaedia Britannica (2004), "Criteria for Joining the Euro Zone: Year In Review 2004", March 18th 2014 from: <http://www.britannica.com/topic/1154904/history>

Friedlander, D. (1961) A technique for estimating a contingency table, given the marginal totals and some supplementary data, J.R.S. Vol.124/3, pp.412-420;

GATT, General Agreement on Tariffs and Trade, International Trade, 1982, e.s., Geneva,

Paelinck, & J. Waelbroeck, Etude empirique sur l'évolution d coefficients input-output, Economie appliquée, pp. 81-111;

Ratnakar, A. & Yumiko, Y. (2007), *The textile and clothing Industry: Adjusting to the post-quota world*, s.l., s.n., 234 p.;

Suits, D. (1957) The use of dummy variables in regression analysis, journal of the American Statistical Association, pp. 548-551;

Terhal, P. H. (1970) Het schatten van het binnenwerk van een matrix bij gegeven randtotalen (*matrix estimation by given marginal totals*), statistica Neerlandica, p. 7;

Theil, H. (1967) Information measures in the analysis of international trade, in 'Economics and information theory', North-Holland, pp. 357-389;

UNIDO, United Nations Industrial Development Organization, Changing Patterns of Trade in World Industry: an empirical study on revealed comparative advantage, United Nations, Vienna, 1982 (E.82.II.B.1);

World Bank Data (2014), <http://data.worldbank.org/indicator/TG.VAL.TOTL.GD.ZS>;

World Trade Organization (2001 to 2014), *International Trade Statistics*, Genève;

World Trade Organization (2014), “International Trade and Market Access Data”, dd August 11th from: http://www.wto.org/english/res_e/res_e.htm;

World Bank (2013), “India: Foreign Trade Policy”, dd August 14th 2014 from 2014: <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTSARREGTOPINTECOTRA/0,contentMDK:20592520~menuPK:579454~pagePK:34004173~piPK:34003707~theSitePK:579448,00.html>;

CHAPTER 16

Nataša Zrilić

Environmental Protection and Energy Efficiency Fund of the Republic of

Srpska, Banja Luka, Bosnia and Herzegovina

Sanel Jakupović

Pan-European University Apeiron, Faculty of Business & Economics, Banja

Luka, Bosnia and Herzegovina

Biljana Jošić-Bajić

Ministry of Foreign Affairs of Bosnia and Herzegovina

ECONOMIC GROWTH AND THE EUROPEAN UNION PRE-ACCESSION ASSISTANCE IN BOSNIA AND HERZEGOVINA

ABSTRACT

Even though Bosnia and Herzegovina, with its 3.836 million inhabitants, and a gross domestic product per capita of only 3,735 EUR, is ranking among the smallest and least developed European economies, Bosnia and Herzegovina is aspiring to become a member of the European Union. Impact of the global economic crisis and lack of investments during the last few years have indicated a low-level use of pre-accession assistance on taking the EU funds in the 2007-2013 cycle. Based on the analysis of experience of some other countries regarding the use of European Union funds, the aim of this paper is to determine how to build the institutional capacity of Bosnia and Herzegovina for a more efficient use of the European funds in the period 2014-2020. In this context, three main issues are imposed: the issue of absorption, the issue of macro-economic management and the issue of co-financing. Addressing these issues will ensure economic convergence of the economies so Bosnia economy can expect catching-up with some more developed economies and so higher income per capita in the long run, in other words, a better standard of living for its citizens.

Key words: economic growth, the EU funds, institutional capacity

JEL classification: O11

1. INTRODUCTION

In the last 20 years, Bosnia and Herzegovina (B&H) has undergone significant changes which have had a direct impact on the economy. Along with the process of fulfilling the obligations for the EU membership, B&H is facing the process of transition, still struggling for a market economy.

This paper attempts to explore the use of the pre-accession funds in the economic development of Bosnia and Herzegovina.

Based on the experience of the EU member states and some other economies which are aspiring to the EU membership, this paper tries to prove the claims about the need for wider targeting on the European pre-accession assistance in the development projects.

Also, the paper tries to prove the attitudes which suggest the EU funds are just some kind of support but not a guarantee of a strong economic development.

In addition, more effective and more extensive withdrawal of the EU pre-accession funds by B&H, guarantees the catching-up with the development of the other, more developed European regions, and increase the living standard of Bosnia and Herzegovina population.

2. BOSNIA AND HERZEGOVINA ECONOMY DEVELOPMENT AND THE MACROECONOMIC TRENDS

Bosnia and Herzegovina is a country of a specific constitutional order, the competence in the management of its macroeconomic policies are divided between the state and its entities - the Republic of Srpska and the Federation of Bosnia and Herzegovina.

B&H monetary policy is implemented by the Central Bank and the Currency Board. The trade policy, customs policy, signing international treaties and conventions etc, are also exclusive jurisdictions of the state of Bosnia and Herzegovina. Management of the fiscal policy is divided between the state and the entities. Collection of indirect taxes is

established at the state level through the Indirect Taxation Authority of Bosnia and Herzegovina. Field of direct taxation (revenue collection from corporate income tax, personal income tax, tax on property, land, contributions, fees etc) is in the competence of the Entity governments, as well as policies of income, which includes wage regulation in the public sector, minimum national wage regulation, the basic food prices etc.

The Republic of Srpska and the Federation of B&H have their jurisdictions over the majority of the remaining policies, such as industrial policies, small and medium-size enterprise policies, agricultural, education and health policies etc; so they manage their own economic development.

Bosnia and Herzegovina is an example of the liberal concept of economic development. Even though it's been almost twenty years since the end of the military conflict in the early '90s, Bosnia and Herzegovina is still in the process of transition, in other words, transformation to a market economy. As an additional incentive for these economic reforms, the way of entering the European Union - the community of developed economies - is set. Thanks to the initiative of the international community, the post-war plan for reconstruction and transition of Bosnia and Herzegovina was set and named as Washington Consensus. However, it has not proved itself as a sufficiently successful plan in terms of economic development of the country. Bosnia and Herzegovina is still one of the least developed European countries, with its approximately 3.831 million inhabitants and GDP per capita in the amount of 6,862KM (€3,431). The economic situation can be clearly described with some basic macroeconomic indicators given in the table 1.

Table 1 The main macroeconomic indicators of B&H

Indicators		Year
External trade balance in thousands of KM	-7.515.526	2014
Imports in thousands	16.199.306	2014
Export of goods in thousands	8.683.780	2014
The employment rate by ILO definition (LFS)	31,7	2014
Unemployment rate by ILO definition (LFS)	27,5	2014
Average net wages in B&H in KM	830	2014
Gross domestic product per capita (GDP /C) in KM	6.862	2013
Gross domestic product (GDP) in millions KM	26.297	2013
Deaths in BiH	35.662	2013
Live births in BiH	30.684	2013
Population in BiH (estimate from 2014)	3.827.343	2014

Source: Agency for Statistics of B&H

Bosnia and Herzegovina is at a critical point of economic development. Export is threatened by the weak export demand. The decline in domestic demand is a result of negative trends in production, unemployment and small real wages, and a reduction in cash in flow from Bosnia citizens living and working abroad. Unemployment is still on the rise. The main question is, "What is the economic future of this small country with entirely open market?" Anyhow, the present negative trend of the economic growth takes the country away from the EU membership.

The table 2 presents the main macroeconomic indicators for Bosnia and Herzegovina (GDP and GDP per capita), their comparison with the newly admitted EU member states as well as some other countries in the region. From these data, it is arguable that the state has lost a multi-year period concerning the economic development, which would allow a real convergence too there economies in transition and of course to the EU member states as a main but a long run goal.

Table 2 Comparison of the EU and the Western Balkans indicators

Country	Population	Total Area (km ²)	GDP PPP (\$)	GDP per Capita PPP(\$)
European Union	511,434,812	4,324,782	15.85 trillion	34,500
Cyprus	1,172,458	9,251	21.62 billion	24,500
Czech Republic	10,627,448	78,867	285.6 billion	26,300
Estonia	1,257,921	45,228	29.94 billion	22,400
Latvia	2,165,165	64,589	38.87 billion	19,100
Lithuania	3,505,738	65,300	67.43 billion	22,600
Hungary	9,919,128	93,028	196.6 billion	19,800
Malta	412,655	316	11.22 billion	29,200
Poland	38,346,279	312,685	814 billion	21,100
Slovakia	5,443,583	49,035	133.4 billion	24,700
Slovenia	1,988,292	20,273	57.36 billion	27,400
Romania	21,729,871	238,391	288.5 billion	14,400
Bulgaria	6,924,716	110,879	104.6 billion	14,400
Albania	3,020,209	28,748	12.8 billion	10,700
Bosnia and Herzegovina	3,871,643	51,197	32.16 billion	8,300
Montenegro	650,036	13,812	7.429 billion	11,900
Croatia	4,470,534	56,594	78.9 billion	17,800
Macedonia	2,091,719	25,713	22.57 billion	10,800
Serbia and Kosovo	7,209,764 1,859,203	77,474 10,887	80.47 billion 14.11 billion	11,100 7,600

Source: Author's reproduction, according to the CIAWorldFactbook, 2013

Regional economic integrations provide a framework for better B&H economic development, and the opportunity for greater economic growth. It is interesting to observe the relations between Bosnia and Herzegovina on one side and the European Union on the other, particularly from the aspect of usage of the pre-accession funds. Special attention should be focused on the challenges that are placed in the usage of the European Union development funds, all in order to boost the economic growth.

3. BOSNIA AND HERZEGOVINA AND THE EU FUNDS

Bosnia and Herzegovina decision on the initiative for accession to the EU dates back to 1997, when the political and economic relations between the two sides were established. At the beginning of the 2000s, the EU Stabilisation and Association Commission created the Stabilisation and Association Agreement, through which EU intention was to confer the possibility of integration and membership of B&H, as well as of the other five countries existing in the Western Balkans, after which both sides followed a series of activities in order to intensify the cooperation, and meet the Copenhagen criteria.

Bosnia and Herzegovina was given the option of using financial and technical support or reconstruction and development of the economy and stabilisation and preparation for the EU membership. B&H had to comply with increased number of regulations set by the EU in recent years, so developing political and economic relations with this economic community, all in the direction of the future membership. Anyhow, it can be concluded that the relations between the two sides were delayed. Reasons for this should be sought in the political turmoil within B&H, the economic crisis in 2008 which hit both sides, and also a bit in some other priorities of the EU. Progress reports¹ which the EU publishes annually indicate that there is a number of unresolved issues, obligations that are set for B&H, which she has to carry out, prior to submission of the request for candidate status.

The ratio of selected macroeconomic indicators of B&H and the money withdrawn from the 2007-2013 IPA program, is shown in the table 3. On basis of the data from this table, we can notice that in the 2007-2013 cycle, the average approved assistance from the EU in the form of IPA funds, component 1 and 2 per capita in Bosnia and Herzegovina, was 24.38 EUR per year. This is slightly lower than the average per capita aid which got the other countries of the Western Balkans. If we look at the share of the EU aid in Bosnia's nominal GDP, which is around 0.89% per year, we conclude it is far less comparing to 4% of the GDP for the EU member states. So, the serious, far larger EU funds to meet the development need can be expected after the accession.

¹ More data from this document will be found on the following web pages:
<http://www.dei.gov.ba> and <http://www.delbih.ec.europa.eu> (02.03.2015.)

Table 3 B&H macroeconomic indicators and the 2007-2013 EU IPAfunds

Indicator	2007	2008	2009	2010	2011	2012	2013
Nominal B&H BDP in millions of EUR	12.488	13.694	13.487	13.235	13.702	13.962	14.330
Population-in millions	3,842	3,842	3,843	3,843	3,840	3,836	3,836
GDP per capita - in EUR	3.250	3.564	3.509	3.444	3.564	3.640	3.735
Annual GDP growth (%)	10,4	4,9	-4,2	-0,2	2,2	-0,6	0,7
Total EU IPA funds approved for B&H	62,1	74,8	89,1	105,4	107,4	107,9	108,8
Approved IPAfunds per capita in B&H - in EUR	16,16	19,47	23,18	27,43	27,97	28,13	28,36
Percent of IPAfunds in nominal GDP in B&H %	0,49	1,95	0,66	0,80	0,78	0,77	0,76

Source: Author's reproduction, according to Economic B&H Trends, the annual report and the EU Delegation to B&H (12.05.2015)

The main reason for the low utilisation level of EU IPA funds were under developed B&H absorption capacity for the project preparations. A decentralized management of funds was missed. B&H missed to build its own capacity in managing both projects and contributions of the budgets of the relevant institutions for co-financing the projects. A lack of coordination of the government institutions at both state and entity levels, in order to more efficiently boost and control the contracting projects, should be added to this.

The European Commission has earmarked over 11 billion euros for the future members, through the IPA program in the period 2014-2020. In late September 2014, the European Commission presented the IPA II funds distribution for individual countries, and it is given in the table 4.

Table 4 IPA II distribution by country in current prices

(in millions of EUR)

Country	2014	2015	2016	2017	2018-2020	Total
Albania	83.7	86.9	89.7	92.9	296.3	649.5
Macedonia	85.7	88.9	91.6	94.9	303.1	664.2
Kosovo	83.8	85.9	88.7	91.9	295.2	645.5
Montenegro	39.6	35.6	37.4	39.5	118.4	270.5
Serbia	195.1	201.4	207.9	215.4	688.2	1,508.0
Turkey	620.4	626.4	630.7	636.4	1,940.0	4,453.9
More Countries	348.0	365.00	390.00	410.4	1,445.3	2,958.7

Source: <http://europa.ba/News.aspx?newsid=7318&lang=BS>(28.09.2014.)

At the time of making decisions concerning distributions, allocation of IPA funds for B&H in the 2014-2020 budget cycle was not recognised at all. B&H was late in establishing a coordination mechanism, which is also one of the key pre-conditions for the use of the European aid. Shortly thereafter, the preparation of an Indicative Strategy Paper for B&H for the period 2014-2017 was determined by further investments of the IPA II funds into individual sectors and policies, as shown in table 5.

Table 5 Indicative Allocation per policy areas and sectors
(in millions of EUR)

Bosnia and Herzegovina	2014	2015	2016	2017	Total 2014-2017
A. Reforms in preparation for Union membership	11	17	18	18	64
Democracy and Governance	31				31
The rule of law and fundamental rights	33				33
B. Socio-economic and regional development	24,7	11,7	13,7	13,7	63,8
Competitiveness and innovation: the local development strategy	63,8				63,8
C. Employment, social policy, education, research and innovation, promotion of gender equality and human resource development	4	11	11	12	38
Education, employment and social policy	38				38
Total	39,7	39,7	42,7	43,7	165,8

Source: Indicative Strategic document for BiH 2014-2017,
http://www.dei.gov.ba/dei/direkcija/sektor_koordinacija/dokumenti/default.aspx?id=14577&langTag=sr-SP-Cyrl (5/12/2015).

At this point, it is very difficult to precisely define the economic benefits that can arise for Bosnia and Herzegovina in the terms and conditions of a new cycle of the European aid. From table 5, it is evident that the funds approved to be taken by 2017 are insufficient to Bosnia and Herzegovina for significant step-forward in terms of implementation of the developed projects, which should lead to higher economic growth and employment. However, those features of the IPA II financial assistance testify the fact that this country can make a significant step forward in terms of usage of these funds for the purpose of economic growth:

- The new EU assistance will be created depending, not only on both the individual progress of each country in the accession process and its actual needs, but also its absorption capacity;
- Financial assistance will be available in all policy areas (former IPA components), regardless of whether the country has the status of potential candidates or not;
- The new IPA II instrument is characterized by greater flexibility in the allocation, planning and implementation of the aid, it will be

possible to relocate the funds from one area of interest to another, from one year to another but, from one country to another too.

4. EXPERIENCES OF SOME OTHER COUNTRIES CONCERNING THE USE OF THE EU FUNDS IN ORDER TO BOOST THE ECONOMIC GROWTH

Today, in the mid 2015 year, in the absence of private investment, a large number of the EU member states, especially new member countries, have turned to the European funds trying to promote their economic growth. The structural funds and cohesion policy are the main EU instrument for sustainable economic growth, which will reduce the disparities in development of the different EU regions.

Both the candidates and the potential candidates for the EU membership, see the European pre-accession assistance as an opportunity for new development despite the fact that they do not have sufficient experience in the use of European funds.

In such circumstances, all these countries have faced problems in managing the European funds. This issue was dealt with in more detail through the concept of absorption capacity, even though it was not yet theoretically processed enough. In practical terms, absorption capacity is defined as a degree to which a country is able to fully spend the money allocated from the EU funds in an efficient and effective manner. According to the latest debates within the European Union itself, looming attitude to absorption capacity could become a new fourth Copenhagen criterion for membership in the community while at the same time emphasizes its importance. The absorption capacity is defined by three major economic factors (Šumpíková, et.al):

- **Macroeconomic absorptive capacity:**

The capacity is measured and defined in comparison to the gross domestic product (GDP), while the upper limit for the Structural Funds and the Cohesion Fund together are usually defined as 4% of the GDP in the less developed EU member countries;

- **Financial capacity of absorption:**

It can be defined as the ability to co-finance programs and projects supported by the EU, the ability to plan and guarantee the national contribution to the multi-annual EU budget, as a capability of collecting

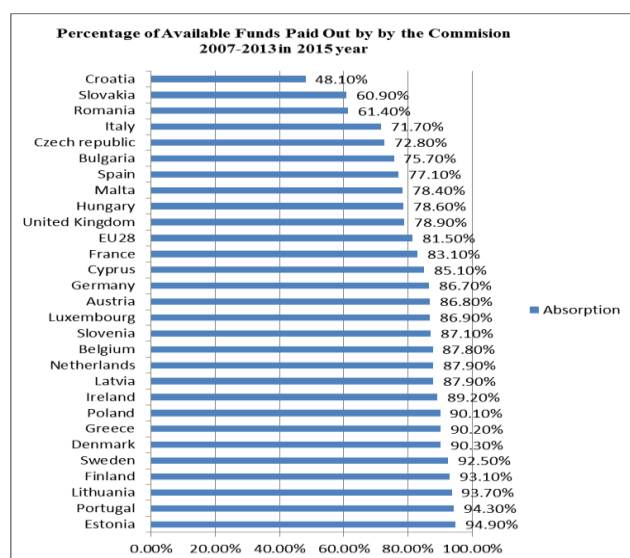
these contributions from several partners (national, regional and local authorities, private bodies) interested in the programs or projects;

- **Administrative capacity:**

It can be defined as the ability and skill of central, regional and local authorities in preparing appropriate plans, programs and projects on time, defined as the ability of deciding on programs and projects, then the ability of organising coordination among the main partners, the ability of coping with the administrative requirements and ability of reporting, and the ability of financing and implementing adequate supervision, avoiding irregularities as far as possible.

The degree of utilization of European funds by the Member States is the subject of continuous monitoring of the European Commission. Figure 1 shows the percentage of available funds in the period 2007 - 2013, approved by the European Commission to the Member States on the basis of recent data, published in early 2015.

Figure 1 Percentage of available funds approved by the European Commission in the 2007-2013 cycle.



Source: European Commission, Regional Policy, http://ec.europa.eu/regional_policy/index_en.cfm (13.05.2015.)

A large number of analyses carried out in the Member States, show that these countries are not satisfied with their use of European funds in the 2007-2013 cycle. This issue is dealt with by the European Parliament resolution², which found that the problems of absorption were caused to a large extent by the following factors:

- Difficulties with completing the compliance assessment procedures concerning the new management and control system, that generally fall at the beginning of the programming period;
- Global economic recession, which has a direct effect in the form of the budgetary restraint measures applied to public budgets and difficulties in obtaining internal financing;
- Insufficient resources to co-finance projects;
- Delays in establishment and introduction of the EU and national rules or related guidances, and incomplete or unclear rules;
- Delays in the translation of the guidance notes and in obtaining clarification from the Commission, and inconsistency of Commission guidance;
- Over-complicated and over-strict national procedures, and frequent changes therein;
- The need for establishment of the new institutions which would implement the programmes, which causes delay of their launch and running;
- Insufficient separation between the authorities in the member states, hierarchy problems between the institutions and internal difficulties over the allocation of tasks and responsibilities;
- Insufficient involvement of the regional and local level in the establishment of the operational programmes;
- Limited staff numbers, inadequately trained personnel at national and regional level, and difficulties with the personnel retention;
- Difficulties with establishing information technology systems;
- Disproportion between the degree of control and the scale of the project;

² More data from this document will be found on the following web page:
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0403+0+DOC+XML+V0//EN> (14.05.2015)

- Insufficient initial preparation for implementation of projects, and missing project pipeline;
- Politically motivated changes in investment priorities.

Concerning the candidate countries, similar problems in all of them sampled delays in the use of funds from the EU pre-accession funds, which are intended for the fulfillment of commitments and preparations for the accession process. The carried out analysis indicates that the Western Balkans countries do not sufficiently understand the possibilities and importance of the provided EU funds in terms of development, ie. have not recognized their similarity to the structural funds, far greater financial resources, which follow after accession.

One of the pre-conditions for using the new aid is to build administrative and absorption capacities, which is not an easy task. When it comes to B&H, this problem is further accentuated, and directly linked to inadequate horizontal and vertical coordination of the state and entity governments in meeting obligations related to the European path of this country. Before giving answers to the question of how to take advantage of the development opportunities that the EU funds provide in 2014-2020 cycle for Bosnia and Herzegovina we should look at the experiences from the previous European funds cycle. Table 6 shows the relationship of the pre-accession use of the EU funds by Bosnia and Herzegovina and the structural and cohesion funds, which are used by other countries of Central and Eastern Europe in the period 2007 – 2013 years.

Table 6 Implementation of EU funds in period 2007-2013 year

Country	Available budget 2007.- 2013. In billions of EUR	Available budget 2007.2013. Per capita In EUR	Signed contracts 2007.- 2013. In billions of EUR	Contractual relationship In %	Paid contracts 2007.- 2013. In billions of EUR	Paid relationship In %
Bulgaria	6.7	917.00	7.5	112	3.6	54
Czech	26.3	2,501.7	24.2	92	16.8	64
Estonia	3.4	2,595.4	3.3	96	2.6	77
Hungary	24.9	2,515.3	26.5	106	15.6	62
Latvia	4.5	2,242.7	4.4	96	3.2	70
Litvania	6.8	2,278.8	6.7	99	5.0	74
Poland	67.2	1,743.6	63.8	95	42.9	64
Romania	19.2	956.0	18.0	94	7.0	37
Slovakia	11.7	2,151.4	11.4	98	6.1	53
Slovenia	4.1	1,991.5	3.8	93	2.6	62
B&H	0.655	24.38	0.301	62	-	-

Source: Author's reproduction, according to the Report of the EU Funds in Central and Eastern Europe, Progress Report 2007-2013. and [http://europa.ba/\(19.05.2015\)](http://europa.ba/(19.05.2015)).

Data from these tables just prove what was previously emphasised on several occasions; the EU pre-accession funds are intended only as a support to certain countries so as to meet the political, institutional and socio-economic criteria for membership of the country in the EU, and a future member of the EU can expect far greater resources, intended for balancing regional development after the EU membership. This applies to resources from the structural and cohesion funds, intended for local communities, in the framework of the EU regional policy. A prerequisite for use of these funds is the timely preparation of infrastructure projects, in terms of prepared technical documentation. Projects must be aligned with national development programmes and national budgets. The key link in the process of using the European funds is the construction of the

administrative capacity for the absorption of the EU assistance within each country. Experience based on the examples of some other countries in the region which have passed this path is really worthy for Bosnia and Herzegovina.

5. BOSNIA AND HERZEGOVINA INSTITUTIONAL CAPACITY FOR EU FUNDS

The EU funds management problem is associated with under developed institutional capacities of Bosnia and Herzegovina for the preparation and implementation of the projects financed with the European funds, as well as with its very weak economy.

In these circumstances, it is important to look back at the three main issues related to the management of the EU funds, and then suggest a way to overcome them, all in order that B&H ensure more efficient use of the European funds in the new budget 2014 – 2020 cycle.

5.1. The question of absorption of EU funds in B&H

Adequate absorption requires development of the effective institutions at all levels of B&H authorities with the appropriate capacity for management of the EU funds as well as appropriate knowledge in the complex EU procedures. In Bosnia, this means that both the entity and the common institutions should provide a sufficient number of civil servants for these tasks, the horizontal and vertical coordination of the European integration affairs in which they are engaged. It is necessary to ensure their continual training for the preparation and implementation of the projects, and to prevent the out flow of already trained staff from the civil service, which will occur when at one point the B&H market develops its activities to a great extent.

Appropriate use of money from the EU funds asks prepared projects to be customised to and harmonised with the developed national strategies. The funds are based on the principle of partnership between the public sector, business and the social partners. Lack of the development and project management skills, language skills, professionalism with respect to contractual obligations, internal administrative problems etc, is present.

Along with the establishment of the coordination mechanism of the European aid, one of the most important tasks of Bosnia and Herzegovina refers to the introduction of the decentralized management of the EU assistance programs.

Regarding this issue, and with the help of the European Commission Delegation, and with their intention to gradually transfer the part of the responsibilities in the fund management but from the EU to B&H, the process of establishing certain institutions and the appointment of the activity holders has begun, albeit very slowly. B&H's first step into a successful and efficient future use of the IPA funds refers to expedited capacity building of the institution which is thought to act as the national coordinator for the efficient management of funds for pre-accession assistance.

5.2. The issue of macroeconomic management in B&H

The issue of macro-economic management is related to the pre-accession funds as well. The fact is that the EU funds provide a large amount of money which transfer has a direct impact on the macroeconomic policies of the country to which the money is transferred. The economic consequences of the transfer of such resources from the EU funds are significant. A key element of the EU budget in 2014–2020 cycle is called "Clause on macroeconomic conditionality", which provides that, if necessary, and in relation to this clause, the European Commission may request a modification of the support programs to specific structural reforms, or may withhold the funds if found an infringement of its economic recommendations.

Since the EU funds represent a significant injection of capital into the B&H economy, it will significantly cause both the long and medium-term effects on the B&H financial developments. Routing the money into direct spending will cause increased inflation and the trade deficit. This is a problem which B&H can face, and which may have an additional negative impact on the already existing foreign trade deficit, caused by the free trade.

To avoid this, it is necessary to pay more attention to domestic savings, which will open up more space for the money from the funds. It is necessary to monitor and analyse the B&H macroeconomic indicators in the next EU budget framework and, based on their

movements, direct the EU funds to pro-European development projects and thus provide impetus to a new economic growth and development.

5.3. The issue of co-financing in B&H

The co-financing issue applies to provision of sufficient funds in national budgets, in the name of project implementation. In this sense, states are required to make their budgets structured in the sense of the planned co-financing of the project, which may pose a problem in the case of a budget deficit. The project implementation may be suspended if it fails to ensure the government co-financing. In the pre-accession EU funds, co-financing funds usually range in the amount of 15-25% of the contracted value. When it comes to B&H, if we take into account that the currently available EU funds from the IPA program amounts to approximately 100 million euros per year, this would mean that it is necessary to allocate 15-25 million per year from your own budget, on behalf of the co-financing the projects. This money should be planned in the entity budgets, in the coming years, so they have to open the lines for co-financing, or for end users, planned in the local governments, which is not a small problem in terms of lack of funds in existing budgets. In this way, B&H will confirm the seriousness of their development projects, aligned with the EU policies, as well as the determination of their intention to pursue a policy directed towards the future membership.

6. CONCLUSION

If one takes into account the current relationship between the two sides over the past twenty years, the integration of Bosnia and Herzegovina into the European Union imposes as a strategic goal for B&H. On the other hand, conducted analyses indicate that there is almost no any recorded step forward in fulfilling the EU pre-accession demands but by Bosnia and Herzegovina. The degree of utilization of the European funds in the 2007-2013 cycle is extremely low. Political instability in the country has caused a delay in the implementation of certain reforms that are related to obligations arising from membership.

On the other hand, the EU Member States are not satisfied with their use of the EU funds in the 2007-2013 cycle as well. The main problems of inadequate use of the European funds in the previous cycle are

insufficient domestic resources for projects, lack of trained personnel for those projects, complex procedures and policies at both national and the EU level to withdraw the money, control, spend, etc.

The EU funds can play a significant role in the economic development of the country which uses it. Most member states see these funds as a significant development opportunity. So they seriously began preparations for use of the European funds in the 2014-2020 cycle.

Their experience, as well as the experience of some other countries which are candidates for the EU membership (Serbia, Macedonia, Montenegro), in the use of pre-accession EU assistance is of vital benefit to Bosnia and Herzegovina. Of course, Bosnia and Herzegovina chooses its own development path by itself, and that path may be European. The pre-accession EU funds are made available to Bosnia and Herzegovina in the 2014-2020 cycle as an auxiliary instrument for the successful implementation of the development goals. To successfully respond to the challenge of using the EU pre-accession funds, with a view to future growth and development, Bosnia and Herzegovina must focus on the three known issues: the issue of absorption, the issue of macroeconomic management and the issue of co-financing.

Two key conditions for efficient use of the EU funds so as to easier get the EU membership are: building of institutional capacity and beginning of the process of public administration reform. Bosnia and Herzegovina has to create a development-oriented economic policy which, to some extent, relies on more efficient use of the EU pre-accession funds. The objective of this economic policy is the creation of a macroeconomic environment that would result in higher inflows of investments in selected sectors, which will give long-lasting effects on the improvement of basic economic indicators. Within Bosnia and Herzegovina, a large number of European issues, such as the establishment of a mechanism of coordination of the European funds, require a political agreement of the competent institutions at both the state and entity level, which - unfortunately already proved in Bosnia - is a slow and lengthy process.

The political compromise, readiness and speed in making these decisions will affect the degree of implementation of European funds, which will all contribute to the economic development of Bosnia and Herzegovina

REFERENCE

Zrilić Nataša, Kandžija Vinko, Redžepagić Srđan. Economic growth and development of the republic of srpska under the conditions of the process of accession of bosnia and herzegovina to the European union. Absorption capacity of EU pre-accession programs in the Western Balkan countries / Kandžija, Vinko (ur.). RESEARCH MONOGRAPH. Nica: CemaFi International, 2014. page. 380.-403.

EU Funds: Absorption Capacity and Effectiveness of Their Use, with Focus on Regional Level in the Czech Republic, Markéta Šumpíková, Jan Pavel, Stanislav Klazar, web page:
<http://unpan1.un.org/intradoc/groups/public/documents/nispacee/unpan018547.pdf> (13.05.2015.)

European Parliament resolution of 27 September 2011 on absorption of Structural and Cohesion Funds: lessons learnt for the future cohesion policy of the EU, web stranica:
<http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0403+0+DOC+XML+V0//EN> (14.05.2015)

CHAPTER 17

Mila Gadžić

Faculty of Economics University of Mostar, Mostar, Bosnia and Herzegovina

Igor Živko

Faculty of Economics University of Mostar, Mostar, Bosnia and Herzegovina

Branimir Skoko

Faculty of Economics University of Mostar, Mostar, Bosnia and Herzegovina

CHANGES IN BANKING STRUCTURE IN BOSNIA AND HERZEGOVINA AND INTEGRATION IN EU BANKING MARKET

ABSTRACT

Banking sector with 81% share in total assets of financial sector in BH is dominate source of financing through which demand from economy and households is satisfied. It is important to have stabile banking sector. Stability of banking sector presents possibility that national economy will not get into a situation of instability. So, changes in banking structure in Bosnia and Herzegovina and managing it is important for stability of financial and economic system. Changes in banking structure in Bosnia and Herzegovina has been analyzed through a series of indicators of banking sector: consolidation, banking intermediation and balance sheet structure, concentration, competition, foreign ownership, financial performance and cost structure. Authors will give current situation in banking structure in Bosnia and Herzegovina, financial crisis impact on it, and position analysis of banking structure in Bosnia and Herzegovina in process of integration in EU banking market. The analysis is based on the time series of indicators of the banking structure, which will be used for making conclusion and recommendations.

Key words: bank structure, integration, Bosnia and Herzegovina, EU

JEL classification: G21

1. INTRODUCTION

Functions of financial system of South-eastern European countries to 1990 were determinate by goals of central planning economy. In central planning economy, banks had a passive role. Fulfilment plan of national government determined the financial functions of banks. The allocation of loans at that time for banks was only accounting mechanism for tracking government decisions to allocate resources to different business and sectors. Banks of South-eastern European countries till 1990 operated in mono-banking system, system in which central bank carried out the functions of commercial and central bank. In mono-banking system banks were providing payment services, collecting private saving, profits and taxes and transferred them to the state budget or state institutions, reviewed achieving plan and operation of state institutions. Countries of former Republic of Yugoslavia had built a “two-tier” banking system which was consisted of central bank and individual commercial banks.

In all these stages, which the banking in former Yugoslavia countries and other countries of region pass to 1991 are marked by administrative regulation of business, losses in bank operation, negative real interest rate – the inflationary financing, difficulties in maintaining liquidity due to excessive exposure to the economy, lending decisions that were influenced by policy, and addiction of economy at banks. The accumulation of bad loans and inadequate regulation and supervision of the banking system resulted by banking crisis. Rehabilitation of failure banks was carried out in two ways: designing different models of bank rehabilitation and opening the banking sector to foreign strategic partners (privatization). The process of rehabilitation lead to their nationalization, average cost of rehabilitation is about 10% of GDP.

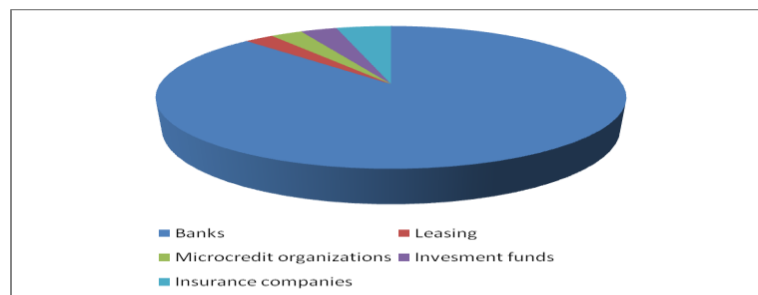
Early stage of banking sector transition in Southeastern European countries supposed restructuring of state banks and abandoning direct financing. Reconstruction leads to bank privatization and growth of financial markets. The period of transition banking sector had significant structural change that outlines some basic features:

1. high degree of foreign capital into the banking system
2. growth in domestic lending in particular household sector
3. increasing exposure to credit risk

4. increasing profitability and satisfying rate of capital adequacy
5. credit expansion and growth of risk assets
6. improving the supervisory framework
7. implementation of accounting standards.

Banks are dominant segment of the financial system with low competition from other financial institutions and financial markets. The structure of financial system of BH and the importance of banks as financial intermediaries is shown in figure 1.

Figure 1 Structure of financial system BH in 2013



Sources: CBBH, Report of financial stability 2013, Sarajevo, 2014, pp. 10.

Banks are dominant segment of the financial system with low competition from other financial institutions and financial markets. The structure of financial system of BH and the importance of banks as financial intermediaries is shown in figure 1. Assets of banks represent 87% of total assets of financial system. The institutional framework of the banking sector is enhanced. EBRD index of banking sector reform (quality of banking regulation and supervision, banking competition and financial depth) review the BH banking sector with good prospects.

2. BANKING STRUCTURE IN BOSNIA AND HERZEGOVINA

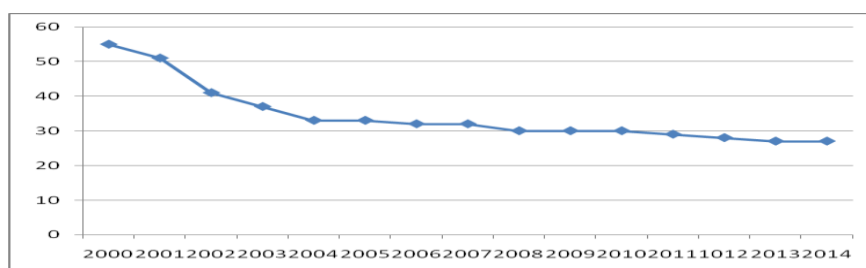
The period of transition of banking sectors in Southeastern European countries was marked by crucial structural changes which can be described by analyzing a series of indicators of banking sector:

- the number of banks,
- foreign ownership
- banking intermediation,

- concentration,
- total assets, loans and deposits,
- capital adequacy,
- profitability,
- liquidity.

Consolidation of banking sector lead to reduction of numberof banks from 55 in 2000 to 27 banks at the end of 2014. Consolidation of the banking industry has a significant impact on the banking market structure and organization of banks, and exposes the market to dominance of large banks.

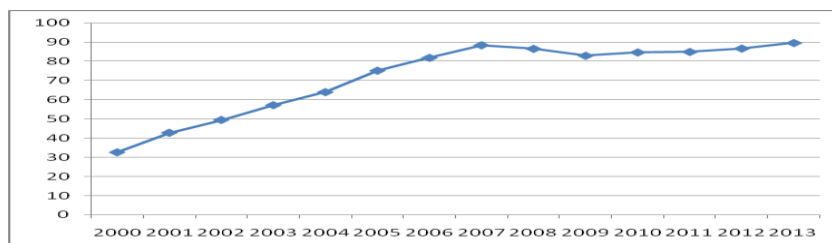
Figure 2 Number of banks in Bosnia and Herzegovina, 2000-2014



Sources: CB BiH, Annual Report, Sarajevo, different years.

Banking intermediation indicates the role of banks in achieving the core functions – the accumulation and allocation of money resources. The share of domestic bank's claims on the private sector of banking sector assets and GDP is the most common approach in the financial literature when we measure and compare degree of banking intermediation. Bank intermediation, together with data on the number of banks, offices, branches of a country is indicators of financial development. Intensive banking intermediation is result of combined structural factors (restructuring and privatization of the banking sector, entry of foreign banks, improving the legal framework, the excess liquidity in the banking market) macroeconomic and financial policies (monetary policy, fiscal consolidation of the sector) and cyclical factors (cost reduction borrowing, the progress in macroeconomic stabilization, lower interest rate in global financial markets and prices of securities).

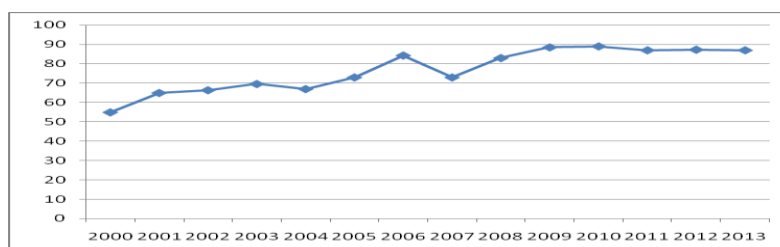
Figure 3 Banking intermediation in Bosnia and Herzegovina, 2000-2013



Sources: CBBH, Annual report, Sarajevo, different years

A high share of foreign capital is the result of the privatization process in the banking sector. In attempts to rescue the banking sector a solution was opening banking sector to foreign banks (liberalization) to build strong and stable banking sector and help national governments to create institutional infrastructure. In 2011, 87% of total capital in banking sector was hold by foreign banks.

Figure 4 Foreign capitals in banking sector of Bosnia and Herzegovina, 2000-2013



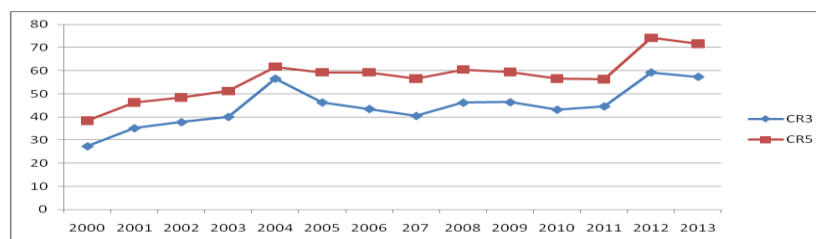
Sources: CBBH, Annual Report, Sarajevo, different years

More than 62% of the banking sector is owned by Austrian banking groups. The share of foreign owned banks in total banking sector assets at the end of 2013 was 90% which indicates the dependence and sensitivity of the domestic sector to change in policy and decisions of foreign-owned banks.

Concentration can be defined as mergers, acquiring of control or owner influence through majority shares or voting rights in the assembly of the bank. Concentration is one of the basic elements in the analysis of competitiveness and market structure in banking. The issue of

concentration of the banking market is interesting from the stand point of competition. The degree of concentration in the banking sector is usually assessed by the share of assets held by one or three or five largest banks in the banking sector assets (CR3, CR5) or the Herfindahl-Hirschman Index (HHI). Measurement of concentration ratios is carried out for the simple determination of the characteristics of the banking market. However, high values of concentration ratios recorded in the banking market do not necessarily indicate decreasing competitiveness. According to research (Beck et.al, 2003) concentration in the banking market has stabilizing effect. Research hasn't shown the negative impact of concentration on competition (Claessen and Leavin, 2003). HHI for banking sector BH indicates the growth of concentration and show a significant concentration. Concentration ratios for three or five largest banks in banking sector indicate exposure of banking sector to small number of banks. National economy depends by the activity of the five largest banks in the BH banking sector.

Figure 5 Banks concentration in Bosnia and Herzegovina, 2000-2013

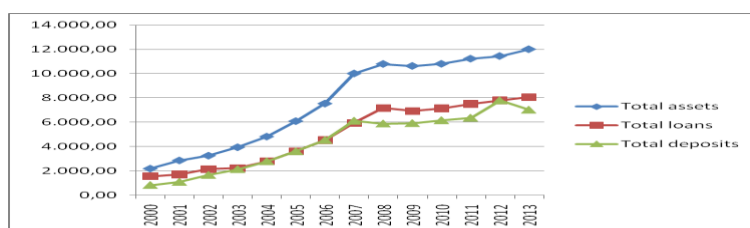


Sources: CBBH, Annual report, FBA, Information about banking sector in Federation of Bosnia and Herzegovina, Sarajevo, different years

Total assets of the banking sector in BH at the end of 2013 amounted to 12 billion euro and compared with the situation at the end of 2010 increase of 5.1% was recorded. In assets structure dominate loans in amount of 69.96% (8.39 billions) and increased in compilation with 2012 for 3%. Bank in the last period are faced with reduced demand for loans as result of financial crisis which has reduced credit worthiness of existing and potential new customers. During 2013 there has been a strong increase in deposit by 6% and amounted 7.3 billion euros. The position of borrowings from foreign financial institutions was reduced. The structure of assets and liabilities indicate importance of loans in assets and deposits in the banking sources in the banking sector of BIH.

The loan structure is dominated by loans to other sectors (household), while in the structure of the source dominate deposits in foreign currency. The structure of assets and liabilities are visible sources of risk for banks – credit risk and liquidity.

Figure 6 Total assets, loans and deposits in banks of Bosnia and Herzegovina, 2000-2013

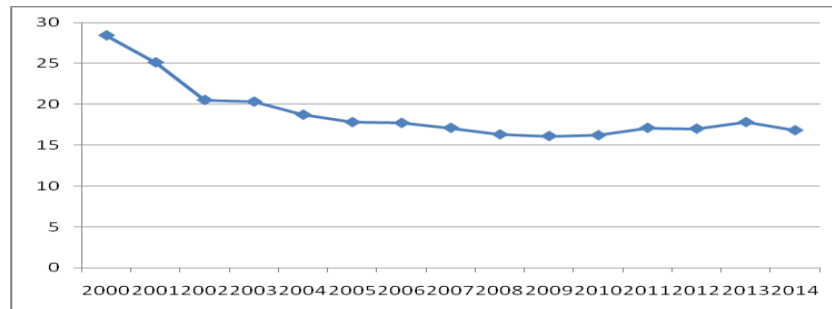


Sources: CBBH, Annual report, Sarajevo, different years

Banks lending activities in BH was grown in recent years with significant share of loans to household. Rate of credit growth recorded a value of over 25% annually. Banks loan activities shows slow growth in period 2008.-2010. Rate of loan growth in 2009 first time from 2000 had negative sign of -3.1%. In 2010 banking sector shows slight improvement by a low rate of credit growth of only 2.5% while in 2011 loans increased for 6.3%. Reason for slow growth is in banks reserving in additional exposure to credit risk. Impact of financial crisis on bank's loan activities is reflecting on assets quality and share non-performing loans in total loans of the banking sector.

In structure of total loans dominated loans to households which in 2013 recorded share in total loans 44.25% and increasing for 1.18%. The biggest loans were recorded for consumer loans (personal consumption) and mortgage loans. In the period before financial crisis banks recorded strong growth of the loan portfolio funded foreign sources (the credit lines from bank „parent“ to bank “daughter”). In period 2008-2011 growth of credit activities of the bank's sectors to public sector, to finance budget deficit was recorded. The largest increase for this sector was recorded in 2007 and 2008.

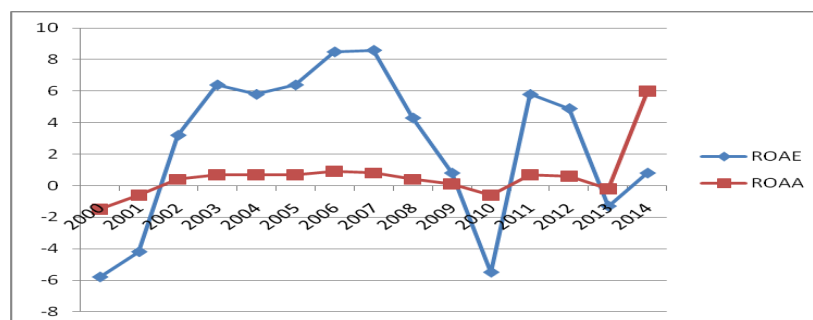
Figure 7 Capital adequacy rate of the banking sector BH



Source: CBBH, Annual report, different years

The banking sector in BH 2014 finished with negative financial results. Decrease in profit had effect on deterioration profitability indicators. In 2009 all banks in banking sector recorded increase in provision for credit risk losses as a result of the impact of financial crisis. Net income of the banking sector increased as result of rising non-interest income, while net interest income decline was consequence of increasing price of source of funding. In 2011 return on average assets increased from -0.6% to 0.7% while return on average equity increase from -5.5% to 5.9%.

Figures 8 Indicators of profitability in the banking sector BH



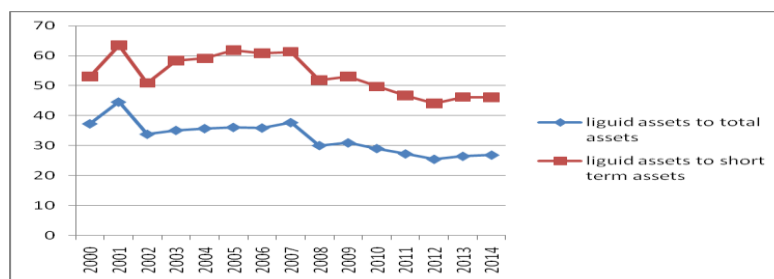
Source: CBBH, Annual report, different years

Indicators of profitability shows first decline in last eight years. Research analyses impact of market structure, ownership structure and management, structure of balance sheet and risks related to its position,

and macroeconomics (Demirgüç-Kunt and Huizinga, 1998). Deterioration of profitability is result of reduced lending activities and assets quality of banks which had resulted in increasing cost of provision and change in classification of assets.

In countries with market-oriented financial system, banks liquidity increased because investors hold their money in deposit insure by state instead invest on financial markets. But in bank-dominated financial system financial crisis has stronger impact on banks' liquidity. In this situation question of deposit safety is open. Even though deposit insurance system exists, banks record withdrawal of deposit as result of losing confidence in stability of banking sector. Reasons for losing confidence are: limited amount of insurance deposit, withdrawal deposits from healthy banks, time needed for dispose deposits if banks record failure, suspicion in state credibility and etc.

Figure 9 Liquidity ratios in banking sector in Bosnia and Herzegovina, 2000-2014



Sources: CBBH, Annual report, Sarajevo, different years

Liquidity in banking sector of Bosnia and Herzegovina is on satisfied level, basic indicators of liquidity, as ratio of liquid to total assets and liquid to short-term assets recorded increase in relation to 2012. High level of liquid indicators especially in current macroeconomic conditions shows bank unwillingness to finance domestic economy and retail. At the end of 2013 liquid assets present 26.4% of banking sector assets, while 46.2% of short term liabilities are covered by liquid assets.

Figure 9: Liquidity ratios in banking sector in Bosnia and Herzegovina, 2000-2014

3. BANKING SECTOR IN BOSNIA AND HERZEGOVINA AND EU BANKING MARKET

Banking sector has recorded, in last ten years, growth of performance and significant changes in market structure of the banking sectors (consolidation, concentration, foreign ownership, and competition). Banks are dominant segment of the financial system with low competition from other financial institutions and financial markets.

After cleaning the bad loans in bank's assets bank starts with strengthen the capital for normal operation. The process of capitalization in BH was aimed to improve capital adequacy and liquidity of banks at the national level. Higher capital requirements put banks in front of process of mergers and acquisitions and open process of banking consolidation. Consolidation of the banking industry has a significant impact on the banking market structure and organization of banks, and exposes the market to dominance of large banks. In BH banking sector is under process of consolidation. The euro area recorded a reduction of the overall number of credit institutions, net decrease of 152 credit institutions in the year to the end of 2013 and a net decrease of 742 (11.1%) over the period from 2008 to 2013.

The share of domestic bank's claims on the private sector of banking sector assets and GDP is the most common approach in the financial literature when we measure and compare degree of banking activities. Bank intermediation, together with data on the number of banks, offices, branches of a country is indicator of financial development. Intensive banking activities in year before 2008 are result of combined structural factors (restructuring and privatization of the banking sector, entry of foreign banks, improving the legal framework, the excess liquidity in the banking market) macroeconomic and financial policies (monetary policy, fiscal consolidation of the sector) and cyclical factors (cost reduction borrowing, the progress in macroeconomic stabilization, lower interest rate in global financial markets and prices of securities). Also one of important factor which has impact is „catch-up effect“ of countries with lower levels of financial development and economic development with developed countries. For banking intermediation is equally important „catch-up effect“ of countries with lower levels of financial development and economic development with developed countries. In BH banking intermediation in 2014 was 90%. In euro area banking

intermediation in 2013 was 280%, Luxembourg stands out as the largest banking sector, with assets representing 1579% of GDP.

A high share of foreign capital is the result of the privatization process in the banking sector. In attempts to rescue the banking sector a solution was open banking sector to foreign banks (liberalization) for build strong and stable banking sector and help national governments to create institutional infrastructure. Share of foreign capital in banking sector of BIH is 89%. Banking market of euro area countries are characterized by a predominance of domestic sector assets (from 50% to as much as 90% of all assets).

In 2011, 87% of total capital in banking sector was hold by foreign banks. More than 62% of the banking sector is owned by Austrian banking groups. The share of foreign owned banks in total banking sector assets at the end of 2011 was 92% which indicates the dependence and sensitivity of the domestic sector to change in policy and decisions of foreign-owned banks.

Concentration can be defined as mergers, acquiring of control or owner influence through majority shares or voting rights in the assembly of the bank. Concentration is one of the basic elements in the analysis of competitiveness and market structure in banking. The issue of concentration of the banking market is interesting from the stand point of competition. The degree of concentration in the banking sector is usually assessed by the share of assets held by one or three or five largest banks in the banking sector assets (CR3, CR5) or the Herfindahl-Hirschman Index (HHI). Measurement of concentration ratios is carried out for the simple determination of the characteristics of the banking market. However, high values of concentration ratios recorded in the banking market do not necessarily indicate decreasing competitiveness. According to research (Beck et.al, 2003) concentration in the banking market has stabilizing effect. Research has not shown the negative impact of concentration on competition (Claessen and Leavin, 2003). HHI for banking sector of BH indicates the growth of concentration and show a significant concentration. National economy depends on the activity of five largest banks in the BH banking sector 70%, while in euro area was 47%.

The structure of assets and liabilities indicate importance of loans in assets and deposits in the banking sources in the banking sector of BH.

The loan structure is dominated by loans to other sectors (household), while in the structure of the source dominate deposits in foreign currency. The structure of assets and liabilities are visible sources of risk for banks – credit risk and liquidity. Banks in BH have been recorded slow increase. The euro area banking sector on a consolidated basis recorded a decline of 9.4%.

The financial crisis has decreased domestic loans demand because of lost of consumer confidence and creating stricter credit conditions. Decreasing activity and worsening credit quality of loan portfolios has impact on banks' profitability. Even bank has faced with the withdrawal of deposits public confidences maintained. Banks have been reducing wholesale funds and increasing retail deposit in structure of sources

4. CONCLUSION

Banking sector with 81% share in total assets of financial sector is dominate source of financing through which demand from economy and households is satisfied. So it is important to have stabile banking sector. Analysing banking structure in Bosnia and Herzegovina by several indicators we can conclude how banking structure is influenced by the global financial crisis. Also analysing characteristics of banking sector in B&H we find following: further process of consolidation, high concentration ratio for the five biggest banks in system, slowing down of banking intermediation as result of global economic crisis and recession, slow recovery of bank sources and credit activities, decreasing profitability as result of increasing bad loans and cost of loan loss provision, decreasing capital adequacy. Same changes can be found in EU banking market.

Challenges for banking structure in B&H in next period are:improve capital position, clean balance sheet from bad loans and high risk assets, maintain systematic risk, cost management,maintain effective and realistic recovery and resolution plan , improve of regulatory framework and development of effective instruments in supervision

REFERENCES

Bank Agency of Federation of Bosnia and Herzegovina, (different years) *Information of banking sector*, Federation of Bosnia and Herzegovina, Sarajevo.

Central bank Bosnia and Herzegovina, (different years), *Annual report*.

ECB, (2014), *Banking sector report*

ECB, (2013) , *Banking sector report*

Levine, R. (1997), *Financial Development and Economic Growth: Views and Agenda*, Journal of Economic Literature, 35

Levine, R. (2001), *International Financial Liberalization and Economic Growth*, Review of International Economics, 9

Levine, R., Loayza, N., Beck, T. (2000), *Financial Intermediation and Growth: Causality and Causes*, Journal of Monetary Economics, 35

CHAPTER 18

Dorđe Mitrović

University of Belgrade, Faculty of Economics, Belgrade, Serbia

DIGITAL DIVIDE DEVELOPMENT AND GLOBAL ECONOMIC COMPETITIVENESS OF WESTERN BALKAN COUNTRIES – BROADBAND ADOPTION PERSPECTIVE

ABSTRACT

The existing variations in economic performances between countries are significantly affected by the level, diffusion and use of different types of information and communication technologies. In the last several years, the competitiveness of their economies depends more and more on the broadband availability, adoption, use and speed of this technology. Broadband access to the internet fosters economic growth and development and increases the global competitiveness of the country. This technology can have a big impact on the increase of the competitive advantage of the Western Balkans countries, because they have a much expressed digital divide – within them (between regions, urban and rural areas, different vulnerable groups and such), and as well as between them and EU countries. The purpose of the this paper is to analyse the current level and dynamics of the digital divide in Western Balkan countries using the Broadband Achievement Index (BAI), Data Envelopment Analysis (DEA) based model, Global competitiveness index (GCI) and cross-country methodology. This contribution reports on the measurement and comparing Western Balkan countries' current level of broadband adoption and their position on the evolutionary path towards the closing the existing economic and digital gap in relation to EU countries.

Key words: digital divide, broadband, economic growth, competitiveness

JEL classification codes: E02, O11, O25, O32, O33, O38, O43

1. INTRODUCTION

In order to perform a comparison of competitiveness of economies of the Western Balkans, which may be higher or lower depending on their readiness and current level of use of broadband Internet access, we will use the Broadband Achievement Index. This index should show the degree of diffusion of broadband internet technologies for each country, which will enable the comparison of the current levels of existence of the digital divide in each of them individually. The values of this index will allow us to rank the countries of the Western Balkans according to the achieved level of use of broadband Internet access, and therefore, according to their competitive advantage. The specified index takes into account several factors that are specific to each country in order to achieve maximum objectivity of the results and to avoid judgements based on value. The European Commission developed a Broadband Performance Index in 2008, which was supposed to allow the comparison between EU countries in terms of the degree of broadband Internet access adoption. BPI included indicators such as the broadband adoption in rural areas, prices, speed, use of advanced services and socio-economic factors. However, due to the lack of all statistical data necessary to construct this index for the countries of the Western Balkans, as well as the methodology which included value (subjective) assessment of the weight of individual components for each country, we decided to use another indicator - Broadband Achievement Index (BAI).

The purpose of the present paper is to analyse the current level and dynamics of digital divide in Western Balkan countries using Broadband Achievement Index (BAI), Data Envelopment Analysis (DEA) based model, Global competitiveness index (GCI) and cross-country methodology. Authors try to measure each country's current level of broadband adoption in relation to other countries and to provide insight into a country's specific policies targeting the closing of the existing digital gap in relation to EU countries. This paper is structured as follows. After introduction, in Section 2 the economy context of the achieving broadband level measurement is discussed. In Section 3 the BAI index calculation methodology is explained and the total BAI index and sub-indexes are calculated for Western Balkan countries. Section 4 discusses the main results and explains the calculated values of BAI

indexes regarding priorities in country's policies aimed at decreasing the digital divide and increasing the global economic competitiveness.

2. BROADBAND ECONOMY CONTEXT

The existing variations in economic performances between countries are significantly affected by the level, diffusion and use of different types of information and communication technologies and development of information society. In the last several years, the competitiveness of their information societies in larger measure depends on broadband availability - adoption, use and speed of this technology. Broadband access to the internet fosters economic growth and development and increases the global competitiveness of the country. As a special type of information and communication technologies which is now increasingly influencing the efficiency and competitiveness of enterprises, and therefore the overall competitiveness of the economy in the global market is broadband internet access. According to (Qiang and Rossotto, 2009), it is noticed that in high-income economies during the period 1980-2002 an increasing in total broadband subscribers per 100 people would lead to increase in GDP per capita for 1.21 percentage point (all others factors being equal), while in developing countries increasing of GDP per capita would be 1.38 percentage point. In (Koutroumpis, 2009) it is emphasized that in OECD countries during the period 2002-2007 average percentage of country's growth attributed to broadband infrastructure is 10.54%. Also, this research shows that average impact of broadband infrastructure on GDP in these countries was equal to 0.24%. Countries with higher broadband penetration had higher impact of broadband infrastructure to economic growth. (Czernich et.al, 2011) also observed relation between broadband penetration rate and GDP growth in OECD countries in period 1996-2007. Researchers concluded that after introduction of broadband, country's GDP per capita was 2.7–3.9% higher on average than before its introduction. According to this research “an increase in the broadband penetration rate by 10 percentage points raised annual growth in per capita GDP by 0.9–1.5 percentage points.”

The link between investment in broadband infrastructure and productivity gains, especially in small and medium enterprises, is not visible immediately after adopting of new broadband internet connectivity. (Colombo et.al, 2013) argue that the adoption of basic

broadband applications does not have any positive effect on SMEs' productivity and the adoption of advanced broadband applications does not appear to produce a sizable productivity gain for SMEs. Using a sample of Italian firms in period 1998-2004 authors found that productivity gains are pronounced only when SMEs (a) adopt advanced broadband applications that are potentially relevant in their industry of operations and (b) the adoption of these advanced applications is associated with the undertaking of extensive strategic and organisational changes to SMEs' current way of doing business. However, facilitating the development of new products and services, new production processes and business models and ways in which to organize economic activity, this technology increases the competitiveness of the economy. (Bertschek et.al, 2013) proved, using a sample of German firms, that although broadband internet has no impact on labour productivity, it shows a positive and significant impact on firms' innovation activity. Also, the use of broadband allows small businesses to compete more in big markets that were not previously available.

Broadband access contributes to improving the overall social welfare, as well. This technology reduces the cost of searching, collecting and processing the necessary information, which makes it easier to compare prices which encourages and enhances competition and improves the quality of products. (Gruber et.al, 2014) argue that at the level of the EU the broader economic benefits of broadband investment are higher than their cost. The total economic benefits from investment in broadband infrastructure are 32% higher than the cost (for the EU in total). (Kolko, 2012) found positive link between higher penetration of broadband technologies and local economic growth. But, there is no evidence that broadband availability reduce unemployment rate (Czernich, 2014). The impact of development of local broadband infrastructure on economic activity as measured by local employment rates is positive, but economically rather limited (Fabritz, 2013). Similarly, (Whitacre et.al, 2014) concluded that there was positive link between level of broadband adoption in US rural areas and income growth between 2001 and 2010 and negative relationship between the level of broadband adoption and unemployment growth.

3. THE METHODOLOGY FOR CALCULATING THE BAI INDEX

The level of development of broadband Internet access and the global economic competitiveness of the countries based on it will be analysed for the group of Western Balkan countries (Croatia, Serbia, Macedonia, Albania, Montenegro and Bosnia and Herzegovina). The relative position of these countries will be determined in relation to EU countries plus Iceland and Turkey.

3.1. The components (sub-indexes) of the BAI index

The basic methodology for calculating the BAI index is presented in (Badasyan et.al, 2011). The authors calculated the original index for individual U.S. states in order to rank them mutually in terms of the achieved level of digital divide. For the purposes of this study, we had to adapt the provided methodology, given the availability of statistical data regarding the availability and level of use of broadband Internet access in the Western Balkans. The BAI index is composed of five individual sub-indexes, which are the key indicators of development and adoption of broadband Internet access in a particular country. The following sub-indexes are involved in the formation of the BAI index: broadband availability, broadband adoption, broadband affordability, broadband speed and ICT skills.

For each sub-index, a certain number of indicators is introduced. The overview of the recommended indicators used in analysis for sub-indexes calculation is given in Table 1.

Table 1 Statistical broadband indicators forming BAI index and sub-indexes

Main index	Sub-index	Indicator used
Broadband Achievement Index	Broadband Availability (BAV)	BA1 – Percentage of households with internet access BA2 – Fixed lines per 100 population BA3 – 3G mobile subscriptions per 100 population BA4 – Investment in electronic communications (EUR)
	Broadband Adoption (BAD)	BD1 – xDSL penetration rate per population BD2 – Cable modem penetration rate per population BD3 – Dedicated data cards/wireless modems per 100 population
	Broadband Affordability (BAF)	BF1 – Overall market shares of incumbent operators in fixed voice telephony (%) BF2 – HHI based on mobile telephony market share by revenues BF3 – Fixed-broadband prices as a percentage of GNI p.c. BF4 – Mobile-broadband prices as a % of GNI p.c.
	Broadband Speed (BSP)	BS1 – percentage of fixed broadband connections with speed in interval 2 Mbps – 10 Mbps downstream BS2 – Weighted average of minimum broadband speed (0,2*percentage of fixed broadband connections with speed in interval 1 Mbps – 2 Mbps downstream + 0,3*percentage of fixed broadband connections with speed in interval 2 Mbps – 10 Mbps downstream + 0,5*percentage of fixed broadband connections with speed > 10 Mbps downstream)
	ICT Skills (BIS)	BI1 – Gross enrolment ratio – Secondary BI2 – Gross enrolment ratio – Tertiary BI3 – Adult literacy rate

Source: Adapted from (Badasyan et.al, 2011).

3.2. Determination of the weights for individual indicators

The calculation of the BAI index implies the determination of its individual sub-indexes weights. The simplest way is to give equal importance to all sub-indexes and determine the same weight. In that case, for example, the individual indicators within the broadband availability sub-index would have the weight of 0.25, whereas in the case of the broadband adoption sub-index it would amount to 0.33. However, this method of determining the weight would be suitable only in the case when the opportunity costs of moving from one to another

technology (for example, from a cable modem to the mobile broadband) would be the same in all countries, which is, of course, far from reality.

We have, therefore, in accordance with the methodology proposal set in (Badasyan et al. 2011) and (OECD, 2008) decided on the Data Envelopment Analysis (DEA) methodology. In short, based on the data related to each country individually, the DEA methodology, constructs the “efficiency frontier” using mathematical linear programming, which determines the best state of the practice and, in relation to that state, measures the relative position of each of the countries in terms of the value of the set of the observed indicators.

In order to apply the DEA methodology and determine the weight, the values of all the individual indicators must be normalized. This is very important because different indicators aren’t expressed in the same direction. The raw values are normalized into a interval between 0 and 1 – higher indicator’s value represents better performance of given country in the broadband area analysed. Next text explains the way in which the normalization of the values of the individual indicators was carried out.

If higher values of relevant sub-indicator i for a generic country j means better performance (for example, higher mobile wireless adoption rate means that this country has better performance than other countries in the analysed group), each values x_{ij} is transformed in

$$y_{ij} = \frac{x_{ij} - \min(x_i)}{\max(x_i) - \min(x_i)}$$

where $\min(x_i)$ and $\max(x_i)$ are the minimum and the maximum value of x_i across all countries. In this way, the normalised values y_{ij} have values lying between 0 (laggard, $x_{ij}=\min(x_i)$) and 1 (leader, $x_{ij}=\max(x_i)$).

Otherwise, if higher values of relevant sub-indicator i for a generic country j means worse performance (for example, higher subscriptions charges for broadband services means that this country has worse performance than other countries in the analysed group), each values x_{ij} is transformed in

$$y_{ij} = \frac{\max(x_i) - x_{ij}}{\max(x_i) - \min(x_i)}$$

The normalised values y_{ij} have values lying between 0 (laggard, $x_{ij}=\max(x_i)$) and 1 (leader, $x_{ij}=\min(x_i)$).

There are several different opinions in literature what is optimal size of data set to complete DEA analysis. The rule of thumb proposed in (Golany and Roll, 1989) that the number of analysed countries should be at least twice the number of indicators considered is used in our analysis. The normalized values for the 16 broadband indicators are calculated for 35 countries: Austria (AT), Belgium (BE), Bulgaria (BG), Czech (CZ), Denmark (DK), Estonia (EE), Greece (EL), Spain (ES), France (FR), Croatia (HR), Ireland (IE), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), United Kingdom (UK), FYR Macedonia (MC), Montenegro (ME), Serbia (SR), Turkey (TU), Albania (AL), Bosnia and Herzegovina (BH) and Iceland (IC). The raw data we used for the analysis was taken from the statistics base Eurostat and national statistics offices of the countries analysed. Calculated normalized numerical values are given in Table 2.

Table 2 Normalized values of the individual indicators

Country	BA1	BA2	BA3	BA4	BD1	BD2	BD3	BF1	BF2	BF3	BF4	BS1	BS2	BI1	BI2	BI3
BE	0.772	0.608	0.278	0.166	0.478	0.907	0.049	0.738	0.500	0.880	0.857	0.711	0.776	0.514	0.697	0.880
BG	0.406	0.319	0.685	0.036	0.062	0.135	0.146	1.000	0.361	0.559	0.744	0.852	0.888	0.221	0.589	0.800
CZ	0.669	0.155	0.520	0.078	0.196	0.287	0.074	0.886	0.528	0.733	0.736	0.346	0.476	0.293	0.609	0.880
DK	0.949	0.530	0.475	0.115	0.640	0.617	0.250	0.514	0.944	0.868	0.945	0.677	0.744	0.874	0.813	0.880
DE	0.879	0.962	0.374	0.874	0.877	0.258	0.083	0.734	0.944	0.832	0.877	0.314	0.426	0.390	0.576	0.880
EE	0.776	0.444	0.857	0.015	0.303	0.328	0.209	0.546	0.444	0.703	0.862	0.162	0.225	0.510	0.775	1.000
EL	0.776	0.741	0.348	0.097	0.641	0.000	0.039	0.756	0.361	0.772	0.766	0.565	0.668	0.527	0.458	0.880
ES	0.630	0.596	0.230	0.491	0.565	0.270	0.064	0.693	0.722	0.751	0.701	0.544	0.641	1.000	0.879	0.733
FR	0.796	1.000	0.131	1.000	1.000	0.126	0.061	0.781	0.611	0.907	0.910	0.613	0.636	0.564	0.531	0.880
HR	0.558	0.524	0.303	0.038	0.489	0.113	0.093	0.406	0.250	0.664	0.756	0.028	0.188	0.331	0.575	0.893
IE	0.805	0.663	0.182	0.107	0.454	0.346	0.164	0.766	0.708	0.961	0.952	0.287	0.408	0.758	0.702	0.573
IT	0.618	0.468	0.848	0.816	0.638	0.000	0.191	0.633	0.833	0.862	0.922	0.092	0.292	0.378	0.587	0.880
CY	0.559	0.394	0.091	0.011	0.642	0.181	0.049	0.393	0.375	0.859	0.807	0.083	0.263	0.267	0.367	0.840
LV	0.655	0.249	0.583	0.005	0.150	0.081	0.093	0.595	0.583	0.847	0.842	0.578	0.662	0.316	0.621	1.000
LT	0.559	0.195	0.758	0.008	0.106	0.084	0.110	0.658	0.444	0.643	0.932	0.520	0.591	0.486	0.738	0.987
LU	0.974	0.793	0.726	0.015	0.874	0.187	0.090	0.371	0.236	0.952	0.922	0.339	0.492	0.384	0.000	0.267
HU	0.654	0.380	0.343	0.062	0.188	0.591	0.064	0.709	0.389	0.330	0.817	0.493	0.566	0.397	0.548	0.933
MT	0.755	0.861	0.502	0.002	0.439	0.840	0.059	0.666	0.000	0.811	0.832	0.247	0.420	0.081	0.305	0.000
NL	0.975	0.633	0.311	0.369	0.629	1.000	0.089	0.779	0.347	0.877	0.864	0.608	0.687	0.981	0.783	0.880
AT	0.784	0.570	0.816	0.072	0.501	0.461	0.231	0.538	0.778	0.955	1.000	0.265	0.426	0.316	0.718	0.880
PL	0.659	0.058	0.742	0.179	0.183	0.280	0.131	0.970	1.000	0.802	0.887	0.238	0.313	0.316	0.728	0.987
PT	0.526	0.637	0.303	0.103	0.270	0.506	0.119	0.664	0.500	0.658	0.734	0.819	0.858	0.630	0.672	0.280
RO	0.467	0.217	0.215	0.080	0.053	0.108	0.077	0.946	0.806	0.799	0.882	0.653	0.728	0.260	0.442	0.827
SI	0.711	0.546	0.270	0.021	0.362	0.392	0.026	0.790	0.167	0.751	0.824	0.326	0.416	0.314	0.898	0.973
SK	0.743	0.135	0.314	0.040	0.153	0.130	0.097	0.798	0.417	0.598	0.618	0.292	0.415	0.238	0.489	0.947
FI	0.900	0.058	1.000	0.086	0.613	0.292	1.000	1.338	0.569	0.913	0.950	0.416	0.504	0.523	1.000	0.880
SE	0.947	0.594	0.438	0.140	0.471	0.383	0.306	0.836	0.722	0.910	0.955	0.526	0.614	0.331	0.686	0.880
UK	0.889	0.841	0.431	0.663	0.756	0.392	0.101	0.915	0.861	1.000	0.877	0.734	0.799	0.269	0.579	0.373
MC	0.520	0.177	0.249	0.004	0.158	0.310	0.000	0.384	0.194	0.174	0.628	0.577	0.666	0.008	0.269	0.680
ME	0.424	0.327	0.855	0.000	0.264	0.035	0.154	0.005	0.417	0.207	0.307	0.059	0.117	0.176	0.494	0.800
SR	0.327	0.568	0.460	0.032	0.210	0.274	0.044	0.000	0.417	0.000	0.606	0.000	0.085	0.192	0.453	0.773
TU	0.342	0.151	0.037	0.321	0.200	0.040	0.024	0.436	0.222	0.766	0.744	0.098	0.255	0.076	0.678	0.333
AL	0.000	0.000	0.444	0.005	0.000	0.072	0.016	0.315	0.139	0.273	0.000	0.010	0.037	0.000	0.494	0.587
BH	0.320	0.243	0.000	0.013	0.131	0.198	0.029	0.070	0.472	0.541	0.023	0.000	0.000	0.143	0.258	0.773
IC	1.000	0.735	0.267	0.002	0.544	0.000	0.201	0.498	0.750	0.883	0.972	1.000	1.000	0.541	0.830	0.880

Source: calculated by author.

We then determined the BAI sub-index using the DEA methodology. BAI index is calculated as the weight sum of the corresponding individual indicators, where the weights are endogenously determined by mathematical linear programming so as to obtain the maximum possible value of the BAI sub-index for each individual country. In this way, certain combinations of the weight for the individual indicators within the sub-index for a country is the best possible combination – there is no other combination of the weights that would enable a country

to achieve a greater BAI sub-index value. In other words, we consider the most favorable situation for each country.

According to (Badasyan et.al, 2011) and (OECD, 2008) the basic DEA model assumed

That sub-indexes CI (as composite indexes) for each country j ($j=0,1,...,m$) are calculated as the weighted sum of n indicators where the weights are endogenously determined to maximize the value of the composite index for each country. Optimal weights should be determined by solving the next linear programming problem:

$$CI_j = \max \sum_{i=0}^n y_{ij} w_{ij}$$

Where

$$\sum_{i=0}^n y_{ij} w_{ik} \leq 1$$

And

$$w_{ij} \geq 0$$

for any $i=0,1,...,n$, any $j=0,1,...,m$ and any $k=0,1,...,m$.

The resulting sub-indexes are ranged between zero (the worst possible performance) and 1 (the best possible performance – benchmark). The optimal calculated set of weights provides the best position for the given country related to all other analysed countries. Any other weighting profile would worsen the relative position of the given country.

In order to avoid some methodological difficulties related to base DEA model, to improve discriminating power among countries receive composite BAI index value of 1 and to reduce the number of linear programming models to solve (i.e., to have as the output only one weight vector), we decided to use the extended MCDA (multi criteria decision analysis)-DEA model proposed in (Hatefi and Torabi, 2010). This model can be formulated as follows:

$$\min M$$

$$M = \max\{d_j, j = 1, 2, \dots, m\}$$

$$M - d_j \geq 0, j = 1, 2, \dots, m$$

$$\sum_{i=1}^n w_i y_{ij} + d_j = 1, j = 1, 2, \dots, m$$

$$w_i \geq \varepsilon, d_j \geq 0, i = 1, 2, \dots, n, j = 1, 2, \dots, m$$

d_j is the deviation of the efficiency of country j from unity when it is under evaluation. The composite sub-index of the j th country is calculated by $C_j = 1 - d_j$, for any $j = 1, 2, \dots, m$. Epsilon (ε) is a non-Archimedean infinitesimal value which present the lower limit of common weights. In order to increase discriminating power of model, we set this value to 0.00001 for BAV, BAD, BSP and BIS sub-indexes, to 0.25 for BAF sub-index and to 0.2 for final overall BAI index.

The calculated numerical values of the individual broadband sub-indexes and total BAI index for each country are given in the table 3.

Table 3 Calculated values of the broadband sub-indexes

Country	BAI sub-indexes					BAI
	BAV	BAD	BAF	BSP	BIS	
BE	0.683	0.875	0.797	0.743	0.820	0.874
BG	0.605	0.223	0.702	0.870	0.656	0.684
CZ	0.656	0.321	0.769	0.411	0.713	0.653
DK	0.851	0.778	0.888	0.710	0.980	0.950
DE	1.000	0.379	0.915	0.370	0.721	0.757
EE	0.904	0.460	0.683	0.194	0.903	0.729
EL	0.722	0.098	0.708	0.616	0.691	0.643
ES	0.654	0.342	0.774	0.592	1.000	0.783
FR	0.872	0.263	0.861	0.624	0.741	0.754
HR	0.536	0.216	0.555	0.108	0.709	0.503
IE	0.649	0.463	0.912	0.347	0.784	0.718
IT	0.998	0.201	0.878	0.192	0.723	0.679
CY	0.410	0.262	0.656	0.173	0.558	0.474
LV	0.676	0.150	0.772	0.620	0.767	0.682
LT	0.699	0.160	0.712	0.555	0.871	0.696
LU	1.000	0.321	0.667	0.415	0.191	0.540
HU	0.592	0.578	0.589	0.529	0.725	0.683
MT	0.780	0.820	0.609	0.334	0.191	0.568
NL	0.859	1.000	0.764	0.647	0.991	0.962
AT	0.920	0.614	0.885	0.346	0.780	0.795

PL	0.766	0.353	0.985	0.275	0.822	0.731
PT	0.549	0.551	0.684	0.838	0.634	0.721
RO	0.409	0.152	0.920	0.691	0.594	0.619
SI	0.603	0.399	0.669	0.371	0.911	0.691
SK	0.586	0.196	0.647	0.353	0.654	0.560
FI	1.000	1.000	1.000	0.460	0.991	1.000
SE	0.847	0.592	0.919	0.570	0.766	0.824
UK	0.967	0.494	0.985	0.767	0.519	0.804
MC	0.431	0.287	0.359	0.621	0.381	0.458
ME	0.689	0.164	0.258	0.088	0.591	0.424
SR	0.489	0.292	0.272	0.042	0.564	0.394
TU	0.300	0.074	0.580	0.176	0.510	0.385
AL	0.214	0.074	0.198	0.024	0.473	0.249
BH	0.214	0.206	0.316	0.000	0.442	0.285
IC	0.784	0.197	0.839	1.000	0.902	0.844

Source: Calculated by author.

4. THE INTERPRETATION OF THE ACHIEVED BAI INDEX VALUES

The ranking of countries according to the calculated BAI index values are given in the table 4 and figure 1.

Table 4 The ranking of countries according to the calculated values of total and individual BAI sub-indices

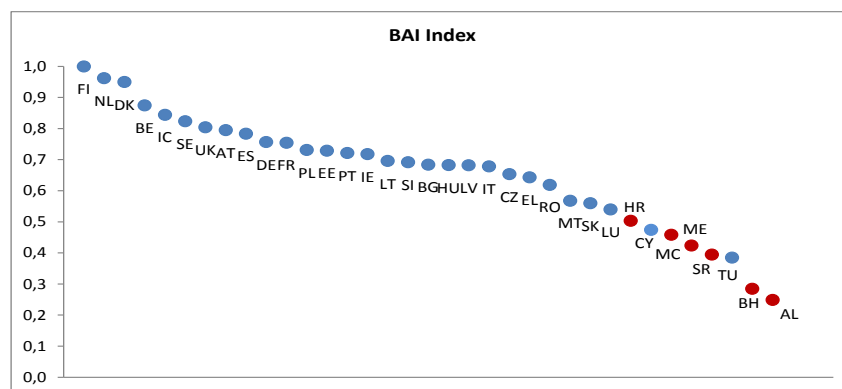
Country	BAI sub-indices					BAI
	BAV	BAD	BAF	BSP	BIS	
FI	1	1	1	17	2	1
NL	9	1	17	8	3	2
DK	10	5	8	6	4	3
BE	18	3	13	5	10	4
IC	12	27	12	1	7	5
SE	11	7	5	14	14	6
UK	5	10	2	4	29	7
AT	6	6	9	24	12	8
ES	21	16	14	13	1	9
DE	1	14	6	21	18	10
FR	8	21	11	9	15	11
PL	14	15	2	26	9	12
EE	7	12	22	27	6	13
PT	27	9	21	3	24	14
IE	22	11	7	23	11	15
LT	16	30	18	15	8	16
SI	24	13	23	20	5	17
BG	23	23	20	2	22	18
HU	25	8	28	16	16	19
LV	19	32	15	11	13	20
IT	4	26	10	28	17	21
CZ	20	17	16	19	19	22
EL	15	33	19	12	21	23
RO	32	31	4	7	25	24
MT	13	4	27	25	34	25
SK	26	28	26	22	23	26
LU	1	17	24	18	35	27
HR	<u>28</u>	<u>24</u>	<u>30</u>	<u>31</u>	<u>20</u>	<u>28</u>
CY	31	22	25	30	28	29
MC	<u>30</u>	<u>20</u>	<u>31</u>	<u>10</u>	<u>33</u>	<u>30</u>
ME	<u>17</u>	<u>29</u>	<u>34</u>	<u>32</u>	<u>26</u>	<u>31</u>
SR	<u>29</u>	<u>19</u>	<u>33</u>	<u>33</u>	<u>27</u>	<u>32</u>
TU	33	34	29	29	30	33
BH	<u>34</u>	<u>25</u>	<u>32</u>	<u>35</u>	<u>32</u>	<u>34</u>
AL	<u>34</u>	<u>34</u>	<u>35</u>	<u>34</u>	<u>31</u>	<u>35</u>

Source: Calculated by author.

The leading country in the Western Balkans in terms of implementation of broadband internet access is Croatia, followed by Macedonia,

Montenegro and Serbia. Serbia is in a better position than Croatia when it comes to the adoption and implementation of broadband Internet access (infrastructure development), but is worse in terms of availability and paying ability or affordability of these services for residents and businesses. Montenegro is in a better position than Serbia when it comes to the degree of availability of this technology by users, different modalities of use of broadband Internet access services and available internet speed for users, but its position was worsened by the service price (affordability). Albania and Bosnia and Herzegovina occupy the last place according to the value of the total BAI Index owing primarily to the unevenly prevalent technology of broadband access among the population, worse infrastructure and the degree of adoption of the given technology by the user in the country.

Figure 1 the ranking of countries according to total BAI index



Source: Calculated by author.

The above sub-indexes indicate exactly the aspects of the application of broadband technology that are the weak points of each of these countries, or to those aspects that need to be paid special attention when creating the economic and political development of the information society and overcoming the digital divide. In Table 5, the calculated weighted values for each indicator are presented for the case of Serbia.

Table 5 Calculated weighted values of individual broadband indicators for Serbia

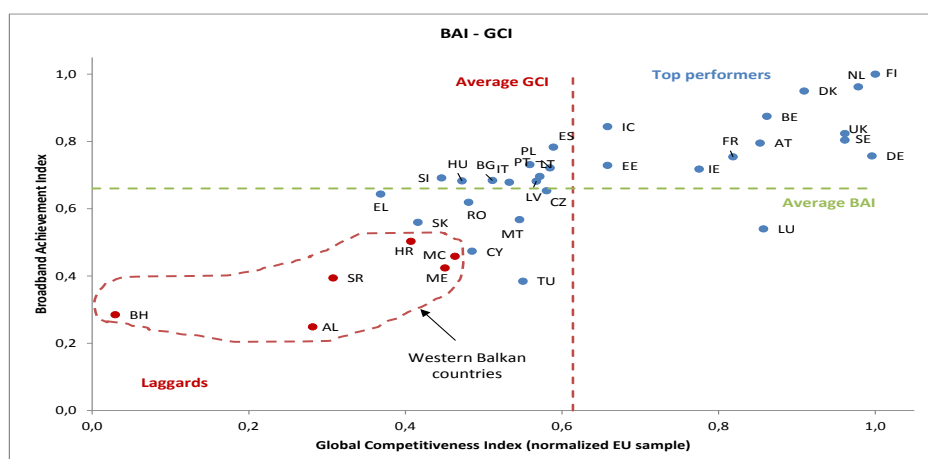
BAV (0.098)				BAD (0.058)			BAF (0.054)				BSP (0.008)		BIS (0.175)		
BA1	BA2	BA3	BA4	BD1	BD2	BD3	BF1	BF2	BF3	BF4	BS1	BS2	BI1	BI2	BI3
0.179	0.083	0.220	0.007	0.000	0.024	0.238	0.000	0.120	0.000	0.151	0.000	0.042	0.050	0.252	0.261

Source: Calculated by author.

It can be seen that within the broadband availability more policy attention in Serbia should be paid to indicator BA4 – Investment in electronic communications. Regarding broadband adoption the most urgent fields required policy attention are increasing of penetration of different type of fixed broadband technologies like xDSL and cable modem technologies. In the field of broadband affordability Serbian government needs to pay more attention to institutional, regulatory and legal framework which is very inadequate – active state regulations create burden on businesses, individuals and households that discourage broadband adoption and make related services less affordable. At the same time, predominantly market share regarding fixed broadband technologies remains covered by the telecom company in the state ownership. The weakest side of the Serbian broadband infrastructure is the broadband speed. Very small part of existing users has and uses internet connection faster than 10 Mbps.

For economic analysis it is very important to analyse if broadband achievement influence on global economic competitiveness of Western Balkan countries. Because of that the simple comparison of the calculated values of BAI Index to the Global Competitiveness Index (GCI) is particularly interesting. Pearson's correlation test indicates that there is a positive correlation between the two sets of index data (BAI and GCI). According to the results, the Pearson's correlation coefficient is equal to 0.797. A brief look at the presented figure and calculated data values shows that Western Balkan countries belong to the "laggard" group regarding their broadband achievement and global economic competitiveness. As can be expected, "top performers" are advanced EU countries except Luxembourg. The BAI value for this country is below the average value because of country's weak position regarding ICT skills – the projected gross enrolment ratio for tertiary education is only 18.4%.

Figure 2 BAI and GCI indexes for EU and Western Balkan countries



Source: Calculated by author.

It seems that the main obstacle to greater use of broadband technology in Western Balkan countries (and thus increasing the competitive advantage of these countries that is based on broadband technology) are not insufficient funds as is often alleged, but rather some non-economic and institutional factors, such as corruption, the lack of complete rule of law and the lack of awareness of the need for a more rapid development of the information society.

The negative effects of the ICT on underdeveloped and developing countries are reflected in the form of two phenomena, namely “digital divide” and “technology trap” (Piatkowski, 2002:10). The information society and economy are not just something to be passively accepted, but a process that should be actively utilized at the right time, which of course is not possible for all countries. Those that are not able to actively embrace the “information economy” will have to accept the fact that between them and the developed countries another barrier is created and the existing gap is increased. This time, such a limitation in the literature called between those who have access to new technology and those who do not is called “digital divide”. The significance that the digital divide will have for the further development of the world economy can be compared to the importance of the division of the literate and illiterate. On the other hand, the underdeveloped and developing countries that

have poorly developed infrastructure to serve information technology (such as Albania, for example) can find themselves in the "technology trap". The information economy cannot develop in countries that do not invest in the creation and continuous improvement of broadband and computer networks.

It is well known that the undeveloped and developing countries are far behind developed countries when it comes to the computer (internet) and communication infrastructure. Specifically, in such countries, yields on information technology and its associated infrastructure are very small, and in such countries considered profitable investment in basic infrastructure (Piatkowski, 2002:12). In addition, in undeveloped countries some forms of "traditional poverty" (lack of basic infrastructure, waste water treatment plants and solid and hazardous waste treatments, improved health and education services) are still greatly expressed. This raises the question should these countries divert the already scarce resources to closing the digital divide (Clark, 2003:15).

In literature, country's institutional framework is often suggested as one of the key factors that can enhance or impede the application of broadband internet in economy. It defines how the government organizes and encourages the development and application of broadband strategies in the one economy. For example, institutional framework in developing economies that is properly set up (even if economic activity slows down or it is in a recession) can ensure that the use of broadband will not record relatively too big decline in comparison to developed economies. If the government does not take an active policy of encouraging the use of broadband, gap between developing and developed economies will grow which is exactly what is shown on previous figure.

As one of interesting and very important relation in further research it should be analysed if there exists positive correlation between BAI sub-indexes showing broadband availability, adoption and affordability and the indexes that indicate the degree of the digital divide in Western Balkan countries. It can be analysed by using DIDIX and TDI indexes as it is proposed in (Hüsing and Selhofer, 2004), (Vehovar, 2006) and (Howard et.al, 2010). There is an example in literature of the analysis showed that between the level of digital divide and the accessibility (affordability) to broadband technology there is a negative correlation (Badasyan et.al, 2011). It would be expected because the increasing

competition in the domain of providing broadband services leads to a reduction of their prices and greater availability for end users. However, increased competition is more expressed in urban than in rural areas and, therefore, on one hand, there is an increase in the affordability of these services, but it could be expected a lower value of the sub-index regarding the level of digital divide.

5. CONCLUSION

Broadband Internet access is increasingly influencing the efficiency and competitiveness of enterprises, and therefore the overall competitiveness of the overall economy in the global market. Broadband Internet access can have a big impact on the increase of the competitive advantage of countries such as the countries of the Western Balkans, because they have a much expressed digital divide. The digital divide in the surveyed countries exists within them (between regions, urban and rural areas, different vulnerable groups and such), and as well as between them and developed countries. Our analysis showed that the BAI Index can serve as a good tool that will allow the classification of goals and priorities when designing the development policies of the Western Balkans countries and the evaluation of accomplished achievements (by comparing to other countries in the region and the European Union). Such policies require additional investment in new ICT, permanent education of population, research and development processes in enterprises, scientific institutions and universities and better legal and institutional framework related to intellectual property rights. Based on recent researches presented in the literature and using the proposed methodology which takes into account broadband availability, adoption, affordability, speed and the dispersion of the broadband coverage within the countries, this contribution provide a more comprehensive picture of global competitiveness of Western Balkan countries and their position on the evolutionary path towards the high economic performance EU countries. The values of the calculated sub-indexes indicate the strong and weak sides of the corresponding aspects of broadband technology implementation and, thus, help when setting further priorities for political intervention not only in the domain of information society building, but also in the improvement of the competitive advantage of the country.

The methodology presented in this paper is only basic. While calculating the BAI Index we did not take into account the degree of broadband technology implementation in enterprises as the main generators for the increase in the competitive advantage of a country. Also, the countries like US, Canada, Japan, South Korea, Russia or China should be included in the analysis in order to perceive the positions of Western Balkan countries compared to other world countries more clearly. In the end, it would be necessary to accurately determine the existence of the digital divide in the surveyed countries. For the purposes of this study we could not do so, because of the lack of statistical data for Western Balkan countries on the regional level or at least on the level of the type of settlement (urban – rural) or at the level of individual vulnerable groups within the countries.

REFERENCES

Badasyan, N., Shideler, D. and Silva, S. (2011), *Broadband Achievement Index: Moving beyond Availability*, Telecommunications Policy, Vol. 35 (December), 933–950

Bertschek, I., Cerquera, D. and Klein, G. J. (2013), *More bits – more bucks? Measuring the impact of broadband internet on firm performance*, [Information Economics and Policy](#), Vol. 25 (September), 190–203

Clark, M. (2003), *e-development? Development and the New Economy*. UNU WIDER WIDER Policy Brief № 7, http://www.wider.unu.edu/publications/policy-briefs/en_GB/pb7/_files/78807311701704847/default/pb7.pdf [Accessed 07/04/2015]

Colombo, M., Croce, A. and Grilli, L. (2013), *ICT services and small businesses' productivity gains: An analysis of the adoption of broadband Internet technology*, *Information Economics and Policy*, Vol. 25 (2013), 171–189

Czernich, N., Falck, O., Kretschmer, T. and Woessmann L. (2011). *Broadband infrastructure and economic growth*. The Economic Journal, 121 (May), 505–532.

European Commission (2003), *SIBIS – New eEurope Indicator Handbook*, www.sibis-eu.org/files/Sibis_Indicator_Handbook.pdf [Accessed 06/04/15]

European Commission (2014), *Monitoring regulatory and market development for electronic communications and information society services in Enlargement Countries, Report 4 – Annex*, <http://www.cullen-international.com/asset/?location=/content/assets/research/studies/2011/11/final-report-4-annex-february-2014.pdf/final-report-4-annex-february-2014.pdf> [Accessed 06/04/15]

Eurostat (2015), <http://ec.europa.eu/eurostat/web/information-society/>, [Accessed 06/04/15]

Fabritz, N. (2013), *The Impact of Broadband on Economic Activity in Rural Areas: Evidence from German Municipalities*, Ifo Working Paper No. 166, http://www.cesifo-group.de/portal/page/portal/DocBaseContent/WP/WP-Ifo_Working_Papers/wp-ifo-2013/IfoWorkingPaper-166.pdf [Accessed 07/04/2015]

Golany, B. and Roll, Y. (1989), *An Application Procedure for DEA*, Omega, Vol. 17 (3), 237-250

Gruber, H., Hätönen, J. and Koutroumpis, P. (2014), *Broadband access in the EU: An assessment of future economic benefits*, Telecommunications Policy, Vol. 38 (December), 1046–1058

Hatefi, S. M., Torabi, S. A. (2010), A common weight MCDA–DEA approach to construct composite indicators, Ecological Economics, Volume 70 (November), 114–120

Howard, P.N., Anderson, K., Busch, L. and Nafus, D. (2009), *Sizing Up Information Societies: Toward a Better Metric for the Cultures of ICT Adoption*, The Information Society, Vol. 25, pp. 208-219

Hüsing, T. and Selhofer, H. (2004), *DIDIX: A Digital Divide Index for Measuring Inequality in IT Diffusion*, IT&Society, Vol. 1, Issue 7, pp. 21–38.

Kolko, J. (2012), *Broadband and local growth*, Journal of Urban Economics Vol. 71 (January), 100–113

Koutroumpis, P. (2009), *The economic impact of broadband on growth: A simultaneous approach*, Telecommunications Policy, Volume 33 (October), 471–485

Mitrovic, Dj., Pokrajac, S. and Tanaskovic, S. (2012), *Does global economic crisis increase digital divide in developing countries? Case of Serbia* in Cerovic, B. et al. (eds.) (2012), *From Global Crisis to Economic Growth. Which Way to Take? – Volume 1: Economics*, CID – Faculty of Economics, Belgrade, pp. 363–387

OECD (2008), *Handbook on Constructing Composite Indicators – METHODOLOGY AND USER GUIDE*,
<http://www.oecd.org/std/42495745.pdf>

Piatkowski, M. (2002), *The Institutional Infrastructure of the »New economy» and Catching-up Potential of Post-Socialist Countries*, TIGER

Working Paper № 16, Warsaw, March 2002,
<http://tiger.edu.pl/publikacje/TWPNo16.pdf> [Accessed 07/04/2015]

Qiang, C. Z. and Rossotto, C. M. (2009). *Economic Impacts of Broadband*. in *Information and Communications for Development 2009: Extending Reach and Increasing Impact*, 35–50. Washington, DC: World Bank.

Vehovar, V. et al. (2006), *Methodological Challenges of Digital Divide Measurements*, The Information Society, and Vol. 22, 279–290.

Whitacre, B., Gallardo, R. and Strover, S. (2014), *Broadband's contribution to economic growth in rural areas: Moving towards a causal relationship*, Telecommunications Policy, Vol. 38 (December), 1011–1023

CHAPTER 19

Ivana Dražić Lutilsky

Faculty of Economics and Business, University of Zagreb, Zagreb, Croatia

Jagoda Osmančević

Faculty of Economics, University of Bihać, Bihać, Bosnia and Herzegovina

PERFORMANCE MEASUREMENT IN HEALTHCARE INSTITUTIONS IN BOSNIA AND HERZEGOVINA

ABSTRACT

In this paper the authors will present activity based costing method as a way for better performance measurement in health care institutions. The main objective of this paper is to show, that for performance measurement in health care institutions, it is necessary to have relevant information about costs. Using different methods for managing costs, information's about costs are significantly different. Health care institutions in Bosnia and Herzegovina apply traditional cost accounting system that uniformly distributes the costs on the cost objects (medical services), which leads to the underestimation and overestimation of the cost prices of some services. Lack of accurate information on the real cost price often leads to wrong managerial decisions, which ultimately negatively affects on the business performance of healthcare institutions, as well as on the satisfaction with quality medical services. Uniformity of distribution of costs makes it difficult for cost objects to identify the non-value added services and processes. To examine the level of satisfaction with performance measurement in health care institutions, the research based on the questionnaire and interview was conducted in the year 2011. The questionnaire was sent to all health care institutions in Bosnia and Herzegovina, more precisely to the managers of the health care institutions and with some the interview was done. The authors have set the hypothesis that performance measurement is still undeveloped in healthcare institutions of Bosnia and Herzegovina.

Keywords: performance measurement, costs, Activity-based costing, health care institutions

JEL classification: M41, I15, H51

1. INTRODUCTION

In recent years, the efficiency of the management in health care services and the system of quality in health care institutions significantly increased. Patients expect more from healthcare providers and higher standards of care. At the same time, those who pay for health services are increasingly concerned about the rising costs of health care services, but also the potential ineffectiveness of the health care system.

Consequently, there is a broad interest in understanding the ways of efficient work of health care management and development of practices in order to improve current approaches in the management and implementation of health care services. Cost management through the development of an internal accounting is recognized as an adequate way of controlling and reducing or increasing costs and shortcomings of health care services (Doyle et.al, 2004:3).

As a result of past attempts to control the cost of health care services managers around the world started to notice certain accounting methods as well as new methods of cost accounting that enables cost-effective allocation of health care resources. Activity Based Costing method (hereinafter ABC method) is a system that allows control of costs by more objective and comprehensive manner.

Health care institutions in Bosnia and Herzegovina use traditional cost accounting system that uniformly distributes the costs on medical services, which results in underestimation and overestimation of the cost of certain services. The lack of accurate information on the actual cost leads to wrong management decisions, which ultimately negatively affects the performance of the health care institutions, as well as the satisfaction of users with the quality of medical services.

Uniformity schedule costs on services make it difficult, also, identification of services and processes. Health care institutions, as business systems, appear in the continued role of losers, because of the impossibility of fulfilling the crucial goals of the business system. They

realized losses from operating activities primarily due to inability to cover its operating costs (provision of medical services) with operating revenues (contributions for health insurance), or due to the impossibility of identifying the actual cost of services provided and the elimination of non-value added services and processes.

Application of modern accounting system as ABC method in the function of development and implementation of cost management will increase the business performance of health care institutions on the basis of reasonable decisions resulting from the elimination of the shortcomings of traditional accounting systems.

The ABC method, unlike traditional systems, is eliminating the uniformity allocation of costs and to each service assigns costs which service has in fact caused. This will lead to a number of positive trends in the business of health care institutions, which will primarily be reflected in the following (Osmančević, 2011):

- making the right decisions based on real costs which will contribute to the achievement of economy, efficiency and effectiveness, as a measure of the achieved degree in cost control, but also as an expression of business success;
- increase business efficiency, ie. the switch from losers to winners, minimizing and eliminating losses from business activities resulting inability to cover its operating costs with operating revenues, identification of the actual cost of provided services and the elimination of non-value added services and processes; and
- increase business performance by developing a system for performance measurement expressed through cost reductions in development and implementation of cost management, reviewing costs, re-engineering business processes and increases the quality of service. All of that offers health care institutions at the same time the satisfaction of users with provided health care services.

Therefore, the objective of this paper is aimed to show that increase of performance measurement of health care institutions could be achieved through development and implementation of cost management based on modern accounting system – ABC method.

2. REASONS FOR THE IMPLEMENTATION OF ABC METHOD IN THE HEALTH CARE SYSTEM

Application of ABC method helps in calculating the unit cost of treating patients. Also, it gives the possibility of determining the cost of activities that are not directly related to medical services, as well as the activities of administrative character (monitoring the patient's medical record). In addition, provide valuable information about the type and quantity of used resources and determine potential sources of cost reduction, while maintaining a level of quality.

A model for the calculation of direct costs can represent a stable base for decision-making of management in health care institutions. Implementation of ABC methods in the health system requires not only changes as a result of quantitative changes, but also changes in the functioning of the organization. According to Doyle et.al. (2004:17-18) the most important reasons for the implementation of ABC methods in the health system are detailed information on costs, changes in the mechanism of financing, improvement of relations with insurance companies and enhanced profitability.

Benefits of ABC method for the distribution of all costs incurred are very understandable and accepted in health care institutions. Hospital systems have agreed that use of ABC method for processing costs allows more accurate calculation of costs, and improved insight into the calculation of costs, their cause and behavior of employees. Also, usage of the ABC method promotes a more efficient use of hospital resources, fairer prices charged to patients for certain treatments.

It is also improving relations between administrative bodies (Ministry of Health) and health insurers on the one hand and the hospital, on the other hand, highlighting areas that do not contribute to the value added, increasing management control over the operation of the hospital employees, analyzing the profitability of the treatment of the particular patient, encouraging constant evaluation of planned and realized (because they are associated with activities within the hospital system) (O'Reilly et.al, 2012:82).

2.1. Experience in the application of the ABC method in European Countries - England, Finland, France, Germany and Ireland

American program "Medicare" was introduced in 1983 and it was the first federal program to introduce adjustments to the complexity of health care institutions by using the ABC model for financing health care services. The system is used to control the complexity of the work and resulted in a diagnostic - therapeutic procedure (DTP), classification system that facilitates the grouping of patients based on individual patient treatment and necessary costs (Wiley, 2005).

Over the past decade, the ABC method has become the predominant mechanism of payments in European hospitals. The main reason for the move to the ABC system is to establish a transparent link between funding and activities. This relationship was unclear to many European health systems where global budgets were the main mechanism of financing hospitals. Economic theory argues that through the payment of hospital based on a fixed interest rate per unit, activity system based on activities should provide a financial incentive in order to increase the activity which is absent in the global calculations.

There is a difference in the motivation for the introduction and adaptation of the ABC model in those five European countries - England, Finland, France, Germany and Ireland. These countries were chosen in order to show that the implementation of the ABC model in health institutions, with different organizational structures in the financial system the hypothesis that performance measurement is still undeveloped in healthcare institutions of Bosnia and Herzegovina, has some similarities and differences between the adaptation and implementation of the ABC system.

ABC method in England, France and Germany is following more conventional model then Finland and Ireland, in the sense that prices are fixed in advance. In Finland, the ABC method is used to determine the price mainly for medical billing, although these prices may be subject to subsequent changes to ensure the allocation of adequate funds to hospitals (Vuorenkoski et.al, 2008; Hakkinen, 2010).

In Ireland, the system is used for adjustment of hospital budgets to the complexity of the activities and achieving success (McDaid et.al, 2009;

Brick et.al, 2010). Table 1 show when and how the system of financing based on the activities has been initiated in selected European countries.

Table 1 Timeline and process of financing based on the ABC method

Year of initial introduction of abc method	England (2003-2004)	Finland (1997)	France (2004-2005)	Germany (2003-2004)	Ireland (1993)
Implementation of ABC method	The process of introducing the ABC method in stages through four year period up to 2007 to 2008	It was introduced on a voluntary basis in individual hospital districts	Gradual introduction to the public hospitals 2004-2008	Introduced in four phases	Gradual introduction to the public hospitals
Compensation for work done	Budget and contracts	Payment per case and daily rates	Public hospitals payes on the basis of budgets of private hospitals: daily rates and costs for provided services	Payment per case and daily rates	Budget
FEATURES OF THE HEALTH CARE SYSTEM					
Access to hospital services	Universal	Universal	Universal	Universal	Universal
Providing hospital services	Mainly public	Public and private	Public and private	Public and private	Mainly public
Main source of funding	Taxes	Taxes	Social contributions	Social contributions	Taxes

Source: In accordance: O'Reilly, J., Busse, R., Ha'kkinen, U., Or, Z., Street, A., Wiley, M. (2012) Paying for hospital care: the experience with implementing activity-based funding in five European countries, Cambridge University Press, UK. p.7

In Ireland since the introduction, the application of the ABC method has increased three times compared to the number of hospitals that use this system. In Finland, the transition from the system payment of price per day to payment per case is the result of the 1993 reforms, according to

which state subsidies for health care services to be paid by the municipalities, which are funding hospital services for its residents. After the initial adoption of DTP system in 1997, in Finland 13 of 21 hospital districts is using ABC method (Hakkinen, 2010; Kautianen et.al., 2011). In England, France, and Germany, the ABC system was introduced on a national level starting in the 2003 and 2004.

The introduction of the ABC method was viewed as a way to encourage competition between public and private service providers, thereby creating a competitive environment (O'Reilly et.al, 2012:77). ABC method was introduced in stages over several years, hospitals and allowing investor's sufficient time for adjustment, thereby reducing the likelihood of eventual rejection system. Initially, the application of the ABC method was limited to individual hospitals (funds for the establishment in England) and the relative low participation of hospitals (England and France), with an initial losses and restrictions (Germany) (O'Reilly et al.; 2012:79).

Over time, hospitals are moving away from the hospital payout rate, which is in line with Shleifer's theory, which argues that the potential improvement of activities is maximized when the payout rate is completely independent from hospital costs (Shleifer, 1985). There are some common goals in the implementation, although they vary from country to country.

For example, in England, it is a priority to increase efficiency; while in France (where private hospitals play an important role in the performance of operations and where there is no problem with waiting) emphasis is on increasing transparency and fairness in financing between public and private service providers and in the providing of quality services. Table 2 shows some of the common or individual goals and policies for the introduction of the ABC method.

Table 2 Policy objectives for the introduction of funding based on the ABC method

OBJECTIVES	ENGLAND	FINLAND	FRANCE	GERMANY	IRELAND
Increase efficiency	+		+	+	+
Expanding activities	+				
Providing easier choice on services to the patients	+				
Reducing the waiting list	+				
Improving quality of service	+		+	+	
Assuring fair resource allocation according to geographical area and within health care system		+	+	+	+
Improving transparency for hospitals financing, activities and management	+		+	+	+
Covering the costs of provided services		+			
Creating equal conditions for payments to public and private hospitals	+		+		
Improving documentation about internal processes which will increase management influence what will increase efficiency and service quality				+	
Making causality relation between activities and services	+	+			+

Source: In accordance to: O'Reilly, J., Busse, R., Ha'kkinen, U., Or, Z., Street, A., Wiley, M. (2012) Paying for hospital care: the experience with implementing activity-based funding in five European countries, Cambridge University Press, UK. p.78.

In a relatively short period of adoption of the ABC method, in five European health care systems, contributes to improving efficiency in complex hospital sectors and helping to achieve sustainability of health care system. The future direction of the ABC method is clear; further adjustments are necessary to fully consider the increasing emphasis on quality of care and creating value. The ABC method also is providing more accurate data for performance measurement of hospitals.

3. RESULTS OF EMPIRICAL RESEARCH

To examine the level of satisfaction with performance measurement in healthcare institutions, the research based on the questionnaire and interview was conducted in the year 2011. The questionnaire was sent to all healthcare institutions in Bosnia and Herzegovina, more precisely to the managers of the healthcare institutions and interviews were done

with those managers. The authors have set the hypothesis that performance measurement is still undeveloped in healthcare institutions in Bosnia and Herzegovina. The sample was 90 health care institutions (public hospitals) in Bosnia and Herzegovina and 50 institutions were involved in research. That provide a 55,55% response rate. During the research on the field, there were conducted individual interviews with managers of health care institutions, in the course of which they were asked questions related to the business performance of the health institutions. Frequency responses are shown in the following table:

Table 3 Frequency response of managers of health institutions on business performance

No .	Question:	Frequency response in %		
		Yes	Maybe	No
1.	Do you think that your health care institution has been operating successfully, according to the level of achievements of results in business operations?	5	25	70
2.	Do you think that the operating costs are the reason for this?	55	35	10
3.	Do you control the level of operating costs?	70	25	5
4.	Do you think that the operating costs of your health care institution can be managed?	65	15	20
5.	Do you study and re-interrogate the level of operating costs?	22	18	60
6.	Are yours information's about operating costs taken from accounting useful for making decisions?	15	50	35
7.	Do you need different information's about operating costs for making business decisions?	30	65	5
8.	Have you ever heard about application of ABC method in health care institutions?	5	10	85

Source: conducted by authors

From the Table 3 it is visible that managers of health care institutions that were involved in the research believe that their institutions are not operating successfully and that even 55% thinks that operating costs are the reason for that. Even 70% of managers believe that they are able to control all operating costs but since 60% of managers do not re-interrogate the level of operating costs, it can be concluded that it is a

contradictory answer and that they do not control costs in the real manner. They are relying that all costs will be compensated through state financing of health care services. To support that thought, from question 6 it is obvious that managers are not sure whether information about costs is coming from reliable source for decision making process and for control of costs. Question 7 and 8 are showing inadequacy in manager's knowledge about costs and cost allocation system that could be used in health care institutions for better decision making process and measuring performance.

The results of conducted research have shown that healthcare institutions in Bosnia and Herzegovina realized operational losses primarily due to the inability to cover operating costs through contributions for health insurance. In essence, operational losses are resulting from the inability to identify the real cost of services provided, the inability to eliminate non value added services and activities, inability to monitor the efficiency of performing activities or quality of activities performed.

Measuring the performance of health care institutions is a key prerequisite for the successful management of health institutions and their transformation from existing in a certain desired feature. Application of the integrated cost management system based on activity accounting and activity based management are always aspiring to improve the current situation. Because it will create conditions for the implementation of continuous quality improvement in health care institutions since they are focused on increasing business performance of healthcare institutions based on developing lasting relationships with users of medical services, providing high quality medical services at low cost, competence development of employees to continuously improve the process and quality of the development in the application of information technology, database and operating system.

Taking into account the frequency response of managers of health care institutions during individual interviews and responding to the questionnaire, but also that health institutions in Bosnia and Herzegovina, as business systems, are financially instable, illiquid or have a bad financial position and bad business performance, it can be said that the establishment and maintenance of ABC method is a *conditio sine qua non* for management for effective business performance of health care institutions and cost management.

4. CONCLUSION

Health care institutions operates in conditions of growing competitiveness, health needs, as well as increasing expectations of patients and taxpayers who are forced to look for new and more effective management tools and methods to reduce costs. One way of achieving these goals is the application of the ABC method, which is increasingly recognized worldwide as a method that allows managers and access to reliable, detailed and necessary information on costs. The current trend of rapid change leads to increased competitiveness of the healthcare industry and health care needs, as well as increasing expectations of patients. The starting point for the management of health care institutions are costs relevant for decision-making and it is important to implement ABC method in the health care institutions because of its benefits and advantages in providing accurate and objective financial and non – financial data. Data obtained using the ABC method can be used to determine the degree of consumption of resources, their distribution among different organizational units, and analysis of variations that occur between the planned and occurred costs and to identify those activities that provide added value.

In the analysis of the application of ABC methods in health care systems, we notice differences in the methods of implementation of the ABC methodology, techniques of data collection and the environment in which the ABC method is implemented. There are many studies focusing implementation of the ABC method to a single procedure of treatment, while the other considered the same as a part of the department, and even the entire hospital system. Because of the significant differences between individual medical procedures and departments in hospitals, the application of the ABC method is complex and unique.

The management of the hospital, which is considering the introduction of the ABC method as an instrument of support for the efficient operation of the hospital and performance measurement, will face a number of obstacles. Hospital, as an object implementing the ABC method has a more complex structure of output (services), users, activities and financial flow from ordinary production company. Making appropriate cost structures, the structure of activities and cost drivers requires detailed knowledge and study of the processes within the

hospital system for the application of ABC methods at the organizational level. Detailed knowledge of the hospital system will help the management of hospitals that effectively uses limited resources and saving the rising costs of health care services. Many of the problems of the health care system can be solved by precise cost information and efficient management. The hypothesis that performance measurement is still undeveloped in healthcare institutions of Bosnia and Herzegovina was confirmed, due to the fact that 85% of questioned managers have never heard about ABC method, especially as a mean for performance measurement.

REFERENCES

- Brick, A., Nolan, A., O'Reilly, J. and Smith, S. (2010), Resource Allocation, Financing and Sustainability in Health Care: Evidence for the Expert Group on Resource Allocation and Financing in the Health Sector, Dublin: Department of Health and Children and Economic and Social Research Institute.
- Clarke, P.J., Thorley Hill, N., Stevens, K.,(1999). Activity-Based Costing in Ireland: Barriers to, and Opportunities for Change, Critical Perspectives on Accounting, Vol.10, Issue 4, 443-468
- Doyle, G., Duffy, L., McCahey, M. (2004). An Empirical Study of Adoption/Non adoption of Activity Based Costing in Hospitals in Ireland, University College Dublin, 3
- Hakkinen, U. (2010). Financing of hospital care in Finland, Euro Observer, 12(3): 10–12
- Kautianen, K., U. Hakkinen and J. Lauharanta (2011). Finland: DRGs in a Decentralized Health Care System, in R. Busse, A. Geissler, W. Quentin and M. Wiley (eds), Diagnosis Related Groups in Europe. Moving Towards Transparency, Efficiency and Quality in Hospitals, Maidenhead: Open University Press.
- McDaid, D., Wiley, M., Maresso, A. and Mossialos, E. (2009). Ireland: health system review, Health Systems in Transition, 11(4): 1–268

O'Reilly, J., Busse, R., Ha'kkinen, U., Or, Z., Street, A., Wiley, M. (2012). *Paying for hospital care: the experience with implementing activity-based funding in five European countries*, Cambridge University Press, UK, 82

Osmančević, J. (2011). *Primjena sistema obračuna troškova po aktivnostima u zdravstvenim ustanovama USK kao uslov povećanja uspješnosti poslovanja*, magistarski rad, Univerzitet u Bihaću, Ekonomski fakultet Bihać

Shleifer, A. (1985). A theory of yardstick competition, *RAND Journal of Economics*, 16(3), 319–327

Vuorenkoski, L., Mladovsky, P. and Mossialos, E. (2008). Finland: health system review, *Health Systems in Transition*, 10(4): 1–168

Wiley, M., (2005). *Diagnosis Related Groups (DRGs): Measuring Hospital Case Mix*, in P. Armitage and T. Colton (eds), *Encyclopedia of Biostatistics*, Chichester: John Wiley & Sons, Ltd.

CHAPTER 20

Davor Vašiček

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Gorana Roje

Division at State Asset Management Office' Zagreb, Croatia

Dragan Mišetić

Zagreb, Croatia

GOVERNMENT ASSET MANAGEMENT AS AN ELEMENT OF THE ECONOMIC PROSPERITY IN WESTERN BALKANS: CROATIA'S UNDERGOING REFORM EXAMPLE

ABSTRACT

Public sector efficiency is one of key factors of competitiveness of the national economy. According to IMD methodology, efficiency is monitored through five complex and broad areas of public finance, fiscal policy, institutional framework, business legislation and societal framework. Raising the level of public sector efficiency is a global process, which has been acknowledged under the phrase "new public management" worldwide and in Croatia as well. In this context, a very important role in generating public sector efficiency is attributed to government asset management that needs to be observed not only as a resource for fulfilling public needs, but also as an economic resource and potential for generating public revenues.

The setup of the State property management Office has generated some of the key institutional preconditions for quality asset management. This, however, posted additional dilemmas concerning assets' accounting recognition and valuation, decisions regarding more productive asset usage, and the analysis of asset marketability possibilities. Government asset management need to be viewed directly in function of stabilization and public debt reduction.

In addition, the effective government asset management is a very important generator for creating a supportive entrepreneurial environment, and raising the competitiveness of the entire economy as well. In addition to reducing the budgetary burden, efficient government asset management

implies transparency that leads to legal security for investors and entrepreneurs as asset users and buyers. This, in addition to combating corruption, assures a strong contribution to the business sector efficiency, positive business climate and investment cycle initiation.

The lack of reliable information on government assets obscures determining assets' value and asset portfolio performance evaluation. Thus, any management process and government asset management needs to be based on quality information generated by the management accounting process. The specificity of public sector management and financial reporting is often related to the specific long-term nonfinancial assets group comprising of infrastructure and military asset items, heritage assets and natural resources.

The management of the specific government assets requires in-depth knowledge of accounting procedures as a precondition for a standardized application of valuation principles and methods for both private and public sector assets by comparing their closest equivalents.

Starting from the concept that public authorities have to be fully accountable to the public and that the whole of government assets need and can be effectively managed, developed countries have embarked in the practice of putting into use various types of government asset items, under the supervision of professional management, with a view to ensuring quality public services and welfare to the citizens. This paper presents the international good practice and provides scientific and expertise based views in a form of valuable suggestions to current authorities' efforts in pursuing government asset management reform in Croatia.

Keywords: economic prosperity, government asset management, public sector reforms, government accounting, Croatia

JEL classification: H82, H83, G38, 010

ACKNOWLEDGEMENTS

This work was conducted under Croatian Science Foundation's research project titled 'Accounting and financial reporting reform as a means for strengthening the development of efficient public sector financial management in Croatia' [project no. 8509]. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of Croatian Science Foundation.

1. BACKGROUND

Croatia has been going through a period of deep recession since 2009. The prolonged decline of economic activity for five consecutive years has reduced real GDP by 12%, and a slow recovery is foreseen from 2015. In 2013 economic activity decreased by 1% more (in addition to 1,9% recorded in 2012) due to the drop in household consumption and gross capital formation. Considering that the decrease of export was more prominent than the decrease of import, the net export component is slightly negative. After the period of three year decrease, a mild increase was recorded in government consumption. Due to the low home demand, the inflation of consumer prices decelerated from 3,4% in 2012 to 2,2% in 2013¹. After the analysis in 2014 the European Commission concluded: “Croatian companies operate in an environment that does not enhance productivity or investments. Among the most important impediments to the entrepreneurial activities are administrative and regulatory burdens, slow justice system, numerous para-fiscal burdens, weak investor protection and political instability. High dependence on public subventions, financially weak companies that are badly managed in many sectors, and relatively weak corruption prevention mechanisms, create an uneven playing field for private investors.”²

According to the results of the “World Competitiveness Yearbook 2014” – survey carried out by the International Institute for Management Development (IMD) of Lausanne, of which the National Competitiveness Council in Croatia is a partner institute - Croatia is ranked 59th out of the 60 global leading economies. This year’s decline by one place puts Croatia among the worst countries in terms of its competitiveness among developed countries. The competitiveness rankings are based on more than 300 criteria, 2/3 of which are statistical indicators, and 1/3 is related to the opinion polling of businessmen. IMD’s methodology is based on the analysis of four factors of competitiveness: economic performance, public sector efficiency, business sector efficiency and infrastructure, and five indexes for each factor³.

Qualitative value assessment of businessmen is very important. According

¹ European Commission (2014). The evaluation of the 2014 National Reform Programme and the Convergence Programme for Croatia, working document, Bruxelles, p. 3.

² Ibid.

³ For more information check the National Competitiveness Council website: <http://www.konkurentnost.hr>, and the results of the survey can be downloaded from the IMD World Competitiveness Center website: <http://www.imd.ch/wcy>.

to their opinion the following factors were the most attractive: qualified labour force, reliable infrastructure, high level of education, good corporate management, accessibility of financial services, strong tradition of research and development. On the other hand, the worst evaluated factors were: capability of the government, the tax system, stability and predictability of policies, and effectiveness of the legal and overall business environment.⁴

As a new member state of the European Union, the Republic of Croatia needs to compare its competitiveness ranking to other EU countries. According to the second report “Europe 2020 – Member States’ Competitiveness Report”, published by the World Economic Forum, Croatia occupies 26th place, which indicates low competitiveness level within the European context.⁵ The Report assesses the impact of the policy frameworks for *smart and sustainable Europe*, using the value assessment tools for developed countries worldwide as well as for individual EU member states and candidate countries.

2. PUBLIC SECTOR MANAGEMENT AND COMPETITIVENESS

The wider context of this paper is public sector efficiency as one of key factors of the national economy competitiveness. According to IMD methodology, efficiency is monitored through five complex and broad areas of public finance, fiscal policy, institutional framework, business legislation and societal framework. Raising the level of public sector efficiency is a global process, which has lately been acknowledged under the phrase “new public management” in Croatia as well.

The feature that determines the concept *New public management* is that it assures more efficient management within the public sector in a scope of achieving better results in performing different activities. Implementing norms and business attitudes and manners more common for the private sector, in the public sector, usually means enhancing the role of private sector entities in performing public sector activities - such as managing a public asset portfolio conjoint within a single, central asset register containing a single source of reliable information about each single asset and about assets as a group for the purpose of the efficient use of the asset; financing investments into the infrastructure; organizational and ownership

⁴ 2014 IMD annual report on competitiveness: <http://www.konkurentnost.hr>.

⁵ Consult:

http://www.europskifondovi.eu/sites/default/files/dokumenti/WEF_Europe2020_CompetitivenessReport_2014.pdf.

rearrangements of the public sector activities, etc.

International trends indicated below are being highlighted in the *New Public Management* context⁶:

- repositioning of the government and modifying its role in the system (going concern principle appliance);
- greater competitiveness in rendering public services and an efficient use of public resources to meet the public needs (actual public deliveries pricing, presenting real results of operations through capitalisation of non-financial asset procurement costs and presenting depreciation expenses during the useful age);
- encouraging a more efficient management based on the impact value assessment (decisions on economic selection of projects);
- segregating contracting from service delivery;
- gradual reduction of the role of government as a direct supplier of public services through outsourcing, public-private partnership agreements (outsourcing practice), etc.
- financing on the basis of the achieved results, not only on the basis of inputs needed to achieve the results (performance based management development);
- public sector accounting information system reforms fostered by convergence of public and private sector accounting and financial reporting, and international and European trends of accrual accounting basis appliance in governmental accounting.

Since information is the most important resource in the managing process, a comprehensive accounting information system is crucial for successful public management performance. In that manner the accrual accounting basis represents a tool for forming a relevant, complete and qualitative information basis and as such is a catalyst of the public sector accounting information system reform as an evitable part of the NPM set of reforms (Barret, 2004).

Aside the aforementioned principles, the long – run reform processes, all based on the NPM theory, have been mostly guided by the accrual accounting basis implementation issue and in that manner they have resulted in: unified and standardized information structure and reporting

⁶ Adjusted in accordance to Azuma, N. (2003): *The Role of the Supreme Audit Institution in NPM: International Trend*, Government Auditing Review, Volume 10.

procedures; accountability delegation; easier control over managing the restricted resources and government entities' activities, and international comparability of public expenditures.

3. PUBLIC SECTOR (GOVERNMENT) ASSET MANAGEMENT

Besides the aforementioned, efficient public asset management is an important factor for creating a stimulating business environment and improving the overall competitiveness ranking. Besides the increase in budgetary burdens, efficient public asset management implies transparency that guarantees legal security to businessmen as users and investors. In addition to the suppression of corruption, it increases the efficiency of business sector, improves business climate and kick-starts eagerly desired and needed investment cycle.

The financial impacts of the public asset management on the Croatian budget are not satisfactory. According to EUROSTAT, Croatia is ranked 5th in the world for the public asset value – behind Norway, Finland, Iceland and Sweden, but the bulk of revenues brings in less compared to other countries. Public asset value in Croatia is estimated to 31 billion euros, but the revenues amount to only 0,7% of GDP.⁷

Public asset management is a set of strategies aimed at preserving public assets and boosting economic growth by implementing optimal solutions. Government assets ensure the control over natural resources, cultural and other heritage, important trading companies and other resources in the government portfolio, as well as revenues that can be used for common goods. As such, government assets are important tools for achieving strategic development goals in regional, infrastructure, cultural, health and other development policies. Efficient public asset management encourages economic growth, increases economic stability and improves the overall quality of life.

Starting from the concept that governments are accountable for providing quality public services to their citizens at the most favourable terms, and are, among other issues, responsible for managing a diversified public asset portfolio, many developed countries embarked in public sector asset management reform processes. This implied professional management supervision and professional judgment regarding asset valuation and

⁷ Nevena Mimica, a comment on Asset management Strategy document (Strategija upravljanja i raspolaganja državnom imovinom do 2017., <http://www.politikaplus.com/mobile/novost/77322/Nevena-Mimica-Po-vrijednosti-drzavne-imovine-peti-smo-u-Europi-a-problem-je-sto-nemamo-korist-od-nje>.)

utilisation in order to accomplish the optimal benefit-cost ratio of public assets for the public asset owners – the citizens, as well as assuring quality public services at the most favourable terms (Roje, 2014). Precisely managing public assets implied making decisions on their utilisation, achieving good asset management outcomes as well as making decisions regarding the most productive use of each asset item but also deciding on further usage of net revenues generated by the assets' usage. Therefore, government asset register set up, asset management and asset supervision centralization form part of wider public sector financial management reforms.

Each country has its own public management objectives and public asset management practice. Public asset management policies differ due to cultural and historical heritage, the size of the public asset portfolio, the organisation of general government, the level of democratisation, the perceptions of the public management role and public sector accounting practices. Despite these differences, there are some common preconditions that are considered necessary for conducting public asset management activities efficiently.

These are (Roje, 2014.):

- public asset registry
- public asset classification
- public asset recognition and measurement
- public asset portfolio construction
- institutionalisation and professionalism in public asset management, and
- cost and outcomes measurement.

These preconditions (public asset recognition and measurement and cost and outcomes measurement in particular) depend on the existence and quality of the regulatory financial reporting framework. Croatia is particularly interesting to study because of the degree of governmental accounting normative that stems from public finance centralization and the fact that public expenditure is financed through the central Budget. Therefore, the legislative frame regarding governmental accounting development is determined by the Budget Act as well as by additional regulations. Although the use of IPSAS application is not obligatory, the implementation of some IPSAS accounting procedures has been recommended by the Croatian Budget Act. This assures legislative support

for a successful IPSAS use or the possible preparation of national public sector accounting framework based on IPSAS guidelines.⁸

Despite the age of information technology and worldwide computer use, many public authorities do not have asset registers that would enable them to have a true reflection of the total value of assets owned, or their public asset registries are incomplete. Even though the extent to which a public asset registry can contribute to more efficient public asset management can be debated, it is obvious that without a database that includes all financial and other data on public assets, making final decisions on certain public management actions is not possible. An incomplete record of all public assets makes the process of monitoring and controlling asset use rather difficult and enables the use of public assets without prior valuation and without scrutinising public needs. However, achieving the level of accountability, in terms of assuring that government knows what it owns, where it is and what it has been used for is a precondition for public asset recognition and measurement for accounting purposes. While, a level of accountability for managing public assets can be achieved to a certain point without any evaluation of the assets and without consolidating the assets financially, making decisions regarding new and different ways of using the assets cannot.

Prerequisite to asset valuation is to define the purpose of assets use as a starting point to expected alternative asset use outputs measurement. The records of each type of government assets (recognition, valuation and the means of asset use) should assure and contribute to enhancing accountability in the asset management process.

Next paragraph presents current stay of play and economic and financial legislation development as a prerequisite for efficient state asset management in the function of competitiveness.

3.1. Government assets - concept and classification

Government assets in the Republic of Croatia are being classified, recorded and valued in an insufficiently adequate manner. The State Budget General Ledger fails to incorporate the full data on assets owned

⁸ As far as the business sector is concerned, national financial reporting accounting standards in Croatia were developed in 2007 and enacted in 2008, primarily as a support for small and medium entrepreneurs that found it hard to follow the IFRS – International Financial Accounting Standards. Listed companies have been obliged to follow the IFRSs. National financial reporting accounting standards in Croatia are called Hrvatski standardi financijskog izvještavanja (HSFI).

by the Republic of Croatia, a fact also pinpointed by the State Audit Office in its report on audit of the 2010 Republic of Croatia's State Budget Execution Annual Report. Asset-related data are being recorded in balance sheets, off-balance sheet and analytical records of competent budget and extra-budgetary users, which has been presented in some degree in the consolidated Balance Sheet.

While documentation on government assets has been dispersed among various records of the government institutions, records for certain types of government assets are either non-existent or incomplete. For some public sector assets, it may be difficult to establish their market value because of the absence of market transactions for these assets. Some public sector entities may have significant holdings of such assets. While it is very difficult to place a meaningful and reliable value on specific public assets (e.g. heritage assets and natural resources) for the balance sheet, and while the process of valuing such assets might be very expensive, the fact that organizations are required to report on how they are caring for specific public assets will ensure that no one could dispute the assets' value to the citizens (Smith, 2007).

For the purpose of gathering asset records in the State Treasury General Ledger and compiling the consolidated state balance sheet, it is necessary to create the register of government assets that are recognized, valued and recorded in accordance with the international criteria, positive practice and relevant budget classifications applied internationally in the state accounting financial reports. One of the basic preconditions for the asset management of a well compiled government asset registry is the standardization of the presently available but not standardized classifications. Government assets are classified differently in the Budget Act and in the Law on public sector asset management and distribution in the Republic of Croatia, and the database of the Central Register differs from the types of assets listed in the Law on public sector asset management and distribution in the Republic of Croatia.

According to the Law on public sector asset management and distribution in the Republic of Croatia, public sector assets are:

- 1) shares and stakes in enterprises
 - owned by the Republic of Croatia
 - owned by the Croatian Pension Insurance Institute
 - owned by the State Agency for Deposit Insurance and Bank

Resolution

- whose holders or owners are institutes, agencies and other legal entities funded and owned by the Republic of Croatia
- 2) property
 - owned by the Republic of Croatia and managed and distributed according to the Law on public sector asset management and distribution in the Republic of Croatia and other special laws.
 - owned by institutes, agencies and other legal entities founded by the Republic of Croatia.
- 3) movables and credits
 - assets of the former Agency for the public sector asset management acquired under the article 49, paragraph 3 of the Law on public sector asset management (Official Gazette, No. 145/10 and 70/12)
- 4) other assets.

The Law defines all types of public sector assets, not entirely listed in the Central public sector asset register that should gather all types of public sector assets in the ownership of the Republic of Croatia:

- shares and stakes in enterprises
- property, including property held or owned by the Republic of Croatia, institutes, agencies or other legal entities founded by the Republic of Croatia, and whose management and distribution is regulated by a special law
- concessions
- cultural heritage
- agricultural land and forestland
- legal proceedings in progress under the Law on compensation of deprived property during Yugoslav communist government (Official Gazette, No, 92/96, 39/99, 42/99, 92/99, 43/00, 131/00, 27/01, 34/01, 65/01, 118/01, 80/02 and 81/02).

Considering the needs of the budget management, the aforementioned legally approved database of the Central register does not provide sufficient data for compiling the state balance sheet and the financial condition report. Moreover, it should be pointed out that the public sector asset database includes central state assets but not the local government assets. The budget regulations include a wider range of public sector assets than the Central registrar. The types of public sector assets listed in the Central register should be valued in relation to the budget classifications.

According to the article 61 of the Budget Act, public sector assets consist of financial and non-financial assets.

Public sector asset management in Croatia was previously limited mainly to the transformation of enterprises in state ownership, privatization, concession granting, donating property to local government units, with little or no concern or activities related to other types of government assets. In the process of transition and privatization little attention was given to different types of public sector assets owned by the Republic of Croatia. The results of privatization and bad financial performance of some privatized enterprises seldom met the citizens' expectations and thus generated mistrust in the process of transition and privatization. That slowed down the reforms in Croatian economy. Generally accepted notion that the government was a bad manager stimulated the sale of public sector assets.

The change of socio-economic framework in the transformation from public to private ownership, first in the transition period and subsequently in the privatization, was just formal in most cases. The main goal – faster economic growth and more efficient business – was not achieved. Due to the lack of a standardized approach, well-defined legal acts, Central asset registry, good organization and personnel, the state has exercised poorly, slowly and superficially its ownership powers. That caused property damage or complicated solving development and fiscal problems between the state and the property users.

According to the Budget Act effective as of 1 January 2009, all Government-owned financial and non-financial assets fall under the notion of Government Assets.

Pursuant to the provisions contained in the Budget Act, the Government Balance Sheet must mandatorily contain a financial statement indicating the government asset status broken down by economic classification (GFS 2001, also ESA 2010), in pursuance with the prescribed accounts from the Single Chart-of-Accounts. In accordance with the economic classification total government asset items in Chart of Accounts comprise the following:

- 01 Non-produced fixed assets;
- 02 Fixed assets produced;
- 03 Precious metals and other stores of value;
- 04 Small inventories;
- 05 Fixed non-financial assets in preparation;

- 06 Current assets produced;
- 11 Cash in bank and on hand;
- 12 Deposits, security deposits and accounts receivable from employees and for excess taxes, etc.;
- 13 Accounts receivable for loans extended;
- 14 Securities;
- 15 Shares and stakes.

3.2. Legal, institutional and regulatory framework

Some of the numerous Croatian resources are listed and assigned to certain public sector asset categories; some exist in books as non-cash generating assets, while the documentation for certain public assets is stuck somewhere between the cadastre and land registries, or it is partly kept by their owners, users or managers. Despite the fact that there have been some attempts to record public assets, a complete and centralised registry of public assets on a state level still does not exist. The incompleteness of records of public assets partly results from the inherited disorder in land registries. The disorder in the records is also a consequence of inconsistent legislation which has allowed rights but has rarely imposed the obligations related to the disposal of specific assets on the various beneficiaries.

An important shift started only in 2013. Croatian Parliament devised the Strategy of Government Assets Management and Distribution from 2013 to 2017⁹¹⁰ (Official Gazette No. 76/13).

The Strategy contains a comprehensive critical analysis and evaluation of the existing model of management and allocation of all types of public sector assets (property, stakes, financial assets, concessions and other assets), and it determines medium-term goals and guidelines for public sector asset management. As it is stated in the introduction, the goal of the Strategy is: “to assure efficient and transparent long-term management and allocation of the assets of the Republic of Croatia taking into consideration the importance of their sustainability for life and work of present and future generations. Consequently, the aim of the Strategy is to ensure that the assets of the Republic of Croatia are used for boosting economic growth and protecting national interests.”

⁹ Government assets, public sector assets and public assets are in this paper used as synonyms.

¹⁰ Strategija upravljanja i raspolaganja državnom imovinom za razdoblje od 2013. do 2017. godine (NN, br. 76/13.).

Hereafter, the document encompasses all types of public sector assets of the Republic of Croatia, especially those whose value increases with the technological development. The types of the Republic of Croatia assets will be classified taking into consideration economic and development interests of the country. Asset classification will be made in accordance with the economic and development interests of the Republic of Croatia, valuating the assets that might provide economic benefits to the state.

The estimation of the potential profit of the Republic of Croatia public sector assets needs to be based on identifying, registering and evaluating the real condition. Integral public asset value assessment and registry have never been consistently and thoroughly done. Therefore, the necessity to register the assessed public sector assets in the public sector accounting is underlined in the guidelines for the achievement of priority goals between 2013 and 2017.

Legislative and institutional framework of the public sector assets management, including their acquisition, management, allocation and use, is very complex. That is evident from the fact that the legal framework consists of 41 laws and regulations in force¹¹.

Especially important and directly related to the issue is the Law on the Republic of Croatia Assets Management and Allocation (Official Gazette, No. 94/13) from July 2013¹², that regulates the classification of the types of government assets, modes and conditions of assets management, allocation of state-owned stakes and financial assets in companies, modes and conditions of state-owned property management and allocation. Within the institutional regulation framework, the Law determines domain and legal authorities of the State Office for Public Sector Assets Management¹³ (abbreviated as DUUDI in Croatian language) related to the public sector assets management and allocation, establishment and organization of the Restructuring and Sale Center (CERP), its domain and public authorities, and the stop-work order for the Agency for Public Sector Assets Management, and other.

Moreover, the Law regulates establishment and management of the Public Assets Register (Central Register further in the text) that is the basis for the

¹¹ Check Strategy, page 12.

¹² Zakon o upravljanju i raspolaganju imovinom u vlasništvu Republike Hrvatske (NN, br. 94/13.)

¹³ Državni ured za upravljanje državnom imovinom, www.duudi.hr

efficient public sector assets management and allocation. The process of registering government assets in Croatia has lasted for over two decades and Central Register data publishing obligation was regulated only from December 2010. Despite occasional attempts to collect all registered data on government assets, a complete register of government assets that would encompass all public sector assets and obligations has not been completed. There is still a significant shortage of data regarding the non-financial assets. Besides the (Central) Public Assets Register there are few other registers that contain some types of government assets¹⁴.

According to the Article 79 of the Law on the Republic of Croatia assets management and allocation, all public administration, companies and legal persons having public functions, that are in charge of managing or allocating government assets, as well as the institutions whose co-founder is the Republic of Croatia or the Government of the Republic of Croatia, are obliged to provide all data from their registers and public records to the Central Register database, in accordance with the regulations that determine the domains of the public sector assets management, and depending on the types of assets and their classification, regulated by the Government Assets Register Regulation (Official Gazette, No. 55/11) that is still in force.

The Government Assets Register Act (Official Gazette, No. 55/11) legally and formally regulates the Register but the proprietors and users of the government assets on all levels should be able to use a standardized registering, identifying and evaluating methodology that is still to be established. In January 2014 DUUDI made the Government Assets Register accessible on its website in accordance with the Government Assets Register Act. Types of assets recorded in the Register are property, shares and company stakes, whereas other types of public sector assets are not listed in the Register¹⁵.

Due to the noncompliance with the Act and the need of standardizing the

¹⁴ e.g. Concession register, Agriculture land register, Cultural heritage register.

¹⁵ According to the data from the Register (March 2014), the number of registered property units is 384 745, the number of companies in which the state is a shareholder is 460, and the number of registered companies with state-owned shares is 240. The data from the Register are not complete, especially those related to the property. In some cases the data on the property beneficiary or the total surface are missing, and the data on the estimated property prices are often not registered. The data have not been updated because some beneficiaries have submitted data from 2012. Data on government assets are registered in balance and off-balance sheets and analytic records of beneficiaries.

asset classifying methodology, in November 2013 the Ministry of Finance issued and sent to the public institutions in charge of the government assets management (DUUDI and CERP) *Instruction on types and modalities of collecting data, content of data and information on public sector assets necessary for the management of Government Assets Register and public sector balance sheet*¹⁶, and published on their website *Instruction on valuation, value assessment and registering the Republic of Croatia assets*¹⁷.

The Instruction is intended for budgetary and extrabudgetary beneficiaries of the state budget, budgetary and extrabudgetary beneficiaries of the local and regional government budget, units of local and regional government (further in text JLP (R)S) and other government assets users. Thus the ministry has standardized regulations for the local government, which was necessary for collecting data for both the state balance sheet and the consolidated state balance. In compliance with the Strategic Plan for Government Assets Management and Distribution from 2013 to 2017¹⁸, DUUDI has issued Strategic Plan for the period from 2013 to 2015, in which institutional and organizational elements are standardized. Moreover, it is significant that for the first time DUUDI published the 2015 Plan of the Republic of Croatia assets management¹⁹.

3.3. Public sector property usage, value assessment and valuation-general approach

Previously described problem of registering public sector assets in the Register and the state balance sheet is related to the asset valuation process that is not simple. Asset values should be estimated for all types of public sector assets, separate and collective. Asset valuation should include recognition and measurement of the public sector assets on one side, and expenditure and revenue management on the other. That includes: asset acquisition register (initial recognition), subsequent asset measurement reports on the asset structure, dynamics and outcomes of its use, as shown in the following table.

¹⁶ Naputak o vrsti, načinu prikupljanja i sadržaju podataka i informacija o državnoj imovini za potrebe vođenja Registra državne imovine i sastavljanja bilance državne imovine

¹⁷ Uputu o priznavanju, mjerenju i evidentiranju imovine u vlasništvu Republike Hrvatske.

¹⁸ Strateški plan DUUDI-a za razdoblje 2013. – 2015.

¹⁹ Plan upravljanja imovinom u vlasništvu Republike Hrvatske za 2015. godinu ((NN 142/14). For more details on the content see: Bajo, A. (2014): Finally we have a plan for public sector assets government, Actual review, No. 69, Institute of Public Finance, Zagreb.

Even though the setup of the Government Asset Management Agency and State property management administration has generated some of the key institutional preconditions for a more quality asset management, new additional dilemmas emerged, namely concerning the recognition and valuation enhancement processes, making decisions regarding asset usage, and analyzing the possibilities of assets' potential marketability, both in short and long term.

The habit of relating efficiency to public spending, as it is generally done, may give wrong results when, as it is often the case, public institutions use public sector assets (land, buildings, etc.) without imputing a cost for their use. The fact that the use of asset acquired or inherited in the past does not affect the current budgetary costs, should not be the reason for treating these assets as if their value were zero or to leaving them as being unrecorded.

In order to encourage accounting for the government assets, an array of accounting boards and associations have been intensively working on preparing and perfecting public sector accounting standards being accrual based, that in addition supports the need of recognizing and reporting for all the government asset items. In that manner, International Public Sector Accounting Standards Board (IPSASB) has been publishing on regular basis standards that serve as the guidelines and recommendation for asset recognition and valuation, as well as certain studies that deal with helping solving some major questions in the field of government accounting, with an aim of transferring and converging the experiences of some countries that are up to dated with public sector accounting trends and already have almost finished the reform processes, to the ones that have just started or have been in the process of performing government accounting reforms.

As aforementioned asset management activities should encompass: asset register establishment, assets classification, assets recognition and measurement, assets portfolio construction, institutionalization and professionalism in asset management, and cost and outcomes measurement (followed by reporting on the outcomes). Therefore prior to proceeding with asset valuation and measurement, one must understand that valuation is regarded as being one of the important features of the asset management process and reform.

Deciding about the model (mean) of the asset use is regarded as the precondition for valuation. Purpose and use of the assets is defined

depending on the economic characteristics of the asset: marketability of the assets and service potential of assets.

Government fixed assets can be employed in:

- non-profit-oriented use (administrative business use, transfer of ownership and use)
- a profit-oriented use (concession, investment, sale, lease, partial sale)

Valuation/measurement of non- financial assets shall encompass the following:

- records on asset acquisition - the initial recognition:
 - property: acquisition value, accumulated depreciation, the current book value, estimated (market) value
 - subsequent valuation of the asset:
 - fair value, depreciated cost
- the revenues/income expected to be generated from assets use
- the value set for another asset that holds similar features
-
- reporting on the structure and dynamics (accrued value: nominal, discounted, capitalized); • reporting on the asset use outcomes:
 - profit-oriented use: income and expenses on the property (capital gain / loss from rental fees, concession fees, dividends, shares in the business result)
 - non - profit oriented purpose: administrative use, transfer of ownership rights, and donation (one monetary unit (1 HRK), asset replacement cost, the value of alternative use of assets)

Recognition and measurement of the so called specific government (public sector) groups of asset encompass the following:

- Infrastructure assets, military assets: fair value, mostly determined as the current replacement cost less accumulated amortization and adjusted for losses from assets impaired at the time of the last asset revaluation the fair value as the estimated value of the alternative use of the assets
- Heritage assets: one monetary unit (1 HRK); the economic value of the quantified sum of the following values: "option value", "Existence of non-use value" and "user value"; valuation depends whether property regarded as being heritage

assets is used for everyday operational activities of the governmental units, or is not used at all (deciding between full, semi or zero capitalization of the assets).

- Natural resources and biological assets: income generated from their use, market prices / contracted sales price (biological assets), the method of transaction costs, replacement costs, present value, and the method of the current rent (mineral reserves).

3.4. Central asset register data –state and perspectives

In mid-January 2014 Central asset register (the Register), though incomplete and comprising of two asset groups/types – shares and property, was made publicly available for the first time, and was published on the State Asset Management Office website, in accordance with the provisions in the existing government asset management regulatory framework on making the register available for the public. Register's content has been structured in accordance with the guidelines of the Government Asset Register Decree (hrv. Uredba o Registru državne imovine), still in force.

In July 2014 (July 24th), the Register comprised of 403328 property items, divided in several categories: land and buildings (2%), agricultural land (1%), forests and woodland (76%), public water (11%), housing (7%); business premises (2,5%), property used by government bodies, residential buildings and villas²⁰, whilst in March 2015 (March 27th), the Register comprised of 1012021 property items, divided in several categories: land and buildings (2%), agricultural land (58%), forests and woodland (28%), public water (5%), housing (3%); business premises (1%), property used by government bodies, residential buildings and villas²¹.

In early December 2014, the Head of the State asset management Office issued a decision about the establishment of the working group for drafting the new register decree exposure draft – A Decree on data and IT upgrade of the already established and publicly announced Register, and the expanded form and logistic table for future data entry. Important, but not the only change that regards Register upgrade that is to modernize the delivery of data to the Central Register, is the electronic data entry in a

²⁰ Low percentages of certain categories were due to the fact that majority of users were not keen on reporting on assets, even though they have been obliged to by legislation, <http://podaci.duudi.hr/>

²¹ <http://podaci.duudi.hr/>

way that the data gathered ends being specific, accurate and regularly updated, and as such represents a credible insight into the scope and structure of the assets owned by the State. This refers to ISUDIC (Information system for state asset management) project, that among other things, plans to elaborate the solution for the existing management model under which the assets are still recorded in several different data basis or documents keeping places, causing the absence of integrity of recording in a single database as well as the absence of responsibility for the efficient use of particular types of assets owned by the Republic of Croatia. The goal is also to connect the Central asset register with the so-called core registers governed and administrated by other government bodies and central state administrative organizations (i.e. system of cadastre and system land registry or with common information system of land registry and cadastre, which has just recently been set up), the National Spatial Data Infrastructure (NIP) etc.

3.5. Recent legal provisions for property value assessment

Efficient public sector asset management requires a systematized property value assessment model and serves to enhance the competitiveness. It is reflected on a series of key parameters that have a direct impact on economic and investment attractiveness - from direct financial effects of property purchase, renting, concession, property rights value assessment, to legal uncertainty for investors and property owners. The precondition for the optimal use of property in state or local government ownership, that would enhance common welfare, is a solid property portfolio management. Moreover, it is necessary to explore the mechanisms for improving the conditions of legal certainty to attract foreign investments.

One of the key factors for business decisions is standardized and reliable property value assessment. Reliable property value assessment is important for cross-border property purchase that is facilitated after removing obstacles to free flow of capital and services. The importance of regulating property value assessment is acknowledged by the European Parliament and the Council of Europe that adopted the *Mortgage Credit Directive* 2014/17/EU on 28 January 2014, with the aim to incite member states to transpose national provisions on property value assessment in accordance with the international laws. Following the directive, the Government of the Republic of Croatia has approved the *Act on property*

value assessment (Official Gazette, No. 74/14)²² and the *Regulation on property value assessment methods* (Official Gazette, No. 79/14)²³.

The regulations have determined for the first time the basic concepts on property value assessment in the Republic of Croatia, acting in accordance with the EU standards and regulations, thus assuring the necessary prerequisite to property assessors and consumers for the internationally recognized property appraisal. The creators of the Act adapted the best EU policies to the local conditions: *Baugesetzbuch* – 2011 (BauGB); *Immobilienwertermittlungsverordnung* – 2010 (ImmoWertV); *European Valuation Standards* – 2012 (EVS) i *International Valuation Standards* – 2010 (IVS) (Uhlir, 2014).

For the first time ever, the Act and the Regulation lay down the common framework for the property value assessment in the Republic of Croatia, based on three fundamental principles: defining the property assessors, their value assessment methods and the type of data. The system is used for the market-value property valuation. In addition to defining the basic terms, the two regulations set up a framework for the property value assessment according to which the expert in possess of all the available evidence can make a precise value assessment of the property value that will be reliable thereafter. The Act and the Regulation set out the following points²⁴:

The Act regulates the modes of property value assessment, the method of collecting and processing data for all properties in the Republic of Croatia regardless of the ownership, unless it is prescribed differently by a special law:

- Property value assessment is defined as a multidisciplinary process of market value value assessment at the request of the consumer, performed by the court appointed expert for property value assessment and the court appointed property assessor, whose jurisdictions are regulated by special regulations on the courts' jurisdictions and expropriation acts.
- Act is applied in valuating property for which there is no market,

²² Uredba o procjeni vrijednosti nekretnina (NN, br. 74/14.)

²³ Pravilnik o metodama za procjenu vrijednosti nekretnina (NN, br. 79/14.).

²⁴ Ibidem Roje G. (2014), pp.70.

and it is stated that in these cases the value can be set according to market models.

- Act determines general procedures in property value assessment. It determines: property value assessment base, methods for property value assessment (comparative revenue and expenditure method) and the most appropriate property value assessment method for each type of property.
- Comparative method for market value assessment of constructed and non-constructed property, as well as for value assessment of detached, semi-detached and attached family dwellings, attached multi-unit housing, apartments, garages as additional units, parking spaces, parking lots and business premises. According to the comparative method, property market value is calculated by comparing at least three selling prices of comparable properties.
- Revenue method for market value assessment of constructed land parcels where there are rented dwellings, business and other revenue-generating property.
- Expenditure method for market value assessment of constructed land parcels where there are public buildings and other non revenue-generating premises, especially for family housing with non comparable features.
- Property value assessment is done after collecting data on selling prices and agreed lease and/or rental prices.

Regulation defines property value assessment methods, determines objects of the property value assessment, and necessary data for the property value assessment.

- Revenue method is used for the property put to public use even if considered for future lease by the public administration, e.g. for business premises: revenues from office spaces, children's homes, day-care centers, children rehabilitation homes, private institutions, schools: revenues from private and other buildings for similar use, and other comparable dwellings.
- Expenditure method can be used as an addition to revenue method taking into consideration limited economic profitability of a property upon its market maturity²⁵.

²⁵ This is relevant for the use of property formerly used for public purposes, e.g. the use of military premises for business purposes.

- Comparative value of constructed estates comprises property value, construction value and appliances value. Constructed estates market value can be estimated by comparing selling prices and comparable indicators (revenue and building indicators).

The Act on property value assessment and the Regulation on property value assessment methods have introduced several important changes – the list of property value assessment methods, the regulation on property assessors and the list of data for the property value assessment. Their practical application has changed the methods of property market value assessment. The definition of the market value from the Act on property value assessment is taken from the European valuation standards and it is almost identical to the definition from the International valuation standards and the definition from the Directive relating to the pursuit of the business of credit institutions 2006/48/EC (Basel II), that is a part of the *aquis communautaire* of EU. The definition is as follows:

*„The property shall be valued at its market value, that is the estimated amount for which the property would exchange on the date of valuation, between a willing **buyer** and a willing **seller** according to market conditions, after proper advertising, on condition that every party acted to his/her knowledge and by consent.”*

This definition is analogous to the definition of the accounting concept of *fer* value that presupposes “willing buyer” and “willing seller”, excludes the advertized prices, since advertisement is a subjective concept where one party is present – buyer or seller only. Therefore, for the market valuation the use of selling prices or rental and/or leasing prices is envisaged, since these amounts are agreed by both parties – buyer and seller²⁶.

4. CONCLUDING REMARKS

The Republic of Croatia needs to compare its competitiveness ranking to other EU countries. Six consecutive years of recession and inadequate past and present economic policy have resulted in a low level of

²⁶ Formore details see Majčica B. (2014): Procjena vrijednosti nekretnina – novi izazov za JLP(R)S, LC conference – Panorama 2014., conference proceedings, Libusoft, d. o. o, Zagreb.

competitiveness in both European and global context. Croatian companies operate in an environment that does not enhance productivity or investments. Among the most important impediments to the entrepreneurial activities are heavy administrative and regulatory burdens, slow justice system, numerous para-fiscal burdens, weak investor protection and political instability. Although the reform of the public sector was carried out in many domains, the inefficient Croatian public sector causes the decrease in economic and investment attractiveness.

Public sector efficiency is one of key factors of competitiveness of the national economy. According to IMD methodology, efficiency is monitored through five complex and broad areas: public finance, fiscal policy, institutional framework, business legislation and societal framework. Raising the level of public sector efficiency is a global process which has been acknowledged lately in Croatia under the phrase "new public management". The effects of the reform are not yet positive in many segments. One of them is inefficient public sector asset management.

Past governments have not recognized nor used the potential of public asset portfolio that can significantly increase public revenues and reduce tax burdens on businessmen, investors and taxpayers. According to Eurostat, the financial asset revenues in 2012 amount to 1.086.6.706,59 kuna, that is 0,5% rate of return on the government asset portfolio that is managed by the Government of the Republic of Croatia. Government asset management in Croatia was previously limited mainly to the transformation of enterprises in state ownership, privatization, concession granting, donating property to local government units, with little or no concern or activities related to other types of government assets. The fact that government asset register has never been completed and that only financial assets are registered in the state balance sheet speaks for itself.

The management of property and other non-financial assets is a particularly disordered domain of public sector asset management. It is reflected on a series of key factors that have a direct impact on economic and investment attractiveness - from direct financial effects of property purchase, renting, concession granting, property rights value assessment, to legal uncertainty for investors and property owners. The precondition for the optimal use of property in state or local government ownership, aimed at enhancing common welfare, is a solid property portfolio management. Moreover, it is necessary to explore the mechanisms for improving the conditions of legal certainty and efficient and transparent property function assignment to attract local and foreign investments. One of the key factors for business decisions is standardized and reliable property value

assessment in accordance with the recently established legal framework.

REFERENCES

Research papers:

Azuma, N. (2003), *The Role of the Supreme Audit Institution in NPM: International Trend*, Government Auditing Review, Volume 10.

Bajo, A. (2014.), *Konačno imamo plan upravljanja državnom imovinom*, Aktualni osvrti br. 69, Institut za javne financije, Zagreb.

Barret, P. (2004), *Financial Management in the Public Sector – How Accrual Accounting and Budgeting enhances Governance and Accountability*, CPA Forum: *Challenge of change: Driving governance and accountability*, Singapore.

Jakir-Bajo, I. (2014.), Obuhvat i evidentiranje državne imovine, TIM4PIN MAGAZIN br. 4, Centar za razvoj javnog i neprofitnog sektora TIM4PIN, Zagreb.

Majčica, B. (2014.), Procjena vrijednosti nekretnina – novi izazov za JLP(R)S, LC konferencija – Panorama 2014., Zbornik radova, Libusoft, d.o.o, Zagreb.

Roje, G. (2014.), Osvrt na aktualnosti u području upravljanja državnom imovinom, TIM4PIN Magazin br.10, Centar za razvoj javnog i neprofitnog sektora TIM4PIN, Zagreb.

Uhlir, Ž. (2014.), Sustav procjenjivanja vrijednosti nekretnina – propisi i daljnji razvoj, LC konferencija- Panorama 2014., Zbornik radova, Libusoft, d.o.o, Zagreb.

Vašiček, D.; Roje, G. (2013.) Sveobuhvatni popis i evidentiranje državne imovine, TIM4PIN Magazin br.11/2013., TIM4PIN d. o. o, Zagreb.

Laws, provisions and decrees:

Zakon o upravljanju i raspolaganju imovinom u vlasništvu Republike Hrvatske (NN, br. 94/13.)

Zakon o proračunu (NN, br. 87/08. i 136/12.)

Zakon o fiskalnoj odgovornosti (NN, br.139/10.)

Uredba o Registru državne imovine (NN, br. 55/11.)

Uredba o unutarnjem ustrojstvu Državnog ureda za upravljanje državnom imovinom (NN, br. 118/13.)

Pravilnik o proračunskom računovodstvu i računskom planu (NN, br. 114/10. i 31/11.) Zakon o upravljanju i raspolaganju imovinom u vlasništvu RH (NN, br 94/13.)

Pravilnik o financijskom izvještavanju u proračunskom računovodstvu (NN, br. 32/11.)

Uredba o procjeni vrijednosti nekretnina (NN br. 74/14.)

Pravilnik o metodama procjene vrijednosti nekretnina (NN br. 79/14.)
Plan upravljanja imovinom u vlasništvu Republike Hrvatske za 2015.

[Strategiju upravljanja i raspolaganja imovinom u vlasništvu Republike Hrvatske za razdoblje od 2013. do 2017. godine](#) (NN 76/2013)

Instructions and decrees:

Naputak o vrsti, načinu prikupljanja i sadržaju podataka i informacija o državnoj imovini za potreba vođenja Registra državne imovine i sastavljanje Bilance državne imovine (Ministarstvo financija RH, KLASA: 400-06/12-01/127; URBROJ: 513-05-02/13-7)

Uputa o priznavanju, mjerenju i evidentiranju imovine u vlasništvu Republike Hrvatske (Ministarstvo financija RH, KLASA: 400-06/12-01/127; URBROJ: 513-05-02/13-7)

Other references:

Nacionalno vijeće za konkurentnost (2014.), IMD godišnjak konkurentnosti 2013, <http://www.konkurentnost.hr>.

World Economic Forum, The Europe 2020 Competitiveness Report: Building a More Competitive Europe 2014 Edition.

Europska komisija (2014), Ocjena nacionalnog programa reformi i programa konvergencije za Hrvatsku za 2014., radni dokument, Bruxelles.

Strategija upravljanja i raspolaganja državnom imovinom za razdoblje od 2013. do 2017. godine (NN, br 76/13.).

Izvješće o obavljenoj reviziji godišnjeg izvještaja o izvršenju državnog proračuna Republike Hrvatske za 2013. godinu, Državni ured za reviziju, 2014. godina, raspoloživo na: www.sabor.hr.

<http://www.politikaplus.com/mobile/novost/77322>

CHAPTER 21

Boban Stojanović

University of Niš, Faculty of Economics, Niš, Serbia

Srdjan Redžepagić

University Nice Sophia Antipolis, Nice, France

Jelena Šaranović

Higher Economic School of applied studies Peć, Leposavić, Serbia

INTEGRATIONS ENGINEERING – CHALLENGES FOR WESTERN BALKAN COUNTRIES IN ACCESSION TO THE EUROPEAN UNION

ABSTRACT:

Economic integration is a complex process of collaboration and the creation of common institutions and rules of conduct, aligned with the interests of the countries that participate in it. Clear definition of objectives, means and actors in the process of economic and social change is an important prerequisite for successful integration. In addition, the implementation of changes must be adjusted to efficient economies and democratic society. To achieve the objectives, it is necessary to change the institutional framework, and in certain segments, the construction of new institutions and constitution of new code of conduct. Western Balkan countries are in different stage of integration with the European union, but with similar needs for integrations engineering. For the successful integration very important is increasing of investment in innovation and knowledge as a condition of higher competitiveness.

Keywords: EU, Western Balkan countries, association, constructivism, spontaneity, future, crisis, innovativeness, competitiveness.

JEL classification: F02

1. INTRODUCTION

Most citizens, politicians, and intellectuals are aware of the need, as well as the necessity of entering into a process of integration with other countries. In the process of integration involves the fulfillment of formal requirements for accession of each country to the community of nations. But much more important is the essence of the process.

The starting position deems it desirable for Western Balkan countries to become a part of the family of European countries associated in the European Union (EU).

The stated goal –to be a part of community of nations - is not debatable, even though other options, such as neutrality or binding to another integration, have been offered. Geographically, there is no alternative due to the fact that Western Balkan is located in Europe. Preference for accessing integrative courses as an alternative for autochthony, self-sufficiency and isolation is also indisputable.

In political and economic terms, it is possible to choose between at least two options. However, the choice has already been made, as the policy makers in Western Balkan countries, during a relatively long period of pronounced or (more often) weak dynamics have created conditions for the accessing the EU. It is assumed that they (in the name of the people) have carried out a good *cost-benefit* analysis, i.e. realistically reviewed all advantages and disadvantages of joining the community of another countries. The fact that the negotiations have started shows that the formal conditions have already been met.

The essence of the process is rather controversial, as well as the perception of integration. The dilemma is whether the process is seen as meeting the requirements of negotiation chapters or a fundamental change of society and spontaneous (i.e. unconstrained) acceptance of modern society norms. In other words, it would be ideal that the negotiations follow a comprehensive transformation of society and the relationship that a state has towards its surroundings. Like any other ideal, this one is also aspired to, but it can never be accomplished completely. Imperfect as it is, the real state of affairs should be as close as possible to the ideal. In this context, the combination of constructivism and spontaneity is fully emphasized. The first component implies the task

and responsibility of integration policy makers, while the second is a result of altered formal rules and the willingness of the majority of population to change the perception of life in the community of countries and sharing the same values.

The change of institutions and consciousness should simultaneously follow the negotiations. Is this feasible, and if it is, in what timeframe? The answers to this important question are in the inventiveness and creativity of elected representatives on the one hand, and the so-called social genotype, including the willingness of people to change, on the other. Having in mind the experience of countries within the existing communities, the population shows the lack of desire to change, even if the government is ready to meet the goal of a comprehensive society change. Deficit or absence of one of the two factors, which influence the fundamental reconstruction of society, gives only partial solutions. Then, as a rule, the form, not the substance of the integration process, is fulfilled.

2. INTEGRATION PROCESS - SPONTANITY AND CONSTRUCTIVISM

After many years of the former socialist countries' integration into the EU, one can derive conclusions regarding the content and effects of the process. Volume of the changes varies from country to country. The results of the procedures, which have been undertaken so far, also vary. These differences in the integration engineering and the effects of the changes suggest that the fundamental reconstruction of the economy and society implies deep political and economic transformation. Insight into the current results of transition in Western Balkan countries shows that significant reform activities have been undertaken, but there is still no fundamental reconstruction of the economy and society.

Clear definition of objectives, means and actors in the process of economic and social change is an important prerequisite for successful integration. In addition, the implementation of changes must be adjusted to market economies and democratic society. To achieve the objectives, it is necessary to change the institutional framework, and in certain segments, the construction of new institutions and constitution of new code of conduct.

The differences in the performance of integration process in some countries is not easy to explain due to the simultaneous effects that economic and non-economic, external and internal factors have on the course and content of the process. To achieve the goal of integration, one must take into account all the parameters relevant to the process. After reviewing the existing conditions, the change of the institutional framework and, in certain segments, new institution building, are initiated. The process should imply initial broad understanding of institutions as a set of formal and informal rules that determine the social relations through which regularities in the interactions of individuals and social groups are exhibited.

In its broadest context of new-institutionalism, attention is drawn to the analysis of free order and constructivism. Free order implies respecting the rules, regardless of the intentions of individuals or interest groups, which are formed as a result of historical processes of shaping social relations. Formed over a long period of time, such rules become laws, which are verified in everyday interactions of individuals, social groups and institutions. These general rules are based on tradition, customs, religion, culture. Since the informal rules are exhibited independently of the needs and demands of a social process, their effect on the process has parameter character. As objectively given and immune to the influence of individuals or groups' will, informal rules are not subject to "violent" changes. Spontaneously established rules should not be changed by economic or any other interventionism. It can even be argued that interventionism is harmful because it represents a violation of the natural order. At the same time, states must ensure the respect of the rules, necessary for the operation of the spontaneous order, and their evolutionary development.

Constructivism refers to the design of standards created in the inner circles of experts and/or politicians. If one would achieve spontaneous construction of the desired state, the process would require a long period of time. Time, however, is a very limited factor. Therefore, creation and (violent) implementation of solutions that should generate new or modify the existing institutions to accelerate the process of achieving the goals, seems quite rational.

3. GOALS OF EUROPEAN ECONOMIC INTEGRATIONS

Main goals in forming the EU are: 1) effective functioning of a common market of goods, services, capital and manpower; 2) creating conditions for the stable development of the Parties' economies with the aim to improve the population's living standards; 3) conducting coordinated tax, monetary and credit, currency and finance, trade, customs and tariff policies; developing unified transport, energy and information systems; 4) creating a unified system of measures for state support of the development of priority economy branches and cooperation in production, science and technology. Also, there is agreement on the macroeconomic indicators, introducing quantitative parameters of the agreed value of 3 indicators (annual budget deficit, national debt and the rate of consumer price inflation).

Two of the observed integration varies in length and scope of the process. The European economic integration has its foundations set Treaty of Rome in 1957. After the Treaty of Maastricht, convergence is expressed policy of the member states and the creation of unique access to many areas. On the basis of the Treaty of Lisbon introduced the joint bodies in the field of foreign affairs and security. Also, the procedure and decision-making process where changed, which should improve the efficiency in the long term.

Integrations engineering are different also by the reaction to the current problems of the economic crisis. A particular problem is the functioning of the monetary union in the EU, which is caused the creation a control mechanism of monetary and fiscal policy that ensures long-term stability.

4. THE FUNCTIONING OF THE EU

For euroskeptics, many problems in the functioning of the EU are evidence of powerlessness of ideas and institutions, while for euro fanatics EU is a supranational ideal community that, regardless of the short-term distortions, in the long term functions harmoniously and in accordance with established rules. More moderate supporters of European integration suggest flexibility measures and resistance to internal and external shocks. Problems with the implementation of the Lisbon Agenda, the instability of the monetary union and the lack of a unified fiscal policy and the global economic crisis have accelerated the

search for an exit strategy. Faced with the imbalance between the proclaimed goals of the Lisbon agenda and the actual situation, in 2010 the European Commission launched a common platform, called Agenda 2020 with the aim of finding a way out of the economic crisis and preparing the EU for the leading role in the world in the next decade, based on the new development model. The shift toward economic issues, which take precedence over the political, is rather striking. Policy priorities are essentially economic: growth based on knowledge (knowledge, innovation, education and digital society), sustainable development (efficient production while increasing competitiveness), increasing employment and reducing poverty.

However, in 2011 Greece opened Pandora's box: the uncontrolled budget deficit, economic dysfunction, high unemployment, huge debt, the collapse of the bond, a decline in GDP. EU citizens have begun to live in risk and uncertainty. It has become clear that the convergence of Europe 2020 objectives could not be achieved without stable monetary and fiscal union and clear binding rules of conduct. This was done in 2012 by Agreement on fiscal discipline. Eurozone tends to control the crisis, which, not coincidentally, has resemblance to Bretton Woods's reincarnation. Temporary European Financial Stability Fund has been rapidly transformed into a permanent European Stability Mechanism (ESM) with an initial capital of 500 billion euros, with the prospect of increasing. The Fiscal Compact, as an exit strategy of monetary union, gives the Eurozone the opportunity to use better ratings of the relevant agencies to eliminate concerns of the population and potential investors about the precarious and weak Europe, whose leaders have not had enough ingenuity to prevent distortions.

Agreement on the fiscal discipline requires of the Member States to include the legal limits of the budget deficit from 0.5 % of GDP and public debt from 60 % of GDP in their legislation.

Temporary deviation from this "balanced budget rule" is allowed only in exceptional economic circumstances, for example during severe downturns in the economy. If government debt is significantly below the reference value of 60% of GDP, the limit for the deficit can be set at 1% of GDP.

The "debt brake" is activated automatically after exceeding the limits, which will expose the state to the punishment of the European Court,

which defends the interests of the EU as a sovereign fiscal union. With this agreement on a common fiscal policy, the ESM activism, stability and economic growth in the Eurozone become possible, even probable. Prudent budgetary policy is essential to keep the level of debt under control. The question of scheduled implementation remains due to at least two problems of mismatched economic potential of member states: 1) unity in terms of monetary policy is necessary for the full fiscal union and 2) numerous consequences of sovereignty loss and (further) transfer of authority from the national level to the European Commission. Time is a very limiting factor for the EU as well. EU must not allow the extensiveness of the implementation of commitments and disregard for common measures adopted. If crucially important documents of Maastricht and Lisbon have been stumbling, and even straying for 20 years, the implementation of 'new Maastricht' is expected to be rapid.

Proclaimed fiscal union is an important stage towards a federal political structure of the EU. This fits the long-term goals of the Lisbon strategy and the creation of the United States of Europe. However, the fact is that more intense the road to federalism has been forced by the crisis, not as a result of spontaneity. Problems in functioning are evident, at least due to the orientation of UK and Denmark not to join the monetary union. The long history of these countries has shown side problems of Greece, Spain, Portugal or Italy. But what if these countries face these or other economic or political challenges? Further problems are related to various levels of productivity and purchasing power in different parts of the EU, which prevents the desired functioning of a single market.

The budget deficit, the volume of debt, unemployment, and other parameters are outside the proclaimed goals of Maastricht, and therefore the Fiscal Compact. The single market is distorted in the financial area with vast differences in, say, interest rates on government bonds. In addition, the creation of a fiscal union is a project of political leaders who articulate interests of the people. However, these people may, in changed circumstances, impose other solutions that may be contrary to the intentions of the creators of recovery plans. Constructivism, as an approach to problem solving, has to give way to spontaneity, so that the broad layers of the population could embrace measures and act accordingly. Both citizens and businesses should feel the benefits of new rules. Thus, the EU leaders would not have to explain high intellectuals that the changes have actually been accomplished in their favor.

Last but also quite important is the competition of forces of economic and political power on a global scale, which questions the realization of long-term goals of the EU as a world leader. A good example is China, which in the past twenty years has recorded much higher growth rates. Economic trends in the U.S. as the most important trading partner have traditionally been more favorable than in the EU. The difference in productivity on the world level has caused similar problems as within the EU. Many serious analyses indicate a long-term loss of EU competitive advantages, so that the leadership on a global scale is very uncertain. One of the dilemmas is whether to use the exchange rate to increase the competitiveness of the non-European markets and stimulate economic growth. According to some analysts, euro appreciation is the reason for the euro devaluation.

The Fiscal Compact is a good anti-crisis solution. However, eliminating the existing problems is not a solution for itself. There should be a permanent mechanism for anti-crisis activities. Citizens must begin to live within the limits of their possibilities. With good intentions of the Fiscal Compact and political willingness, monetary union might have a way out of its vicious cycle. Institutional, organizational and normative base should be permanently completed. Otherwise, the EU can expect new challenges, perhaps even greater than those, which have awakened it from comfortable daydreaming about harmonious functioning.

What is necessary for better future is a sharp approach on a wider platform of the EU, not just in the monetary union. The harder way will remove the negative effects of the past, and then individual, but supervised, implementation of recovery plans and the Covenant by States will follow. Therefore, the extracted federalism may become normal in the long run.

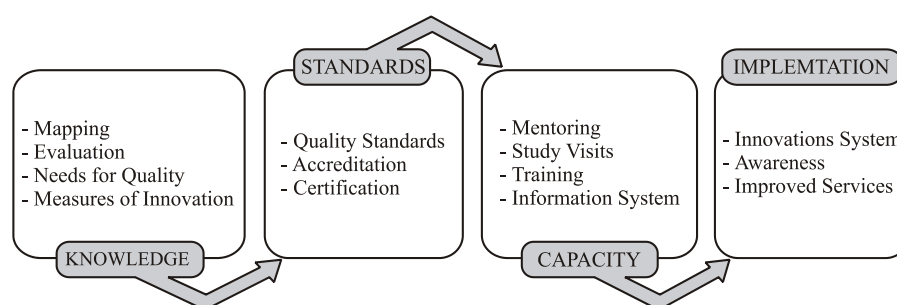
5. NEED FOR INOVATIVENESS IN WESTERN BALKAN COUNTRIES

In Western Balkan countries are still not enough understanding the importance of innovation for business promotion, and therefore are not concerned with investing in it. Innovative activities are evident in every seventh companies, and each fifteenth firm has innovative collaboration set up with other companies or research institutions. This situation is also

a consequence of the relatively small amounts Western Balkan countries government grants for this purpose (see table 1 and 2). For example, only 0.8 percent of Serbian GDP is allocated for scientific research and innovation, which is well below the EU average (2.5-3.0 percent). The number exceeds 3 percent in Japan.

Low amount of investments in research and development in the EU is often explained by the much lesser investments from private sector. The EU budget for the period 2014-2020 envisages 80 billion euro or 46 percent more for the costs of financing research and innovation. The new strategy named "Europe 2020" forecasts allocation of 3 percent of gross national product for research and development. The striving to improve conditions for private sector investments in research and development and developing new indicators for assessing innovativeness is especially stressed (see the scheme).

Figure 1 implementation of the knowledge



This holistic approach would allow Western Balkan countries to follow trends of modern economies and societies. An important area that warrants long-term sustainable growth is investment in innovation and knowledge.

The current level and structure of these funds are not sufficient. To achieve the goal of 3% of GDP for science and knowledge necessary to reallocate the budget in favor of the development of scientific and research centers, industrial parks, promoting cooperation between industry and universities. Western Balkan Countries should more use of the opportunities provided by membership in integration to increase the volume and quality of scientific research and innovation. On this way

Western Balkan countries could increase competitiveness of the domestic Industry and ensure better future.

Table 1 Global Innovation Index rankings

Year Country	2014		2013		2012		2011		2010	
	Rank /143	Score	Rank /142	Score	Rank /141	Score	Rank /141	Score	Rank /138	Score
Serbia	67	35.89	54	37.87	46	40	55	36.31	60	2.68
Croatia	42	40.75	37	41.95	42	40.7	44	37.8	45	3.28
FYR Macedonia	60	36.93	51	38.18	62	36.2	67	33.47	77	2.89
Montenegro	59	37.01	44	40.95	45	40.1	n.a	n.a	9	3.08
Albania	94	30.47	93	30.85	90	30.4	80	30.45	81	2.86
Romania	55	38.08	48	40.33	52	37.8	50	36.83	52	3.22
Slovak Republic	37	41.89	36	42.25	40	41.4	37	39.05	37	3.48
Bosnia and Hercegovina	81	32.43	65	36.24	72	34.2	76	30.84	116	2.58

Source: The Global Innovation Index 2014, 2013, 2012, 2011, 2010: The Human Factor in Innovation, Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO).

Table 2 The Global Competitiveness Index 2014–2015: Innovation factors

Country	12. Pillar Innovation		Capacity for innovation		Quality of scientific research institutions		Company spending on R&D		University-industry collaboration in R&D		Gov't procurement of advanced tech products		Availability of scientists and engineers		PCT patents, applications/million pop*	
	Ran k	Score	Ran k	Score	Ran k	Score	Ran k	Score	Ran k	Score	Ran k	Score	Ran k	Score	Ran k	Score
Serbia	108	2.89	130	3.00	69	3.70	125	2.50	95	3.20	122	2.90	82	3.90	55	2.30
Croatia	93	3.10	124	3.10	53	4.00	75	3.10	81	3.40	129	2.70	79	3.90	36	10.0
FYR Macedonia	68	3.28	91	3.50	71	3.70	67	3.10	60	3.70	56	3.60	81	3.90	91	0.20
Montenegro	58	3.37	84	3.60	60	3.90	61	3.20	47	3.90	57	3.60	69	4.10	51	3.20
Albania	120	2.73	115	3.20	130	2.60	73	3.10	135	2.30	70	3.50	110	3.40	84	0.40
Romania	66	3.28	68	3.70	55	4.00	65	3.10	71	3.60	75	3.40	72	4.00	56	2.20
Slovak Republic	78	3.18	89	3.50	65	3.90	78	3.10	84	3.40	117	2.90	76	4.00	38	9.20

Source: World economic Forum

Notes: The Report 2015 covers 144 economies. Bosnia and Herzegovina is not include because of data availability issues. Values are on a 1-to-7 scale unless

6. CONCLUSION

In accordance with the set objectives of economic integration in which participating, Western Balkan countries should coordinate their own plans with the mandatory rules of the community in which they are members. These goals should not have to be contradictory but consistent: 1) the establishment of a development model based on the production and export of goods and services and the rational use of natural resources, especially energy, 2) adoption of long-term program for development of entrepreneurship, re-industrialization, strengthening competitiveness and modernization of the economic structure, 3) employment increasing, 4) adoption of the program of human resource development, increasing the number of high educated people, especially in the natural sciences and IT sectors, reducing the 'brain drain', 5) investment in knowledge, research and technology development work at least 2 % of GDP in the 2015 and 3 % in 2020, 6) implementation of the state program of deleveraging, businesses and individuals, 7) implementation of necessary reforms in the country, especially the territorial organization of the public administration, pension system, etc.

In political and economic terms, for the some countries it is possible to choose between at least two options. However, in Western Balkan countries the choice has already been made, as the policy makers, during a relatively long period of pronounced or (more often) weak dynamics have created conditions for the accessing the EU. It is assumed that they (in the name of the people) have carried out a good *cost-benefit* analysis, i.e. realistically reviewed all advantages and disadvantages of joining the community of another countries. The fact that the negotiations have started shows that the formal conditions have already been met.

REFERENCES

DOING BUSINESS (2014), THE WORLD BANK GROUP, WWW.DOINGBUSINESS.ORG

Eucken, W. (1990), *Grundsätze der Wirtschaftspolitik*, J.C.B. Mohr, Tuebingen.

Floros, G. (2011), *European Commission DG Economic and Financial Affairs*, Head of Equity and Debt Financial Instruments, ECFIN L2 Belgrade.

Global Competitiveness Report 2014-2015, World Economic Forum, <http://www.weforum.org/events/world-economic-forum-annual-meeting-2015>
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf

Lipczyński, J., Wilson, J., Goddard, J. (2009), *Industrial Organization: Competition, Strategy, Policy*. Third Edition, Harlow, Prentice Hall, London.

Redzepagić, S., Stojanović, B., (2014), *Les pays des Balkans sur la voie d'adhésion à l'UE: capacités d'absorption vs. faites économiques*, in: *Absorption capacity of EU pre-accession programs in the Western Balkan countries*, research monograph, ed. Vinko Kandžija, CEMAFI International. Nice, 456-482.

Redzepagic, S., Stojanovic, B., Kandzija, V., (2015), *Economies et perspectives pour les pays des Balkans dans l'UE*, in: *Western Balkans and the European union. Lessons from past enlargements, challenges to further integrations*, editors Vesselin Mintchev, Nikolay Nenovsky, Xavier Richet, University Publishing House "Stopanstvo", Sofia, pp. 51-68.

Stojanović, B. (2014), *Influence of the Green Economy on Competitiveness – Challenges in the Process of the European and Eurasia Integration*, Higher School of Economics and Business, Al-Farabi Kazakh National University, Almaty, 15-22.

Stojanović, B., Stankovic, J., Jankovic-Milic, V. (2013), *European integration influence on business climate in Serbia-perceptions and expectations of business community*, in: *Economic integrations, competition and cooperation*, research monograph, editors Vinko Kandžija, Andrej Kumar, University of Rijeka, Faculty of Economics, Rijeka, 164-177.

Svejnar, J., (2002), *Transition Economies: Performance and Challenges*, Journal of Economic Perspectives, 16(1).

United Nations, *Competition, competitiveness and development: Lessons from developing countries*, 2004.

Veugelers, R. (2008), *The Role of SMEs in Innovation in the EU: A Case for Policy Intervention?*, *Review of Business and Economics*, vol. LIII, no. 3, July-September, 239-263.

CHAPTER 22

Boban Stojanović

University of Niš, Faculty of Economics, Niš, Serbia

Jovan Zafiroski

University of Skopje, Low Faculty, Skopje, FRY Macedonia

Jelena Šaranović

Higher Economic School of applied studies Peć, Leposavić, Serbia

GEOPOLITICAL FRAMEWORK OF EUROPEAN AND EURASIAN ECONOMIC INTEGRATION

ABSTRACT:

Economic integration is a complex process of collaboration and the creation of common institutions and rules of conduct, aligned with the interests of the countries that participate in it. Clear definition of objectives, means and actors in the process of economic and social change is an important prerequisite for successful integration. To achieve the objectives, it is necessary to change the institutional framework, and in certain segments, the construction of new institutions and constitution of new code of conduct. In political and economic terms, for countries from euro-asia region that have not yet acceded integration it is possible to choose between at least two options - the accessing the European union or Eurasian Economic Community. It is assumed that the policy makers (in the name of the people) have carried out a good cost-benefit analysis, i.e. realistically reviewed all advantages and disadvantages of joining the community of another countries. In the process of integration involves the fulfillment of formal requirements for accession of each country. For the successful integration very important is the inventiveness and creativity of elected representatives in achievement of higher competitiveness and social welfare.

Keywords: European Union, Eurasian Economic Community, geopolitical framework, integration, engineering, association.

JEL classification: F02

1. INTRODUCTION

We live in a world where most citizens, politicians, and intellectuals are aware of the need, as well as the necessity of entering into a process of integration with other countries. In the process of integration involves the fulfillment of formal requirements for accession of each country to the community of nations. But much more important is the essence of the process.

The stated goal – to take a part of integration - is not debatable, even though other options, such as neutrality or binding to another integration, have been offered. Preference for accessing integrative courses as an alternative for autochthony, self-sufficiency and isolation is also indisputable. In each case, the determination is based on consideration of diverse economic and political influences.

In political and economic terms, for the South-east European, Caucasian and Central Asian countries it is possible to choose between at least two options. However, in some countries the choice has already been made, as the policy makers, during a relatively long period of pronounced or (more often) weak dynamics have created conditions for the accessing the EU or the EurAsEC. It is assumed that they (in the name of the people) have carried out a good *cost-benefit* analysis, i.e. realistically reviewed all advantages and disadvantages of joining the community of another country. The fact that the negotiations have started shows that the formal conditions have already been met.

The essence of the process is rather controversial, as well as the perception of integration. The dilemma is whether the process is seen as meeting the requirements of negotiation chapters or a fundamental change of society and spontaneous (i.e. unconstrained) acceptance of modern society norms. In other words, it would be ideal that the negotiations follow a comprehensive transformation of society and the relationship that a state has towards its surroundings. Like any other ideal, this one is also aspired to, but it can never be accomplished completely. Imperfect as it is, the real state of affairs should be as close as possible to the ideal. In this context, the combination of constructivism and spontaneity is fully emphasized. The first component implies the task and responsibility of integration policy makers, while the second is a result of altered formal rules and the willingness of the

majority of population to change the perception of life in the community of countries and sharing the same values.

The change of institutions and consciousness should simultaneously follow the negotiations. Is this feasible, and if it is, in what timeframe? The answers to this important question are in the inventiveness and creativity of elected representatives on the one hand, and the so-called social genotype, including the willingness of people to change, on the other. Having in mind the experience of countries within the existing communities, the population shows the lack of desire to change, even if the government is ready to meet the goal of a comprehensive society change. Deficit or absence of one of the two factors, which influence the fundamental reconstruction of society, gives only partial solutions. Then, as a rule, the form, not the substance of the integration process, is fulfilled.

2. GEOPOLITICS AND ECONOMIC INTEGRATION

The differences in the performance of integration process in some countries is not easy to explain due to the simultaneous effects that economic and non-economic, external and internal factors have on the course and content of the process. To achieve the goal of integration, one must take into account all the parameters relevant to the process. After reviewing the existing conditions, the change of the institutional framework and, in certain segments, new institution building, are initiated. The process should imply initial broad understanding of institutions as a set of formal and informal rules that determine the social relations through which regularities in the interactions of individuals and social groups are exhibited.

Let us start with the current situation in the Europe, Caucasian countries and Central Asia, where there are two dominant integration processes. One is the family of 28 European countries associated in the European Union (EU), with the exception of Norway and Switzerland, which don't want memberships, Turkey and Western Balkan countries that are working to meet the formal requirements for membership in the EU.

The second process integration lead Russia, Belarus and Kazakhstan by strengthening the functioning of the Eurasian Economic Community

(EurAsEC). Geopolitical process, however, is not completed for some countries in Europe and Asia.

Most of the Eastern European countries in the early nineties of the last century chose commitment to joining the European Union. Western Balkans countries have clear goals to become a part of the EU. Geographically, there is no alternative due to the fact that Western Balkan is located in Europe. Turkey has specific geostrategic position and relatively clear goal to be a part of EU. The dilemma, however, exist in the countries of the former Soviet Union that have traditionally been strong cultural and economic ties with Russia, but also more than two decades of independence. Public opinion is polarized between “European” and “Eurasian” options. Accession to the integration would mobilize a range of supporters and opponents.

Some of them (elected) representatives of the people form new strategic objectives or modify already defined orientation. Faced with internal problems and lack of a clear long-term goal, in these countries the integration of delaying or seeks a *third way*, i.e. maintaining good relations with both integration without striving for formal membership. While this may be in certain circumstances a good solution, it seems to be less likely because of the rapid realignment of political and economic power on a global (world) level. In the absence of a *third way*, the states that remain outside the formal integration of pragmatism choose one of the following (or imposed) alternative. An example of this is the latest approaching Moldova, Ukraine and Georgia to the European Union (these countries opted for the European Union by signing so-called agreements of stabilization and association on the March 21, 2014). Second example is the transition to the next phase of the integration of Belarus, Kazakhstan and Russia within the framework of the aforementioned Eurasian integration. Kyrgyzstan and Tajikistan have been members of EurAsEC since its formation, but at a lower level of integration.¹ Azerbaijan, Uzbekistan and Turkmenistan are more or less officially outside of both integration processes, but with hope to join the Eurasian Economic Union. Armenia, according the Prime Minister statement, will become a full member of the EurAsEC on January 1

¹ On 25 January 2006, a protocol was signed on Uzbekistan's accession to the organization. In October 2008 Uzbekistan suspended to participate in the work of EurAsEC bodies. Ukraine and Moldova have had the status of EurAsEC observer since May 2002, and Armenia since January 2003.

2015. Membership negotiation of Tajikistan and Kyrgyzstan are ongoing. Like Armenia, these two countries are recognized as future candidates of the EurAsEC.

In geopolitical terms it is very interesting the orientation of the remaining states which formally just started negotiations on accession. There are two problems. First is potential political instability caused by possible changes of government's (or citizen's) williness, like in case Ukraine. Moldova and Georgia. These countries have been pressured by both the EU and the EurAsEC to join their integration unions. But, the very beginning negotiations of accession with EU follow a very pronounced tendency in parts of these countries (Transnistria in Moldova, Eastern Ukraine and Crimea in Ukraine and South Ossetia and Abkhazia in Georgia) to directed the integration flows towards another solution. These breakaway regions have expressed their will to join the Eurasian Customs Union and integrate into the Eurasian Economic Union.

After many years of the former socialist countries' integration into the EU and EurAsEC, one can derive conclusions regarding the content and effects of the process. Volume of the changes varies from country to country. The results of the procedures, which have been undertaken so far, also vary. These differences in the integration engineering and the effects of the changes suggest that the fundamental reconstruction of the economy and society implies deep political and economic transformation. Insight into the current results of transition in non-member states shows that significant reform activities have been undertaken, but there is still no fundamental reconstruction of the economy and society.

We can talk about the good performance and structure of the economy that have been successfully involved in the European integration process, and even become members of the European Union, but also the economies of other countries that still can not reach even half of GDP in the late eighties. In the first group of countries made a fundamental, radical and relatively rapid reconstruction of the functioning of social processes. The second group of countries is unconvincing occurs declarative commitment to fundamental change, but implementation lacking predicted effects, mostly due to the lack of synchronized and simultaneous operation in all spheres and under vigorous break with the past relapses. As a result of this situation, one group of countries

simultaneously implemented (or even implemented) political and economic transition, while the second group of countries asynchronous occur more or less cosmetic changes in different segments of the economy and society.

These differences in the integration engineering and the effects of the changes suggest that the fundamental reconstruction of the economy and society is at the same time a deep political and economic transformation.

Changing of strategic aims has negative influence on internal and external stability. Second problem is related to economic issues. These countries fail positive effects of integration. In all other contexts, primarily economic, it is much more important content of the process of transformation of economy and society in order to ensure a higher level of social welfare.

3. EU INTEGRATION-CHALLENGES FOR NON-MEMBER COUNTRIES

What is necessary for better future is a sharp approach on a wider platform of the EU, not just in the monetary union. The harder way will remove the negative effects of the past, and then individual, but supervised, implementation of recovery plans and the Covenant by States will follow. Therefore, the extracted federalism may become normal in the long run.

The candidate countries for EU membership have even more challenges. Fulfillment of the requirements of Copenhagen is only a necessary but not sufficient condition for achieving the objectives of Agenda 2020. Serbia is in front of many challenges of convergence. Through the implementation of the Stabilization and Association Agreement, and after those Accession negotiations, candidate countries have to accept the rules and adopt the *acquiscommunautaire*. But, if the vision of the EU at the same time is their vision, since the period covered by the strategy 2020 some of these will be a member of the EU? In these countries Strategy 2020 is not same as in the EU. One gets the impression that the political elite does not have his own vision. A vision of Europe 2020 at least formally cannot share with other countries. Apart from that, the overall objective should be the same, in order to stabilize economic development, realize the production and export development

model, and consequently increase employment, rising living standards and social security of citizens. If we also take into account that candidate countries do not affect the extent of the Fiscal Compact and the fact that the budget deficit and the share of public debt to GDP ratio, ahead of these countries' future is full of challenges.

An important area that warrants long-term sustainable growth is investment in innovation and knowledge. In this way, each country will provide a higher level of competitiveness, both in the integration to which he belongs or which tends, as well as to all other countries.

4. CONCLUSION

In accordance with the set objectives of economic integration in which participating, countries should coordinate their own plans with the mandatory rules of the community in which they are members. How not to participate in the institutions of the EU or EurAsEC, each country has to formulate its own goals, which were given to the goals of convergence, compatible with own goals. These goals should not have to be contradictory but consistent: 1) the establishment of a development model based on the production and export of goods and services and the rational use of natural resources, especially energy, 2) adoption of long-term program for development of entrepreneurship, re-industrialization, strengthening competitiveness and modernization of the economic structure, 3) employment increase, 4) adoption of the program of human resource development, increasing the number of high educated people, especially in the natural sciences and IT sectors, reducing the 'brain drain', 5) investment in knowledge, research and technology development work at least 2 % of GDP in the 2015 and 3 % in 2020, 6) implementation of the state program of deleveraging, businesses and individuals, 7) implementation of necessary reforms in the country, especially the territorial organization of the public administration, pension system, etc.

This holistic approach would allow candidate countries to be in line with European political and economic trends. But for these countries, there is a *circulus vitiosus*: the output of the general economic and social problems would be faster and easier to achieve if it were an integral part of the EU that just asking her to achieve standardized performance as a condition for accession. One gets the impression that the latest EU

measures made the accession more distant. This brings us back to thinking about the integration engineering must rely on their own strength, with a slight help communities pursued. It certainly means a slower and less efficient way, and so the future of EU enlargement becomes farthest. Other solution is fast connection of Western Balkans to the EU. It would not be a precedent, because some decisions about access where adopt on the basis of the dominant political criteria.

REFERENCES

Eucken, W. (1990), *Grundsätze der Wirtschaftspolitik*, J.C.B. Mohr, Tuebingen.

Floros, G. (2011), *European Commission DG Economic and Financial Affairs*, Head of Equity and Debt Financial Instruments, ECFIN/L2 Belgrade, 4 October 2011.

Hayek, F. (1944), *The road to serfdom*. University of Chicago press, Chicago.

Hayek, F. (1948), *Individualism and economic order*. University of Chicagopress, Chicago.

Lipczyński, J., Wilson, J., Goddard, J. (2009). *Industrial Organization: Competition, Strategy, Policy*. Third Edition, Harlow, Prentice Hall, London.

Redzepagić, S. and Stojanović, B., (2014), *Les pays des Balkans sur la voie d'adhésion dans l'UE: capacités d'absorption vs. faites économiques*, in *Absorption capacity of EU pre-accession programs in the Western Balkan countries*, research monograph, editor Vinko Kandžija, CEMAFI International, Nice, 456-482.

Redzepagic, S., Stojanovic, B., Kandzija, V., (2015), *Economies et perspectives pour les pays des Balkans dans l'UE*, in: *Western balkans and the european union. Lessons from past enlargements, challenges to further integrations*, editors Vesselin Mintchev, Nikolay Nenovsky, Xavier Richet, University Publishing House "Stopanstvo", Sofia, pp. 51-68.

Stojanovic, B. (2013), *Economics of European integration*, Sven, Niš.

Radivojevic, V. (2013), *(Re)shaping of Competition Policy and State Aid Control - Case of Serbia in comparable Perspective*, in Monograph: *European Integration Process in Western Balkan Countries*, Faculty of Economics, University of Coimbra, Coimbra, 346-362.

Stojanovic, B. and Redzepagic, S. (2012), *Srbija u Procesu evropskih integracija i perspektive za razvoj poslovanja*, in Monograph: *Regionalni razvoj i demografski tokovi*, Ekonomski fakultet, Niš, 489-503.

Stojanovic, B., Stankovic, J. and Janković-Milic, V. (2013), *European integration influence on business climate in Serbia - perceptions and expectations of business community*, in: *Economic integrations, competition and cooperation - Accession of the Western Balkan Countries to the European Union*, ed. VinkoKandžija, Andrej Kumar, Faculty of Economics, Opatija, 221-234.

Stojanović, B. (2014), *Influence of the Green Economy on Competitiveness – Challenges in the Process of the european and eurasia Integration*, Higher School of Economics and Business, Al-Farabi Kazakh National university, Almaty, 15-22.

Svejnar, J. (2002), *Transition Economies: Performance and Challenges*, Journal of Economic Perspectives, 16(1).

CHAPTER 23

Nenad Smokrović

University of Rijeka, Faculty of Economics Rijeka, Rijeka, Croatia

Vinko Kandžija

University of Rijeka, Faculty of Economics Rijeka, Rijeka, Croatia

Nebojša Zelić

University of Rijeka, Faculty of Humanities and Social Sciences, Rijeka, Croatia

MODEL OF DELIBERATIVE DEMOCRACY: IS IT APPROPRIATE FOR WESTERN BALKAN AREA?

ABSTRACT

Due to the complex social, ethnical and religious composition of its democratic structures, not to mention the fragile political equilibrium in Western Balkan area, there is an urgent need for an applicable democratic model to appropriately fit such a situation. Generally, there are at stake two alternatives, two rather competing models of democracy. These are aggregative democracy and deliberative democracy. In view of the lack of quality debate preceding decision-making processes, which is especially pronounced in the region of the Western Balkans, we hold that introducing of deliberative democracy can be an appropriate mean for strengthening the democratic processes. Accordingly, the aim of the article is to present some aspects of theory and practice of deliberative democracy and on possibilities of practical application of specific competences and skills in particular situations and environments.

In accomplishing this goal, we are going to focus on: a) the idea of deliberative democracy and the legislative and ethical frameworks for implementing agreed solutions, and b) theoretical model of rational deliberative argumentation analyzing a notions of deliberative group and the structure of argumentative process, c) prospects of its applicability.

Keywords: deliberative democracy, model, Western Balkan

Jel classification: Z19

1. THE CONCEPT OF DELIBERATIVE DEMOCRACY

The aim of this paper is to present some aspects of practice and theoretical analyses of deliberative democracy. These aspects are centered on epistemological, moral and political advantages of deliberative democratic models over alternative model such as the aggregative democratic model. First, we give a working definition of deliberative democracy even though this term is very complex and protean. We proceed with presenting the concept of political authority appropriate for explaining the reason why democratic assembly, in which deliberation occurs, has political authority over its citizens even if they do not agree with all the outcomes of deliberation. After presenting this argument we will focus on the forms that democratic assembly should take to meet the desiderata of democratic institutions as presented by Graham Smith. Or more specifically the ways in which political deliberation should be institutionalized. Finally, we present virtues of deliberation from aspect of epistemology and cognitive theory.

The best way to understand deliberative democracy is to put it against the alternative democratic model – aggregative democracy. Aggregative democracy focuses on the democratic aspect of voting. Everyone has equal vote; the legitimate outcome of democratic decision-making is simply the one that receives majority of votes. In its simplest form, democracy as an aggregative model is similar to markets. Politicians sell their policy packages to voters (consumers) and the policy (product) receiving more votes (sales volume) will have democratic legitimacy (higher market share). An important aspect of the aggregative model is that voter's preferences are taken as given. Therefore, politicians are only trying to arrange their products to given preferences of voters so that their product satisfies preferences of larger number of voters.

In contrast to this model, deliberative democracy focuses not on voting as such, but on what precedes the act of voting. What precedes the act of voting is the deliberation on the political proposals themselves and on the act of choosing among them. Legitimacy of political outcome, i.e. political decision, law, policy, will thus depend not only on the number of votes but on the reasons supporting this outcome and on the act of deliberation in which these reasons were brought up and discussed. The political domain of decision-making is not perceived as a market as in the case with the aggregative model.

It is viewed as a forum, as a domain of meeting and discussion even though the participants are expected to vote at the end of discussion. Deliberative democracy does not require anutopian consensus on political outcomes. Voting will surely occur in the end because there will still be several proposals on the agenda but the reasons for voting on a particular proposal may change and will become more clear and known to others. Deliberative democracy does not take preferences as given, but focuses on forming the preferences for a particular vote. The deliberative procedure must be institutionalized in such a way that everyone can express his or her preferences and is able to change this preference in the light of the force of bettera argument.

The deliberative aspect and the democratic aspect of deliberative democracy are still to be explained. In common usage deliberation refers to careful consideration before taking a decision. Under deliberation we consider a process that must end with a decision. Deliberation is not just a process of thinking about one's preferences, it includes discussion with others. However, not all discussion implies deliberation. Contemplating about some work of art and discussing it with others can include different arguments why this work is valuable and so deepen our appreciation of this work, but it is still not considered as deliberation, in the sense we view this term. Deliberation must include talk on reasons that ends with certain decision. Joshua Cohen defines it this way: deliberation "is about weighingthe reasons relevant to a decision with a view to making a decision on the basis of that weighing" (Cohen 2007: 219). Thus, when we deliberate we discuss which reasons are relevant for the decision, we weigh them and then we reach decision on the basis of the relevant reasons we considerto have more weight.

The democratic aspect of deliberative democracy requires this kind of deliberation to be involved in collective decision-making which ends with decisions which are binding. Adding democratic to deliberation implies that all participants have an equal say in the deliberative process which will end with a decision that will be binding to all participants in the community. This is why such decisions must be related to the interests and judgments of individuals whose conduct will be regulated by this decision. Their conduct will be regulated and decision will be binding even if they do not agree that this is the best decision and they prefer some other outcome. The fact that deliberative process occurred prior to reaching the decision adds something to the authority of

democracy. The problem of democratic authority is that democratic decision-making has moral power to impose a duty to uphold democratic decision on citizens who do not agree with this decision. This problem will be addressed after we present advantages of deliberative democracy.

There are different advantages of democratic decision-making through deliberation. First, the political decisions reached this way will be better. They will better reflect interests of participants and they will be reached on better reasons. Second, deliberation improves legitimacy because laws tend to be rationally justified more often in the eyes of their citizens. Third, deliberation improves virtues in participants. People who deliberate tend to develop traits of autonomy, rationality and morality. Participants see themselves as sources of claims on others, they try to convince others by rational argumentation and they are confronted with interest of others that they have to take into consideration and try to understand them. All of these moral, political and epistemic advantages also have desirable impact on citizens that do not participate in deliberation for whatever reason. Even though they are not active as authors of the laws they are addressees of laws and they can have a better understanding of the bases on which these laws are justified. In democratic ideal, people are the sovereign and all political decisions are brought in their name even if they do not actively participate in political decision-making.

One of the advantages of political deliberation is that it provides the basis for a political community in plural societies. In plural societies, the community cannot be based on a shared value system if it is perceived in terms of a particular ethical, religious or philosophical mindset. But nevertheless, if we want to have a sense of community there must be a common set of values defining the relationship between the members of the community.

In deliberative ideal these values are those that underlie deliberation of free and equal citizens. Citizens are considered to be free in a sense that they are authors of their political claims and interests which they bring into the discussion. They are equal in a sense that their interests must be equally taken into account. Deliberation must be free and citizens ought to be given equal importance. Equality implies an egalitarian deliberative constraint, which means that equally important interests must be given equal weight prior to discussion and only after free discussion can we give priority to certain interests or certain reasons.

This is important aspect of community – no one's interests are given prior weight or importance over others simply because of their ethnic, religious or some other group characteristic. That is why free and equal deliberation can give sense of community in plural societies.

Now we can address the question of the authority of democracy. The concept we are embracing here is what Christiano calls "legitimate political authority as the right to rule"(Christiano, 2008: 240). This authority includes "a liberty on the part of authority to make decisions as it sees fit and it includes a power to impose duties on citizens (Christiano, 2008: 241). Thus, if democracy has authority as a right to rule, it brings decisions based only on inputs in political decision-making and citizens have an obligation to obey these decisions even if they do not agree with them. The idea is that a well-ordered democracy should not be considered as society for advancing private interests. Instead, it should be common enterprise of arranging a public sphere or common world. (The private sphere is guaranteed by liberal rights that democratic decisions cannot override). As members of the society we have to obey decisions even at the expense of our private interests. But, of course this is true only if we are all treated equally in the process of decision-making. Thus, as Christiano notes, democracy has authority as a right to rule only if its decision-making procedures satisfy the principle of public equality. Deliberative democracy demonstrating above mentioned features and especially its egalitarian aspect thus grounds more strongly the authority of democracy. The important point that should be addressed here is the question of the embodiment of this principle, i.e. the institutions required to achieve egalitarian democratic deliberation. As Christiano says: "A properly constituted democratic assembly is the institutional embodiment of the unified body of the people as a collective decision maker in a political society" (Christiano, 2008:246). The main question that poses itself is: What is a properly constituted democratic assembly? Christiano has in mind representative democracy so he describes properly constituted democratic assembly as one where the "representatives in the assembly have been elected in the proper way in a process of election that includes all sane permanent adult residents of the society" (Ibidem). Certainly, the main loci of political deliberation in modern large-scale societies are democratic assemblies like legislative bodies, usually parliaments, where professional politicians represent citizens when they deliberate together on certain political issues.

In line with our views and in order to ground the authority of deliberative democracy the crucial question is how democratic assemblies are institutionalized. The citizens' electoral political representatives at state level institutions still play a major role in political decision-making.

This is considered necessary in large-scale societies. However, this may also cause significant problems of the legitimacy and authority of contemporary representative democracies.

There are many problems with representative political bodies. Saward summarizes this problems as follows: "a decline in voting rates in most established democracies and rising disaffection for mainstream representative politics; the decline of political parties and rising distrust of politicians; the increasing role, especially in international politics of regulatory bodies and nongovernmental organizations (NGOs) which are often seen as unrepresentative or unaccountable; and renewed demands for better representation of marginalized groups such as woman, cultural minorities and even future generations and nonhuman nature" (Saward, 2010: 3). There is a considerable amount of research showing that there is a severe decline of trust in all EU countries in representative institutions of democratic system and increased trust in implementation institutions which are not being under electoral control (Rothstein, 2005). All this presents a very pessimistic picture of authority of representative democratic assemblies as we see them in the real world of politics. Thus, if we want to keep the good features of deliberative democracies and still hold it as a basis of political community under conditions of pluralism we should look to some other institutional forms of democratic assembly.

The remedy for the lack of trust in politicians lies in the involvement of citizens, not professional politicians only, in political deliberation. These institutions should contain fixed rules for reaching decisions and as participative institutions must satisfy certain desiderata. Graham Smith provided a helpful list of important requirements such institutions should satisfy (Smith, 2009: 12 – 27). The first requirement is *inclusiveness* - institutions must include citizens from various social groups and they should provide them equal voice in discussion. Second, *popular control* – the way in which citizens can influence various aspects of the decision-making process: defining the problem, option analysis, option selection

and implementation. Third, *considered judgments* – how well institutions improve citizens understanding of technical details and perspective of other citizens. Fourth, *transparency* – procedures ought to be open and clear to participants and wider public. Smith uses this framework to analyze various participative models. This is surely out of reach of our paper, but we can present two models he analyses.

Smith analyses four models that he calls democratic inventions: *direct legislation*, *e-democracy*, *popular assemblies*, and *mini-publics*. We will focus on two models – popular assemblies and mini-publics – because we are concentrated solely on deliberative models. But first we shortly explain why direct legislation and e-democracy are not deliberative models. Direct legislation is a model that enforces certain law or policy directly through the ballot box. There are primarily two interconnected problems why this model is not appropriate for deliberative democracy. The first problem is that it does not include deliberation as one of its elements. In a sense this is radical example of aggregative democracy in which it is only important to have more votes on certain issue. It is a clear example of “might make it right”. Even though the requirement of inclusiveness is satisfied as every citizen have has equal impact on legislation, other requirements important for deliberative democracy such as considered judgments are missing. Every issue is presented for vote simply in a yes/no form and there is no space for negotiation, compromising or the understanding perspectives of others. The second problem that there is no democratic assembly for political deliberation, i.e. there is no political body of whatever kind where citizens can put reasons on table and weigh them. All deliberation occurs in a wider society where arguments do not have to be well considered but suited only to mobilize like-minded people to vote. Other model we are not going to focus on is what Smith calls e-democracy. E-democracy is not a particular deliberative model by itself. It simply makes use of information and communication technology in communication between citizens. Therefore, it does not provide any specific form of democratic assembly but makes wide communication feasible. As we said, we will focus on popular assemblies and mini-publics.

Popular assemblies are most similar to the original democratic practice, that of classical Athens, where citizens gathered together to debate and decide on laws and policies. Contemporary examples of such democratic practices are New England Town Meetings, Chicago Community

Policing and Participative Budgeting on which we shall focus. The main feature of model of popular assemblies is self-selection – citizens come voluntarily to discuss certain policies with others. Participative Budgeting (PB) is the most famous example of popular assemblies because situated in Port Alegre, a city in Brasil with around one and half million inhabitants that has proven to be very efficient since 1989.

The system of participatory budgeting was instituted by the Worker's Party (the PT), a Leftwing Socialist Party that unexpectedly won the election for Mayor in 1988 and adopted the Participatory Budget as a way of instituting a kind of "dual power" within city government.¹ Basic idea is that citizens meet in popular assemblies throughout the city to deliberate about how the city budget should be spent. At the beginning of the budget cycle each year these assemblies meet in plenary sessions. City executives, administrators, representatives of community entities such as neighborhood associations, youth and sports clubs, and any interested inhabitant of the city attends these assemblies, but only residents of the region can vote in the regional assembly. These assemblies are jointly coordinated by members of municipal government and by community delegates. At this initial plenary assembly the results of the previous years' budget process are reviewed by representatives from the Mayor's office. Also at this plenary assembly, delegates are chosen to meet in regional and thematic budget councils in order to formulate spending priorities. This is where the most intensely participatory work on the budget is done. These delegate meetings are held in neighborhoods throughout the region over a period of three months during which delegates meet with residents and representatives of secondary associations to hear proposals and consider a wide range of possible projects which the city might fund in the region. Typical projects include such things as street paving and repair, sewage, day care centers, public housing, and health care clinics. At the end of three months, these delegates report back to a second regional plenary assembly with a set of regional budget proposals (or in the case of the city-wide thematic plenary assemblies with budget proposals on the thematic issues). At this second plenary, proposals are ratified by a vote of people participating in the meeting, and two delegates and substitutes are elected to represent the assembly at in a city-wide body called the

¹ This description of the model is taken from Wright (2010: 120).

Participatory Budgeting Council, which meets over the following several months to formulate an integrated city-wide budget from these regional and thematic budgetary proposals. It is mainly at this point that technical experts enter the process in a systematic way, making estimates of the costs of different projects and discussing technical constraints on various proposals. Since citizen representatives are in most cases non-professionals, city agencies offer courses and seminars on budgeting for Council delegates as well as for interested participants from the regional assemblies. At the end of this process, the Council submits a proposed budget to the Mayor, who can either accept the budget or through veto remand it back to the Council for revision. Once a budget has been agreed on by the Mayor and the Budget council, it is finally submitted to the regular city council for formal adoption. The whole process takes about six months and involves tens of thousands of city residents in active policy-making deliberations.

In for our discussion the two questions of importance are how good this model is in terms of democratic assembly with authority and how good is it in promoting deliberation. To answer first question we have to look at three desiderata mentioned above – inclusiveness, transparency and popular control. In view of inclusiveness, there are many empirical findings reporting that participation levels of citizens have been high and sustained. „In Porto Alegre,“ Rebecca Abers reports, „within a couple of years after the budget policy began, thousands of people were participating in the regional budget assemblies. In 1991, about 3,000 people participated in the big second round regional assemblies. The following year this number doubled. By 1995, with the formalization of intermediary assemblies at the neighborhood level, about 14,000 people signed their names on the rolls. Furthermore ... this participation brought neighborhoods and regions that historically had not been mobilized into the realm of collective action. The majority were poor rather than middle class. “(Abers, 2000: 135). In terms of transparency there are also many findings reporting that corruption largely disappeared and that tax compliance has increased among the middle class and affluent suggests that the enhanced democratic legitimacy and transparency of the process may have begun to affect norms of civic responsibility and obligation. Biggest problem is popular control. Certainly popular control is constrained by the need to negotiate projects and their technical feasibility with city administration that will always have superior technical knowledge. But nevertheless, city administration

should be under control of city council which is also democratic elected body which implies negotiation between one representative democratic assembly and one participative democratic assembly. Thus, if democratic authority as a right to rule is based on the principle of public equality, then it seems that this kind of authority is even more justified by participative democratic input characterized by stronger inclusiveness, transparency and popular control than representative body alone.

Our second concern is how well the model of popular assembly is suited for democratic deliberation. As said, democratic deliberation is collective decision making that involves weighing reasons for decisions that are going to be binding. Even though PB does not have direct legislative power, as parliaments do, decisions reached in it are binding if they are negotiated as such with city administration, and not simply taken as advice or consultation. More important issue is purely deliberative aspect. There are some optimistic indications that weighing of reasons is has been happening in PB. There has been a massive shift in spending towards the poorest regions of the city. As one would predict, in a deliberative process where reasons and needs rather than power play the central role in allocations, the neediest parts of the city receive the most funding. On the other hand, the danger that is still present is that self-selection is mostly based on education, sex, age and thus male, middle-aged only educated, male, middle-aged persons will dominate discussion. Problem also lies in the quality of discussion: how good discussion can be if persons come to the assembly lacking technical knowledge of problems in question and how to moderate discussion of large number of people in order for it really to be deliberation?

These problems are surely present in a model like PB, but they are overcome in the next model we are going to present, i.e. the model of assembly by random selection or mini-publics.

What differentiates mini-publics, from PB described above is that participants are not self-selected but they are being invited to participate in discussing certain issues. This model is also more similar to the Ancient Athens model of democracy because it uses random selection process and this is how public offices were selected in Ancient Athens. Most important figure in constructing such assemblies is James Fishkin. He describes his experiments of this model, that he calls “deliberative

polling”, as follows: “A random, representative sample is first polled on the targeted issues. After this baseline poll, members of the sample are invited to gather at a single place for a weekend in order to discuss the issues. Carefully balanced briefing materials are sent to the participants and are also made publicly available. The participants engage in dialogue with competing experts and political leaders based on questions they develop in small group discussions with trained moderators. Parts of the weekend events are broadcast on television, either live or in taped and edited form. After the deliberations, the sample is again asked the original questions. The resulting changes in opinion represent the conclusions the public would reach, if people had opportunity to become more informed and more engaged by the issues.” (Fishkin in Wright 2010: 131) The most known use of this model in political decision-making was the British Columbia Citizen Assembly, and in this paper we will focus on the work of this assembly². In 2003 the provincial government of British Columbia created a randomly selected Citizens Assembly whose mandate was to formulate a referendum proposal for a new electoral system for the provincial parliament. British Columbia had a typical single-member district first-past-the-post parliamentary system. The problem, then, was to choose an alternative from the range of electoral rules. To solve this problem a Citizens Assembly on Electoral Reform was created, consisting of 160 randomly selected delegates—one man and one woman from each of the 79 electoral districts in the province plus two delegates of “first nations” people. The work on the Citizens Assembly was carried out in three phases. From January to March of 2004 the Assembly met every other weekend in Vancouver for delegates to learn about alternative electoral systems through intensive lectures, seminars and discussions. Delegates’ expenses were paid along with a \$150 honorarium for each weekend. In the second phase, during the summer of 2004, the delegates participated in a series of public hearings around the province to bring the issues before the broader public and get public reactions. In the third phase, in the fall of 2004, the Citizens Assembly met again every other weekend for intensive discussions at the end of which the delegates drafted a referendum proposal for the new electoral law. To the surprise of many they did not choose a straightforward system of proportional representation, but rather what is known as the Single Transferable Vote (STV) system.

² This description of the model is taken from Wright (2010: 132).

This proposal was then submitted for a popular vote in May of 2005. As things turned out, the referendum received 57.3% of the vote, just short of the 60% needed for immediate passage.

We believe that mini-publics are better suited for deliberation, since they include less people than popular assemblies do, and thus good deliberative practice is much more feasible. Moreover, it enables participants to weigh reasons as it provides them with the opportunity to hear experts, ask questions and after hearing experts make their decision. Mini-publics are designed in such a way to orient citizens towards considering public interest and not only their own. Citizens are not invited as representatives of any particular group, but simply as deliberators. Their decisions are not directly binding but they can be binding if elected by wider public. Thus, this is good example of democratic deliberation. In terms of authority there can be a problem connected to inclusiveness. After all, it is only a small number of people who have been randomly selected, not even elected, placed in position to reach decision. However, if the sampling of participants was conducted well than it can be that it represents as Fishkin says "the conclusions the public would reach, if people had opportunity to become more informed and more engaged by the issues." Inclusiveness does not only focus on the presence of all social groups, but also on their voice which can more easily be equally heard in smaller deliberative groups as mini-publics rather than popular assemblies. Popular control may also be problematic as the issues to be discussed are not posed by citizens but by politicians. Therefore, like in popular assembly, the deliberation is performed by representative political body and a participative democratic assembly. It seems that this can also make democratic authority stronger than it actually is in advanced representative democracies.

2. THE NOTIONS OF DELIBERATIVE GROUP AND DELIBERATIVE ARGUMENTATION

As we have said, the deliberative democracy does not focus on voting, but on the deliberation about political proposals themselves. The decision-making in deliberative democracy is, in both its forms of application, particularly in the form of *mini-publics*, a social process that includes a group of people involved in the argumentation about political proposals. By a political proposal we mean a proposed solution to a common political problem irrespective of whether it concerns a large

society or a small group. The goal of a deliberating process is to make a decision about the proposed solutions to the problem important for all members of the group, or to give a new solution for this problem. Whatever the problem might be, an outcome of deliberation is supposed to be the solution of the problem that is just, fair and unbiased, as much as possible. The only means for reaching such a goal is the argumentation among the members of the group.

We are emphasizing two characteristic features of deliberative democracy, namely, group reasoning in decision – making and argumentation as a basic form of deliberative decision –making. If deliberative democracy is considered to be a better and more eddicinet political practice enabling positive transformations, particularly in the areas with shortages in participative democracy, its advantages should be observed in these two features, that is, group reasoning, instead of voting or individual reasoning, and argumentation as a means for reaching a good decision.

In this part of the paper we are going to analyze, first, the concept of decision-making groups suitable for deliberation in a mini-publics form, and then the concept of argumentation capable to ensure the goal of the deliberative process.

Let us start with the notion of a group. What is the nature and characteristic of a group suitable for deliberation and how to account for the reasoning process that fits deliberation goals? Concerning the first question, it is truism that every group consists of members and that the action of the group is reducible to the actions of its members. However, what is it that motivates individuals to make a collective action, what are their reasons for performing deliberation?

To clarify this topic let us explore Raimo Tuomela's elucidating analysis of the group. Distinguishing what he calls the member's I-mode reasons (IMR) and We-mode reasons (WMR) for action, he states (Tuomela, R. 2007: 17):

”(IMR) Reason R is a group member's motivating I-mode reason for performing an action X if and only if R is the agent's main motivating private reason for his performing X. Typically, R is a state that the agent wants or intends to be the case or a state that, according to his belief, obtains; and X is an action that is a means to R or an action that R

requires for its obtaining such that the agent is privately committed to performing X for the reason R.

(WMR) Reason R is a group member's motivating we-mode reason for performing an action X if and only if R is the agent's main motivating group reason for his performing X. Typically, R is a state that the group in question wants, intends, or requires to be the case or is a state that, according to the group's belief, obtains; generally speaking R is a state that is "for the group." X is an action that is the individual's part of a collective action that is a means to R or a collective action that R requires for its obtaining, where the group members are collectively committed to performing the collective action for reason R and mutually believing so."

We hold that the decision-making group in a deliberative democracy clearly belongs to IMR. Members have I-mode reasons for the collective action if they, having "private" motivations, enter the exchange of opinions in a group deliberation. Individuals join together being in some way or other "impelled" to act together because otherwise they cannot realize their goals. In such a situation, everyone has his or her own goal, although their goals are very close or even identical, but even then they remain "private" goals. Different individuals have similar or identical goals because they are bound with the same situation either in the way that they share the same goods they exploit collectively (a meadow, a fishing area, or similar; E. Ostrom determines it as a *common good*), or in a way that they want to improve or ameliorate their common living conditions. Despite the fact that they are "in the same boat", members of the group are motivated by I-mode reasons.

Having clarified the kind of the group fitting the deliberation process, let us take a closer look at the concept of deliberation. Before entering the *structure of deliberation*, let us focus on the possibility of assessing the results of deliberation. Deliberation as a collective or group action is a process that tends to result with an outcome that is supposed to give a solution to a common problem that members have a reason to solve. In such conditions, a group deliberation consists of practical reasoning that searches for a *means* of reaching practical *ends*. Such reasoning can be performed well or rather poorly. In the *practical*, political deliberation (in contrast to the *theoretical*, logical reasoning) it is not so easy to determine the standards of a good performance, the standards that allow

us to judge whether a given deliberative process produces a better or worse outcome. The outcome of the group political deliberation is considered as good or successful if it results in finding adequate or successful means for the group ends. But, how can we judge whether the chosen means were good enough, not to say optimal? For example, if we take an economic case, assess an aspect of the government's policy, we can do that by using the unemployment level as an *empirical proxy* to judge whether or not the decision has been right. To generalize it, we can say that the assessment of a deliberation's outcome can be obtained by judging the effects of the outcome. In this case, the act of the deliberation and its effect are detached in time, and one should wait until the effect occurs, judging the deliberation *ex post facto*. It is different in theoretical reasoning where the very act of reasoning and its effect are simultaneous and the assessing whether the outcome meets the standard is available directly. Yet, it can be asserted that in both cases, in the theoretical as well as in the practical reasoning, the standard of judging *can* be attained. Accordingly, we think that the questions concerning the standard for judging a political deliberation, whether a group decision is better or worse, are meaningful and justified (see: Estlund, D. 2007; Talisse, R 2009).

As we have said, a decision-making group consists of individual members motivated for performing a common action by I-mode reasons. Every participant in the deliberative process has his or her own reasons and is endowed with particular reasoning skills. However, we are going to argue that *individual reasoning skills and mechanisms work best when used in the group during a public deliberation*. The argument claims: *a group makes better decisions and generally better performs all kinds of reasoning tasks than individuals do*. The evidence for this statement has been offered by a huge number of experiments in psychological investigations. experimental results show that groupsbut alsoin different kinds of scientific problem solving.

We will present our argument through several steps. The first one refers to mainstream, traditional investigations of *individual* reasoning. Psychological investigations in the last five decades or so have documented a significantly poor performance of individual reasoning in almost all segments of this area. Amos Tversky and Daniel Kahneman (and many others) have demonstrated the failures of reasoning in decision-making. P. Johnson-Laird and J. S. Evans (and, again, many

others) have shown how fallible reasoning can be. Others have shown that sometimes reasoning too much can make us worse off, that is, it can unduly increase self-confidence, allow us to maintain erroneous beliefs, create distorted, polarized beliefs and enable us to violate our own moral intuitions and political convictions by finding handy excuses.

However, more recent empirical findings, investigating reasoning in a group, strongly support the view that reasoning in a group, including political deliberation, scientific solving problem, and the like, achieves much better results than individual reasoning.

Let me review some typical empirical findings supporting the advantages of a group over individual reasoning. For instance, Bailenson & Rips (1996) reported: "Researchers who have looked at actual arguments and debates, even among untrained participants, are often impressed by the coherence of the reasoning displayed." Let us illustrate this type of research in more details. In Moshman & Gail's (1998), confronting individual and group reasoning in the field of solving logical tasks, the authors state: "The selection task, a well known logical hypothesis-testing problem, was presented to 143 college undergraduates - 32 individuals and 20 groups of 5 or 6 interacting peers. The correct (falsification) response pattern was selected by only 9% of the individuals but by 75% of the groups. The superior performance of the groups was due to collaborative reasoning rather than to imitation or peer pressure."

Here is a brief description of the experiment. Students were randomly assigned to one of three experimental conditions: (a) an individual control condition, (b) an interactive group, or (c) an individual/interactive group. The 32 students assigned to the individual condition were asked to solve the selection task individually. The 54 students assigned to the interactive condition addressed the task collectively in 10 groups of 5 or 6 members each. The 57 students assigned to the individual/interactive condition considered the task first individually and then in 10 groups of 5 or 6 members each. In the individual condition, 9.4% selected the correct *p* and *not-q* combination. In the interactive condition, 70% of the groups selected the correct *p* and *not-q* combination; in the individual/interactive condition, 80% of the groups selected this combination. Thus, correct selection patterns were far more common in the group conditions than in the individual condition, χ^2 (1,

$N = 52) = 23.42, P < .001$. The difference between interactive and individual/interactive groups was not significant, $\chi^2(1, N = 20) = 0.27, P > .05$ (see: Moshman&Gail, 1998)

However, one should be cautious here. It is not so that in all investigating decision-making forms group performances override individual ones. Actually, experimental results concerning a wider area of group decision-making are inconsistent! Reasoning in a group sometimes homogenizes attitudes and sometimes polarizes them (Isenberg, 1986). Decisions made in groups will sometimes be better and sometimes worse than decisions made by individuals (Kerr, MacCoun, & Kramer, 1996; Kerr & Tindale, 2004). According to the findings, “the general conclusion of surveys of the empirical research so far is that taken together the findings are mixed or inconclusive” (Thompson, 2008: 499-500).

The second step in our argument is to resolve this alleged inconsistency. It should be stressed that there are different forms of decision-making in a group. Some of them fall out of the scope of our interest. Typically, such situations are those where decision-making, although performed in a group, does not involve either proper reasoning processes or the exchange of arguments. Some of such situations studied by social psychologists do not require any reasoning at all. For instance, brainstorming as a freewheeling exchange of ideas has been a basis of the research on group decision-making, yielding rather consistently poor performance by groups (Mullen, Johnson, & Salas, 1991). But brainstorming need not involve reasoning; on the contrary, it is supposed to be an uncontrolled creativity during which ideas and arguments are not critically evaluated. Such forms of group decision-making do not concern us here.

What does concern us here is a form of reasoning in a group where individuals communicate exchanging their opinions and evaluate them. *This form* of reasoning in a group, as experiments univocally demonstrate, is beyond any doubt superior to individual reasoning. Significantly, this form of reasoning in a group meets all conditions of political deliberative decision-making.

The third step in our argument concerns the asymmetry between individual and group performances. Let us offer an explanation we find highly

plausible. The account we are offering for this asymmetry is the naturalistic one. Sperber and Mercier offered (in a number of articles³) an evolutionary hypothesis known as *Argumentative theory of reasoning* (ATR). According to this theory, reflective reasoning has been designed by evolution as a communicative competence rather than aiming at enhancing individual inference. The emphasis is on the function of reasoning: instead of being a prop of individual cognition, reasoning is an argumentative mechanism geared to a social goal. In this way, *normal conditions* for reasoning are now to be found in a social situation of disagreement between at least two individuals in the course of a conversation. What we mean by a normal condition is the function the reasoning mechanism has been designed for. According to ATR, reasoning is designed for argumentation. Hence, the thesis is that the proper function for reasoning is a social argumentative process where reasoning works best. Accordingly, it is only in the argumentation process that individual reasoning can reach its optimum. The significant consequence is that reasoning in a group does better than solitary individual reasoning. From this it follows that the argumentation process has some resources for enhancing individual reasoning. Let us see what they are.

As we have said, deliberation is a social situation of disagreement between at least two individuals in the course of a conversation. The only way of resolving the disagreement in a genuine deliberation is through argumentation. "The argumentation is an effective means of resolving a difference of opinion in accordance with discussion rules acceptable to the parties involved." (Van Eemeren, Grootendorst, 2004:15). Deliberation, based on argumentation, must be an exchange of arguments for and against a given proposition. This exchange of arguments must be conducted by a system of rules that is accepted by all the parties. This constraint of the argumentation process based on a system of rules acceptable for all participants van Eemeren calls *reasonableness*. We are not going into the complex question of what exactly to consider as a reasonable system of rules acceptable for all participants. It is sufficient to say that "the proposed procedural rules are valid as far as they really enable the discussants to resolve their differences of opinion." (Van Eemeren, Grootendorst, 2004:16). What is

³ See: Mercier & Sperber, 2011. Sperber & Mercier, 2012.

most important for the deliberative democracy understood in this way is that decisions making in a group cannot be coerced on members by force, threat or deceit. A decision should be obtained only by the argumentative exchange of reasons (arguments) pro and con a given proposition.

The basic structure of a deliberative process as a form of communication is this: the participants not only give and receive information (as in other simple forms of communication) but the sender of information also offers supporting reasons or good grounds for his or her claim. The receiver of the information not only evaluates the trustworthiness of the source and the consistency of the content of a claim with his or her other beliefs, but also the connection between the reason and the claim. It is the form of communication consisting of *the claim, reason(s) supporting it and the relation between the claim and the reasons, where the sender produces a claim and reasons while a receiver evaluates it, that we will consider as the argumentation*. Therefore, the deliberation based on the argumentation process must meet two unavoidable conditions: first, one of the participants should produce arguments (formulate and clearly express the claim and the reasons supporting it) and second, other participants should evaluate it. Of course, the deliberation is not a one-shot process. The sender and the receiver(s) exchange their roles as producers and evaluators of arguments. The fact that participants are committed to playing different roles, alternating them in positions of producers and evaluators of arguments, gives the argumentation process the power to add something to the extension of knowledge. Let us elaborate this a little. The participants in the argumentation process are individual reasoners with their reasoning competences and abilities as well as their practical and epistemic goals. Let us take, to reiterate, a simple argumentation situation in which one party is claiming that *p* and the other party is suspicious whether it is the case.

Let us suppose also that the sender sincerely believes that *p* is true while the receiver does not want to be misinformed and led astray. Obviously, they enter the process with different, even opposing goals. There is, on the one hand, a practical goal of convincing one, and also a practical goal to avoid misinformation, on the other. But, it seems that behind these practical goals, there is a more fundamental one. I suggest that it is the epistemic goal of acquiring knowledge. Each party is doing whatever

is in their intellectual power to find out whether that which is claimed is true.

The very process of argumentation adds something to individuals' goals. It combines and adjusts practical goals and pushes them in the epistemic direction, namely, to the *extension of knowledge*. In the case of practical deliberation, participants want to know whether the means for the ends they intend to achieve are valuable enough.

3. DELIBERATIVE DEMOCRACY AND WESTERN BALKANS

We hold that political circumstances in Western Balkans provide good grounds for participative deliberative institutions with advantages described above. First, all these societies do not have a long tradition of democratic institutions. They lived in more or less autocratic one - party regimes. This fact certainly had impact on how citizens perceive political institutions. Political institutions are often seen as means to promote ideologies, if not socialist then conservative ones, and not as places of deliberation among citizens deeply divided in their values, interests and conceptions of good life. Second, although there is decrease of trust in political representative institutions all over Europe this decrease of trust is particularly significant in Western Balkan. Politics is often perceived as way of promoting personal career or gain personal benefits and not as a work for a common good.⁴ For these reasons there is widespread belief that politics is corrupted and this certainly has impact on strong decrease of trust in political institutions.⁵ Third, because of its turbulent past many political discussions are centred around ideological and nationalistic questions and not on practical problems that directly influence lives of citizens. Political parties in their campaigns and rhetoric usually focus on questions concerning World War II and wars in the 1990's usually trying to polarize citizens and mobilize their supporters.

There were certain movements in Croatia and Bosnia and Herzegovina directing toward stronger civic participation in decision-making. In Croatia there was student movement in 2009 demanding direct democratic decision-making but it was it was mainly directed toward

⁴ For example one research in Croatia found that less than 4% of young citizens have trust in political parties but more than 11% of them are members of political parties. (Ilišin, 2015)

⁵ For case of Croatia see Malenica and Jeknić (2010).

student population. In Bosnia and Herzegovina there were huge protests in 2014 against political elite and important part of these protests were also spontaneous discussion groups of citizens trying to organize themselves to be able to make political decisions. This project also short lived but one of the positive features of it was that in ethnically divided Bosnia and Herzegovina citizens in these discussion groups were not seen as members of different nationalities, but simply as citizens. This provided some positive light to what we emphasized above – that deliberation and sense of shared political institutions can give sense of political community above particular (ethnic, religious) communities to which we belong. In Croatia there are also some projects of participative budgeting in cities of Pazin and Karlovac.

All this movements and projects more resemble popular assemblies then mini-publics. Concerning some problems with which these societies are faced that is good news. There are some reports that participative budgeting decreases level of corruption, at least at a local level (Smith, 2009: 34). But, on the other hand participative budgeting can hardly be transferred to state level or solve some issues that are not of direct concerns for life in a city. For that reason we believe that mini-publics would be better model. First, there is reasonable hope that mini-publics will not be concerned with the debates characterized by partisanship and ideological fight. They will not be organized by their political views and thus less polarized. Citizens will be confronted with each other in trying to reach decision on certain issues. Second, process itself will be very transparent, therefore there is reasonable hope that it will increase trust in political institutions and that it will increase mutual trust between citizens.

Certainly, biggest problem with mini-publics is that there has to be strong political will to organize such discussions. But, that is a different problem that we cannot raise here.

REFERENCES

- Abers, Rebecca. 2000. *Inventing Local Democracy: Grassroots Politics in Brazil*. London: Lynne Rienner Publishers.
- Christiano, Thomas. 2008. *The Constitution of Equality: Democratic Authority and its Limits*. Oxford: Oxford University Press.

- Cohen, Joshua. 2007. Deliberative democracy. In *Deliberation, Participation, and Democracy: Can the People Govern?*, edited by S. W. Rosenberg. New York: Palgrave Macmillan. 219–36.
- Estlund, D. 2007, *Democratic Authority. A Philosophical Framework*, Princeton University Press.
- Ilišin, Vesna. 2015. „Paradoksi demokratskog potencijala suvremene generacije mladih“. In *Demokratski potencijali mladih u Hrvatskoj*. Zagreb: Institut za društvena istraživanja. 15 – 45.
- Kerr&Tindale, 2004, Group performance and decision making, *Annual Review of Psychology*, 55.
- Kerr, N., MaCcoun, R., Kramer, G., 1996, Bias in Judgment: Comparing Individuals and Groups, *Psychological Review*, Vol. 103. No. 4.
- Malenica, Zoran and Jeknić, Ranka. 2010. „Percepcija korupcije i borba protiv korupcije u Republici Hrvatskoj“ in *Zbornik radova Pravnog fakulteta u Splitu*. 837 – 859.
- Mercier, H. & Sperber, D, 2011, *Why Do Humans Reason?* Arguments for an Argumentative Theory, *Behavioral and Brain Sciences*, 35., 57-111.
- Moshman&Gail, 1998, Collaborative Reasoning: Evidence for Collective Rationality, *Educational Psychology Papers and Publications*. Paper 52.
- Mullen, Johnson, & Salas, 1991, Productivity loss in brainstorming groups: A meta-analytic integration, *Basic and Applied Social Psychology*, 12, 1.
- Rothstein, Bo. 2005. *Social Trust and Problem of Trust*. Cambridge: Cambridge University Press.
- Saward, Michael. 2010. *The Representative Claim*. Oxford: Oxford University Press.
- Smith, Graham. 2009. *Democratic Innovations: Designing Institutions for Citizen Participation*. Cambridge: Cambridge University Press.
- Sperber, D, & Mercier, H. 2012, Reasoning as a Social Competence, in: Landemore&Elster (Eds.), *Collective Wisdom*, Cambridge University Press.

Talisie, R 2009, *Democracy and Moral Conflict*, Cambridge University Press.

Tomela, R. 2007, *The Philosophy of Sociality, The Shared Point of View*, Oxford University Press.

VanEemeren, F., & Grootendorst, R., 2004, *A Systematic Theory of Argumentation*, Cambridge University Press.

Wright, Erik Olin. 2010. *Envisioning Real Utopias*. London: Verso Books.

PART IV
FINANCIAL AND ACCOUNTING
ISSUES IN A CHANGING GLOBAL
AND EUROPEAN INTEGRATIONS
SYSTEM

CHAPTER 24

Nino Serdarević

University of Zenica, Faculty of Economics, Zenica, Bosnia and Herzegovina

Josipa Mrša

University of Rijeka, Faculty of Economics, Rijeka, Croatia

DOES HEDGE ACCOUNTING CONTRIBUTE TO REDUCING ACCOUNTING INFORMATION ASSYMMETRY AND Z-SCORE BIAS?

ABSTRACT

The bankruptcy prediction models development presented one of most exciting topics for accounting researchers across the globe for the past five decades. In recent period, and especially during the financial crises, research community has even intensified efforts in looking for the applicable model that will, perceiving statistically acceptable tolerable error enable reliable prediction of firms' bankruptcy probability. The stake in succeeding having developed model, and that (disregarding economy specifics) predicts universally the bankruptcy probability with sufficiently high precision, is enormously high. It directly implies drastic fall in transactions costs between borrowers and lenders, reliable and affordable risk assessment analysis and more optimistic capital flow. This article conceptualizes explanatory notes on bias, evidenced in legitimate research studies on bankruptcy prediction models, constructed of various financial ratios. We argue that the level of discretion over financial reporting considerably influences financial figures and, correspondingly, errors in bankruptcy models application. We assume that discretion directly correlates to type I error (no bankruptcy for bankrupt firms) and, thereafter, construct relationship of hedge accounting inefficacy to type I error results exposure.

Keywords: accounting information asymmetry, bankruptcy prediction, financial reporting quality, hedge accounting

JEL Classification: M41, G33

1. INTRODUCTION

Having developed a reliable model for predicting financial distress and business failure has been a challenge for researchers across the globe for past five decades. Credit risk managers, rating agencies, investment managers and lenders are seeking for the affordable and reliable model even longer. It is evidenced that the pioneers in independent credit investigators, predecessor to Dun & Bradstreet Inc., John M. Bradstreet from 1849, developed first book of commercial ratings in 1851.

First known bankruptcy prediction model developed is presented in 1932 (FitzPatrick J.P., 1932). Three decades later, financial reporting and ration analysis based bankruptcy rating grounded research (Beaver, 1967), initiated new era of discriminant model analysis to bankruptcy prediction. Beaver claimed that the bankruptcy predictors can be reliably ascertained with the univariate analysis, finding the set of indicators enabling discriminant factors between bankrupt and non-bankrupt firms up to five years prior to failure.

Altman research, back in 1968, complemented Beaver's set of indicators to the multivariate analysis model construct, claiming that the ratio analysis' indicators of prevailing importance for financial health of the firm, do not necessarily need to predict firm's failure if considered separately. He argued that the firm, being highly profitable, not need to have high liquidity; or that temporarily determined high liquidity ratio does not necessarily imply ensured solvency in longer run. In his research, he relied on multivariate discriminant analysis (MDA) application in constructing Z-score model (Altman, 1968).

Until today, practitioners and researchers have developed numerous bankruptcy predicting models, ZETA[®] 1977 credit risk model (Altman et. al., 1977), various distance to default models, Option pricing model (Black and Scholes, 1983), basic KMV model (Merton, 1974), TLTA Total Liabilities to Total Assets (Bemmann, 2005), BEX model (Belak et.al., 2007) business excellence in Croatia etc.

These models are proven to be well grounded constructs of the statistical discriminant analysis, based on retroactive financial reporting (accounting based) and market based indicators ability prediction. Nevertheless, recent studies show that even widely accepted models,

such as Altman's Z score (or relative scores in local context, such as BEX model), taken to be a measure for external auditors in going concern estimates, failed to be sufficiently reliable for bankruptcy prediction.

2. LITERATURE REVIEW

2.1. Bankruptcy prediction

In the literature (Altman, 1967, Ohlson, 1980, Bemman, 2005), bankruptcy is seen to be defined as a financial distress or drastic credit worthiness fall of the firm. From researchers' point of view, bankruptcy prediction presents challenging area for testing various financial forecasting tools. While finance researchers are looking for the explanation of the credit risk exposure relevance in financial reporting and application of market driven models (how?) accounting researchers are mainly oriented on the financial reporting quality (informativeness) and its predictability (why?).

In that regard, bankruptcy prediction theory has developed in three branches of models: accounting-based, market-based and, recently suggested, combined model (Beaver, W. et.al. 2011).

Diskriminant analysis, as a basis for numerous prediction models, relates to the variables and ratios determination and whose result is to clearly distinguish differences between bankrupt and non-bankrupt firms. In that regard, certain model accuracy concerns minimization of

- Type I error – no bankruptcy for bankrupt firms foreseen and
- Type II error – bankruptcy prediction for no bankrupt firms.

More conservative models will, thereby, tend to have higher Type II error, while more aggressive quotations might mislead to signal bankruptcy in coming two, three or five years.

Another distinction between models is the basis for the model construct. While some models are explanatory in term of returns and retained earnings to price, volatility and book-to-market ratios; second group of models discriminate solely between financial reporting ratios (for instance, McNichols, 2000).

We propose book-to-market ratio to be significantly affected by the capital market activity and, thereby, convergence of US models to transitional economies, such as Z-score, to be unavoidably biased to the extent overcoming tolerable error.

i. Bankruptcy prediction models construction and interpretation

Altman Z-score (1968, 1977, 1995)

Altman Z-score is constructed, using multivariate discriminant analysis (MDA), discriminating multivariate function (bankrupt and non-bankrupt):

$$Z = V_1X_1 + V_2X_2 + \dots + V_nX_n \quad [1]$$

Where

$V_1, X_2 \dots V_n$ = discriminant coefficients, and

$V_1, X_2 \dots X_n$ = independent variables

Linear function is built with ratios and weighted elements, enabling predicting of firms' financial distress. Altman tested 22 variables explaining liquidity, profitability, leverage, solvency, and activity; constructing five ratios function:

$$Z = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5 \quad [2]$$

Where

X_1 = working capital/total assets,

X_2 = retained earnings/total assets,

X_3 = earnings before interest and taxes/total assets,

X_4 = market value equity/book value of total liabilities,

X_5 = sales/total assets, and

Z = overall index.

Ranking firms by Z score results are interpreting for Z score values as $Z > 2.99$ -“Safe” Zones; $1.81 < Z < 2.99$ -“Grey” Zones; and $Z < 1.81$ -“Distress” Zones. The model, as such, does not integrate intercept standardizing cut off score at zero.

The original model, constructed on the sample of publicly listed companies, significantly discriminated by market value of equity to book value of total liabilities, explaining bankruptcy estate level, based on leverage of total financing.

Revised score (Z') for private firms, whose equity is not publically traded, has replaced market value of equity to book value of equity, revising standard set of coefficients:

$$Z' = 0.717(X1) + 0.847(X2) + 3.107(X3) + 0.420(X4) + 0.998(X5) \quad [3]$$

Where

X_1 = (Current Assets – Current Liabilities) / Total Assets,

X_2 = Retained Earnings / Total Assets,

X_3 = Earnings before Interest and Taxes / Total Assets,

X_4 = Book Value of Equity / Total Liabilities, and

X_5 = Sales/ Total Assets.

Second revision (Altman et.al., 1995) of the original model is conducted for estimating non-manufacturer industrials and emerging market credits (EMS emerging market scoring), using four of five pre-selected coefficients:

$$Z'' = 6.56 (X1) + 3.26 (X2) + 6.72 (X3) + 1.05 (X4) \quad [4]$$

Altman concludes that the financial distress, to great extent, depends on two ratios, market value of equity to total liabilities (leverage) and sales/total assets ratio as total return on assets.

Distance to default

Distance to default is a measure of a probability that the market value of firm's assets falls below the value of its debt. Shortly, firms disclosing positive equity, whose assets market value less book value of assets is higher than the disclosed equity, are considered to be in financial distress.

The distance to default T periods ahead (Merton, 1974) is given by

$$DD_T = \frac{\ln \frac{V}{D} + \mu - \frac{1}{2}\sigma^2}{\sigma} T \quad [5]$$

Where

V = value of firm's assets,

D = strike price or default barrier,

μ = growth rate of assets value,

σ = assets volatility.

The distance to default model, subject to its construct, is mainly useful in finance industry, while other industries are more likely to consider set of measures (liquidity, profitability, volatility, prices) ensuring more qualitative analysis for the potential financial distress.

BEX model (2007)

BEX model is a discriminant model, based on Altman Z-score construct. The model is based on 14 coefficients; 5 structural, 5 performance and 4 stakeholders' investment efficacy indices.

The model is constructed as a linear function:

$$BEX = 0.388ex_1 + 0.579ex_2 + 0.153ex_3 + 0.316ex_4 \quad [6]$$

Where

ex_1 = EBIT / Total assets,

ex_2 = Net income / (Equity x Cost of equity),

ex_3 = Working capital / Total assets

ex_4 = 5 (Profit + A + D) / Total liabilities

The authors claim to have developed a model, not solely useful in bankruptcy prediction, but also as a business excellence grading score for publicly traded firms in Croatia.

Campbell et. Al. Model (2010)

Campbell et. al. (2010) have developed eight coefficients model on book value of liabilities and market equity basis, introducing: for profitability *NI MTA* (net income to market value of total assets), for leverage *TL*

MTA (total liabilities/market total assets), for liquidity *CASH MTA* (cash holdings/market total assets), for equity return *EX RET* (stock excess return to index – S&P500 return), for volatility *SIGM A* (stock's standard deviation) to *R SIZE* (log equity capitalization to S&P index), *M B* (market to book for overvaluations) and *PRICE* (log stock price). The probability function is ($Y = 0$ for the firms remaining active and $Y = 1$ for firms that will fail in next month):

$$P_{t-1} \quad Y_{it} = 1 = \frac{1}{1 + \exp(-\alpha - \beta x_{i,t-1})} \quad [7]$$

Campbell et. al. claim to have developed more accurate, not time bound, model, based on the analysis of COMPUSTAT failed companies for the period 1963 – 2008. The authors have found out that the financial distress is likely to appear in companies that have recently made losses, have high leverage and volatile returns. Furthermore, they conclude that distress prediction in this population quintile significantly rises, once returns are adjusted for risks and that ensures less evidence of a decline in profits.

i. Models application and evidences

Several prior research results, testing bankruptcy prediction models, are consulted as to enable cross cuttings regarding specific model timeline accuracy and the explanatory power, especially in financial reporting predictive power and lessons learned there out.

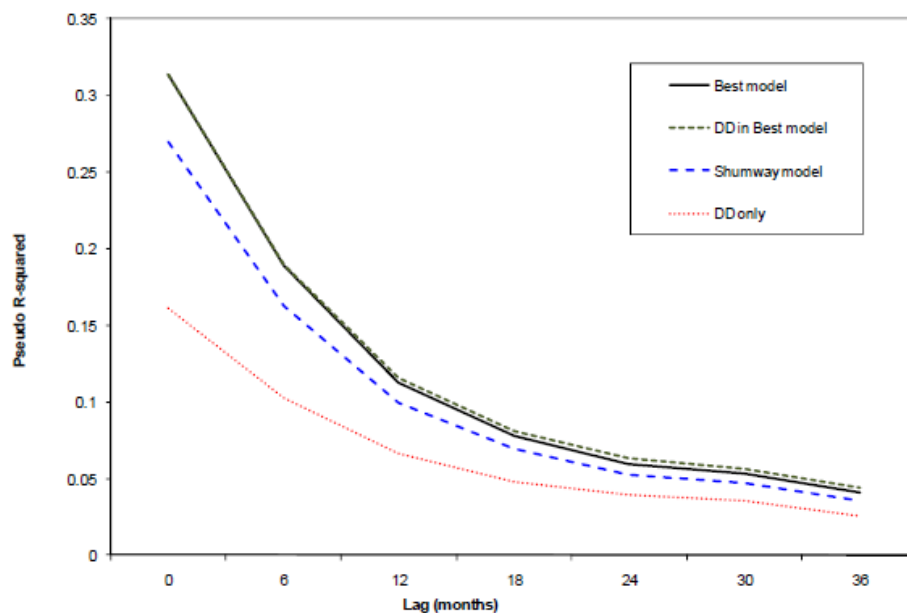
Substantive research questions that have arisen from the quantitative analysis are seen to be a pre-requisite towards preliminary conclusion on financial reporting predicting power embodied in analyzed leading indicators and relevant accounting principles application. We assume that

- presented models are constructed with prevailing statistical problem solving approach, ineffectively explaining financial reporting disclosure prediction capacities;
- sampled firms are to lower extent analyzed and stratified on financial reporting quality and its failure to predict financial distress;
- if the afore assumed is correct, these models are then missing relation between accruals and risk exposure to liquidity and solvency; and that is by default crucial for bankruptcy (or insolvency) prediction.

We rely on previous researchers for each specific model as to establish qualitative correlation between their accuracy in bankruptcy prediction and explanatory power on the reasons why some financial reports do and some do not reflect prospective (future) financial distress.

Campbell et.al. (2010) model seems to be more accurate in four decades time line, taking into consideration the model accuracy as in Type II Error, then other comparable models.

Figure 1 Prediction accuracy by models (best model, distance to default, Shumway model) by pseudo R-squared



Source: Campbell et. al., 2010

True testimony of Campbell et.al., 2010 model accuracy and relevance (disregarding financial reporting predictive power) is wide firm-years researched population.

Table 1 Failure prediction at different horizons

Lag (months)	0	12	36
Observations	2,022,562	1,870,481	1,477,749
Failures	1,756	2,159	1,655
Pseudo-R ²	0.316	0.118	0.041
Accuracy ratio	0.955	0.862	0.737

Source: Campbell et. al., 2010; modified by authors

As it can be found from the construct, this model is strongly linked to market driven coefficients, namely market value of assets, price volatility and leverage capitalization. In that regard this model is *a priori* incompatible for the application in transitional economies.

Widely used Altman Z-score application, tested in Croatia and Serbia, resulted in unsatisfactory levels of accuracy, Error Type II 39.24% in Croatia (Sarlija, 2007) and 32.40% in Serbia (Muminovic et.al., 2011). Another research (Reistad A., 2011) conducted during the financial crises in Norway show unsatisfactory level of Error Type II 35.35% Z-score prediction, and that was significantly higher comparing to measuring before the crises.

Concerning BEX model (Belak and Aljinovic Barac, 2007) there is no well grounded evidence on its applicability and accuracy, analyzed by other authors, and that came to our attention. As authors state, this index is a result of firm specific business excellence status and not solely bankruptcy prediction coefficient.

Shumway (1999) tested set of Altman's (1968), Zmijewski (1984) and Market-driven variables models using hazard model as to determine specific coefficients significance over three decades. He found out that bankruptcy prediction has been more accurate by using market driven variables (firm's market size, past stock returns and idiosyncratic standard deviation of firm's stock returns) and several accounting ratios, then if relying solely on accounting based coefficients.

Summarizing numerous findings on successfulness of various constructs applied in bankruptcy prediction models, it can be preliminary concluded that the financial reports failed to be accurate to reflect market driven variables volatility and predict, in longer run, firms' financial distress.

2.2. Financial ratios predictive ability concerning discretion participation exposure

Beaver et. al. (2011) investigate financial reporting quality affects on the financial ratio based bankruptcy prediction models accuracy. In particular, they argue that the existence of restatements and discretionary accruals are associated with the deterioration in the predictive power of the financial ratio-based model, both accounting and market based. In more particular:

- firms' intangible assets extensively capitalized research and development influences less informative financial statements and impairs predictive power;
- in low positive book-to-market ratios years tended to be most informative financial reporting, following high positive book-to-market and least informative in negative book-to-market values of equity;
- in loss firm-years predictive power lowers to the incremental explanatory power of remaining coefficients.

Authors have found out that the intensity of discretionary accruals; R&D recognition and restatements have had significant implications for the predictive power over time.

Comparable presumptions are also elaborated by Cho S. et. al. (2012) who argued that the particular accounting changes increase Z-score (lowering the probability of bankruptcy) due to:

- (1) Sales increase with credit: current ratio increase.
- (2) Underestimation of expenses: earnings and retained earnings increase.
- (3) Overstate equity by recording positive special items, deferring the recognition of asset impairment, classifying capital lease as operating lease.

Cho S. et. al. elaborate adjusting Z score necessity, taking into account total accruals as an earnings measurement distortion amount; before adjustment as follows:

$$TA_{it} = EBXI_{it} - CFO_{it} \quad [8]$$

Where

TA_{it} = total accruals for firm i in year t

$EBXI_{it}$ = earnings before extraordinary items for firm i in year t

CFO_{it} = cash flow from operations for firm i in year t

They set the regression for predicting value of total accruals.

$$TA_{it} = \beta_0 + \beta_1 (\Delta Sales_{it} - \Delta AR_{it}) + \beta_2 PPE_{it} + \varepsilon_{it} \quad [9]$$

Where

$\Delta Sales_{it}$ = change in sales revenue for firm i in year t

ΔAR_{it} = change in accounts receivables for firm i in year t

PPE_{it} = plant and equipment for firm i in year t

Searching for the appropriate bankruptcy prediction construct, we proposed that the model is to be

- based on financial reporting coefficients;
- sufficiently statistically accurate;
- explanatory in term of financial position and performance embodied in financial reports;
- a combination and a reflection book-to-market values of equity;
- applicable in less developed market as well as in developed economies and
- immune to accounting principles and financial reporting disclosure trends.

Then, taking into account literature review and previous research results, such model is to be built on liquidity, profitability, leverage and equity return coefficients, whereby set of pre-selected variables are to be refined by the level of discretionary accruals and hedging inefficacy, as to diminish financial reporting discrepancies and certain economy specifics.

2.3. Hedge accounting (in-) efficiency and risk management

Hedge accounting has been an idea of more transparent and reliable disclosure of using financial derivatives in hedging systemic and non-systemic risks for over then three decades behind. Latest developments, in standards setters' (IASB) efforts to improve the financial instrument accounting models as requested by G20, relate to the replacement of existing IAS 39 Financial instruments: *Recognition and measurement* to newly developed, more concise standard IFRS 9. In that regard, in December 2010, IASB published ED/2010/13 Hedge Accounting, linking hedge accounting stronger to risk management principles. In September 2012, IASB issued a draft IFRS 9 on general hedge accounting requirements.

IFRS 9 draft retains IAS 39 types of hedging to fair value hedges, cash flow hedges and hedges of the net investment in a foreign operation.

We do construct hedged item (financial asset) revaluation, taking into account hedge accounting (in-) efficiency:

$$HI_{risk} = HI_{book} \pm \frac{gain(loss)}{OCI+gain(loss)} \text{ in } \% \quad [10]$$

Where

HI = Hedge item – financial asset with risk or book value

gain(loss) = ineffective portion of hedging

OCI = effective portion of hedging

Period to period assets volatility is thereby corrected and linear growth/impairment of assets enabled.

3. CONSTRUCT

Accounting information asymmetry is anticipated using Asymmetric Accruals to Cash flow Measure (AACF), developed by Ball and Shivakumar (2005).

$$ACC_t = \beta \times CFO_t \quad [11]$$

Where

ACC_t = total accruals increase (Δ Inventories + Δ Receivables + Δ Other current assets + Δ Payable - Δ Other short-term liabilities – Depreciation and amortization) in t

CFO_t = operating cash flow of the firm in period t

β = interacting coefficient

We construct five coefficients model for firms not being traded publicly, correcting for discretion participation over financial reporting, cost capitalization intensity, accruals to cash flow asymmetry and hedge accounting ineffectiveness.

For leverage, we compare paid-in capital and retained earnings less capitalized cost in development to total long-term debt.

$$L = \frac{Equity + RE - R\&D}{Long-term\ debt} \quad [12]$$

It is expected that more experienced firms might show better leverage in term of retained earnings disclosed. On the other hand, firms operating shorter on the market might not be extensively financed with credits and loans. Similarly to Basel III arrangements (tier II capital), we do assume lowest border line for this ratio to be 8%.

As for liquidity, we compare cash and cash holdings, corrected by accruals to cash flow asymmetry, as dynamic liquidity parameter, to current liabilities.

$$Li = \frac{Cash\ and\ Cash\ holdings - ACC_t}{Current\ liabilities} \quad [13]$$

Solvency is built on the proportion of CFO in year t to long – term debt. Critical point for solvency is ratio result 0.06, or firm's inability to meet its long term debt with CFO within coming 15 years.

$$S = \frac{CFO_t}{Long-term\ debt} \quad [14]$$

For profitability coefficients we consider relevant the ratio between EBITDA and total assets, corrected by capitalized cost of development and hedging inefficiency as % of total financial assets, less revaluation reserves. In this regard, profitability is seen to be minimally on the cost

of capital level, if the firm is considered to creating added value, excluding internal revaluation effects.

$$P = \frac{EBITDA}{(total\ liabilities+equity+RE-R\&D-HI_{ineff})} \quad [15]$$

The equity return coefficient is considered accumulated within retained earnings less capitalized cost of development, hedging inefficiency and accruals to cash flow asymmetry to paid-in capital. Equity return coefficient is in that regard presenting retained returns on equity.

$$ER = \frac{RE-R\&D-ACC_t-HI_{ineff}}{Equity} \quad [16]$$

Where

ER = Equity return accumulated

RE = Retained earnings including equity reserves (accept revaluation)

R&D = Capitalized net research and development cost

ACC_t = Accruals to cash flow asymmetry

HI_{ineff} = Financial assets hedging inefficiency

Equity = Paid in equity

The total score eliminating discretion and taking into account assets volatility is built:

$$Score = \alpha L + \beta Li + \gamma S + \delta P + \varepsilon ER \quad [17]$$

Whereby, critical variables values are: $L \leq 8\%$, $S \leq 6\%$, $P \leq$ cost of capital x risk premium.

4. CONCLUSION

We do conceptualize that Altman's Z score error correlate to specific countries' system risks (as evidenced by Cambell et.al, 2010 as well), firms' inability in risks anticipation and, lastly, in level of accounting information asymmetry subject to financial reporting reliability (also evidenced by Beaver et.al., 2011). As Z score is multivariate discriminant analysis method, based on financial reporting ratios, it is strongly correlated to the financial reporting quality. The higher country' specific system risk, the higher is the need in applying accounting conservatism methods aiming in preserving equity overstatement.

Failure in proper risks anticipation, on the market with constant or falling fixed assets market prices, high market illiquidity and inefficient contract enforcement, necessarily implies assets overstatement.

In that regard we argue that bankruptcy prediction models, based on financial reporting figures, cannot be universally accepted if the financial reporting quality considerably varies from country to country (Zmijewski, 1984, Muminovic et.al., 2011, McNichols, 2010). We presume that recently calculated Error Type I and II of Altman's Z score in Serbia and Croatia, comparing to respecting error in developed countries, directly correlates to the financial reporting quality discrepancies and capital market specifics (open investors' market vs. banks financing market).

Furthermore, we argue, that the financial reporting quality discrepancies, relevant to bankruptcy prediction models, to great extent relate to risk anticipation within financial reporting.

Finally, we do propose that error level discrepancies between transition and developed countries directly correlate to the effectiveness of hedged risks and disclosure of hedge accounting (recently proposed by International Federation of Accountants) position within financial reports.

REFERENCES

- Altman, E. (1968), "*Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy*", Journal of Finance, September;
- Altman, E., R. Haldeman, and P. Narayanan (1977), "*ZETA Analysis: A New Model to Identify Bankruptcy Risk of Corporations*", Journal of Banking and Finance, June;
- Altman, E., J. Hartzell, and M. Peck (1995), "*Emerging Markets Corporate Bonds: A Scoring System*", Salomon Brothers Inc, New York;
- Ball, R. and Shivakumar, L. (2005): *Earnings quality in UK private firms: comparative loss recognition timeliness*, Journal of Accounting and Economics 39(1), p. 83-128

Beaver, W. (1966), *“Financial Ratios as Predictors of Failures”*, in Empirical Research in Accounting, selected studies, 1966 in supplement to the Journal of Accounting Research, January 1967;

Beaver, W. et. al. (2011), *“Do differences in financial reporting attributes impair the predictive ability of financial ratios for bankruptcy?”*, Accounting and management control department research seminar, HEC Paris, February;

Belak, V., Aljinović Barać, Ž. (2007), *“Business excellence (BEX) indeks – za procjenu poslovne izvrsnosti na tržištu kapitala u Republici Hrvatskoj”*, Računovodstvo, revizija i financije, RRIF Plus, Zagreb;

Bemmann, M. (2005), *“Improving the Comparability of Insolvency Predictions”*, June 23, 2005, Dresden, Economics Discussion Paper Series No. 08/2005.

Black, F. and Scholes, M. (1973), *“The Pricing of Options and Corporate Liabilities”*, Journal of Political Economy 81;

Campbell J.Y. et. al. (2010), *“Predicting Financial Distress and the Performance of Distressed Stocks”*, January 2010, based on: Campbell John Y., Jens Hilscher, and Jan Szilagyi, 2008, “In search of distress risk”, Journal of Finance, 63;

Cho, S. et. al. (2012), *“New risk analysis tools with accounting changes: adjusted Z-score”*, The Journal of Credit Risk, p. 89 – 108, Volume 8/Number 1, spring

FitzPatrick, Paul J. (1932), *“A Comparison of the Ratios of Successful Industrial Enterprises With Those of Failed Companies”*, The Certified Public Accountant, Beaver 1968, Journal of Accounting Research, October, p. 598-605;

Mc Nichols, M. (2000), *“Research design issues in earnings management studies”*, Journal of Accounting and Public Policy 19 (2000): 313-345.

Merton, R.C. (1974), *“On the Pricing of Corporate Debt: The Risk Structure of Interest Rates”*, Journal of Finance 21;

Muminovic S. et. al. (2011), “*Predictive ability of various bankruptcy prediction z-score models for Serbian publicly listed companies*”, Economics Institute a.d. Beograd, Industrija, vol. 39, no. 3, pp. 1-12, 2011.

Reistad A.M. (2011), “*Applying Altman’s Z-Score to the Financial Crises: An Empirical Study of Financial Distress on Oslo Stock Exchange*”, NHH Norwegian School of Economics, Bergen

Šarlija, N., (2007), “*Models for Risk Assessment of Business Enterprises*”, Faculty of economics

Available at: <http://oliver.efos.hr/nastavnici/nsarlija/projekti/index.ph>

Zmijewski, M. E., (1984), „*Methodological issues related to the estimation of financial distress prediction models*“, Journal of Accounting Research 22, 59-82.

Appendix – Bankruptcy theories, model constructs, time-line accuracy and financial reporting explanatory power

Theory	Accruals and hazard influential	Accuracy	Prevailing basis	
			Financial reports	Market driven
Altman Z-score	High	Falling		X
BEX index	High	Not grounded in longer term yet	Shared	
Campbell et. al. model	Moderate	Highest		X
Merton model	Moderate	High	X	

Source: authors' summarized conclusions

CHAPTER 25

Davor Vašiček

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Ana Marija Sikirić

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Josip Čičak

University of Rijeka, Faculty of Economics, Rijeka, Croatia

THE REFORM OF FINANCIAL MANAGEMENT AND ACCOUNTING OF NON-PROFIT ORGANIZATIONS IN THE REPUBLIC OF CROATIA

ABSTRACT

*Coordination of the Croatian normative framework with *acquis communautaire* covers all basic areas of law systematized in 32 chapters. There is no special emphasis on or requirements for harmonization and convergence of financial transactions and the transparency of the civil society operations. Regardless of this fact, in the context of general improvement of the Croatian financial system with the purpose of increasing the degree of transparency and systematic fight against corruption, the information bases of financial management and accounting of non-profit organizations have been formed and legalized. The accounting and reporting model represents an avant-garde step towards the application of advanced accounting systems based on the specific application of international accounting standards for business and public sectors. This paper systematically elaborates on the reformed accounting information system of non-profit organizations. The paper explains the hypothesis that for all groups of non-profit organizations it is legitimate to apply the same rules of measurement and evaluation, recognition of revenues and expenses and internationally comparable and acceptable economic classification of revenues and expenditures.*

Key words: financial management, non-profit organizations, accounting, transparency

JEL classification: L31, M41, M48,

1. INTRODUCTION

From the beginning of 1994 until the end of 2007, non-profit organizations¹ in the Republic of Croatia had been applying the accounting system governed by the Regulation on Accountancy of Non-profit Organizations (Official Gazette 112/93). In spite of numerous essential and formal drawbacks, this system withstood the various criticisms within the professional society for a long number of years. In practice, different professional, but unofficial accounting and reporting solutions were used as substitutes for the inconsistent legislative provisions in regards to the charts of accounts, recognition of financial reporting elements and the content of financial statements alike. Such solutions were also accepted by outside data users, including the supervisory and statistics state bodies. In the meanwhile, budget and company accounting systems have been updated on several occasions. Most of the changes were introduced within the context of adjusting our legislative regulations to the *Acquis Communautaire*. This context represented an adequate moment for the systematic and professional standardization of the accounting system in non-profit organizations. The reform in the accounting for non-profit organizations was radically implemented. On January 1, 2008, the new accounting system was introduced and it was based on the application of the full accrual concept and the relevant international economic classification of assets, obligations, revenues and expenses. As a result, the divergence of accounting systems for governmental and private non-profit organizations was significantly reduced.

A crucial step towards improving accounting information system and establishing an institutional framework for the introduction of financial management control was made at the beginning of 2015 by the Act on Financial Operations and Accounting of Non-Profit Organizations (Official Gazette 121/2014). Today, Croatia is among the leading countries which have systematically reformed all financial and accounting aspects of non-profit sector

¹ In this paper, the term non profit organization includes only a non-governmental organization (NGO) as a legally constituted civil society organization created by [natural](#) or [legal persons](#) that operates independently from any [government](#).

2. CONCEPTUAL DEFINITION AND THE SCOPE OF NON-PROFIT ORGANIZATIONS IN CROATIA

2.1. Conceptual definition

There are different definitions of a non-profit organization depending on different aspects such as the legal, financial and especially the economic aspect.

The term *non-profit organization* is not explicitly legally defined within the existing legal texts of the Republic of Croatia. The Constitution of the Republic of Croatia proclaims the freedom of association as one of the fundamental political rights (Article 43.): “Everyone shall be guaranteed the right to freedom of association for the purposes of protection of their interests or promotion of their social, economic, political, national, cultural and other convictions and objectives. For this purpose, everyone may freely form trade unions and other associations, join them or leave them, in conformity with law. The exercise of this right shall be restricted by the prohibition of any violent threat to the democratic constitutional order and independence, unity and territorial integrity of the Republic of Croatia.”

Even though there is no legal definition of a non-profit organization, it is possible to single out certain legal characteristics of non-profit organizations. The first characteristic is that this type of legal entity exists and operates for some other reason than generating profit. The emphasis here is not on avoiding generating profit, in the sense of accumulating net income surplus, but on the presence of a prevailing public benefit. The second characteristic of a non-profit organization is that it is prohibited from distributing the realized profit to third parties that could, due to their position, influence the work of the organization in order to acquire personal gains. The third assumption indicates that the characteristics of a non-profit organization do not necessarily depend on its legal form, i.e. the activities and the purposes of the organization are vital rather than the character of its legal identity.

The most common definitions of a non-profit organization include those in relation to the founder. A *non-profit organization* is an organization whose objective is something else rather than the acquisition of profit for

its owner. Its *purpose* usually includes providing services (Anthony and Young, 1988:49). This definition stresses the basic difference between profit and non-profit organizations.

The goals of non-profit organizations are, above all, oriented towards achieving better conditions for providing services based on available resources. The relations with the service users are achieved without direct market links. Non-profit organizations are not financed through the sales of goods or services on the market but are, as a rule, financed from other sources (various subsidy means, grants, alms, contributions, membership fees etc). Due to the nature of the activities of non-profit organizations, the measuring of expenses and benefits, and especially expressing provided benefits in terms of values is quite difficult.

In accordance with the manner of financing, and thus financial reporting, non-profit organizations in Croatia are also divided into two main categories:

- a) Governmental non-profit organizations or public non-profit organizations and
- b) Non-governmental or private non-profit organizations.

If the activity of a non-profit organization is initiated and supported by the state, then it is performed in compliance with the state policy and is financed, directly or indirectly, out of the fiscal and para-fiscal state revenues. Such non-profit organizations are included in the national public sector, i.e. the general state sector. Namely, the public sector is determined according to the methodology of the International Monetary Fund, the United Nations System of National Accounts and the European System of National Accounts.²

The organization of non-governmental non-profit organizations is mostly founded on voluntary basis (they are made up of a group of citizens that have voluntarily joined in order to carry out certain activities). They are mostly financed through donations, grants, membership contributions and other similar specific forms of financing that are, as a rule, based on voluntary and humane grounds.

In the recent history, non-profit organizations as civil society organizations have been closely related to the modern welfare state.

² European System of Accounts - ESA

Civil society institutions were established in democratic countries based on the rule of law and with developed market economy. It is not rare, especially in the transitional period, which the civil society is seen as an opposition to the current government, although the civil society evidently plays an important role, particularly in the countries of young democracy. For that reason, governments of the countries in transition make every effort to support and intensify financially and organizationally the development of civil society. Additional, somewhat even imperative, boost to the development of civil society in transition countries comes from the necessary adjustments in the process of European integration. In all transition countries there are examples of active government engagement in the development of civil society. It is evident in providing initial financial resources and establishing separate organization forms (national foundations, sectors, government agencies...), whose primary task is the financial, legal and organizational support to the development and operation of civil society organizations. In Bosnia and Herzegovina, for instance, government engagement is visible through the establishment of special sectors for cooperation with NGOs and civil society development under the Ministry of Justice.³ Croatian Government founded the Office for Cooperation with NGOs, as well as the National Foundation for Civil Society Development.⁴

2.2. The scope and economic potential of non-governmental non-profit sector

The scope of Croatian non-profit sector is based on data from basic financial statements of those entities that fulfilled their obligation to register in the Register of Non-Profit Organizations and submit financial statements. In early 2014, 26,362 non-governmental non-profit organizations were included in the Register of Non-Profit Organizations, managed by the Ministry of Finance, most of which were associations 23,617 (out of 51,435 included in the Register of Associations in 2014). In the Register of Non-Profit Organizations there are 598 unions of

³ For more information, visit: <http://www.mpr.gov.ba/hr/str.asp?id=326>

⁴ The National Foundation for Civil Society Development was founded under the special Act (Official Gazette 173/03) as a public foundation with the basic purpose of promoting and developing the civil society in the Republic of Croatia. The National Foundation is financed from the State Budget, through a separate account position of the Office for Cooperation with NGOs, from part of the income from games of chance and competitions and from the basic assets, donations and other income pursuant to Article 16 of the Act on Foundations and Funds.

associations, 112 employers' associations, 24 foreign associations, 422 institutions, 292 tourist communities, 282 trade unions, 227 art organizations, 137 foundations, 199 religious communities and legal entities established by religious communities, 96 political parties, four funds and 64 chambers (Croatian Ministry of Finance, 2014. according to Jakir-Bajo, 2014).

It is important to note that out of all organizations in the Register, only 55% are obliged to submission of financial statements, while others use simple bookkeeping and write financial reports⁵ (Croatian Ministry of Finance, 2014. according to Jakir-Bajo, 2014).

Non-profit organizations liable to financial reporting showed in their balance sheets⁶ the total assets of HRK 37.3 billion⁷, 21.8 billion of which is non-financial assets, while 15.5 billion is financial assets. Out of the total reported financial assets, HRK 2.2 billion is held in bank accounts, whereas 2.1 billion is in deposit. Non-profit organizations reported obligating 11.2 billion of HRK, 6 billion of which in credits and loans, and 1.2 billion in material expenses. Non-profit organizations delivered the total surplus from 2013 and previous years to 2014 in the amount of HRK 8.1 billion. The 2013 aggregate statement of revenues and expenditures of included non-profit organizations presented an annual income of about HRK 12 billion, most important of which were: revenues under special regulations from the budget (state budget and the budget of local and regional self-government units) and donations from the budget (state budget and the budget of local and regional self-government units) in the amount of HRK 3.2 billion; revenues under special regulations from other sources amounted to HRK 3.2 billion, HRK 1.8 billion was achieved in sales of goods and services in the market, HRK 1.4 billion was attained through membership fees and contributions, while generated property income reached HRK 550.7 million (Croatian Ministry of Finance, 2014. according to Jakir-Bajo, 2014.).

⁵ In 2014, 14,591 of about 26,500 registered non-profit organizations submitted their financial statements. The new Act on Financial Operations and Accounting significantly stimulated registrations in the Register. By April 01, 2015 as many as 30,896 non-profit organizations entered in the Register, 12,415 of which are so called "small organizations" – obliged to use simple bookkeeping; and 17,143 "large" – required to apply double-entry bookkeeping and reporting.

⁶ Status on January 01, 2014. Only those non-profit organizations whose value of assets and revenues in the former three years was above HRK 230,000 (approx. EUR 30,000) are obliged to submit their financial statements to the Ministry of Finance.

⁷ 1 EUR=approx. 7.6 HRK; that is 1 HRK=approx. 0.13 EUR

The same statement of revenues and expenditures of included non-profit organizations showed an annual expenditure of HRK 11.4 billion, most significant of which were: material expenses of HRK 5.4 billion, expenses for employees HRK 2.2 billion, and donations of HRK 1.8 billion. Additionally, the balance of current assets at the beginning of 2013 reached HRK 2.5 billion, and the total cash inflows and outflows during 2013 amounted to over HRK 33 billion. The total number of employees at the end of 2013 was 20,947 (Croatian Ministry of Finance, 2014. according to Jakir-Bajo, 2014.).

The aggregate report for 2014 shows that aggregated data on the elements of financial position, employment and the elements of performance of Croatian non-profit sector are constant, which suggests that non-profit sector, due to its non-market orientation, is in economic terms, almost inflexible to recessionary conditions that are clearly evident in economic sector.

3. DEVELOPMENT OF THE ACCOUNTING SYSTEM AND FINANCIAL MANAGEMENT CONTROL

In order for the non-profit organizations to achieve an optimal level in performing set goals and tasks, it was necessary to establish an adequate accounting information and financial management control system as a support for managing non-profit organizations.

3.1. The first phase of development (1994-2007)

A separate accounting system for non-profit organizations in the Republic of Croatia was to be applied starting from January 1, 1994. In the first year of its implementation, this system encompassed all non-profit organizations, therefore also the governmental non-profit organizations (budget users) and other (private) non-profit subjects regardless of the difference among them in terms of the process of their establishment or financing sources. One year later, budgetary accounting was singled out as an individual system from the universal accounting system for non-profit organizations.

The identifiable feature of accounting for non-profit organizations was fund accounting and the modified accrual as an accounting concept that

determines the criteria for accounting recognition of economic events regardless of when cash transactions occur. In process of choosing the accounting model, and by following some superficial and inconsistent global experiences, the model of fund accounting was set up, that based on the different types and number of funds, had to be modified to suit our specific features. Inconsistency in the accounting for non-profit organizations and the needs of non-profit organizations for certain type of information were especially evident in the inconsistency of applying the economic classification of revenues and expenses (structure of the chart of accounts) and subsequently the content of certain positions of financial statements. Moreover, the analysis of financial statement content showed inconsistency of their elements with the content of books kept according to prescribed valuation methods (Vašiček, 2009.).

3.2. Reformed accounting and financial reporting system (2008-2015-)

The formal legal framework leading to the changes within the existing system of accounting and financial reporting for non-profit organizations was the new Accounting Act in 2007. Pursuant to the provisions of this Act⁸, the accounting of religious communities, political parties, trade unions and other non-profit organizations shall be prescribed by the Government of the Republic of Croatia. This was further enforced by the Regulation on Accountancy of Non-Profit Organizations⁹ that defines bookkeeping documents, business books, organization of bookkeeping, listing of assets and liabilities, principles for presenting assets, liabilities, own resources, revenues and expenses, content and implementation of the accounting plan, financial reporting and other areas related to the accounting of non-profit organizations. The Regulation on Accountancy of Non-Profit Organizations does not stipulate the obligation to apply fund accounting. It still enables non-profit organizations to decide upon setting up a system of fund accounting and its adjustment to internal needs.

Starting from January 1, 2008, the full accrual concept was prescribed for the recognition of business transactions, i.e. the recognition of revenues and expenses. The new Act on Financial Operations and Accounting of Non-Profit Organizations (Official Gazette 121/2014),

⁸ Official Gazette No. 109/2007, Article 2, Paragraph 5

⁹ Official Gazette No. 10/2008

which has been in force since the beginning of 2015, retained the basis of accounting founded on the full accrual concept.

The data obtained from the financial statements completed on accrual basis are more complete and thorough or in other words they have a greater span and scope in relation to the data presented in financial statements completed on the modified basis. The application of accrual basis ensures recording data on business transactions that will be extended through following accounting periods. These data can be found useful to financial statement users in assessing future trends towards increasing or decreasing of resources that are at the non-profit organization's disposal and the assessment of the ability of the organization to fulfill the tasks for which it was established as well as management's performance and their responsibility for entrusted resources.

The most significant features of today's system of accounting concepts are related to the following:

Capitalization of costs of acquisition and calculation of depreciation of a non-financial long-term asset.

Recognition of assets is primarily based on the historical cost (value) of the asset or the estimated value. Hence, assets are capitalized and initially valued according to the amounts spent on their acquisition unless the cost of acquisition cannot be established and then the estimated value is used. This means that the system introduces the calculation of depreciation as proportional costs of its use over time and abandons the former system of presenting total expense at the moment of its acquisition. The Regulation also prescribes the compulsory revalorization (in conditions of inflation when the increase rate, measured by the coefficient of the price quoted by industrial product manufacturers for three previous years, is above 30%) in which the effects of valorization are assigned to own resources (capital).

Recognition of revenues

In recognizing revenues, the categories of reciprocal and non-reciprocal incomes are introduced and defined. This assumes a difference among two groups of revenues:

- Reciprocal income i.e. counter-service income from delivering goods, service or the like that assumes invoicing and
- Non-reciprocal incomes as specific sources of non-profit organization's financing such as membership fees, donations and other similar incomes.
- Reciprocal incomes, as incomes based on the delivery of goods or services, are recognized in the relevant accounting period under the condition that they can be measured regardless the moment of their collection. In this case, the recognition of incomes is assumed at the moment of its occurrence in relation to the moment of delivery under the general conditions of measurement and reliability of collection.

Non-reciprocal incomes, as incomes that are not realized from direct delivery of goods or services (donations, membership fees, contributions and the like) are recognized in the relevant reporting period under the condition that they are available i.e. that they will be collected before the financial statements for the relevant period are presented.

Recognition of expenses

Unlike the previous system that recognized expenses in correlation with the moment of payment, the new system is completely based on accrual basis, i.e. the expenses are recognized regardless the moment of payment. In this sense, the Regulation stipulates the following:

- Expenses are recognized in the corresponding reporting period regardless the moment of payment,
- Expenses for acquisition costs of short-term non-financial assets are recognized in the moment of the occurrence of the actual expense i.e. moment of sale,
- Acquisition costs of long-term assets are capitalized, whereas expenditures are recognized during their useful life,
- Acquisition costs of long-term non-financial tangible assets at historical cost per unit under HRK 3,500 (approx. EUR 500) can be written off on a one-time basis,

Classifications and Chart of Accounts

The Regulation also covers the new approach to classifications and introduces a new, more comprehensive and systematic chart of accounts. The new accounting plan for non-profit organizations defines numerical labels and descriptions for individual accounts that are to be used by non-profit organizations in their bookkeeping records of assets, liabilities and own resources as well as revenues and expenses.

The new classification system provides for the comparability of data of non-profit organizations and those of governmental non-profit organizations (budget users) as it is based on the application of the international economic classification of assets, liabilities, revenues and expenses as defined by GFSM 2001¹⁰.

Financial reporting

The system of financial reporting is based on standardized forms and in scopes of financial statements. Basic financial statements include: the balance sheet, profit and loss account and notes accompanying the financial statements. All financial statements are completed for a business year which is in alignment with the calendar year whereas only the profit and loss accounts are prepared for accounting period during the year and this is on six-month basis from January 1 to June 30. All financial statements give a clear picture of the financial position and the performance of the non-profit legal entity.

3.3. Transparency and external control of non-profit organization performance

After several years of implementation of regulations, a lack of a legal framework for sound financial management and control has been noticed, not only in the area of accounting, but also in planning and programming, creation and execution of financial plans, and reporting. Up until 2015, the regulations did not adequately respond to the requests for application of the principles of publicity and transparency, especially in the area of financial reporting. The National Strategy for the Creation of an Enabling Environment for the Development of Civil Society 2012-

¹⁰ IMF, A Manual of Governmental Finance Statistic, 2001

2016¹¹ anticipated the need for legal regulation of a transparent insight into the spending of public funds allocated to civil society organizations as non-profit organizations. The Strategy also predicted the improvement of statistical monitoring of civil society organizations by introducing the obligation for non-profit organizations to submit financial statements (according to the level of income and assets).

Furthermore, the Action Plan for implementation of the Open Government Partnership initiative in the Republic of Croatia for the period 2012-2013¹² requests the regulations to impose an obligation of public disclosure of financial statements for non-profit organizations. That was done with the new Act on Financial Operations and Accounting.

3.3.1. Transparency – public disclosure of financial statements

The principle of publicity and transparency is a key instrument in the fight against irregularities and deceits in financial operations of all non-profit organizations. Therefore, it is necessary to obtain full information on the subjects obliged to non-profit accountancy and connect the existing central registers (Associations Register, Foundations Register, Register of the Commercial Court and other central registers). Establishment and the obligation for non-profit organizations to enter in the Register have been in force since 2009¹³. In accordance with the new Act, the Ministry of Finance will continue to keep the Register, although with public access to financial statements (open Internet access), which was not possible until now¹⁴.

¹¹ Government of the Republic of Croatia, The National Strategy for the Creation of an Enabling Environment for the Development of Civil Society 2012-2016;
<http://www.uzuvrh.hr/userfiles/file/Nacionalna%20strategija%20FINAL.pdf>

¹² Government of the Republic of Croatia, the Action Plan for implementation of the Open Government Partnership initiative in the Republic of Croatia for the period 2012-2013;
http://www.uzuvrh.hr/userfiles/file/Akcijski%20plan-Partnerstvo%20za%20otvorenu%20vlad-5_4_2012_.pdf

¹³ For registration, a form should be filled in: RNO available on the Ministry of Finance web site. Upon registration, the Ministry of Finance assigns a RNO number without which it is not possible to submit financial statements.

¹⁴ Trade unions are excepted from the principle of publicity, since according to the convention of the International Labour Organization; they have the right to independently create their operating rules, which includes financial independence, as well as the right not to have their financial statements publicly disclosed.

3.3.2. External control

The external control over non-profit organization's performance is directed towards the following:

- Respecting economic principles, rationality and achievement of performance success measured by financial indicators and with the aim of protecting the interests of founders and wider social community – the country;
- Performing registered activities in compliance with the provisions, regulations and founding acts.

Depending on the source of their financing, the interests of founders and the tasks to be met by the non-profit entities through their activities, the external control is institutionalized according to special legal regulations that govern the area of business operations of a non-profit segment. In Croatia, external control is mostly conducted by the State Audit. The State Audit as an autonomous body performs its activities in line with the State Audit Act that regulates the area of its activity and its jurisdiction.

The area and jurisdiction of the State Audit are adjusted in order to protect the state interests. As a result, its activities within the non-profit sector are oriented towards those entities that are founded by state means and/or financed from budget and extra-budgetary funds.¹⁵ The audit of the mentioned non-profit entities includes auditing of document, statements, systems of internal control and internal audit, accounting and financial procedures as well as other records in order to verify the accuracy of financial reports on the business performance and financial position of the engaged state assets.

External control over financial performance, with the aim to meet state interests in accruing fiscal and para-fiscal revenues, is present in all non-profit organizations. Conforming to special regulations, the same is carried out by state bodies responsible for generating state revenue. The normative base for implementing specific forms of external control of individual non-profit entity performance is defined by fundamental

¹⁵ See State Audit Act, Article 1, Official Gazette No. 49/2003

regulations that govern the conditions and ways of setting up an organization and the area of its activities.

Thus, for instance, the external control of the activities of a citizen association is defined by the new Associations' Act (Official Gazette No. 74/2014). The Act defines the administrative and inspection control. The administrative control refers to the enforcement of the Act and related provisions, while the inspection control covers control over the legality of an association's financial operations and activities.

A great novelty in external control is the obligation introduced in 2015 to perform audits of financial statements (for non-profit organizations with total income above HRK 10 million), and the insight into financial statements for the previous year (for non-profit organizations with total income above HRK 3 million)¹⁶. Besides the above-mentioned, the principle of publicity and transparency is seen in the obligation to publish the audit report on annual financial reports on the web pages of the audited non-profit organization by June 30 of the current year at the latest.

Another novelty in external control is the authority of the Ministry of Finance to supervise non-profit organizations' financial operations, accounting operations and submission of financial reports, legal acquisition of financial funds, public or from other resources, management of financial resources, as well as determining whether the funds are used to achieve objectives for which the non-profit organization was established. Certain interest groups – founders of non-profit organizations in line with the founding acts and with the aim to control the achievement of their interests may also use other forms of control such as external audit.

¹⁶ Of the total of 26,362 non-profit organizations registered in the Register of Non-Profit Organizations, and according to the database of annual financial statements of non-profit organizations, kept by the Ministry of Finance, in 2013, 126 non-profit organizations had total revenue above HRK 10 million, while 286 earned from three to ten million kuna.

3.4. Internal control and financial management

The operation of a non-profit organization should be based on the principles of publicity and transparency and the principle of sound financial management and control. With the accession of the Republic of Croatia to the European Union, many non-profit organizations got the opportunity to use the EU funds. Given the conditions that must be fulfilled prior to and while using these funds, the potential beneficiaries of EU funds are required to present a built and transparent system of financial management and control.

Financial management and control may be defined as a system which directs and controls the financial aspects of non-profit organization's operations so as to support the achievement of the organization's objectives. Adequate systems of financial management and control are developed when the management structure plans and organizes business operations in a way that provides reasonable assurance that risks are successfully managed, and that budget, including membership funds, are used properly, ethically, economically, effectively and efficiently towards the achievement of objectives. Thus, financial management and control refers to managerial responsibility in planning, programming, preparation and execution of financial plans, accounting and reporting in order to achieve set objectives and ensure the protection of resources against loss, abuse or fraud. Financial management and control encompasses all aspects related to revenues/receipts, expenditures/expenses, assets and liabilities. The systems of financial management and control are based on the five interrelated components of internal controls, including: control environment, risk management, controls procedures, information and communication, and monitoring and evaluation of the system.

The development of an internal control in non-profit organizations largely depends on its size, organizational chart and complexity of business activities. Certain segments of internal controls or individual internal control mechanisms can be recognized to a greater or lesser extent in all organizations, while a comprehensive system of internal controls and internal audit is only present in a few complex non-profit systems. The reasons for this are closely connected with the characteristics of the functioning of most non-profit entities. Our practice confirms the conclusions presented by Emerson O. Henke (1992.) analyzing the reasons for the lack of a developed system of

internal control in non-profit organizations.

The key reasons usually include the following (Henke, 1992):

- Governing bodies (boards of managers, management committees and similar groups) are often large and consist of volunteers who are relatively inactive in operational activities. None of them has an ownership interest within the organization he or she would be interested in protecting.
- Resources that should be invested in the development of the internal controls are limited.
- The accounting function is inadequately treated, often divided and understaffed.
- Organizations employ a small number of employees and it is not possible to achieve the desired level of separation of duties and responsibilities.
- Due to the non-market nature of activities, there is a lack of market valuation and control of the quantity and quality of provided services and goods.

Current regulations governing the accounting and financial reporting system for non-profit organization indicate that there should be certain internal control mechanisms in the field of financial and accounting controls and the preservation of material resources. These cases closely meet the needs for control of the business of undeveloped (according to the volume and complexity of activities) non-profit entities, especially in the bureaucratic model of organizational functioning of those with a strong line management system. More complex non-profit entities should necessarily take more intensive approach to setting up (or upgrading) the system of internal controls that, along with the control, includes internal audit.

In non-profit organizations, internal audits are often faced with the same basic features as well as profit oriented units, but due to the significantly different operational objectives, related ratios for analysis and definition of activity and effectiveness of operations are often different. The specificity of certain analytical procedures in the internal audit of non-profit organizations and their use for evaluating the success often stems from the limitations that are given by a non-market orientation.

Decisions of interest groups and other founders of the non-profit entities can significantly influence the direction and scope of activities. The reduction of funding in certain time intervals may significantly affect the efficacy and effectiveness. Lack of market valuation of output and value for money achieved, prevents reliable assessment of whether the conversion of resources into the services has been carried out effectively i.e. whether the level of services rendered is consistent to invested efforts. With the new Act on Financial Operations and Accounting of Non-Profit Organizations, “larger” organizations were introduced with the obligation of self-assessment of effective and efficient financial management and control system, as well as the requirement to prepare financial plans, which consist of the revenues and expenditures plan, borrowing and repayment plan and an explanation of the financial plan.

4. REVIEW OF INTERNATIONAL EXPERIENCES

Systems of accounting and financial reporting of NGOs significantly differs from one EU country to another, as well as in neighboring countries. Unlike accounting and financial reporting which were harmonized for entrepreneurs through the application of IFRS/IAS, there are no special requirements for non-profit sector in the EU; national legislations are left to decide about the accounting standards and principles, as well as NGOs reporting requirements.

The differences in the basic characteristics and objectives of profit and non-profit organizations suggest that managerial requirements for information in these categories of legal entities differ considerably as well. As management is primarily based on information, the need to create accounting information systems that will generate adequate and quality management information is imperative. The unanswered question is whether and to which extent the national legislation should, through its regulatory bodies, define the specific accounting systems for monitoring the performance of non-profit organizations or those specifics should be accepted solely in the domain of internal accounting. A very heterogeneous structure of non-profit sector in terms of activities, organizational and legal forms of entities that constitute it suggests that it is necessary to unify at the national level basic accounting procedures and the system of external financial reporting. This primarily means that adequate and uniform rules should be defined for recognition of

elements of basic financial statements, basic content and the form of external financial statements.

In some countries, bookkeeping and financial reporting of NGOs is completely independent (UK), while in others it is not regulated or is regulated in the same way as for entrepreneurs (Italy, Hungary), or the act on accounting governs some specifics of NGOs (Bulgaria)¹⁷.

When it comes to the choice: cash or accounting principle for revenues and expenses recognition, the solutions vary considerably. Some countries require simplified bookkeeping and financial reporting (Macedonia). Besides Croatia, the audit of financial statements of NGOs is specifically regulated in Bulgaria.

In our surrounding countries, the accounting systems of non-profit organizations are largely formed in the context of regulating the accounting systems for entrepreneurs, and the general regulation on accounting of legal entities (other than budget entities). Therefore, as a result of the present differences, only separate charts of accounts and financial statement forms are defined, while the basic rules for recognition of elements of financial statements do not differ. In particular, non-profit organizations are governed by general regulation on accounting of legal entities (or businesses) and are obliged to directly apply the International Accounting Standards incorporated in the basic accounting regulation. These legal arrangements can be found in Bosnia and Herzegovina. It is directly derived from Article 12 of the Accounting and Auditing Law in the Federation of BiH (Official Gazette of the FBiH, No. 32/05), and an identical legal definition can be found in the Accounting and Auditing Law in the Republic of Serbia and Brčko District from 2005.

In addition to the obligatory application of the Accounting Act, special, reduced charts of accounts and customized forms of financial statements are prescribed for non-profit organizations¹⁸. A similar situation is found

¹⁷ For more details: The possibilities of introducing special accounting and financial reporting for non-profit organizations in Serbia, Civil Initiatives & USAID, Belgrade, 2011., pp.49-50.

¹⁸ For more details: "Manual for the Tax, Financial and Accounting Operations of NGOs in BiH", Centre for Promotion of Civil Society, Sarajevo, 2007. Ch. 4

in both Montenegro and Serbia¹⁹, where major initiatives were undertaken for adjustment of accounting legal framework to the actual needs of NGOs.

To illustrate the differences in approach, let us mention that the accounting reporting of NGOs in the United States of America (USA) is regulated for the purposes of American tax service (International Revenue Service – IRS), the state administration, and the special requirements are set for recipients of grants. IRS prescribes numerous manuals, newsletters, manifestos, rules and procedures for NGOs to follow while preparing reports. Reporting for the needs of the state administration is also based on a large number of regulations and standards, among which are US accounting standards.

5. CONCLUSION

The success of non-profit organizations - a component of civil society in carrying out the objectives and tasks, is directly linked to good governance. To secure the information base necessary to support the management, it is necessary to establish the appropriate accounting and information system and management control.

The reform of accounting and reporting systems is directed towards leaving fund accounting and towards the change in the accounting basis choice. This has resulted in the change in form and content of financial statements and the application of systematic classification that requires changes within the contents of the chart of accounts and records of compliance with primary and subsidiary ledgers. The reform direction that has been selected in terms of applying accrual accounting has enabled the establishment of consistent and modern accounting systems in the non-profit sector. Moreover, this is further regulated by the requirements demanding for the application of relevant classification systems of international financial and statistical reporting. At the same time, the optimal degree of harmonization of reporting systems of "private" and "state" non-profit organizations has been achieved.

¹⁹ For more details: Stošić, Negovanović/Antić: Handbook on Accounting, Tax and Customs Operations of NGOs in the Republic of Serbia, The European Center for Not-for-Profit Law, Budimpešta i Civil Initiatives, Belgrade, 2007.

The nature of activities and different sources of financing generally require that non-profit organizations accurately account for not only the overall financial performance but also its business segments that are financed from various, often severely restricted resources. Therefore, accounting for non-profit organizations is facing a growing demand for the development of internal accounting and monitoring of operations by segments and sources of financing. In the management processes supported by the accounting information, the importance of developing and functioning of the internal financial monitoring and control is increasingly emphasized.

By following the international trend of affirmation and implementation of the accrual accounting concept, the reform direction of change of external financial reporting of non-profit organizations in the observed transition was determined to a complete or slightly adapted accrual accounting concept, i.e. direct or indirect application of IAS.

In close connection to this, there is the necessity of implementing relevant and internationally comparable classification for the presentation of the elements of financial statements of non-profit organizations.

REFERENCES

Act on Accounting, Official Gazette No. 109/2007

Act on Financial Operations and Accounting of Non-Profit Organizations (Official Gazette 121/2014)

Antony, R. & Young, D. (1988), *Management Control in Nonprofit Organizations*, 4th edition, Irwin, Homewood, Illinois

Associations' Act (Official Gazette No. 74/2014)

Croatian Ministry of Public Administration, <https://uprava.gov.hr/o-ministarstvu/ustrojstvo/uprava-za-opcu-upravu/registri/registar-udruga/826>

Emerson O. H. (1992), *Introduction to Nonprofit Organization Accounting*, fourth edition, South-Western Publishing Co., Cincinnati, Illinois SAD

Government of the Republic of Croatia, *The Action Plan for implementation of the Open Government Partnership initiative in the Republic of Croatia for the period 2012-2013*;

Available on:

[http://www.uzuvrh.hr/userfiles/file/Akcijski%20plan
Partnerstvo%20za%20otvorenu%20vlad-5_4_2012_.pdf](http://www.uzuvrh.hr/userfiles/file/Akcijski%20plan%20Partnerstvo%20za%20otvorenu%20vlad-5_4_2012_.pdf)

Government of the Republic of Croatia, *The National Strategy for the Creation of an Enabling Environment for the Development of Civil Society 2012-2016*

Available on:

[http://www.uzuvrh.hr/userfiles/file/Nacionalna%20strategija%20FINAL
.pdf](http://www.uzuvrh.hr/userfiles/file/Nacionalna%20strategija%20FINAL.pdf)

IMF (2001), *A Manual of Governmental Finance Statistics*

Jakir-Bajo, I. (2014), *Osvrt na Zakon o finansijskom poslovanju i računovodstvu neprofitnih organizacija*, TIM4PIN Magazin, br.12/2014., TIM4PIN, d.o.o, Zagreb

Centre for Promotion of Civil Society (2007) *Manual for the Tax, Financial and Accounting Operations of NGOs in BiH*, Sarajevo

Regulation on Accountancy of Non-profit Organizations (Official Gazette 112/93)

Regulation on Accounting of Non-profit Organizations (Official Gazette 108/2008)

State Audit Act, Article 1, Official Gazette No. 49/2003

Stošić, Negovanović/Antić (2007) *Handbook on Accounting, Tax and Customs Operations of NGOs in the Republic of Serbia*, The European Center for Not-for-Profit Law, Budimpešta & Civil Initiatives, Belgrade

Civil Initiatives & USAID (2009) *The possibilities of introducing special accounting and financial reporting for non-profit organizations in Serbia*, Belgrade, p. 49-50.

Vašiček D. et al (2009), *Računovodstvo neprofitnih organizacija*, HZRIF, Zagreb

Vašiček, D. I V.: *”Računovodstvo u funkciji upravljanja organizacijama civilnog društva”*, Zbornik referata 12.Međunarodnog simpozija Saveza rač. i fin.radnika FBIH, Neum, svibanj 2009.

CHAPTER 26

Nataša Žunić Kovačević

University of Rijeka, Faculty of Law, Rijeka, Croatia

Stjepan Gadžo

University of Rijeka, Faculty of Law, Rijeka, Croatia

PROPOSALS FOR REFORM OF THE AGENCY PERMANENT ESTABLISHMENT CONCEPT: EXAMINATION OF BEPS ACTION 7¹

ABSTRACT

Authors of this paper explore recent proposals to reform the concept of permanent establishment (PE), which underlies the allocation of the rights to tax cross-border income between countries. The focus is on one specific form of PE, the so-called dependent agent PE (DAPE). Main motivation for the reforms of DAPE-related provisions found in tax treaties is the widespread usage of commissionaire arrangements by MNCs, which result in the erosion of the tax base of countries that provide markets to their products and services (destination countries). Paper will explore how OECD aims to tackle this issue, as part of its comprehensive project on base erosion and profit shifting (BEPS). It will be suggested that the reform of DAPE definition is necessary in the light of new economic realities.

Keywords: international tax law, permanent establishment, dependent agents, BEPS project, tax planning, commissionaire arrangements

JEL classification: H26, K33, K34

¹ This work has been fully supported by Croatian Science Foundation under the project no. 9366 “Legal Aspects of Corporate Acquisitions and Knowledge Driven Companies’ Restructuring“.

1. INTRODUCTION

Recent times have witnessed the unprecedented public interest in the tax planning techniques of multinational companies (MNCs). What not so long ago was thought to be a technical or academic matter now ranks high on the political agenda worldwide. High-level government officials all over the world reiterate with vigour their intention to put an end to the tax avoidance behaviour of MNCs, making them pay their "fair share" in financing of public services, even if this sought-after ideal often lacks any meaningful content (Stevens, 2014:702). More importantly, the torch is taken up by a number of international organizations and fora. Behind the seemingly recognized necessity for a coordinated approach at an international level lies the inconvenient truth that large-scale MNCs' tax avoidance has been made possible by various misalignments between the elements of national tax systems (OECD, 2013b:13). The most ambitious project in this regard is the project on base erosion and profit shifting (BEPS), carried out by OECD since the beginning of 2013 and backed up by the G20. Since developing countries, which are generally outside of OECD membership, are also involved in the BEPS project, one can truly describe it as a quest for a new consensus on the principles and rules of international taxation.

It should be noted at the outset that the term "international taxation" is effectively a misnomer (Arnold and McIntyre, 2002:2-3), since at the moment – with very few exceptions (e.g. the competences of the European Union in tax matters) – there is neither "world government" nor international organization having competence to impose and collect taxes. Hence, when jurists refer to "international tax law", they actually think of the collection of domestic legal provisions governing the taxation of cross-border economic activity, complemented by the provisions of international treaties, mainly bilateral, that primarily try to avoid undesirable multiple taxation of income and capital by limiting the application of domestic tax law. Provisions of more than 3.000 tax treaties currently in force exhibit a remarkable degree of uniformity that can largely be credited to the influence of the so-called model treaties, drafted by international organizations (e.g. OECD, UN) and "generally regarded as the best available tax treaty practice" (Pistone, 2010:1). Vast majority of the tax treaties follow the provisions laid down in the OECD Model Tax Convention on Income and on Capital (hereinafter: OECD Model). In turn, basic structure of the OECD Model and its substantive

provisions mirror the main points of consensus on the allocation of the rights to tax cross-border income and capital achieved in the 1920s, under the auspices of the League of Nations.

The concept of permanent establishment (PE), embodied in various provisions of OECD Model, can be observed in this context. Under Art. 7 of OECD Model active (business) income of a person resident in one of the contracting states can be taxed by the other contracting state only if he or she has a PE located in the territory of that (other) state. Definition of the PE concept, provided in the Art. 5 of OECD Model, gives significant leeway to MNCs to avoid having taxable presence in countries that provide market for their goods and services (destination countries), thus minimizing the overall tax burden of the group. Most obvious examples include business restructurings which result in the transformation of the associated company resident in the destination country from a full-fledged distributor into a mere commissionaire and artificial fragmentations of MNCs' activities in destination countries with the goal to qualify for "preparatory/auxiliary activities' exemption" under Art. 5(4) of OECD Model.

Against this backdrop, one of the “action items” of the OECD BEPS project is aimed at preventing the “artificial avoidance” of taxable presence in the form of PE (OECD, 2013b:19). Main aim of this paper is to examine the proposals for amendments of Art. 5 of the OECD Model tabled by the special OECD working group in 2014 (OECD, 2014b). Analysis is limited only to the tax treaty provisions governing the status of the so-called “dependant agents” – one form of PE under Art. 5 – and explores whether proposed amendments of OECD Model are suitable for putting an end to MNCs tax planning using commissionaire arrangements. Moreover, the paper will give a broader tax policy perspective, by examining the proposals in the light of the overall aim of the BEPS project, i.e. realignment of the principles and rules of international tax law with the economic substance (OECD, 2013b:13).

The paper is organised as follows. After an introductory chapter, the second chapter lays out the main elements of PE concept under OECD Model in a concise manner. Third chapter provides the description of the commissionaire arrangements, a commonly used technique of MNCs' tax planning related to the agency PE concept. OECD proposals for amendment of pertinent provisions of the model treaty and its

Commentary, drafted as part of BEPS project, are examined in the fourth chapter. Final remarks are given in the fourth chapter.

2. CONCEPT OF PERMANENT ESTABLISHMENT AS DEFINED IN THE OECD MODEL

Whenever the concept of PE is used in the OECD Model, one has to apply Art. 5, providing the definition of the concept (Vogel, 1997:282). Current version of Art. 5 (see OECD, 2014a) is identical to that of the OECD Model of 1977, thus its wording is replicated in most of the tax treaties currently in force. On the other hand, evolution of the PE concept in the past 40 years is reflected through changes to the Commentary on OECD Model (Arnold and MacArthur, 2014:sec. 1.2.3.). While the influence of the Commentary, issued by the OECD Committee on Fiscal Affairs, in the interpretation of tax treaties in general is well-established, even if subject to some debate (Lang, 2010:43-48), for the purposes of this paper it should be highlighted that comparative analyses confirm its significance in the interpretation of PE definition by domestic administrative and judicial bodies (Sasseville and Skaar, 2009:21).

Art. 5 OECD Model exhibits a multi-level structure (Reimer, 2012:30). Firstly, a general definition of the PE is laid out in Art. 5(1), stimulating that it is a fixed place of business through which the business of an enterprise is wholly or partly carried on. Accordingly, the conditions for the existence of PE – expounded in detail by the Commentary on Art. 5 – may be observed in both geographical and temporal terms. PE denotes a place of business linked to a specific geographic point (i.e. fixed), which is at the disposal of an enterprise and has a certain degree of permanency, usually maintained for six months or more.

Secondly, examples of “typical PEs” (e.g. an office, a factory etc.), in the light of the general definition under Art. 5(1), are laid out in Art. 5(2). Conversely, a negative catalogue of places of business not to be treated as PE, notwithstanding the fulfilment of general requirements, is provided in Art. 5(4). Common feature of the facilities excluded from the general definition of PE is that they pertain not to “core business activities” of the enterprise, but rather to activities merely of a preparatory or auxiliary character (Reimer, 2012:84), e.g. a facility used

solely for purposes of storage, display and/or delivery of goods of the enterprise.

Special rule on the PE status of building site or construction or installation project (the so-called “construction PE”) is provided in Art. 5(3). Under a generally accepted view (Arnold and MacArthur, 2014: sec. 2.3.1.) it sets out an additional condition to the requirements of general definition in Art. 5(1), by specifying a temporal aspect of PE concept. Accordingly, a construction PE will come to existence only if a project is carried on for a minimum period of twelve months.

The PE concept is significantly expanded by Art. 5(5), providing that an enterprise will be deemed to have a PE in the other treaty partner country if, notwithstanding the requirements of Art. 5(1), a person (the so-called dependent agent or DAPE) acts on its behalf in that country and has, and habitually exercises the authority to conclude contracts in the name of the represented enterprise. Two exceptions to this general “agency PE deeming rule” apply. One is related to preparatory and auxiliary activities, in line with the clause contained in Art. 5(4). The other pertains to the activities of a person that is, according to the Art. 5(6), considered to be an agent of independent status, i.e. a person independent both legally and economically from the enterprise, acting in the ordinary course of his/her business when representing the enterprise (see Commentary to Art. 5 OECD Model, para. 37.). Finally, Art. 5(7) clarifies that the fact that a control relationship exists between two companies resident in different treaty partner countries does not in itself mean that one company is deemed to be a PE of the other.

3. AVOIDING THE AGENCY PETHRESHOLD: MNC’S TAX PLANNING USING THE COMMISSIONAIRE ARRANGEMENTS

If an enterprise has a PE – as defined in Art. 5 OECD Model (see above, chapter 2) – in the other (non-resident) country partner to the tax treaty, that country can exercise its taxing right in respect of the net income attributable to the business activities conducted through the PE. Conversely, if there is no PE in the country in question, it has a treaty obligation to refrain from taxation of the pertinent income, notwithstanding its domestic tax provisions. This “cliff-edge” consequence of the application of PE test (Collier, 2013:638) follows

from the Art. 7 OECD Model, which governs the allocation of taxing rights in relation to business (active) income of an enterprise. Accordingly, the PE concept is used in the OECD Model as a “minimum threshold that must be satisfied before a country can tax residents of other treaty countries on most types of business profits derived from the country” (Arnold, 2003:55).

At least three important phenomena closely linked to the wider notion of globalization – increase in the volume of cross-border trade in services, the advent and expansion of electronic commerce and the development of new business models based on fragmentation of value added chains – have made it possible for a modern enterprise to be heavily involved in the economy of destination country without having taxable presence there, i.e. to avoid the PE threshold. The inappropriateness of the PE concept as a taxing threshold in the new economy was exposed in a comprehensive study almost 25 years ago (Skaar, 1991), well before the true implications of the internet revolution have been felt on a global scale. Embedded in the concept of PE – regardless of whether it takes the form of fixed place of business or the form of a DAPE – is the requirement of physical presence in a country. The aptness of this requirement to capture the new economic realities is seriously questioned, mainly from an academic level (Escribano López, 2015).

Having in mind the limited scope of this paper, we will further focus on one particular tax planning technique commonly used by modern MNCs – the so-called commissionaire arrangements (or structures). This particular technique relies on the ambiguities of the agency part of the PE definition found in tax treaties. Commissionaire arrangement usually involves two associated enterprises, e.g. a parent company resident of state A and a subsidiary company resident of state B. Parent company, wishing to supply the market of state B with its products, enters into an agreement with the subsidiary, under which subsidiary will sell the parent’s products to third parties (customers) in the local market in its own name, but without owing the inventory. The parent will deliver the goods, the title to which is not transferred to the subsidiary at any point of the arrangement, to the customers and give a remuneration to the subsidiary for its services in arranging the sales. This kind of arrangement is found in legal systems of civil law countries (e.g. Germany, Italy, Croatia), having no direct counterpart in common law countries (e.g. UK, USA, India) (Parada, 2013:62). It entails three

parties and two separate contractual relationships (Parada: 2013:62): 1) one between the principal (parent company in the example described) and the commissionaire (the subsidiary company in the example described), i.e. the commissionaire arrangement *stricto sensu* and 2) one between the commissionaire and a third party (customer).

The ensuing question is how to apply the DAPE tax treaty provisions on an arrangement construed in such a fashion. Or, in other words, could a commissionaire constitute a DAPE of its principal? Obviously, answering this question calls for the interpretation of Art. 5(5) OECD Model. One has to note that there are many interpretative ambiguities surrounding the application of this rule, mainly due to the differing concepts used in the agency law of civil law countries from those used in agency law of common law countries. Most notably, the phrase “*in the name of*” – used in Art. 5(5) OECD Model to specify the main condition under which a person will be considered as a PE of another person (see above, chapter 2) – is usually considered to be devoid of any meaning when applied by a common law country (Skaar and Sasseville, 2009:51). For example, UK tax authorities traditionally interpret this phrase as having the same meaning as “*on behalf of*”; accordingly even an agent that concludes the contracts with the third parties in his own name is considered to form a PE of its principal (Sheppard, 2010:20-21), which is consistent with the so-called “undisclosed principal doctrine” of common law of agency (Verhagen, 2006:48-50). On the other hand, “*in the name of*” has a specific meaning under the agency law of civil law countries (Skaar and Sasseville, 2009:51), referring to the difference between concepts of direct representation (representation on behalf of and in the name of the principal) and indirect representation (representation on behalf of the principal but not in his name) (Collier, 2013:641-642). Consequently, if one takes these concepts as a firm starting point in the application of Art. 5(5) of OECD Model, only a direct representation relationship would create a DAPE in a civil law country.

Since the relationship between a commissionaire and his principal constitutes a classic case of indirect representation (Verhagen, 2006:47-48), it is no wonder that in the majority of civil law countries this relationship will not bring about a DAPE (Oyama, 2014:1165). Commentary on Art. 5 of the OECD Model (para. 32.1.) provides some interpretative guidance in clarifying that DAPE does not need to

formally conclude contracts in the name of its principal; what is considered decisive in examining its status is that the contracts it enters into with third parties are binding upon the principal. As it is clear from the above that commissionaire arrangements do not create any legal obligations of the principal vis-à-vis the third party (Baker, 2014:28), it is hard for tax authorities of a civil law country to argue that a commissionaire is a DAPE of its principal.

Some (in) famous court decisions issued in the last couple of years confirm this analysis, thus giving the green light to widespread tax planning with commissionaire arrangements. The French case *Zimmer* involved a UK company restructuring its operations on the French market. Prior to 1995 the UK company sold its products (orthopaedic devices) in France using the distribution agreement with its French subsidiary. In the following period legal relationship between the parent and the subsidiary was converted into a commissionaire arrangement (Gupta, 2014:577). In its 2010 decision French Supreme Court (*Conseil d'État*) rejected the argument pursued by the French tax authorities – subsequently affirmed by the Administrative Court of Paris – that the subsidiary was acting as a DAPE of its UK parent. Decision was based on a literal interpretation of Art. 5(5) of the UK-France tax treaty, in the light of French commercial law: since the subsidiary was acting in its own name, the contracts it entered with the customers were not binding on the UK parent (Sheppard, 2011:267). In a rather similar set of facts the same path was followed by the Norwegian Supreme Court (*Høyesterett*) in its 2011 *Dell Norway* decision (Zimmer, 2011:991-993) and by the Italian Supreme Court (*Corte di Cassazione*) in its 2012 *Boston Scientific* case (Pizzitola, 2012:339-341). These decisions led many commentators to conclude that MNCs can avoid or reduce tax liability in civil law destination countries by a relatively simple business restructuring (Arnold and MacArthur, 2014:sec. 3.6.2.4.).

In fact, a common feature in most of the disputes over DAPE status of a commissionaire is that a business restructuring within the MNC group took place with tax aspects apparently being prominent in the motivation for such an operation. Typically this involves a conversion of a subsidiary resident in the destination country from a full-fledged distributor into a mere commissionaire. As a result, destination country could only tax the remuneration of the commissionaire. Net profits from the sales will be attributed directly to another company of the group (the

principal) and taxed in its state of residence. This provides an opportunity for significant "profit shifting" within the group, which in turn leads to erosion of the tax base of destination countries. While commissionaire arrangements have been used in MNCs tax planning since the 1990s (Oyama, 2014:1164), they were placed at the centre of policy discussions only in the last ten years or so (Skaar and Sasseville, 2009:54). More aggressive positions of destination countries' tax authorities in recent years towards this type of business restructuring can be understood if one analyses it from an economic perspective: the converted subsidiary in most cases retains most of its functions it had prior to the restructuring; conversely, its taxable profits are being stripped down in favour of other group members resident in other countries (Carmona Fernández, 2013: sec. 3).

As already noted above, commissionaire arrangement would not produce the desired tax benefits if the destination country employs a common law system, even though same result could be achieved via the so-called "synthetic commissionaire structures", created by utilizing the freedom of contract (Baker, 2014:28). Moreover, in some civil law countries tax authorities could make successful claims in deeming a commissionaire as a DAPE of another member of MNC group. Their argument is usually based on an alternative reading of the requirement of Art. 5(5) OECD Model that actions of an agent must be binding on the principal. The argument apparently finds support in the para. 32.1 of the Commentary on Art. 5 OECD Model, which provides more flexibility to the concept of agency PE. Accordingly, a DAPE can be found when his actions bind the principal vis-à-vis the third parties not only legally, but also economically (Collier, 2013:642), i.e. when the financial consequences of the transaction accrue to the principal (Pijl, 2013:6). Along the similar vein, Reimer (2012:99-100) proposes a "substance-over-form approach", suggesting that "it is sufficient that the principal accepts and acknowledges the results of the actions taken, and contracts negotiated by the agent". Such approach is clearly followed by Swiss tax authorities (Skaar and Sasseville, 2009:55). One should also take note on the interesting developments in Spanish administrative and judicial practice. Spanish Supreme Court (*Tribunal Supremo*) showed a remarkable degree of creativity in finding a DAPE in its 2012 *Roche* decision. It found that the combination of different contracts between a Spanish subsidiary and its Swiss parent produced a result of parent having a taxable presence in Spain, in the form of a dependent agent. In its 2012

Dell Spain decision the same court opted for an interpretation of DAPE provisions totally opposite than the one of its Norwegian counterpart in an almost identical set of facts. The mixed fortunes of Dell group in DAPE disputes (Obuoforibo, 2013:sec. 3.4.2) illustrate the varying degrees of success of business restructuring using commissionaire structures in different civil law countries and a high degree of legal uncertainty surrounding the application of Art. 5(5) OECD Model.

4. BEPS ACTION 7: PROPOSALS FOR THE REFORM OF AGENCY PE THRESHOLD

In July 2013 OECD published its "Action plan" that addressed seemingly intolerable behaviour of taxpayers, giving rise to base erosion and profit shifting (OECD, 2013b). Among 15 action items put together by the OECD, one (Action 7) is specifically devoted to issues related to the tax treaty definition of PE. As stated by the OECD (2013b:19), BEPS Action 7 aims at developing changes to the definition of PE, thus preventing the "artificial avoidance of PE status", through the use of commissionaire arrangements (see above, chapter 3) and specific activity exemptions (see the reference to Art. 5(4) OECD Model above in chapter 2). Expected output of Action 7, in the form of update to the PE definition and a reconsideration of profit attribution rules under OECD Model, is due by September 2015 at the latest (OECD, 2013b:32). The most significant development until now is the issuance of a public discussion draft on relevant issues in 2014 (OECD, 2014b; hereinafter: Discussion Draft). The document includes preliminary results of the work on BEPS Action 7 and invites all the stakeholders to provide comments.

This chapter examines the proposals for amendments of DAPE-related provisions of OECD Model included in the Discussion Draft, with particular focus on the BEPS issues associated with commissionaire arrangements. We do not examine in detail the issues related to the attribution of profits to a (DA)PE. Even though profit attribution is a concern for BEPS Action 7 (OECD, 2014b:26), main work on this area is performed under other action items. Since it is clear that changes to the definition of PE cannot be examined in isolation from the principles and rules on attribution of profits to PE, Jimenez (2014:8) makes a valid point in describing Action 7 as a "cocktail that is difficult to handle or mix appropriately". One should take note that the preliminary work of

the OECD on the profit attribution issues has not identified substantial changes that would need to be made to the existing rules and guidance concerning the attribution of profits to a PE (OECD, 2014b:26).

Commissionaire arrangements, put in place primarily with the goal to erode the tax base of destination countries, lie at the heart of BEPS Action 7. This tax planning technique is explicitly referred to as an example of artificial avoidance of PE status in the BEPS Action plan (OECD, 2013b:19) and a significant part of the Discussion Draft aims to putting it at bay. Interestingly, the example used in the document is based on the facts of the *Zimmer* case (see above, chapter 3), making perfectly clear that notable judicial decisions in civil law countries gave impetus for the OECD work (Gupta, 2014:577). Discussion Draft tackles the problem by proposing changes to the wording of Art. 5(5) and 5(6) OECD Model. Policy underlying the proposals is made abundantly clear: "where the activities that an intermediary exercises in a country are intended to result in the regular conclusion of contracts to be performed by a foreign enterprise, that enterprise should be considered to have a sufficient taxable nexus in that country unless the intermediary is performing these activities in the course of an independent business" (OECD, 2014b:11). This explicitly calls a move away from the legal form towards economic substance in defining DAPE, which may be observed as a continuity of the latest additions to the Commentary to Art. 5(5) OECD Model (see para. 32.1.).

Discussion Draft lays out four alternative options (labelled as options A to D) that would amend the wording of Art. 5(5) and 5(6) OECD Model, in the line of the policy goal mentioned above. All options exhibit some common features. Most notably, they would amend the wording of "independent agent" provision of Art. 5(6) in an identical way: requirements for legal and economic independence of agents excluded from the definition of a DAPE are strengthened by clarifying that a person shall not be considered to be an independent agent where he acts exclusively or almost exclusively on behalf of one enterprise or associated enterprises (as defined in Art. 9 OECD Model). Moreover, all of the four options would cause a commissionaire to be considered as a DAPE, due to the proposed changes to the wording of Art. 5(5) OECD Model. The requirement that an agent must act "in the name" of the principal would be effectively eliminated, as long as there is a direct

causal link between his activities and the contracts that bind the principal (Gupta, 2014:577). The proposals are briefly summarized below.

Under option A (OECD, 2014b:11-12), the condition stipulated by Art. 5(5) that a DAPE must have, and habitually exercise, the authority to “conclude contracts” in the name of the principal would be amended. It would be enough that an agent habitually engages with specific persons in a way that results in the conclusion of contracts. Contracts would not necessarily need to be concluded in the name of the principal. A DAPE would be also constituted if the contracts are concluded for the transfer of the ownership of, or for the granting of the right to use, property owned by the principal or that the principal has the right to use, or for the provision of principal's services. Hence, option A requires the formal conclusion of contracts – although not necessarily by the agent himself – for the existence of a DAPE, but shifts focus from the issue of who is bound by the contract to the object of the contract. The specific case of a contract concluded by a commissionnaire is tackled by the reference to a contract “*for the transfer of ownership (...) of property owned by the principal*”.

Option B (OECD, 2014b:13) would amend the above-mentioned condition of Art. 5(5) by requiring that a DAPE must not necessarily conclude contracts. It would be enough that he negotiates material elements of contracts, which seems to be perfectly in line with the current OECD Commentary (para. 32.1. and 33.). Which contracts are relevant is defined in a way identical to option A.

Option C (OECD, 2014b:13-14) partially relies on the condition proposed under option A, in that it is enough for a DAPE to “habitually engage with specific persons in a way that results in the conclusion of contracts”. What is different is the definition of relevant contracts. Difficulties arising from the phrase “*contracts in the name of*” are engaged by replacing it by referring to the contracts which, by virtue of the legal relationship between an agent and the principal, are on the account and risk of the principal. Examples of such legal (not economic) relationship are found in an agency contract, a commissionnaire contract, an employment contract, a partnership contract or even a trust deed through which a trustee would act on behalf of an enterprise.

Option D (OECD, 2014b:14) is effectively a combination of conditions stipulated under options B and C, thus avoiding the apparently trouble

some wording used in option A. It refers to the role of a DAPE in the negotiation of material elements of contract (see option B) and defines contracts in a way identical to the option C.

It is clear that all of the options for the amendment of DAPE-related provisions of OECD Model follow the general idea that the threshold for taxation in the destination country (or host country) needs to be lowered. Accordingly, formalistic view of the requirements for a DAPE gives way to the examination of the commercial/economic substance of the arrangements between the principal and the agent and between agent and third parties (customers). Nuanced differences in the proposed wording of the new Art. 5(5) under options A-D suggest that option A would be the least permissive and option D the most permissive in finding a DAPE from a host country perspective (Gupta, 2014:577-578). Unsurprisingly, proposals of the Discussion Draft encouraged heavy criticism of the business community (Gupta, 2015), similarly to private sector reactions to the previous OECD work on the update of PE definition (Collier, 2013:640-641). Big businesses understandably oppose the widening of the DAPE definition, pointing out to the absence of bright-line tests and potentially larger subjectivity in determining whether a PE exists. In their view the Discussion Draft goes far further than attacking only commissionaire structures and could have impact on the wide range of arrangements for making direct sales or providing sales support (PWC, 2014:2). At the same time, option B is pointed out as probably being the most business-friendly, or "the least harmful one" (Gupta, 2015:304).

In order to assess the OECD proposals from the perspective of the overall aim of BEPS project – realigning the principles and rules of international tax law with the economic substance – one has to start by acknowledging the economic reality of MNCs, i.e. the reality of a globally integrated business – a firm. Against this backdrop, PE provisions have a function of defining the boundaries of the firm (Vann, 2005:359). What is important is to find a point where, due to the economic reasons, the internal transaction of the firm give way to the external, market transactions. Inherent to this idea is the emphasis on independence, both legal and economic (Vann, 2005:360). Only a truly independent subject should be determined to be outside of the firm boundaries, or – in the terminology of OECD Model – be labelled as an independent agent.

When observed in this context, amendments to Art. 5(6) OECD Model as sketched in the Discussion Draft are to be endorsed. An agent acting exclusively on behalf of one principal or on behalf of several principals that all belong to the same MNC group cannot be deemed to be independent. At the same time, one needs to take note that the controversial Art. 5(7) – specifically regulating PE consequences of intra-group relationships of MNCs – is left untouched. It is submitted here that the nature of the firm demands that the presumption of the status of an associated company in the light of PE provisions should be turned upside down (Gupta, 2014:578). On the other hand, this would openly violate one of the dogmas of international taxation – the separate entity approach, which OECD persistently defends.

A more problematic issue is how to capture the economic reality of MNCs by the wording of Art. 5(5). Oyama (2014:1167-1168) makes a valid point in suggesting that the question of who does the contract bind should be unimportant in determining a DAPE; what should matter is the level of economic integration of agent activities with the business of the principal. Moreover, Baker (2014:32) points out to the necessity for re-examination of what constitutes a substantial business involvement of the principal via agent, in the destination country. It could be argued that all of the proposed options pursue this logic, even if differing in the all-important details.

5. CONCLUSION

Application of the existing DAPE definition under OECD Model has been extensively debated over recent years in academic and political arena, particularly in the wake of widespread usage of commissionaire arrangements by MNCs. The debates have primarily focused on the legal interpretation of the phrase “*authority to conclude contracts in the name of*”, a main requirement for the existence of a DAPE under Art. 5(5) OECD Model. They were also heavily fuelled by often conflicting judicial decisions in different countries.

OECD/G20 BEPS project tackles DAPE-related issues, pointing out that it cannot be viewed in isolation from other BEPS areas of work, e.g. the work on transfer pricing. But from a purely conceptual perspective, the issue of whether there is a taxable nexus in a state is separated from the issue how much profits are to be attributed to the pertinent subject.

Proposals advanced in a preliminary 2014 report on BEPS Action 7 should be analysed from a broader perspective, acknowledging the economic reality of MNCs. This is in line with the overall aim of the BEPS project. Four alternative proposals lower the threshold for DAPE existence, focusing on economic substance, rather than on legal form. While this could generally be supported, few caveats apply.

First, there is the issue of legal certainty, which should not be underestimated. Interpretative ambiguities surrounding current DAPE rules send a warning message to drafters of the new Art. 5(5) OECD Model. Without a broad consensus of the states on how to interpret new DAPE requirements, new rules may indeed have a harmful effect on cross-border business. Second, update of DAPE definition alone would produce very limited effect if OECD remains traditionally defensive about other "dogmas" of international taxation which fail to take notice of the new economic realities. Of particular importance is to acknowledge the need to rewrite the transfer pricing rules, moving away from the strict separate entity approach.

REFERENCES

Arnold, B. (2003), Threshold Requirements for Taxing Business Profits Under Tax Treaties, in: Arnold, B., *et al.*, eds., *The Taxation of Business Profits Under Tax Treaties*, Canadian Tax Foundation, Toronto.

Arnold, B. and MacArthur, C. (2014), Article 5: Permanent Establishment - Global Tax Treaty Commentaries, in: Vann, R. *et al.*, eds., *Global Tax Treaty Commentaries*, IBFD online books.

Arnold, B. and McIntyre, M. (2002), *International Tax Primer*, Kluwer Law International, The Hague.

Baker, P. (2014), Dependent agents permanent establishments: recent OECD trends, in: Lang, M. *et al.*, eds., *Dependent agents as permanent establishments*, Linde, Wien, 23-32.

Carmona Fernández, N. (2013), *The Concept of Permanent Establishment in the Courts: Operating Structures Utilizing Commission Subsidiaries*, Bulletin for International Taxation, Vol. 67., No. 6.

Collier, R. (2013), *BEPS Action Plan, Action 7: Preventing the Artificial Avoidance of PE Status*, British Tax Review, no. 5, 638-645

Escribano López, E. (2015), *An Opportunistic, and yet Appropriate, Revision of the Source Threshold for the Twenty-First Century Tax Treaties*, Intertax, vol. 43., Issue 1, 6–13

Gupta, A. (2014), *Kicking the BEPS Can Across The Road*, Tax Notes International, vol. 76, no 7, 576-579.

Gupta, A. (2015), *Business Groups Resist Lower PE Thresholds*, Tax Notes International, vol. 77, no 4, 304-305.

Lang, M. (2010), *Introduction to the law of double taxation conventions*. Linde, Wien.

Obuoforibo, B. R. (2013), In the Name of Clarity: Defining a Dependent Agent Permanent Establishment, in: Gutiérrez, C. and Perdelwitz, A., eds., *Taxation of Business Profits in the 21st Century - Selected Issues under Tax Treaties*, Online books IBFD,

Available at:

online.ibfd.org/collections/tbp/html/tbp_head.html?WT.z_nav=Navigation&colid=4941&print=yes

OECD (2013a), *Addressing Base Erosion and Profit Shifting*, OECD Publishing, Paris.

OECD (2013b), *Action Plan on Base Erosion and Profit Shifting*, OECD Publishing, Paris.

OECD (2014a), *Model Tax Convention on Income and on Capital: Condensed Version 2014*, OECD Publishing, Paris.

OECD (2014b), *BEPS Action 7: Preventing the Artificial Avoidance of PE Status*, available at: <http://www.oecd.org/ctp/treaties/action-7-pe-status-public-discussion-draft.pdf>

Oyama, H. (2014), *Countering BEPS: Preventing Abusive Commissionnaire Arrangements*, Tax Notes International, vol. 75, no. 13, 1163-1170

Parada, L. (2013), *Agents vs. Commissionnaires: A Comparison In Light of the OECD Model Convention*, Tax Notes International, vol. 72, no 1, 59-65

Pijl, H. (2013), *Agency Permanent Establishments: in the name of and the Relationship between Article 5(5) and (6) – Part 1*, Bulletin for International Taxation, Vol. 67., No. 1, 3-25

Pistone, P. (2012), General report, in: Lang, M. *et al.*, eds., *The impact of the OECD and UN model conventions on bilateral tax treaties*. Cambridge: Cambridge University Press.

Pizzitola, G. (2012), *Boston Scientific: Italian Supreme Court Rules on Permanent Establishments*, Tax Notes International, vol. 67, no. 4, 339-341.

PWC (2014), *Release of BEPS discussion draft: Preventing the Artificial Avoidance of PE Status*, Tax Policy Bulletin (Nov 2014). Stevens, S.A. (2014), *The Duty of Countries and Enterprises to Pay Their Fair Share*, Intertax, Vol. 42, Issue 11, 702–708.

Reimer, E. (2012), Permanent Establishment in the OECD Model Tax Convention, in: Reimer, E. *et al.*, eds., *Permanent establishment. A domestic taxation, bilateral tax treaty and OECD perspective*. Kluwer Law International, Alphen aan den Rijn.

Sasseville J. and Skaar, A. (2009), General report, in: Sasseville J. and Skaar, A., eds., *IFA Cahiers de Droit Fiscal International vol. 94a: Is There a Permanent Establishment?*, Sdu Uitgevers, The Hague.

Sheppard, L. A. (2010), *Tweaking the Permanent Establishment Concept*, Tax Notes International, vol. 57, no 1, 18-23

Sheppard, L. A. (2011), *Narrowing Permanent Establishment*, Tax Notes International, vol. 62, no 4, 266-269

Skaar, A. (1991), *Permanent establishment: erosion of a tax treaty principle*, Kluwer, Deventer.

Stevens, S.A. (2014), *The Duty of Countries and Enterprises to Pay Their Fair Share*, Intertax, Vol. 42, Issue 11, 702–708.

Vann, R. (2006), *Tax Treaties: The Secret Agent's Secrets*, British Tax Review, no. 3, 345-382.

Verhagen, H. (2006), Agency and representation, in: Smits, J. M., ed., *Elgar encyclopedia of comparative law*, Edward Elgar Publishing, Cheltenham.

Vogel, K. (1997), *Klaus Vogel on Double Taxation Conventions: A Commentary to the OECD, UN and U.S. Model Conventions for the Avoidance of Double Taxation of Income and Capital, With Particular Reference to German Treaty Practice*, Kluwer Law International, Dordrecht.

Zimmer, F., (2011), *Norwegian Court Sides With Tax Authorities in Dell*, Tax Notes International, vol. 61, no. 13, 991-993.

CHAPTER 27

Josipa Mrša

University of Rijeka, Faculty of Economics, Rijeka, Croatia

Tomislav Jeletić

Istrian Credit Bank, Umag, Croatia

APPLICATION OF HEDGE ACCOUNTING ON THE CRUDE OIL MARKET

ABSTRACT

Highly effective hedging can be any hedge relation that offsets all or most of the risk in the hedged portfolio. The reduction of volatility is the explicit or implicit measure for hedge effectiveness. This paper examines the estimation of the optimal hedge ratio using two measures of hedging effectiveness (Standard Deviation Analysis, Coefficient Variation Analysis) on a hedge relation of WTI crude oil and futures underlying WTI crude oil. Three quantitative methods (Ordinary Least Squares Regression Method, Bivariate Vector Autoregression Method, Vector Error-Correction Method) for estimating hedge ratios were compared in order to determine their effectiveness. According to the criteria of hedge accounting requirements, the Ordinary Least Squares Regression Method was estimated to be the most effective one. The simulation of two reporting periods was made and the hedge ratio was permanently effective.

Keywords: hedge accounting, optimal hedge ratio, hedge effectiveness, crude oil market, futures hedging.

JEL classification: M41

1. INTRODUCTION

Hedge accounting and hedging are key topics of modern accounting. According to Coughlan et.al (2003), the perfect hedge is the one that offsets all the unwanted changes of the value of the hedged instrument. However, as the *perfect hedge* is not always possible, the *effective hedge* is the term that is applied to express the hedge that offsets most of the

risk in the hedged portfolio. The reduction of volatility is the explicit or implicit measure for hedge effectiveness. The aim of this paper is to examine the estimation of the optimal hedge ratio using two measures of hedging effectiveness (Standard Deviation Analysis, Coefficient Variation Analysis) on a hedge relation of WTI crude oil and futures underlying WTI crude oil. Three quantitative methods (Ordinary Least Squares Regression Method, Bivariate Vector Autoregression Method, Vector Error-Correction Method) for estimating hedge ratios were compared in order to determine their effectiveness.

2. THEORETICAL FRAMEWORK

a. Hedge accounting

The goal of hedge accounting is to present the effects of hedging activities in the financial statements when financial instruments are used to manage the exposure to risks that could influence gains and losses (or other comprehensive income) (Mrša, 2014). IFRS 9 and FAS 133 state out three types of hedging relationships (Coughlan, 2003; Ramirez, 2007): fair value hedge, cash flow hedge and hedge of a net investment in a foreign operation. A hedging relationship qualifies for hedging accounting only if all of the following criteria are met (IFRS 9): 1. the hedging relationship consists only of eligible hedging instruments and eligible hedged items; 2. at the inception of the hedging relationship there is a formal designation and documentation of the hedging relationship and the entity's risk management objective and strategy for undertaking the hedge; 3. the hedging relationship meets all of the hedge effectiveness requirements: there is an economic relationship between the hedged item and the hedging instrument, the effect of credit risk does not dominate the value changes that result from that economic relationship and the hedge ratio of the hedging relationship is the same as that actually used in the economic hedge.

3. HEDGE RATIO CALCULATION TECHNIQUES

b. Ordinary Least Squares (OLS)

In order to determine the optimal hedge ratio, the following regression model, estimated by the Ordinary Least Squares Method (Bonga Bonga

and Umoetok, 2015; Ederington, 1979; Fan et.al, 2014; Lien et.al, 2002; Malliaris and Urrutia, 1991; Ripple and Moosa, 2007), was applied:

$$r_{st} = \alpha + \beta r_{ft} + \varepsilon_t \quad (1)$$

where ε_t represents the error term from Ordinary Least Squares regression estimation, r_{st} and r_{ft} respectively represent continuously compounded returns of the spot and futures and β represents the estimate for the optimal hedge ratio h^* . The continuously compounded returns are calculated as follows:

$$r_{st} = \ln(S_t) - \ln(S_{t-1})$$

$$r_{ft} = \ln(F_t) - \ln(F_{t-1}) \quad (2)$$

Where S_t and F_t are spot and futures prices used to determine the optimal hedge ratio.

c. Vector Autoregression (VAR) Method

Herbst et.al (1989) argues that OLS does not address the problem of serial correlation among the residuals of the endogenous variables. The bivariate Vector Autoregression (VAR) Method addresses the problem of serial correlation by modelling the different endogenous variables utilizing the bivariate VAR structure as follows (Bonga Bonga and Umoetok, 2015; Yang and Allen 2004):

$$\Delta s_t = \alpha_s + \sum_{i=1}^m \beta_{si} \Delta s_{t-i} + \sum_{i=1}^m \gamma_{si} \Delta f_{t-i} + \varepsilon_{st}$$

$$\Delta f_t = \alpha_f + \sum_{i=1}^m \beta_{fi} \Delta s_{t-i} + \sum_{i=1}^m \gamma_{fi} \Delta f_{t-i} + \varepsilon_{ft} \quad (3)$$

where Δs_t and Δf_t represent the change in value of spot and futures prices, α_s and α_f are the intercepts, β_{si} , β_{fi} , γ_{si} , γ_{fi} are parameters, and ε_{st} and ε_{ft} are independently identically distributed random vectors. The optimal lag length, m , is determined using the Schwartz Bayesian Criterion (Schwartz, 1978). The use of the ARMA (p,q) test is also possible (Ye and Chen, 2006). After determining the optimal lag length residual time series are estimated and used to estimate the optimal hedge ratio (Hamldar and Mehrara, 2014: 84):

$$h = \frac{\sigma_{sf}}{\sigma_{ff}} \quad (4)$$

where $\sigma_{sf} = \text{cov}(\varepsilon_{st}, \varepsilon_{ft})$ and $\sigma_{ff} = \text{var}(\varepsilon_{ft})$.

d. Vector Error-Correction Method (VECM)

Yang and Allen (2004) point out that the cointegration as the shortcoming of VAR. The Vector Error-Correction Method (VECM) addresses the above mentioned shortcoming by adding an error-correction to the error terms of each variable in the VAR for the long-term equilibrium relationship of spot and futures price movement (Bonga Bonga and Umoetok, 2015). The execution of the Vector Error-Correction Method is as follows::

$$\begin{aligned} \Delta s_t &= \alpha_s + \sum_{i=1}^m \beta_{si} \Delta s_{t-i} + \sum_{i=1}^m \gamma_{si} \Delta f_{t-i} + \lambda_s Z_{t-1} + \varepsilon_{st} \\ \Delta f_t &= \alpha_f + \sum_{i=1}^m \beta_{fi} \Delta s_{t-i} + \sum_{i=1}^m \gamma_{fi} \Delta f_{t-i} + \lambda_f Z_{t-1} + \varepsilon_{ft} \end{aligned} \quad (5)$$

where Δs_t and Δf_t represent the change in value of spot and futures prices, α_s and α_f are the intercepts, β_{si} , β_{fi} , γ_{si} , γ_{fi} are parameters, ε_{st} and ε_{ft} are independently identically distributed random vectors, λ_s and λ_f are adjustment parameters and Z_{t-1} is the error correction term defined by the term:

$$Z_{t-1} = S_{t-1} - C - \alpha F_{t-1} \quad (6)$$

where α is the cointegration factor and C a constant. The hedge ratio is calculated by inserting ε_{st} and ε_{ft} in equation 4.

4. HEDGE EFFECTIVENESS MEASURES

e. Standard Deviation Analysis for Hedging Effectiveness

The commonly used measure for hedge effectiveness was introduced by Ederington (1979). This measure quantifies the reduction of volatility by using standard deviation as a measure of volatility. The hedge effectiveness measure is expressed by the term:

$$\tau = \frac{\sigma_U - \sigma_H}{\sigma_U} \quad (7)$$

A higher ratio represents a more effective hedge. To calculate the ratio it is needed to determine the equation for the variance of the un-hedged and hedged portfolio as follows:

$$\sigma_U^2 = \sigma_S^2$$

$$\sigma_H^2 = \sigma_S^2 - 2h^* \sigma_{sf} + h^{*2} \sigma_f^2 \quad (8)$$

where σ_U^2 and σ_H^2 are the variance of the un-hedged and hedged portfolios; σ_S^2 , σ_f^2 and σ_{sf} are variances and covariances of the spot and futures returns respectively.

f. Coefficient of Variation Analysis for Hedging Effectiveness

The second method for measuring the effectiveness of hedging is based on the comparison of the coefficient of variation of the hedged portfolio and the coefficient of variation of another hedged portfolio (Bonga Bonga and Umoetok, 2015; Jianru and Jinghua, 2011). The coefficient of variation is the ratio of the standard deviation over the expected return. A smaller coefficient means that the hedging is more efficient:

$$\tau = \frac{\sigma_H}{r_H} \quad (9)$$

to calculate r_H :

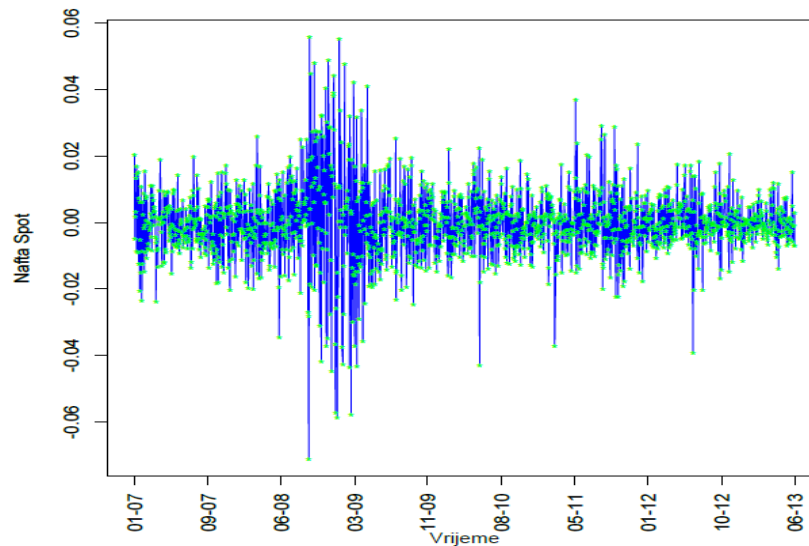
$$r_{Ht} = r_{st} - \Delta s_{t-i} + h^* \cdot r_{ft} \quad (10)$$

where h^* is the optimal hedge ratio, r_{st} and r_{ft} are calculated as in equation (2), r_{Ht} is the return on the hedged portfolio.

5. HEDGING ON THE CRUDE OIL MARKET

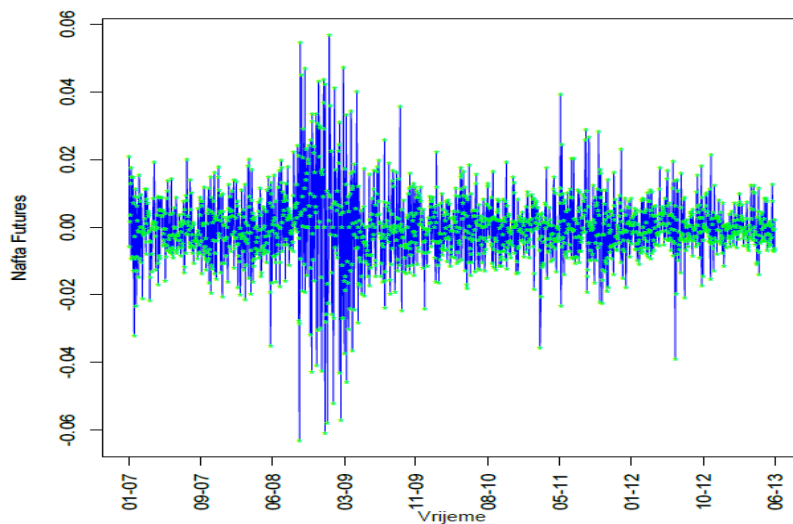
For the calculation of the optimal hedge ratio the WTI Crude Oil Price Cushing was used for spot prices and the NYMEX WTI Crude Oil (CL) for futures prices. The futures contract roll on the first day of the delivery month of the expiring or front contract. The price gap between consecutive contracts is smoothed by following a weighted-average process. The price adjustment corresponds to a mechanical roll strategy wherein the trader rolls 20% of the position every day, for 5 days before the roll date. The data from 01.01.2007. to 30.06.2013. were used to calculate the hedge ratio.

Figure 1 WTI Crude oil spot prices in dependence of time



Source: Author's calculation

Figure 2 WTI Crude oil futures prices in dependence of time



Source: Author's calculation

g. Data description

Figure 3 shows the basic statistics calculated: minimum, first quartile, median, mean, third quartile and maximum.

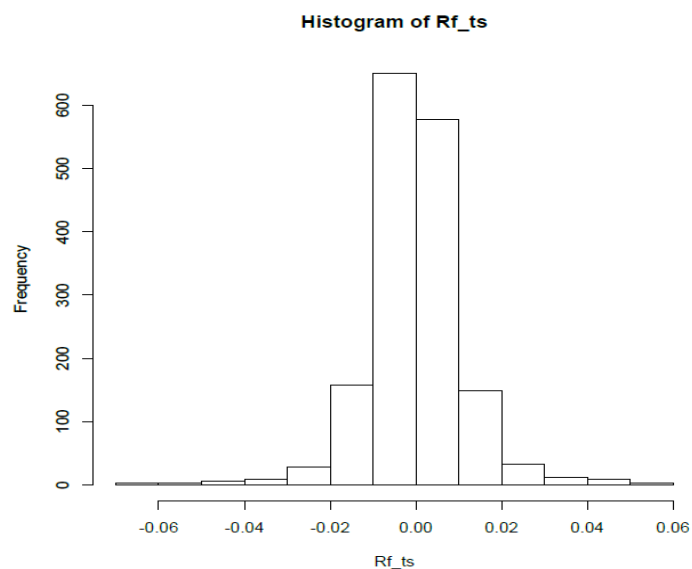
Table 1 Basic statistics of the WTI Crude Oil Futures

Minimum	First quartile	Median	Mean	Third quartile	Maximum
-0.06317	-0.00556	-0.00019	-0.00014	0.00504	0.05674

Source: Author's calculation

As all the data are close to zero, not much volatility and not much variance are expected. To analyse the distribution of futures data, the histogram was used (see Figure 3).

Figure 3 Histogram of the WTI Crude Oil Futures

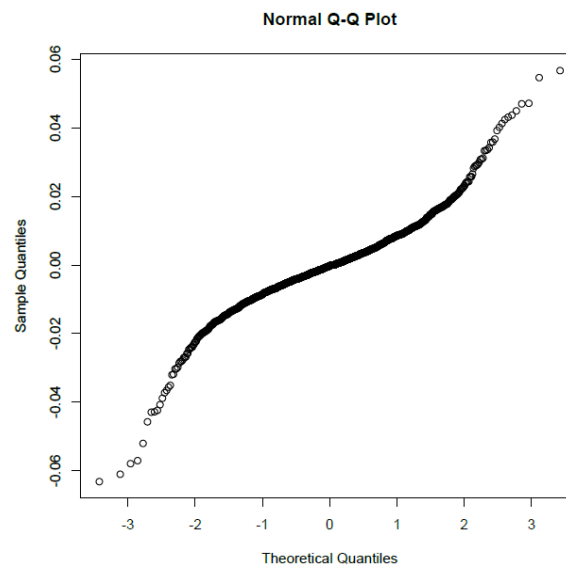


Source: Author's calculation

The histogram of WTI crude oil futures (Figure 3) shows that the data follow normal distribution and that the system is stable. Most of the data

is grouped around the median. Figure 4 shows the Q-Q graph of the futures data.

Figure 4 Q-Q graph of the WTI Crude Oil Futures



Source: Author's calculation

The Q-Q graph shows how good the data fit the normal distribution. If it was fully normally distributed, the Q-Q graph would be a straight line. Figure 4 shows that the graph fits quite well the linear trend, excepted for a few outliers at the ends. The following table (2) shows the results of the analysis of the basic statistics for spot prices.

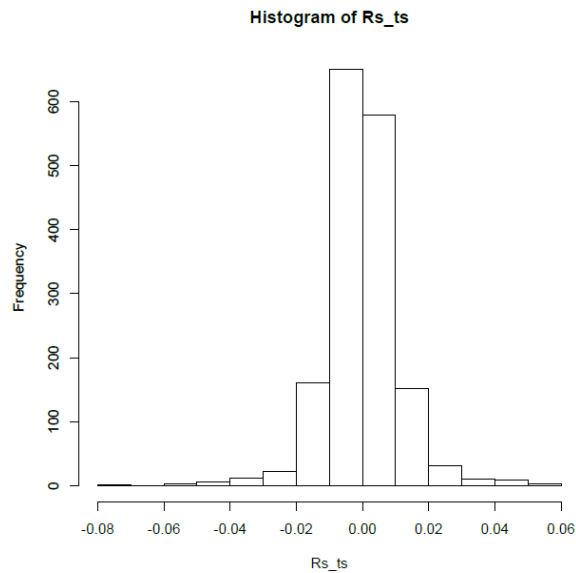
Table 2 Basic statistics of the WTI crude oil spot prices

Minimum	First quartile	Median	Mean	Third quartile	Maximum
-0.07128	-0.005612	-0.00046	-0.00014	0.00511	0.05571

Source: Author's calculation

As all the data are close to zero, not much volatility and not much variance is expected. The distribution of futures data was analysed in the following histogram (see Figure 5).

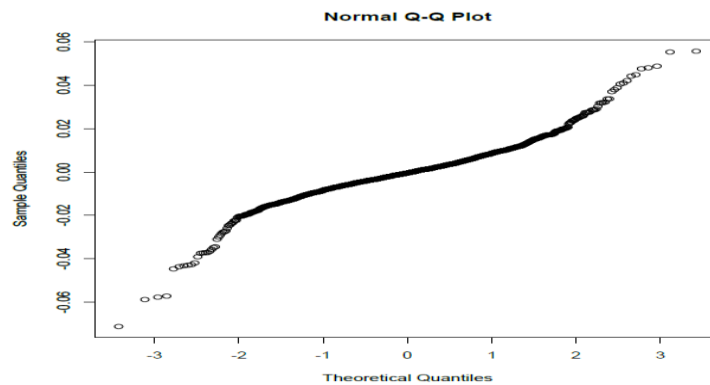
Figure 5 Histogram of the WTI crude oil spot prices



Source: Author's calculation

The histogram of WTI crude oil spot prices (Figure 5) shows that the data follow normal distribution and that the system is stable. Most of the data are grouped around the median.

Figure 6 Q-Q graph of the WTI crude oil spot prices



Source: Author's calculation

The Q-Q graph (see Figure 6) shows how good the data fit the normal distribution. As mentioned above, if the data was fully normally distributed, the Q-Q graph would be a straight line. It is clear that the graph fits quite well the linear trend, except for a few outliers at the ends.

h. Test for stationarity

The presence of stationarity was determined in order to assure the right model specification. Table 3 shows the results of the ADF and KPSS tests, two common tests for the detection of stationarity:

Table 3 ADF and KPSS test results

Variabl e	ADF test statistic	ADF p- value	KPSS test statistics - Level	KPSS test statistics - Trend
R _f	-29,892	0,01	0,0735	0,0691
R _s	-29,2016	0,01	0,0693	0,0653

Source: Author's calculation

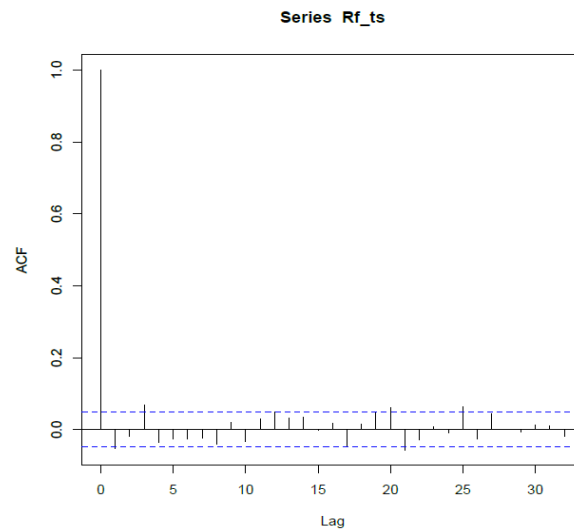
The Augmented Dickey-Fuller Unit Root tests the following hypothesis:

H0: there is a unit root;

H1: there is not a unit root.

If there is a unit root, the time series is stationary. However, the H0 hypothesis was rejected because the p-value is under the level of significance (0,05). The KPSS test's null hypothesis states that the time series is stationary around a deterministic trend. All the p-values are above the significance level (0,05), so the null hypothesis was accepted in all the four cases. A graphic representation of the results of the ADF test is shown in Figure 7.

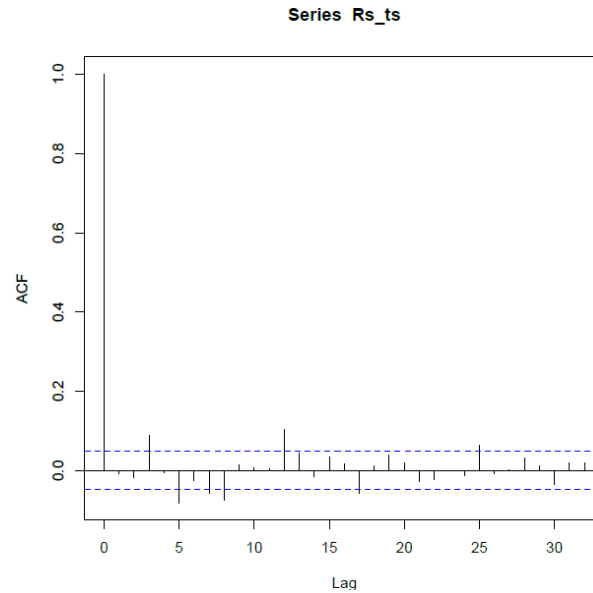
Figure 7 ADF graph of the WTI crude oil futures



Source: Author's calculation

If all the data are under the blue line, it can be assumed that the time series is stationary (the first line always goes to 1). According to the graph reported above (Figure 7), it can be concluded that the crude oil futures prices are a stationary time series. The graph reported below (Figure 8) shows that even the crude oil spot prices are a stationary time series.

Figure 8 ADF graph of the WTI crude oil spot prices



Source: Author's calculation

i. Cointegration testing

A cointegration relationship exists when variables are integrated of the same order greater than zero. After performing the cointegration test, it is possible to specify the right model for hedge ratio estimation. The following table (4) shows the results from the Johansen test for cointegration. The null hypothesis that there is no cointegration can be rejected.

Table 4 Testing cointegration – Johansen test

H_0	H_1	Max eigenvalue	Max - eigenvalue statistic	Critical value at 5 %
$r = 0$	$r \leq 1$	0.4531384	985.61	14.90
$r = 1$	$r \leq 2$	0.2233451	412.76	8.18

Source: Author's calculation

6. ESTIMATION OF THE OPTIMAL HEDGE RATIO

j. Estimating the optimal hedge ratio using the OLS method

The first method used to estimate the optimal hedge ratio is the OLS method. The results are shown in Table 5.

Table 5 Outputs and hedge ratio estimated using the OLS method

	Coefficient	Standard error	p-values
alfa	-1.076e-05	1.091e-04	0,922
beta	9.213e-01	9.946e-03	<0,001
R ²	0.84		
h	0.9213		

Source: Author's calculation

The coefficient of regression is statistically significant ($p < 0.001$) and the R^2 is high, so it can be concluded that the OLS model fits the data. The hedge ratio is 0.9213. However, the shortcoming of this method is that it does not take into account serial correlation. The Box-Pierce test shows the results of serial correlation testing (see Table 6). The Box-Pierce test shows that there is serial correlation because all the p-values are small.

Table 6 Serial correlation testing results

Lag	X ²	p-values
1	87.1166	<0,001
5	154.2515	<0,001
20	252.2958	<0,001

Source: Author's calculation

k. Estimating the optimal hedge ratio using the VAR method

The second method used for estimating the hedge ratio is the VAR method. In the following Table (7) the values of the statistics (residuals) used to estimate the hedge ratio are shown. The estimated hedge ratio using the VAR method is 0.9463.

Table 7 Outputs and hedge ratio estimated using the VAR method

Statistics	Value
sigma_sf	0.0001111
sigma_f ²	0.0001174
h*	0.9463373

Source: Author's calculation

l. Estimating the optimal hedge ratio using the VECM method

The third method used to estimate the optimal hedge ratio is the VECM method. This method adds the error correction factor to the VAR method. The residuals used to calculate the hedge ratio are shown in Table 8. The estimated hedge ratio using the VECM method is 0.9463.

Table 8 Outputs and hedge ratio estimated using the VAR method

Statistics	Value
sigma_sf	0.94256
sifma_s ²	1.00
h*	0.94256

Source: Author's calculation

7. MEASURING HEDGE EFFECTIVENESS

m. Measuring hedge effectiveness using the Standard Deviation Analysis

The effectiveness of the hedge ratios was measured using the Standard Deviation Analysis, introduced by Ederington (1979). All the three hedge ratios estimated using the OLS, VAR and VECM methods were tested. The results of the test are shown in Table 9.

Table 9 Hedge effectiveness using the Standard Deviation Analysis

Method	h^*	Hedge effectiveness
OLS	0.9213	60.0031%
VAR	0.946337 3	59.9254%
VECM	0.94256	59.9471%

Source: Author's calculation

The results show that the hedge ratio defined using the OLS method is the most effective. Therefore, the hedge ratio estimated using the OLS method will be used for hedge accounting purposes and for simulating two reporting periods after the inception of the hedging.

n. Measuring hedge effectiveness using the Coefficient of Variation Analysis

The second method used for hedge effectiveness measurement was the Coefficient of Variation Analysis. The following table (10) shows the results. The results of the test are not meaningful, so there is no effective hedge according to this method of measurement.

Table 10 Hedge effectiveness using the Coefficient of Variation Analysis

Method	h^*	Coefficient
OLS	0.9213	-7142.57%
VAR	0.946337 3	-553.47%
VECM	0.94256	-1000.85%

Source: Author's calculation

8. SIMULATION OF TWO REPORTING PERIODS

After setting the optimal hedge ratio the analysis of two reporting periods was simulated to determine the hedge behaviour according to hedge accounting criteria. The following data range was used to perform the simulation: Test 1 - from 01.10.2012. to 30.09.2013. and Test 2 from 01.01.2013. to 31.12.2013. The results of the simulation are shown in Table 11. The hedge ratio is extremely high and effective in both the simulation periods, so it is possible to continue with the hedge accounting without the need for rebalancing or discontinuation.

Table 11 Simulation of two reporting periods

Method for defining the hedge ratio	Hedge effectiveness measurement method	Hedge ratio	Test 1 30.09.2013.	Test 2 31.12.2013
OLS	Standard deviation analysis	0.9213	83.38%	83.57%

Source: Author's calculation

9. CONCLUSION

This paper examines the estimation of the optimal hedge ratio using two measures of hedging effectiveness (Standard Deviation Analysis, Coefficient Variation Analysis) on a hedge relation of WTI crude oil and futures underlying WTI crude oil. Three quantitative methods (Ordinary Least Squares Regression Method, Bivariate Vector Autoregression Method, Vector Error-Correction Method) for estimating hedge ratios were compared in order to determine their effectiveness. According to the criteria of hedge accounting requirements, the OLS method was estimated to be the most effective one. The simulation of two reporting periods was made and the hedge ratio was permanently effective. Furthermore, the applied quantitative method for estimating the hedge ratio and for measuring hedge effectiveness comply to the requirements of hedge accounting.

REFERENCES

- Bonga Bonga, L. and Umoetok, E. (2015), The effectiveness of index futures hedging in emerging markets during the crisis period of 2008-2010: Evidence from South Africa, Munich Personal RePEc Archive, Paper No. 62932, posted in March 2015, Department of Economics and Econometrics, University of Johannesburg.
Online at <http://mpira.ub.uni-muenchen.de/62932/>
- Coughlan, G., Korb, J. and Emery, S. (2003), HEATTM Technical Document: A consistent framework for assessing hedge effectiveness under IAS39 and FAS133, JP Morgan.
- Ederington, L. H. (1979), The Hedging performance of the New Futures Market, *Journal of Finance*, 34(1), 157-170.
- Fan, J. H., Roca, E. and Akimov, A. (2014), Estimation and performance evaluation of optimal hedge ratios in the carbon market of the European Union Emissions Trading Scheme, *Australian Journal of Management*, 39(1), 73-91.
- Hamldar, M. and Mehrara, M. (2014), Optimal Hedge Ratio for Brent Oil Market: Bayesian Approach, *International Letters of Social and Humanistic Sciences*, 26, 82-87.
- Jianru, F. and Jinghua, W. (2011), The Research of Futures Optimal Hedge Ratio with Different Objective Function, *Proceedings of the International Conference on Information Technology and Management Engineering (ITME 2011)*, ASME Press.
- Lien, D., Tse, Y. K., and Tsui, A. K. (2002), Evaluating the hedging performance of the constant-correlation GARCH model, *Applied Financial Economics*, 12(11), 791-798.
- Malliaris, A. G., Urrutia, J. L. (1991), The impact of the lengths of estimation periods and hedging horizons on the effectiveness of a hedge: Evidence from foreign currency futures, *Journal of Futures Markets*, 11(3), 271-289.

- Mrša, J. (2014), Instrumenti zaštite (Hedge Accounting), Računovodstvo, revizija i financije
- Ramirez, J. (2007), Accounting for derivatives: Advanced Hedging under IFRS, John Wiley and Sons.
- Ripple, R. D., Moosa, I. A. (2007), Hedging effectiveness and futures contract maturity: the case of NYMEX crude oil futures, Applied Financial Economics, 17(9), 683-689.
- Schwarz, G. (1978), Estimating the dimension of a model, The annals of statistics, 6(2), 461-464.
- Yang, W. and Allen, D. E. (2004), Multivariate GARCH Hedge Ratios and Hedging Effectiveness in Australian Futures Market, Accounting and Finance, 45(2), 301-321.
- Ye, T., Chen, Z. (2006), The Hedging Effectiveness of Currency Futures, Master thesis, Simon Fraser University.

CHAPTER 28

Michele Bertoni

University of Trieste, Trieste, Italy

Bruno De Rosa

University of Trieste, Trieste, Italy

Alessio Rebelli

Azienda Ospedaliero-Universitaria “Ospedali Riuniti” of Trieste,
Trieste, Italy

Fabrizio Zanconati

University of Trieste, Trieste, Italy

AN ANALYSIS OF ADVANCED COST ACCOUNTING TECHNIQUES IN HEALTHCARE ACTIVITIES (*)

ABSTRACT

Health policies and health systems across the European Union are increasingly interconnected, both because of patients getting healthcare across the EU, and because of professionals working in different countries. Given the relevance of patient mobility in the EU agenda (see for example Directive 2011/24/EU), it is of the utmost importance that governments design a reimbursement system with realistic tariffs. It is difficult, however, to correctly measure the cost related to the different therapeutic and diagnostic treatments provided by hospitals and other healthcare providers. In fact, simply transferring systems and methods from for-profit corporations to providers of healthcare services could lead to erroneous results (Alexander and Weiner, 1998), especially when decisions concerning the appropriateness of different medical treatments are based exclusively on cost information. Advanced cost accounting techniques, such as Activity Based Costing (ABC), are therefore more appropriate for measuring the costs of healthcare activities. Since its inception, ABC had proven to be particularly suited to cost assessment

* Preliminary version. Please do not quote without permission from the authors. The authors are deeply grateful to Andrea Gezzele for his assistance in the data collection and analysis.

in health care institutions (Baker). As a matter of fact, its theoretical roots – based on the formal recognition of the “multiple level variability” underlying costs amounts – enable an increase in the accurateness of cost measurement in a context in which complexity plays undoubtedly a crucial role (Grisi, 1997; De Rosa, 2000). Despite its attractiveness, ABC rate of adoption remained considerably low, even in the healthcare sector. The main causes of this lack in general acceptance of ABC are commonly attributed to the difficulties and costs almost inevitably associated with its practical implementation. Furthermore, the unwieldy and subjective procedure that leads to the appraisal of resource usage within the conventional ABC framework is often considered problematic. In particular, over-estimates of the resources used by activities is a common effect produced by this procedure in the practical implementation of ABC systems, thus inducing under-appraisals of the levels of unused capacity. These undesirable effects may be particularly relevant in contexts – such in the healthcare sector – where the appropriate understanding of cost data may be linked to factors that normally diverge from those strictly pertaining to economic logic. In order to solve this problem, a new approach – called Time Driven Activity Costing or TDABC – has been more recently devised and tested in practice, including in healthcare environments (Kaplan, Porter). TDABC improves existing ABC framework in two ways. Firstly, simplifies the costing systems by removing the need to interview and survey personnel for allocating resource costs to activities performed. Secondly, it uses the capacity cost rate to drive departmental resource costs to cost objects; this result is obtained by assessing the demand for resource capacity that is implied in the level of activities performed.

In this paper we study the methods and results of cost analysis of selected healthcare activities offered by the Anatomical and Histological Pathology Unit of the teaching hospital of Trieste, Italy (Azienda Ospedaliera Universitaria Ospedali Riuniti di Trieste). We experimentally apply time-driven ABC techniques to both histopathology and cytopathology examinations, obtaining results that can provide a useful insight for further research in the field of cost accounting in healthcare.

Keywords: national health care service, managerial control systems, cost accounting, activity based costing, time-driven ABC

1. INTRODUCTION

Most countries have experienced a rise in the percentage of GDP devoted to national health systems over the past few decades (Reinhardt et.al, 2004; Perotti, 2006; Pammolli and Salerno, 2011; WHO, 2000 and 2010; McKinsey Global Institute, 2008; Armeni and Ferrè, 2013; Scheggi, 2012). In 2012, OECD countries spent an average of 9.5% of their GDP in healthcare, up from an average total spending of 7.8% in 2000 (OECD Health Statistics, 2014). Considering that, in many countries, healthcare ranks among the largest economic sectors (Ditzel et.al, 2006), it is not surprising that it represents a significant portion of public spending, and that governments have been looking for solutions to curb healthcare spending. The gradual introduction, started in the 1980s, of Diagnosis-Related Groups (DRG) for funding healthcare providers is an example of such efforts. Under this mechanism, the payment to the providers (hospitals and physicians) depends on the nature of the patient's illness, not on the amount of resources used to treat the payment. An increase of resources used to treat the illness, therefore, does not translate in an increase in hospital reimbursement, thus shifting the cost risk from the insurers (private or governmental) to the providers of healthcare (Cardinaels and Soderstrom, 2013). Hospitals have reacted by introducing cost containment measures, including governance models and cost accounting systems designed around corporate examples. However, simply transferring systems and methods from for-profit corporations to providers of healthcare services could lead to erroneous results (Alexander and Weiner, 1998), especially when decisions concerning the appropriateness of different medical treatments are based exclusively on cost information.

It is therefore not surprising that, given the recent surge in healthcare costs, cost analysis and control in the production of healthcare services has become increasingly important. In our view, one of the most important supports that helps providers better organizing their activities is the availability of relevant information. Therefore, the data analyzed should be elaborated within a framework that takes into consideration the systemic reality, i.e. the information should be able to reflect the level of complexity, the interconnections, and the constraints of the system. Translating this concept into the measurement and reporting of costs, it means that the cost accounting system should provide

information with a level of detail and a depth of analysis that is consistent with the complexity of the processes being measured. In this sense, ABT (Activity Based Techniques) represent an indubitable improvement over traditional measurement systems in providing valuable information for process management interventions (Activity Based Management and Business Process Reengineering).

2. THE PROS AND CONS FOR USING ABC IN HEALTHCARE INSTITUTIONS: FROM ABC TO TDACB

One of the key problems faced by healthcare operators undoubtedly concerns the high level of complexity of the activities they must normally perform. In the last century, the role of medicine and of physicians has changed dramatically: the number of medical treatments and surgical procedures has astoundingly increased, and so have drugs and diagnostic exams, that have been discovered and promoted in vast numbers. None of this complexity came for free. Healthcare institutions have heavily invested in expensive infrastructure to cope with the increased number of transaction they must perform, and their payroll costs have inexorably heightened. In such a context, it is of a paramount importance to acquire all the information needed in order to properly manage operational processes. Where the primary focus of Financial Accounting is on providing external reports and meeting audit standards, the main emphasis of an effective Cost Management System (CMS) must be on operations. If properly designed, a CMS must serve as a supporting information tool for management decision-making activities. Therefore it must, at least:

- a) Mirror the organization's cost structure and behaviors to support ongoing improvement and control;
- b) Influence individual and team behaviors toward goal accomplishment;
- c) Monitor and control resource use;
- d) Facilitate the repositioning of resources.

Since its inception, ABC has proven to be particularly suited to reach these goals (Baker, 1998). In fact, researchers have commonly claimed that ABC aptitude to provide greater visibility into organizational processes and their cost drivers may lead managers to eliminate non-value costs and to improve the efficiencies of existing processes

(Demeere, 2009). Its theoretical roots – based on the formal recognition of the “multiple level variability” underlying costs amounts – usually ensure an increase of the level of accuracy in costs measurement processes. This enhancement is critical in a context in which complexity undoubtedly plays a crucial role (Grisi, 1997; De Rosa, 2000). Despite its perceived attractiveness, ABC rate of adoption remained considerably low, even in the healthcare sector. The main causes of this lack in general acceptance of ABC are commonly attributed to the difficulties and costs almost inevitably associated with its practical implementation. Robert Kaplan himself – the author that contributed the most to the elaboration and diffusion of the ABC idea – admits that ABC systems are usually “expensive to build, complex to sustain, and difficult to modify” (Kaplan and Anderson, 2007:7). The time and costs demands of creating and maintaining an ABC model represent therefore serious obstacles to the widespread adoption of this methodology, despite the conspicuous advantages in terms of more detailed cost analysis and cost- and value-enhancement opportunities it can provide. Furthermore, during the evolutionary path from theory to practice, some important ABC pitfalls gradually began to emerge (Kaplan and Anderson, 2004). These drawbacks are principally linked to the unwieldy and subjective procedure that leads to the appraisal of resource usage within the conventional ABC framework. Traditional ABC methodology relies on individuals’ subjective estimates of their past and future behavior in order to ascertain the costs of activities performed. This may cause “measurement errors” on the level of activity costs due both to (1) the inability of personnel to properly recollect or gauge the time spent on working activities performed and (2) the enclosure of voluntary bias in the responses provided. Kaplan and Anderson (2004) acknowledged that “a subtle a more serious problem arises from the interview and survey process itself. When people estimate how much time they spend on a list of activities handed to them, they invariably report percentages that add up to 100. Therefore cost drivers rates are calculated assuming that resources are working at full capacity”. That practice often determines over estimates of the resources used by activities performed, thus inducing under appraisals of the levels of unused capacity. The undesirable effects on the accuracy of cost figures thus produced may be particularly relevant in context – such in the healthcare sector – where the appropriate understanding of cost data may be linked to factors that normally diverge from those strictly related to economy.

Another problem is that conventional ABC model uses a single activity driver rate for each activity cost pool defined. The so obtained activity cost rate is an average of the costs of activities performed, which could be hypothetically heterogeneous. Therefore, it is a potentially distorted cost information that may provide misleading indications to managers and operators. A possible solution to the problem is to expand the number of activity cost pools, thus recognizing an increased number of different activities. Unfortunately, that expansion boosts the complexity of the cost measurement model, raising its development and maintenance costs. An alternative approach requires the employment of both duration and intensity drivers, which estimate the different usages of resources linked to different levels of complexity in activities performed. While these drivers generally determine a more accurate cost figure, they are also more difficult to measure, and therefore are more expensive to store, process and report.

In summary, conventional ABC systems – unmistakably an evolution in comparison with traditional costs systems – are nevertheless prone to the following drawbacks:

- a) They require an interviewing and surveying process that is both time-consuming and costly;
- b) Their data are often excessively subjective and difficult to validate;
- c) The model cannot be effortlessly updated accordingly to changes arising in activities and processes actually performed;
- d) Their theoretical framework is partially incorrect, because it overlooks the potential for unused capacity (from the resource side).

In order to solve these pitfalls, a new approach – called Time Driven Activity Based Costing or TDABC – has been more recently devised and tested, in healthcare environments (Kaplan, Porter). According to Kaplan and Anderson (2004), TDABC is “simpler, cheaper and far more powerful than the conventional ABC approach”. It improves existing ABC framework in two ways. Firstly, it simplifies the costing systems by removing the need to interview and survey personnel for allocating resource costs to the activities performed. In fact, while the former ABC framework requires “resource drivers” to trace expenditure to work activities, in the revised approach managers directly estimate the resource demand imposed by each transaction. Secondly, TDABC uses the capacity cost rate to drive departmental resource costs to cost object;

this result is obtained by assessing the demand for resource capacity that is implied in the level of activities performed. The practical effect of this new way of computing costs is that a clear distinction between used and unused resource capacity is made. The improvement achieved in the new framework is mostly based on two basic pillars: the design and uses of “time equations” and the computation of the so-called “capacity cost rate”. By means of the combined uses of these two conceptual tools, TDABC can easily reflect variations in the aggregate demand of resources induced by different types of transaction. (Kaplan, and Anderson, 2004). As previously suggested, this feature is of paramount importance in assessing costs for healthcare actors, considering the significant rigidity of cost structure and the critical role played by extra economic factors on resource utilization within this industry.

3. AT THE HEART OF THE TDABC FRAMEWORK

As mentioned in the previous paragraph, the founding pillar of the TDABC methodology is the estimate of only two parameters:

- a) the “capacity cost rate”;
- b) the amount of consumption of resource capacity (typically measured in units of time) by the activities performed.

Time-driven ABC recognizes that different groups (pools) of resources are used while performing different kinds of activities. For each of these groups the total period cost is therefore compounded. This amount aggregates all the resource costs associated with the observed activity. It comprises the full compensation of each person, including salary, payroll taxes, pensions costs and fringe benefit. It includes, moreover, the costs of all other resources that enable the workers to properly perform the activities assigned to them. *“These typically include a pro rata share of costs related to employee supervision, space (the offices each staffer uses), and the equipment, information technology, and telecommunications each uses in the normal course of work. In this way, the cost of many of the organization’s shared or support resources can be assigned to the resources that directly interact with the patient”* (Kaplan and Porter, 2011:52). In academic medical centers, a specific measurement issue arises: since many physicians spend significant amounts of their time doing research and teaching activities, the percentage of their time spent on clinical work should be determined in order to properly separate these two clusters of costs.

Obviously, compounding the “capacity cost rate” also requires the estimate of the capacity of resources supplies. Within the TDABC framework, the capacity assessment is fulfilled in term of “practical capacity”. Generally, the capacity measure is expressed in time units. Nevertheless, *“while most resources measure capacity using time availability, the time-drive approach also recognized resource whose capacity is measured in other units. For example the capacity of a warehouse, truck or freight car could be measured by space available, while memory storage would be measured by megabytes supplied. In these cases, the designer calculates the cost rate based on the appropriate capacity measure, such as \$/cubic meter or \$/megabyte”* (Kaplan and Anderson, 2007).

The next step of the TDABC methodology involves the assessment of the time required to perform a transactional activity, by means of direct observations or by interviews to operators. In this phase, TDABC displays its full potential. Not requiring the simplifying assumption that all transactions are the same, it ensures the correct appraisal of the economic effects of complexity. The unit time estimates are, in fact, designed in a way that allows them to vary in accordance with specific activity characteristics or attributes. These “attributes”¹ represent the “drivers” that cause an increase in the level of complexity of a specified transaction. Each of them hence refers to an increase in the resource consumption that has to be assessed. The intensification in the resource utilization so recognized can be proportionally added to the time required to perform the plain process. Rather than define a separate activity for every possible variation in the activity attributes, the time-driven approach estimates resource demand by a simple equation called time equation. The accuracy of a TDABC model arises from its ability to capture the resource consumption from diverse transactions by simply adding more terms to the time equation. While encompassing an increased level variety and complexity, a typical TDABC model usually requires fewer equations than the number of activity pools used in a conventional ABC system.

¹ “An attribute is simply a characteristic of an activity. This wide definition results in a very diverse choice of attributes, (...). The common theme however is that attributes are ways of collecting information in a structured way on the activity of organization”. Booth (1994), p. 104. “Attributes are coding schemes associated with each activity that facilitate reporting of activity cost.”. Kaplan and Cooper (1998), p. 93. “Attributes can reveal important characteristics of cost elements. They show whether cost elements are fixed or variable, direct or indirect, or avoidable or unavoidable. Attributes about costs behaviour are use to support ‘what if’ decision analyses. These are simulation of cost impact resulting from changes in the way activities are performed.”. Turney (1991); p. 152.

4. CASE STUDY: AN APPLICATION OF TIME-DRIVEN ACTIVITY BASED COSTING

The case study that follows summarize the results of a research effort aimed to improve the theoretical and operational framework of the process analysis and activity-based costing (ABC) at the *Azienda Ospedaliero-Universitaria* (AOU – Teaching Hospital) “*Ospedali Riuniti*” (Joint Hospitals) of Trieste, Italy. The AOU arises from the integration between the pre-existent hospitals of Trieste and the Faculty of Medicine and Surgery of the University of Trieste.

The aim of the project undertaken was to gradually enhance the AOU cost system, providing it with some ABC features that are currently still lacking. In fact, the hospital’s cost system is currently based on the traditional paradigm of organizational structure and control, based upon responsibility centers. While this logic might still be considered useful for budgetary control reasons, it is not certainly helpful in determining the accurate costs of specific therapeutic and diagnostic treatments provided by the hospital, especially when these treatments differ in complexity and intensity of resource usage. Indeed, the cost data gathered within the current AOU cost system lack the granularity required in order to correctly “trace” the resource consumption to definite activities or processes performed. It is, consequently, very challenging to compute the realistic cost of a detailed cost object. This case study, developed within the Anatomical and Histological Pathology Unit, was conducted by a multidisciplinary team in which there was a jointly contribution of competences pertaining to different scientific areas (medicine and accounting).

Anatomical pathology is a medical specialty that is concerned with the diagnosis of disease based on the macroscopic, microscopic, biochemical, immunologic and molecular examination of organs and tissues. More in detail, the main activities performed by the Anatomical and Histological Pathology Unit of the Hospital can be summarized as follows:

- Cytopathology;
- Histopathology;
- Immunohistochemistry;
- Molecular biology;
- Autoptic examinations.

Cytopathology is a branch of pathology that studies and diagnoses diseases on the cellular level, examining samples that are usually liquid. Histopathology studies tissues and organs (solid samples), originated by biopsies or autopsies. The samples normally require a preparation, consisting in processing and placing the histological sections onto glass slides. Immunohistochemistry and molecular biology refer to processes aimed at detecting antigens in cells and at studying the molecular basis of biological activity, in order to answer specific predictive and diagnostic questions. Usually, only the largest anatomical and histological pathology units are equipped with the resources necessary to conduct immune chemistry and molecular biology analyses. The Anatomical and Histological Pathology Unit we examined in our case study is the only structure in the province of Trieste that can conduct such analyses, which the Unit also performs in favor of the nearby hospitals of Monfalcone and Gorizia.

The aim of the study is to apply the TDABC methodology to the examinations performed by the Unit, in order to determine their cost. In our opinion, TDABC can appropriately consider the inherent complexity of the activities performed, deriving from the variety and the number of examinations performed.

As already noted, the Time Driven Activity Based Costing (TDABC) model requires the estimation of two parameters:

- 1) The cost rate of supplying resource capacity; and
- 2) The consumption of resource capacity by the activities performed by the resources.

With reference to the first parameter, the cost of personnel plays the most important role. Three types of organizational members are involved in the processes performed by the Unit: physicians, laboratory technicians, and administrative staff. The capacity cost rates of these three groups of workers are rather dissimilar, and should therefore be calculated accurately.

In order to determine the cost rates, we measured the average cost of personnel for the Unit in the period 2010-2012 (at the time of the study, the personnel costs for 2013 were not yet available). To calculate the practical capacity of the Unit, we assumed that physicians normally work 38 hours per week, and technicians and administrative staff 36 hours per week. Considering part-time personnel, parental leaves, paid leaves, and other events that may affect the actual number of hours

worked, we determined a total amount of hours per year as 1,482 for technicians, and 1,414 for physicians. Moreover, in order to correctly calculate the cost rate of personnel, we needed to consider the peculiarities of the Teaching Hospital of Trieste, where University physicians are also involved in teaching and research activities. We estimated that University physicians devoted 50% of their total working hours to those duties. We also decided against including the figurative costs of medical students (who do not receive a remuneration from the hospital), since their contribution to the activities performed by the Unit is most likely offset by the supervising and training tasks performed by the physicians.

Converting the number of employees in full-time equivalents, we determined the personnel available to the Unit as 8 physicians, 14.9 technicians, and 5.61 administrative personnel. Considering the practical capacity of the personnel resources, we calculated the capacity cost rate for the three categories of employees using the following formula:

$$\text{Capacity cost rate} = \frac{\text{Cost of capacity supplied}}{\text{Practical capacity of resources supplied}}$$

The results are the following:

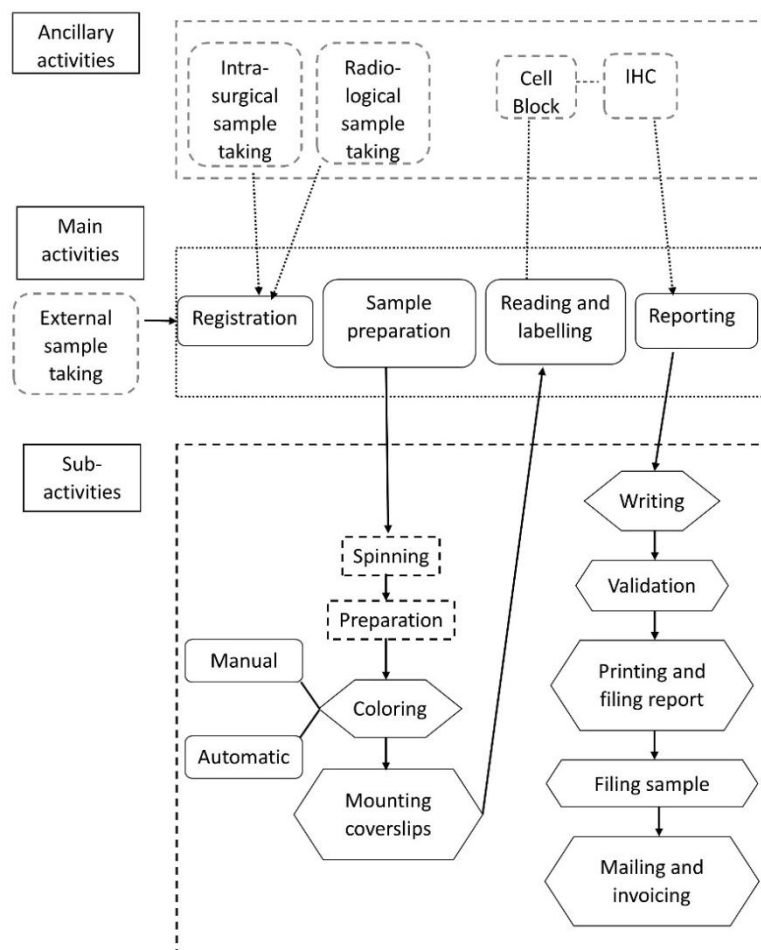
Physicians: €62 per hour;

Technicians: €25 per hour;

Administrative staff: €22 per hour.

The next step in the application of the TDABC model was the estimation of the time required to perform a transactional activity. We therefore created a detailed map of all the processes performed by the Unit, in order to measure the time required to perform the different activities. For example, Figure 1 summarized the typical process of a cytopathology examination.

Figure 1 Typical process map of a cytopathology examination



Not all the tasks performed by the Unit involve the same activities; more importantly, the process flow is modular, meaning that more complex instances involve the activation of more activities. Typically, exams requiring more than one slide glass involve longer examination times, and exams with a positive result require a greater number of activities than negative exams. This higher degree of complexity translates into longer times required for performing the tasks, thus making the TDABC approach particularly apt at measuring the increased cost arising from the complexity of the examination.

Once the relevant processes were identified, we estimated the time required to perform the activities, in order to calculate the cost of personnel involved using the TDABC approach. For example, Table 2 reports the activities required to perform a specific cytopathology examination, a fine-needle aspiration biopsy (code E-0013). Their volumes and their time estimates are also exposed.

Table 1 explains the codes of the parameters used in Table 2 and the total quantities observed in 2013.

Table 1 Description of parameters and total quantity for exam E-0013

ID	Parameters	Qty
R	Registration (i.e. the number of examinations performed)	2,093
GS	Glass slides	6,567
RX_T	Radiological sample taking	1,947
INS_T	Intrasurgical sample taking	751
INS_GS	Intrasurgical glass slides	738
IHC	Immunohistochemistry	91
CB	Cell Block	974
EX+	Positive examinations	1,208
EX?	Dubious or inadequate exams (included in negative exam.)	84
EX-	Negative examinations	885
GM/H&E	GIEMSA/H&E stain	1,320
PPN	Papanicolau stain	5,985

2 Activities involved in a fine-needle aspiration cytopathology exam (code E-0013)

Activities		Physicians				Technicians				Administrative staff			
		Attribute	Value	Unit time (s)	Total time (hrs)	Attribute	Value	Unit time (s)	Total time (hrs)	Attribute	Value	Unit time (s)	Total time (hrs)
Sample taking	Intrasurgical	INS_T	751	1,800	375.50	INS_T	751	1800	375.50		-		-
	With radiologist	RX_T	1,947	1,800	973.50		-		-		-		-
Registration	Registration of the sample		-		-	R	2,093	120	69.77	R	2,093	600	348.83
	Spinning		-		-		-		-		-		-
Sample preparation	Preparation of glass slide(s)		-		-		-		-		-		-
	Coloring		-		-	PPN	5,985	10	16.63		-		-
	Manual coloring		-		-	GM/H&E	1,320	15	5.50		-		-
	Mounting coverslips		-		-	GS	6,567	6	10.95		-		-
Reading and labelling	Microscopic examination	GS	6,567	420	766.15		-		-		-		-
	Labelling		-		-	R	2,093	20	11.63		-		-
	Writing	R	2,093	600	348.83		-		-	R	2,093	120	69.77
	Validation	R	2,093	60	34.88	R	2,093	60	34.88		-		-
Reporting	Printing		-		-		-		-		-		-
	Filing the report		-		-		-		-	R	2,093	60	34.88
	Filing the sample	EX +	1,208	60	20.13		-		-	EX -	885	30	7.38
	Mailing the report		-		-		-		-	R	2,093	30	17.44
Ancillary tasks	Invoicing		-		-		-		-		-		-
	Cell Block		-		-		-		-		-		-
	Immunohistochemistry	IHC	91	420	10.62		-		-		-		-
TOTAL					1,169.99				149.35				478.30

The data reported in Table 2 allowed us to define the time equation, a simple algorithm that explains the level of resource consumption taking into account the existence of specific characteristics (attributes), that increase the level of complexity of transaction performed. For each type of diagnostic exam, the required time to perform the “standard” activity had been primarily assessed. In the Unit we studied, three types of organizational members are normally involved in the process: the physicians, the technicians and the administrative personal. The capacity costs rate of these three groups of workers is rather dissimilar. Therefore, the standard time equation required the appraisal of the time spent performing the activity in its plain version by each of these groups. For the fine-needle aspiration cytopathology examination (E-0013), the basic time equation has the following structure:

$$TE_s = TE_p(GS, R) + TE_t(GS, R) + TE_a(R)$$

where

- TE_s is the standard time equation;
- TE_p is the time of physicians personnel required to perform the activity in its standard configuration;
- TE_t is the time spent by technicians in performing the standard activity;
- TE_a is the time required to perform the standard activity by administrative personnel;
- GS is the number of glass slides;
- R is the number of registrations (i.e. the number of examinations performed).

Note how the amount of time spent by personnel in performing a diagnostic exam may vary in accordance with specific parameters. For fine-needle aspiration cytopathology examination E-0013, the relevant parameters are the “number of registrations” (R) and the “number of glass slides used” (GS). The following equation exemplifies the relation between these attributes and the total length of the process.

$$TE_p(GS, R) = GS \times \text{Microscopic examination}_p + R \times \text{Reporting}_p + R \times \text{Validation}_p$$

$$TE_t(GS, R) = R \times \text{Registration}_t + GS \times \text{Spinning}_t + R \times \text{Coverslips}_t + R \times \text{Labelling}_t + R \times \text{ValidationOfReporting}_t$$

$$TE_a(R) = R \times \text{Registration}_a + R \times \text{Reporting}_a + R \times \text{FilingReporting}_a + R \times \text{MailingReporting}_a$$

Therefore, we can express in seconds the time required for performing the examination, assuming the use of one glass slide:

$$\begin{aligned} TE_s(1,1) &= TE_p(1,1) + TE_t(1,1) + TE_a(1) \\ &= (1 \times 420_p + 1 \times 600_p + 1 \times 60_p) \\ &\quad + (1 \times 120_t + 4 \times 6_t + 1 \times 20_t + 1 \times 60_t) \\ &\quad + (1 \times 600_a + 1 \times 120_a + 1 \times 60_a + 1 \times 30_a) \\ &= 1080_m + 224_t + 810_a \end{aligned}$$

Although the times calculated in the previous equation are expressed in same unit (seconds), it would not be appropriate to calculate their total sum. In fact, the economic value associated with the three times is different, since they measure the consumption of resources pertaining to different cost pools. It is possible, however, to determine the different costs, obtained by multiplying the times by the relative capacity cost rate (€62 per hour for physicians, €25 per hour for technicians, €22 per hour for administrative personnel). The total cost of the examination, in the configuration described above, is approximately €25.

The TDABC approach allows us to analyze the increase in costs linked to a different configuration of parameters. For example, if the examinations requires four glass slides (thus increasing complexity) instead of just one, the time equation would appear as follows:

$$\begin{aligned} TE_s(4,1) &= TE_p(4,1) + TE_t(4,1) + TE_a(1) \\ &= (4 \times 420_p + 1 \times 600_p + 1 \times 60_p) \\ &\quad + (1 \times 120_t + 4 \times 6_t + 1 \times 20_t + 1 \times 60_t) \\ &\quad + (1 \times 600_a + 1 \times 120_a + 1 \times 60_a + 1 \times 30_a) \\ &= 2340_m + 224_t + 810_a \end{aligned}$$

In this case, the total cost is approximately €47.

The complexity of the processes can be expressed also by taking into consideration the optional activities required in specific instances that can be incorporated into the time equation by means of “dummy” variables. For example, we can consider the following optional

activities:

$$TE = TE_s(4,1) + (INS_T \times Intrasurgical_p + RX_T \times Radiologist_p + EX^+ \times SampleFiling_p) + (INS_T \times Intrasurgical_t + PPN \times Coloring_t + GM/H\&E \times ManualColoring_t) + (EX^{(-|?)}) \times SampleFiling_a$$

The assessment of time generates the following results:

$$TE = TE_s(4,1) + (0|1 \times 1800_p + 0|1 \times 1800_p + 0|1 \times 60_p) + (0|1 \times 1800_t + 0|1 \times 10_t + 0|1 \times 15_t) + (0|1 \times 30_a)$$

If:

$$INS_T = 1$$

$$RX_T = 0$$

$$EX^+ = 1$$

$$PPN = 1$$

$$GM/H\&E = 1$$

We have the following result:

$$TE = 2340_p + 224_t + 810_a + (1 \times 1800_p + 0 \times 1800_p + 1 \times 60_p) + (1 \times 1800_t + 1 \times 10_t + 1 \times 15_t) + (0 \times 30_a) = 4200_p + 2049_t + 810_a$$

The total personnel cost, in this latter case, increases from €47 to about €92.50. The TDABC approach therefore allows to create a modular cost system, that can easily include variants and deviations from the standard flow of the activities, an extremely useful feature in healthcare cost accounting.

5. CONCLUSIONS

The practical implementation of the TDABC methodology to the Unit proved to be very effective. In fact, it allowed to compound the cost of an impressive number of different examinations in a way that is both simple to obtain and accurate. This result was achieved thanks to the modularity of the time equation, which represents the main innovation offered by this technique. The data so obtained are characterized by a high informative content, because they allow comparisons of the costs of healthcare diagnostic treatments with different intrinsic levels of complexity. This allows to perform “what-if” analyses, in order to study

the economic effect of changes in the mix of examinations offered. In addition, it allows determining the rates of saturation of resources; in the case study we examined, for example, productive capacity was almost completely used. In its concrete application to the Anatomical and Histological Pathology Unit, time-driven ABC has therefore proven to be a cost technique capable to provide meaningful cost information rather quickly and quite inexpensively. It offers a transparent, scalable methodology that is relatively easy to implement and update. In the case study examined all the “attributes” used to diversify the cost of activities in accordance with their level of complexity where already recorded in an existing database used for operational purposes. The ability of TDABC to incorporate existing data in order to determine accurate and appropriate cost figures increases the value of operational information already recorded. As an example, the number of glass slides used in order to perform a specific diagnostic exam or the number of diagnostic exams with negative outcome – information already present in the hospital database – have been used by the TDABC team as indicators of the level of activation of specific activities performed by physicians, technicians and administrative personnel. This allowed differentiating the costs of diagnostic exams that are characterized by intrinsic different levels of complexity in the activity performed. The granularity of the information provided by TDABC can assist users in correctly identifying the “roots causes” of costs. It consequently offers a wealth of opportunities to increase healthcare efficiency and effectiveness. In a context where health policies and health systems across the European Union are increasingly interconnected, both because of patients getting healthcare across the EU (see for example Directive 2011/24/EU), and because of professionals working in different countries, these characteristics could prove extremely valuable when designing reimbursement systems with realistic tariffs.

REFERENCES

- Alexander, J.A., and Weiner, B.J. (1998), *The adoption of the corporate governance model by non-profit organizations*, Nonprofit Management and Leadership, 8(3), 223-242.
- Armeni, P., & Ferré, F. (2013). *La spesa sanitaria: composizione ed evoluzione*, in: CERGAS-Bocconi (editors), *Rapporto OASI 2013. Osservatorio sulle aziende e sul sistema sanitario Italiano*, Milano,

Baker, J.J. (1998), *Activity-Based Costing and Activity-Based Management for Health Care*, Aspen Publishers, Gaithersburg, Maryland.

Booth R., (1994), *Control Your Overheads. A Practical Programme to Improve Performance and Reduce Costs*, London, Pitman Publishing.

Cardinaels, E., and Soderstromm N. (2013), *Managing a Complex World: Accounting and Governance Choices in Hospitals*, European Accounting Review, 22(4), 647-684.

Demeere N., Stouthuysen K., Roodhooft F. (2009), *Time-driven activity-based costing in an outpatient clinic environment: Development, relevance and managerial impact*, Health Policy.

Ditzel, E., Strach, P., and Pirozek, P. (2006). *An inquiry into good hospital governance: A New Zealand – Czech comparison*, Health Research Policy and Systems, 4(2).

De Rosa B. (2000), *Attività aziendali e processi di attribuzione dei costi*, Edizioni Goliardiche, Trieste.

Grisi, G. (1997), *Introduzione alle misure di efficienza nelle aziende ospedaliere*, Edizioni Goliardiche, Trieste.

Kaplan R. and Anderson S. R. (2004), *Time-Driven Activity-Based Costing*, Harvard Business Review.

Kaplan R. and Anderson S. R (2007), *Time-Driven Activity-Based Costing: A Simpler and More Powerful Path to Higher Profits*. Boston: Harvard Business School Press, 2007.

Kaplan R. S. and Porter M. E. (2011), *How to Solve the Cost Crisis In Health Care*, Harvard Business Review, pp. 47-64.

Kaplan, R.S. and Cooper, R. (1998), *Cost & effect. Using integrated cost systems to drive profitability and performance*, Harvard Business School Press, Boston, Massachusetts.

McKinsey Global Institute (2008), *Accounting for the cost of US health care: A new look at why Americans spend more*.

OECD (2014), *Health Statistics*. Retrieved from <http://www.oecd.org/health/health-systems/oecdhealthdata.htm>

Pammolli F., Salerno N. C. (2011), “Le proiezioni della spesa sanitaria SSN”, *Working paper*, CERM, 3, 2011.

Perotti L. (2006), *Analisi e valutazione dei costi delle prestazioni sanitarie*, *Economia Aziendale Online*, 4, pp. 36-71;

Reinhardt U. E., Hussey P. S., and Anderson G. F. (2004), *U.S. Health Care Spending In An International Context*, *HealthAffairs*, 3, 2004, pp. 10-25;

Scheggi M. (2012), *Il governo della spesa sanitaria*, Rigore ed Equità.

Turney P. B. B. (1991), *Common Cents: The ABC Performance Breakthrough*, Hillsboro (Or.), Cost Technology.

World Health Organization (2000), *The World Health Report - Health System: Improving Performance*.

World Health Organization (2010), *The World Health Report - Health System financing: the path to universal coverage*.

CHAPTER 29

Josipa Mrša

University of Rijeka, Faculty of Economics, Croatia

Josip Čičak

University of Rijeka, Faculty of Economics, Croatia

Dara Ljubić

University of Dubrovnik, Department of Economics and Business
Economics, Croatia

ACCOUNTING FOR EXPECTED CREDIT LOSSES

ABSTRACT

This paper discusses the results of the research problem of accounting for expected credit losses. Accounting for expected credit losses should provide users of financial statements useful information about an entity's expected credit losses on its financial assets and commitments to extend credit. This field of accounting is substantial in banking business. It is inevitable to research accounting for expected credit losses through its effect on banking business regulation. Example of credit losses accounting is illustrated with research of losses in banks of Bosnia and Herzegovina (BiH). Paper discusses IFRS, GAAP and Basel Committee on Banking Supervision guidance on accounting for expected credit losses. Although accounting for expected credit losses was covered by accounting standards, last financial crisis has shown weak spots of the regulation. Delayed recognition of credit losses on loans (and other financial instruments) was identified as a main weakness in existing accounting for expected credit losses model. That is why main interest of accounting in this area is the timing of recognition of credit losses, which is also covered by this paper.

Keywords: accounting for expected credit losses, recognition of credit losses, expected credit losses in banking business

JEL Classification: M41

1. INTRODUCTION

Accounting for expected credit losses is an issue which is currently debated among accounting standard setters. Also researchers have made great efforts to get a model which will improve the quality of accounting standards and the quality of accounts produced in accordance with these standards. Last financial crisis has shown weak spots of the accounting standards for expected credit losses. Delayed recognition of credit losses on loans (and other financial instruments) was identified as a main weakness in existing accounting for expected credit losses model. As demonstrated during the financial crisis, the financial condition of a bank is highly sensitive to rapid increases in credit risk. Therefore, appropriately determining how, when and in what amount to recognize the effects of increases in credit risk should be a priority for all stakeholders in the banking industry, including bank directors and management, supervisors, investors and other users of banks' financial statements (Basel Committee on Banking Supervision, 2015).

The significant role of accounting in this financial crisis suggests that it is important to minimize the pro-cyclical impact of accounting on bank capital regulation in order to achieve financial stability (Song, 2012). Marton and Runesson (2014) pointed out three main reasons why accounting for credit losses must be studied in context of IFRS and the incurred loss model and its effect on banking business. First, accounting for credit losses in banks is characterized by high measurement uncertainty in that loan loss provisions, which reflect the estimation of credit losses, constitute an innately high-judgment item. Thus, it is possible to write accounting standards that allow high judgment in this area. Second, loan losses play a central role when evaluating risks and stability in banks; as such, credit losses have substantial economic significance. Third, there exists a favorable research setting in that the change from local GAAP to IFRS happens at different points in time in the EU1, enabling a difference-in-differences (DID) test.

The incurred loss model in IAS 39 resulted in credit losses being recognized only when a credit loss event occurs, which is corrected with IFRS 9.

In July 2014 the IASB added to IFRS 9 the impairment requirements related to the accounting for expected credit losses on an entity's financial assets and commitments to extend credit (IFRS 9, 2014). Previously in March 2013, IASB published Snapshot: Financial Instruments: Expected Credit Losses where they described a three-stage

approach model for expected credit losses accounting. That model is the current model required by IFRS 9 for expected credit losses accounting. GAAP and IFRS do not have a converged standard for credit losses accounting. At the beginning of the project for credit losses accounting, the FASB and IASB worked jointly.. Due to the lack of support for a three-stage approach in the US, the FASB developed a single measurement model, while the IASB decided to continue with the three-stage model. FASB also decided it would not continue to pursue a classification and measurement model similar to the IASB. As a consequence, IFRS 9 is not a converged standard.

Basel Committee on Banking Supervision (2015) provided guidance on accounting for expected credit losses which is based on IFRS 9, so for that reason further research in this paper is based on IFRS requirements rather than FASB requirements.

2. EXPECTED CREDIT LOSSES MODEL – IFRS 9

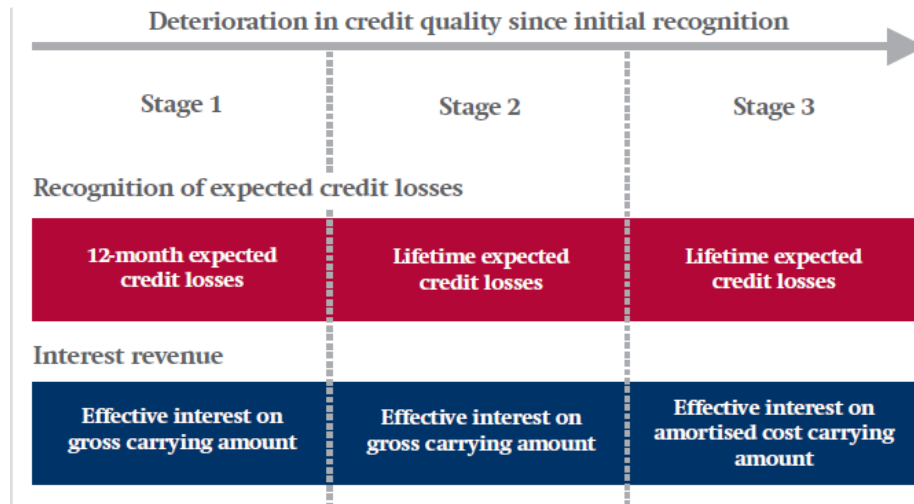
Expected credit losses model should be applied to:

- investments in debt instruments measured at amortized cost,
- investments in debt instrument measured at fair value through other comprehensive income,
- all loan commitments not measured at fair value through profit and loss,
- financial guarantee contracts to which IFRS 9 is applied and that are not accounted for at fair value through profit or loss, and
- lease receivables that are within the scope of IAS 17; leases, and trade receivables or contract assets within the scope of IFRS 15; revenue with contracts with customers.

Expected credit losses are expected to be recognized before financial assets become delinquent, as a forward-looking information, and when credit risk has increased since initial recognition, and when contractual payment is more than 30 days past due.

Expected credit losses model required by IFRS 9 is defined with a three-stage model for impairment based on changes in credit quality since initial recognition. The model is shown in Picture 1 below:

Picture 1 Expected credit losses model – IFRS 9



Source: IASB, 2013, Snapshot: Financial Instruments: Expected Credit Losses

The model is based on expected credit losses in the period of twelve months, in which recognition of expected credit losses through IFRS 9 is divided into three stages. Stage 1 recognizes expected credit losses when a financial instrument is originated or purchased. Immediately, twelve month expected credit losses are recognized in profit and loss and an allowance for expected credit losses (loss allowance) or provision is established. Stage 2 considers instruments with increased credit risk from initial recognition. At stage 2, full lifetime expected credit losses are recognized. Stage 3 is a situation when credit losses are incurred or the asset is credit-impaired. Interest revenue is then calculated based on the net amortized cost carrying amount.

At initial recognition, a financial debt instrument is supposed to be in stage 1 (except for purchased or originated credit-impaired financial assets). At each reporting date, the entity holding such an instrument will have to assess whether credit risk has increased significantly since initial recognition and if there is any objective evidence of impairment in order to maintain it at stage 1 or downgrade it at stage 2 or 3 (Salhi and Thérond, 2014).

3. APPLICATION OF EXPECTED CREDIT LOSSES MODEL – BANKS OF BiH

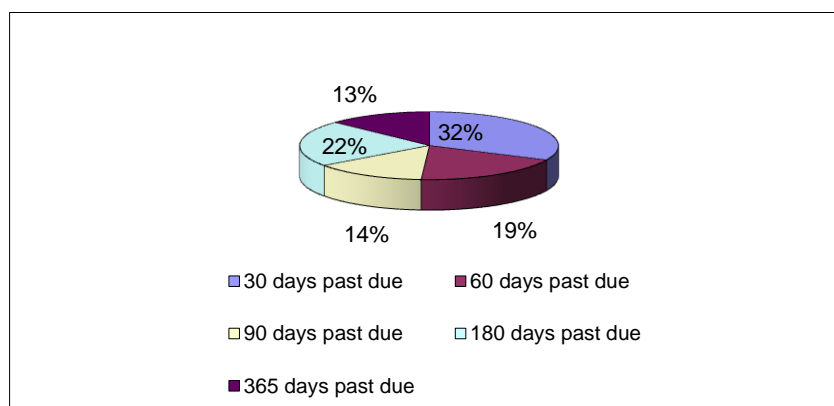
A questionnaire was sent to all banks in BiH to estimate the amount of uncollectible receivables. Twelve out of the total of 27 banks in BiH responded to the questionnaire. The results are presented below.

Banks' claims are classified into five categories:

- estimated uncollectible receivables 30 – 60 days past due,
- estimated uncollectible receivables 60 – 90 days past due,
- estimated uncollectible receivables 90 – 180 days past due,
- estimated uncollectible receivables 180 – 365 days past due,
- estimated uncollectible receivables over a year past due.

The majority of receivables is more than 30 days past due (32%); 19% of uncollectible receivables is over 60 days past due; 14% is more than 90 days past due; 22% of uncollectible receivables is over 180 days past due (in three banks) while 13% is a year past due.

Chart 1 The structure of uncollectible receivables in BiH banks



Source: Authors' calculation

According to IFRS 9, receivables that are 30 days past due are written off as uncollectible according to the probability of non-payment. However, Basel Committee on Banking Supervision in its *Guidance on accounting on expected credit losses (Guidelines)* suggests that receivables older than 30 days should not be written off

without additional indicators of non-payment Due to very high probability of administrative and other obstacles. All receivables older than 60 days are considered hazardous and should be corrected by the degree of probability of their non-payment. The research conducted in BiH (Chart 1) shows that uncollectible receivables older than 30 days make up 32% of all claims, which could significantly influence the total amount of write-offs of expected credit losses if the provisions of IFRS 9 are fully applied. The following expected credit losses rates are determined on a basis of the average rate of provisions for risks, that listed banks present in their annual financial statements. At initial recognition expected credit loss rate is calculated at 1,5%. The amounts of absolute claims are illustrative.

Table 1 Illustration of a calculation of expected credit losses

Past due	Not past due	31-60 days past due	61-90 days past due	> 90 days past due	Expected credit losses
Lifetime expected credit loss rate	1,5%	7,5%	15%	16%	
Gross carrying amount	8,654,732	2,769,514	1,644,399	1,211,662	
Total amount credit loss	129,821	207,714	246,660	193,866	778,061

Recording:

	<i>Debit</i>	<i>Credit</i>
<i>Financial assets</i>	8,654,732	
<i>Cash</i>		8,654,732
<i>For the purchase of financial assets or payment of a loan</i>		

	<i>Debit</i>	<i>Credit</i>
<i>Not past due</i>		
<i>Impairment expense</i>	129,821	
<i>Financial assets</i>		129,821
<i>Expected credit losses (non past due)</i>		

	<i>Debit</i>	<i>Credit</i>
<i>Expected credit losses</i>		

<i>Impairment expense</i>	648,240	
<i>Financial assets</i>		648,240
<i>Increase in credit loss during the period</i>		

The obtained results show that full implementation of IFRS 9 in BiH banks and the write-offs of past due receivables would cause tremendous financial difficulties. Therefore, the softer approach of accounting for unpaid claims according to Basel Committee Guidelines in concrete terms in BiH offers a better reflection of the economic situation of banks. Namely, if IFRS 9 was to be fully implemented in concrete terms in banks of BiH and relating to the maturity of claims, as much as 48% of all unpaid claims would be written-off as uncollectible. According to the above structure of uncollectible receivables (Chart 1), 48% remains unpaid more than 90 days past their maturity date; however most of the claims are charged up to a year. Full implementation of the model depends on the environment in which an entity operates. Therefore in BiH, where the collectability of receivables is significantly slower than in the surrounding region, the implementation of the model requires adjusted timing for recognition of credit losses. In case of BiH banks and their claims, it is important to recognize deterioration in credit quality since initial recognition, possibly after 60 days from the due date. Financial system liquidity is a variable whose exclusion, i.e. implementation of the model taking into account only the time lag from due date, leads to unrealistic estimates of expected credit losses.

4. PRESENTATION OF IMPAIRMENT EXPENSE

According to IFRS 9 (2014) impairment expense can be presented in statement of profit or loss, or in other comprehensive income. If the impairment is the result of changes in market interest rates, reducing the market value of financial instruments, the effect of value loss should be presented through other comprehensive income. However, if increased credit risk is caused by subjective risk, the risk of bad assessment, the effect of expected credit losses is to be presented through profit or loss. The following example shows the investment in a financial instrument, where expected credit losses are caused by the change in fair value of financial instruments as well as by subjective risk. In that case, the total expected credit losses are allocated in the statement of profit or loss and fair value of other comprehensive income (FVOCI).

Example 1 – Presentation of impairment expense

An entity purchases a debt instrument with a fair value of CU 20,000 and measures the debt instrument at fair value through other comprehensive income. The instrument has an interest rate of 3% over the contractual term of 5 years, and has a 5% effective interest rate. At initial recognition, the entity determines that the asset is not a purchased or originated credit-impaired asset.

Recording:

	<i>Debit</i>	<i>Credit</i>
<i>Financial asset - FVOCI</i>	20,000	
<i>Cash</i>		20,000
<i>Purchase of a financial instrument</i>		

On the reporting date, the fair value of the debt instrument has decreased to CU 19,000 as a result of changes in market interest rates. The entity determines that there has not been a significant increase in credit risk since initial recognition and that expected credit losses should be measured at an amount equal to 12-month expected credit losses, which amounts to CU 300.

Recording:

	<i>Debit</i>	<i>Credit</i>
<i>Expected credit losses</i>		
<i>Impairment expense (P&L)</i>	300	
<i>Other comprehensive income</i>	700	
<i>Financial asset - FVOCI</i>		1,000
<i>Increase in credit loss during the period</i>		

The cumulative loss in other comprehensive income at the reporting date was CU 700. That amount consists of the total fair value change of CU 1,000 (that is, CU 20,000 – CU 19,000) offset by the change in the accumulated impairment amount representing 12-month expected credit losses that was recognized (CU300).

5. CONCLUSION

The paper explored and presented the accounting treatment of expected credit losses. Credit losses have become a current issue since the start of the financial crisis in 2008, leading many financial institutions and companies with a significant share in financial investments to the edge of existence. In such situations, timely prediction and accounting for

expected credit losses are crucial. IASB and Basel Committee on Banking Supervision identified it as a priority problem to be solved through accounting procedures, although belatedly.

Standard accounting model for predictions of credit losses during the period records, along with anticipated credit losses recorded at the beginning of the period, additional credit losses estimated on a basis of the dynamics of collection of financial assets receivable. Every delay in collection of receivables is recognized in accounting as an increase in expected credit losses. In this way, a portion of realized profit is reserved for possible expected losses, which, if not effectuated, return to profit.

The implementation of the standard model of accounting for expected credit losses is a burning issue in the concrete terms in BiH. The model is based on deterioration in credit quality due to the time lag from the due date, which in given conditions calls for recording of credit losses. However, in BiH, late payments of credit receivables are very frequent due to general insolvency of business entities, although generally speaking, most of the claims are still paid within the limits that do not deviate significantly from the environment. Thus, the literal application of the provisions of IFRS 9 and Basel Guidelines in described conditions during the accounting period would lead to serious underestimation of presented result.

Expected credit losses can be caused by a change in market conditions, like a decrease in market interest rates or business difficulties of a debtor. If objective market conditions lead to decrease in instrument market value, expected credit losses are presented through other comprehensive income. On the other hand, if expected credit losses are conditioned by subjective probability of collection from debtor, expected credit losses are impaired through the statement of profit or loss.

Without predictions and recording of credit losses, the presented financial result, being the subject of allocation, can be seriously overestimated and sometimes a condition for an organization's survival, even though it can generate excessive reserves of financial results.

REFERENCES

Basel Committee on Banking Supervision, 2015, "Guidelines guidance on accounting for expected credit losses", Bank for International Settlements, ISBN 978-92-9197-042-1

IASB, 2014, “IFRS 9 Financial Instruments”, IFRS Foundation, ISBN 978-1-909704-47-3

IASB, 2014, “Snapshot: Financial Instruments: Expected Credit Losses”

Marton, Jan Peter and Runesson, Emmeli, Judgment and Enforcement in Financial Reporting: The Case of Credit Losses in Banks (March 3, 2014). Available at SSRN:

<http://ssrn.com/abstract=2375773>

<http://dx.doi.org/10.2139/ssrn.2375773>

Salhi, Yahia and Thérond, Pierre, Alarm System for Credit Losses Impairment (January 13, 2014).

Available at SSRN:

<http://ssrn.com/abstract=2378374>

<http://dx.doi.org/10.2139/ssrn.2378374>

Song, Guoxiang, Can Accounting Rules Be Made Neutral for Bank Capital Regulation? (February 4, 2012). Journal of Governance and Regulation Volume 1, Issue 3, 2012.

Available at SSRN:

<http://ssrn.com/abstract=1999467>

<http://dx.doi.org/10.2139/ssrn.1999467>

CHAPTER 30

Anita Radman Peša

University of Zadar, Department of Economics, Zadar, Croatia

Jurica Bosna

University of Zadar, Department of Economics, Zadar, Croatia

Josipa Grbić

University of Zadar, Department of Economics, Zadar, Croatia

THE ROLE OF THE FINANCIAL DERIVATES IN CROATIA

ABSTRACT:

Market of financial derivatives in Croatia as one of typical post-transition country is less developed than in other financial developed markets. Authors tried to explain discrepancy in different financial markets. The reasons for this discrepancy could be found in lack of knowledge about financial industry in general, but also in poor knowledge about risk management of financial derivatives in Croatian financial institutions and Croatian companies. Banking industry in Croatia in last decade developed some level of derivatives implementation but it could not be said for non-financial sector i.e. Croatian companies in general. Improving risk management systems can be increased by implementation of use of financial derivatives. The paper provides an overview of financial derivatives and explains their function in 21st century in general. Authors especially investigate financial derivatives such as Mortgage Backed Securities (MBS), Collateralized Debt Obligations (CDO) and Credit Default Swaps (CDS) and the actual role of credit rating agencies in the light of the crisis and post crisis period in the world and in Croatia. Over the counter markets, such as Mortgage Backed Securities (MBS), Collateralized Debt Obligations (CDO) and Credit Default Swaps (CDS) had an impact on the occurrence of the financial crisis of 2008. Dealing with the respective themes authors conclude that trading in financial derivatives should be more regulated. Some efforts in the financial regulations are already done but it is not enough as we can see in practice because the markets of financial derivatives continuously rise globally.

Keywords: financial derivatives, MBC, CDO, CDS, OCM, Croatian financial market, risk management

JEL classification: G10, G1

1. INTRODUCTION

It is characteristic of financial derivatives that they vary depending on the value of financial product from which they are derived, but they vary too much in relation to basic product. Financial derivatives originated for the purpose of protecting financial risks but they turned out to be one of the causes of the financial crisis in 2008.(Bartram et.al, 2009) and many others worn that utilization of financial derivatives have rapidly increased in the last two decades. Consequently, questions which have been imposed are numerous - what are, in fact financial derivatives and how do they affect the market; what are the risks of using financial derivatives; who, if any regulates the market of financial derivatives; how did financial derivatives manage to cause global financial crisis at the end of 2008 etc. The aim of the paper is to emphasize the importance of financial derivatives in risk management but also their negative effect on global financial system as they become the subject of exploitation. Goals of the research are to examine what financial derivatives are, clarify the functioning of financial derivatives, illustrate the trading procedure of financial derivatives, determine their influence on appearance of crisis and examine the role of financial derivatives in Croatian financial market. The paper provides an overview of financial derivatives and explains their function in 21st century in general. Authors especially investigate financial derivatives such as Mortgage Backed Securities (MBS), Collateralized Debt Obligations (CDO) band Credit Default Swaps (CDS) and the actual role of credit rating agencies in the light of the crisis and post crisis period in the world and in Croatia.

2. FINANCIAL DERIVATES AND THEIR FUNCTION IN 21. CENTURY

Derivative financial products (in short: financial derivatives) are financial instruments whose value is derived from the basic simple financial products. Word derivate is taken from Latin word *derivare*, which means to deduce from something. Therefore, the value of financial derivative depends on the value of the financial product from which it is deduced.

We differentiate credit derivatives, foreign currency derivatives, derivative securities and derivatives on interest rates.

There are two main groups of financial derivatives. First group forms those instruments which vary their claim properties derived from certain financial asset. Second group consists of derivatives which are in interaction with the asset they relate or which they are composed for. Their value is based on the instrument for which they are generated, i.e. their value is derived from the value of the basic instrument. Therefore, financial derivatives have no value independently nor can they exist without cohesive assets for which they are composed. They are characterized by high degree of liquidity (Tuškan, 2009). Financial derivatives most frequently appear as securities whose value is derived from other, more original variable (Nguyen et.al, 2007). Financial derivatives can be derived from bonds, shares, currencies, interest rates, goods. They can also be based on specific events. Furthermore, they can be composed for variety of assets- from tangible material to non-material financial assets (Hull, 2009). Financial derivatives are not covered by the original issuers of the financial instrument which represents contractual subject derivative, but contractual instrument between two people which are not original issuers of the loan stock. Most often they have developed secondary market (Slijepčević and Živko, 2008). Since 1970's risk in business activity of financial institutions has grown. Oscillations of interest rates have increased the risk in generally. Therefore financial institutions increased their risk management policy. Stock and bond markets also faced the period of procyclicality. This resulted to greater concern of financial managers and they produced some new innovative financial derivatives. Those new financial products were supposed to help in reducing the risk (Mishkin and Eakins, 2003).

Some research indicated that funds which utilize financial derivatives in their business transactions have greater refunds than ones which do not (Frino et.al, 2006). With utilization of financial derivatives companies protect themselves from financial risks like interest rate, currency and merchandise risks, thus lowering uncertainty of cash flow and increasing its value (Sprčić, 2007). Proper application of financial derivatives can reduce the most common risks in financial practice - liquidity risk and market risks (currency, interest rate and commodity price risks) to minimum. However, it is questionable how investment managers use financial derivatives (Tuškan, 2009).

Depending on a variety of private information and the level of the base risk, the company can hold derivatives to fully reduce business risk

(perfect protection) or increase the risk. The company may deliberately increase the risk to speculate on the derivatives market (speculation) or when it fails to maintain an effective hedging instrument (ineffective protection) (Hull, 2009).

With the application of the management and protection of market risks, financial derivatives are an important instrument of speculative trading and arbitrage. Derivatives are socially useful when used for security and defence of the risk, but when used for speculation they can be destructive (Posner and Weyl, 2012).

3. ROLE OF MBS, CDO AND CDS ON THE OCCURENCE OF FINANCIAL CRISIS OF 2008

Financial crisis that began in the summer of 2007 in the United States is considered the world's greatest economic crisis since World War II. Although it started in late 2007, many years have created conditions that led to it. One of the causes of the crisis is considered credit derivatives, which are described below in the paper.

Since they were created, financial derivatives were not strictly regulated. The main reason is a poor understanding of financial derivatives and their potentially destructive impact on the financial markets. Until recently, only few economic analysts have realised how dangerous financial derivatives can be for financial markets. Therefore, the need for their stricter regulations in order to prevent possible negative impacts on the economy was ignored.

Main regulatory department of financial market in the USA SEC – *US Securities and Exchange Commission* and *International Swaps and Derivatives Association* (ISDA) especially regulates markets for financial derivatives. To date, the association has over 800 member institutions from 62 countries. Key areas the ISDA deals with are reduction of risk, increase in transparency and improvement of the industrial operational infrastructure. Despite the formal existence of regulatory departments in countries where financial derivatives are actively traded, there was no adequate regulation that would prevent the events that followed (Grbić, 2014). Enormous profit of banks, stock exchanges, owners and managers of investment funds, as well as property owners, attracted speculators to the housing market. The real estate market has become the area of financial engineering and innovation in the creation of new financial products (the fastest growing derivatives were: Mortgage-Backed Securities – MBS, Collateralized Debt Obligations – CDO and Credit

Default Swaps – CDS) (Blanchard, 2008). Of all the financial products that are currently on the market, the exchanges (swaps) are one of the most influential financial derivatives that have influenced the emergence of the global crisis of 2008. For example, *Credit Default Swaps* (CDS) consists of buying and selling of risk of an issuer for a particular premium. CDS premiums are inversely proportional to the credit rating of companies.

Henderson (2009) states that issuer protects himself from loss by transfer the risk to third party which is obligated to pay out value of the loan if it became non-performing loan. Agreement such as CDS offers insurance against non-fulfilment of financial obligations of a certain company. Buyer pays insurance periodically to a seller and in return receives a right to sell the bonds at a nominal value. The annual rate of payment is known as the CDS spread (Norden and Wagner, 2008).

CDS belongs to credit derivatives and among credit derivatives are the most common.

According to statistics from the Bank for International Settlements, the value of CDS trading derivatives is growing rapidly. In 2001, the value of CDS trading derivatives amounted to 698 billion dollars a year and by 2007 that number has increased to 42.580 billion US dollars (Minton et.al, 2008). CDS have enabled a handful of market participants to destabilize the world economic system. They caused a systematic risk by stimulating the growth of the real estate bubble. All subjects engaged in CDS transactions are sophisticated institutions (the world largest banks, financial holding companies, hedge funds, registered investment companies and large insurance companies etc.)

In recent years ten participants in the market, mostly banks represented at least 80% of the total trading with CDS. Out of these ten participants, JP Morgan, Morgan Stanley, Deutsche Banks and Goldman Sachs represented at least 50% of trading with CDS. Corporations that have had the greatest impact on the escalation of the crisis and its spread to the world economy are the ones that traded the most with CDS (Dickinson, 2008). In this respect, billions and billions of subprime mortgage credits which were given also were ensured in the form of CDS. Unlike CDS, mortgage backed securities are debt obligations that represent rights to the cash flows from pools of mortgage loans, most commonly on residential loans. Mortgage loans are purchased from banks, mortgage companies and others, and then merged with the unit (pool) by the government, entities that cooperate with the government or private entities. Then the issues loan stock that represents claims on the

principal and interest by the debtor on the loans in the pool. This is a process known as securitization. Securitization led to new sources of capital that financed many types of loans that have so far been the exclusive right of banks (Lo, 2008).

MBS derivatives function in a way that the first bank issues a loan, a loan for a house. The bank then sells the loan to the investment bank that collects a lot of loans with similar interest rates and sells them as securities that have returns as well as the "package" loans. The ability to create MBS derivatives is officially approved by Charter law of 1968. The founders did not force the fact that this act neglects the good practice of borrowing money. In other words, much less thought was given to the question are subjects able to return the money they lend. Banks have realised that by selling their debt in this case they will not bear the damage. Other financial institutions other than banks, by using MBS derivatives were allowed access to the credit market. Using MBS derivatives lenders were able to return the value of borrowed money very quickly, so that it no longer had to be the banks that were liquid enough to wait for repayment of the loan up to 30 years.

CDOs – *Collateralized Debt Obligations* (structured credit debts) are structured financial products used by the banks to repackage individual loans into a product that can be sold to investors in the secondary market. These packages consist of debt instruments such as commercial or consumer loans, mortgages and bonds (Felton and Reinhart, 2008). CDO derivatives have enabled the banks to avoid control of credit financing since they sold their credits to other investors. As that made them less disciplined in keeping certain standards in lending they started to issue loans to people who were certainly unable to repay them. An additional problem was the fact that the CDO derivatives became so complex that the customers did not know what the true value of derivatives they were buying. Customers simply had faith in banks and did not perform additional research on determining the real value of CDO products they purchase. Although, the research would not lead to major insights the banks did not know the real value of CDO derivatives. Computer models that calculate the value of CDO derivatives were based on the assumption that real estate prices would rise. When prices began to fall, the models were not able to calculate the value of the product. This caused panic in the market, banks could not determine the price of the products, nor did they know the value of property they held. Overnight, CDO derivatives market disappeared. Banks refused to lend money to each other because they did not want to have CDO derivatives in

their balance sheets. The panic of 2007 caused a crisis of banking liquidity. First CDO derivatives to go down in value were MBS which started collapsing with fall in real estate prices in 2006. First target of impact were second-rate mortgage loans. In 2006, the US subprime mortgage crisis has already begun. Economists were hoping that the crisis would remain isolated in the property market that it would not spread to other segments of the economy. Until then, they have not figured out how derivatives multiply the effect of any market bubble. Not only banks were those left abandoned, but also pension funds, mutual funds and corporations.

3.1. Credit rating agencies and their „contribution“

A special role in the emergence of crisis in 2008 also played credit rating agencies. Credit rating agencies in practice most often estimate and give an opinion on the creditworthiness of the lender, or issuer of debt securities. In this regard rating represents a measure of credit risk and the possibility of bankruptcy of the borrower (Pavković and Vedriš, 2011). Rating agencies have helped the emergence of the financial crisis of 2008. They needed to create transparency in assessing the risk of financial products that were generated by banks and financial entities. Their assessment was supposed to provide the basis for risk management by lenders and creators of complex financial products. However, with the collapse of the financial system in 2008 came the realization that the assessments of financial derivatives by credit rating agencies were not credible (Sorina, 2014). Credit rating agencies awarded the highest possible marks to risky loans, even though it was undisputed that the assessments were not credible. Reasons for wrong estimates are complexity of the emerging structures, lack of knowledge on features of new products, absence of historical data for analysis and setting up models and other (Scalet and Kelly, 2012).

3.2. Market of financial derivatives – case of Croatia

Financial markets enable the exchange of cash surpluses and deficits (money, capital, foreign exchange...), and are divided into the money market, capital market, foreign exchange market and the market of financial derivatives (Slakoper and Božina Beroš, 2009). The financial derivatives market is rapidly developing since the late 1970s thanks to the Black-Scholes-Merton formula (Turcoane, 2012). Mathematician Fisher

Black and Myron S. Scholes from the University of Chicago have found the solution in 1973 for the European type and showed that the prices of shares and options price are functionally linked (Hull, 2009). Using their formula allowed calculation which showed how much you need to pay for the option that is a financial derivative of a particular stock. Subjects in the financial market due to this option were more willing to trade derivatives; specifically options (Nguyen et.al, 2007). This market is one of the youngest on the entire financial market. The rapid growth of the market of financial derivatives in the 80s of the last century occurred because economic agents slowly began to realize the necessity of the application of derivatives in protection of their portfolio from the risk they were exposed to in their daily business activity. Furthermore, they saw the benefits of derivatives with respect to earnings on speculative transactions and arbitration (Tuškan, 2009).

The Republic of Croatia is one of the post-transition markets and one of the characteristics of the post-transition markets that have their own stock market derivatives is a lack of market making. The result is a weak market liquidity or a small volume of trading stock exchange derivatives (Šestanović, 2013).

Although, in most emerging markets large firms do not practice a generalized use of derivatives. In this sense, there is a low percentage of firms and a small traded volume. Although the firms are aware of interest rate and foreign exchange risks, they do not carry out a formal risk management (Martin et.al, 2009). Dumičić et.al (2006) imply that Croatian companies do not have clear policy of active risk management. Reasons for the poor use of financial derivatives by banks in Croatia are underdeveloped financial market, lack of understanding the effects of interest derivatives in risk management exposed bank's balance sheet and the approximation of a bank's risk profile, the complexity of accounting and monitoring of financial derivatives and establishing criteria for the recognition of revenue, weak bank management experience and sector employees in risk management transactions with financial derivatives, same as inappropriate ways of measuring the impact of changes in interest rates on business (Slijepčević and Živko, 2008).

**Table 1 Derivates consolidated balance sheet in banks in Croatia
from 2004 to 2013**

Active				Passive		
2004		2004				
Ammount	Share	Change		Ammount	Share	Change
152	0,1	-		238,8	0,1	-
2005		2005				
Ammount	Share	Change		Ammount	Share	Change
147,3	0,1	-3,1		223,7	0,1	-6,3
2006		2006				
Ammount	Share	Change		Ammount	Share	Change
280,9	0,1	90,7		221,6	0,1	-0,9
2007		2007				
Ammount	Share	Change		Ammount	Share	Change
276	0,1	-1,8		367,5	0,1	65,9
2008		2008				
Ammount	Share	Change		Ammount	Share	Change
121,9	0	-55,8		1578,3	0,4	329,4
2009		2009				
Ammount	Share	Change		Ammount	Share	Change
212,4	0,1	74,2		417,1	0,1	-73,6
2010		2010				
Ammount	Share	Change		Ammount	Share	Change
154,6	0	-27,21		1475,2	0,4	71,7
2011		2011				
Ammount	Share	Change		Ammount	Share	Change
673,9	0,2	335,9		1383,7	0,3	-6,2
2012		2012				
Ammount	Share	Change		Ammount	Share	Change
910,6	0,2	35,1		1752,3	0,4	26,6
2013		2013				
Ammount	Share	Change		Ammount	Share	Change
1583,7	0,4	73,9		1878,1	0,5	7,2

Source: www.cnb.hr (11/3/2015)

However, a new trading system OMXX stream on the Zagreb Stock Exchange is base for infrastructure requirements for trading of financial derivatives.

The under development of financial derivatives market is typical for similar transitional countries in the neighbourhood (Klačmer Čalopa and Cingula, 2009). Despite the growing number of Croatian companies that are aware of the importance of financial risk management, insufficient supply of appropriate instruments from domestic financial industry is the main reason why many companies do not use derivatives (Slijepčević and Živko, 2008). Other reasons, such as concerns about the perceptions of financial derivatives among investors, regulators and in the public in general, and insufficient knowledge of financial risk management instruments are less important to refrain from hedging in Croatian companies (Sprčić, 2007). The main problem of Croatian financial market is low liquidity of the market, limited number of participants, small capitalization and other limiting factors. Domestic investors can trade financial derivatives mostly on international markets (Grbić, 2014). So far, the most common financial derivatives are forwards and foreign exchange swaps (Grbić, 2014). Domestic banks expect growth of derivatives trading in the near future (see Table 1.) same as derivatives affirmation of the domestic financial market and further growth in revenue from trading derivatives, which is inevitable today, especially in the field of risk management. Financial industry also expect the development of other segments of financial derivatives such as futures, currency options and derivative instruments related to credit risks, eg. Credit Default Swaps (Tuškan, 2009). Foreign banks have expressed great interest in the development of the market segment relating to derivative instruments, especially for products with interest rates on Croatian valute kuna. Currently, foreign banks most do currency exchange (currency pairs EUR / USD and USD / GBP) and forward transactions. It is necessary also to develop an offer of interest rate swaps because of increasing impact of interest rate risk. Basically, it can be concluded that the practice of risk management using derivatives is present in terms of currency risk while interest rate risk is not sufficiently covered yet. There is also need for development and implementation of other market risks (such as the share price and the value of equity indices) on domestic market (for example in the form of futures and options on CROBEX) (Tuškan, 2009).

4. SUMMARY OF FINDINGS

Before the emergence of the global economic crisis, authors generally agree about the thesis that the use of financial derivatives leads to maximizing value, as can be seen in the vast majority of scientific articles written before 2008 (like those of Aragon et al., Miloš Sprčić, Tuškan and others). It is interesting to mention that Frederic Mishkin, who was a great advocate of the use of financial derivatives before 2007, and nowadays he describes them as a high-risk financial instruments. Only few authors were doubted in the total safety of financial products before the late crisis arose. Yet, Dufey and Rehm (2000), in their work on interest rate swaps explained the problem with Credit Default Swaps. The sale of credit risk to another institution, whether a bank or another financial institutions, has enabled them to increase the volume of credit, while ensuring that the built-risk goes beyond them by selling it, usually without the client's knowledge about this risk transaction. After 2008, many economists emphasize the risks of trading of financial derivatives. Caballero (2010) gives a critique on the subject, saying that the global financial crisis of 2007, the most harmed the reputation of macroeconomists, who did not anticipate development of the global economy. Proper use of financial derivatives risks commonly encountered in financial practice can be minimized. Markets of global financial derivatives have to be very transparent; the credit rating agencies need to provide truthful information and to serve the public interest. Otherwise, in the future we can expect the new financial crisis based on the same causes. Also, supervision and regulation of the investment managers and the incentives to orient them toward medium-term objectives would help to reduce moral hazard with which these managers face every day, striving for very short-term goals, ignoring the impact on the company in the long run. This would reduce the proportion of high-risk investments that can lead to systemic risk. In Croatia, trading of financial derivatives is not developed yet. The Croatian companies generally do not manage risk which is ultimately reflected in the under developed financial market derivatives. There are insufficient numbers of large companies as constituting a critical mass for trading in derivatives as a result of the small market liquidity. Therefore, it is not surprising that there is no serious regulation of trading in financial derivatives at national level. However, banking industry in Croatia understands the importance of risk management due to their everyday financial transactions that is connected

to global capital flows. According to Mateus (2009) after the global crisis in the US and the EU are carried out major reforms of the regulatory system. Further research should study the regulation of financial derivatives, or changes in regulations of financial derivatives after 2008. Market of financial derivatives will grow globally (Chui, 2014) claims that this market grow rapidly since 2009) and locally in Republic of Croatia if we faced national economic recovery.

REFERENCES

- Aragon George, Martin Spencer (2012), *A unique view of hedge fund derivatives usage: Safeguard or speculation?*, <https://cloud.irb.hr/proxy/nph-proxy.cgi/00/http/ac.els-cdn.com/S0304405X12000220/1-s2.0-S0304405X12000220-main.pdf=3f_tid=3d5cfb83b8-9574-11e2-a1c8-00000aab0f02=26acdnat=3d1364233958_b5d7f20e592af14d517b85093e73219e>, [20.03.2013.]
- Bartram Söhnke M., Brown Gregory W., Fehle Frank R. (2009), *International Evidence on Financial Derivates Usage*, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=471245>, [20.03.2013.]
- BebchukLucian A. (2008), *A plan for adressing the Financial crisis*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1273241>, [20.03.2013.]
- Blanchard Olivier E. (2008), *The Crisis: Basic Mechanisms, and Appropriate Policies*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1324280>, [20.03.2013.]
- Caballero Ricardo J. (2010), *Macroeconomics after the Crisis: Time to Deal with the Pretense-of-Knowledge Syndrome*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1683617>, [20.03.2013.]
- Chui, M (2014) *Derivates markets, products and participants: an overview*, [Proceedings of the workshop "Data requirements for](#)

[monitoring derivative transactions", People's Bank of China and the Irving Fisher Committee](#), 35, pp. 3-11.

Dickinson Eric (2008), *Credit Default Swaps: So dear to us, so dangerous*, <<http://papers.ssrn.com>>, [20.01.2014.]

Dufey Gunter, Rehm Florian (2000), *An introduction to credit derivatives*, <<http://papers.ssrn.com>>, [22.01.2014.]

Felton Andrew, Reinhart Carmen (2008), *Prva globalna financijska kriza 21. stoljeća*, Centre for Economic Policy Research (CEPR), London, Velika Britanija

Frino Alex, Lepone Andrew, Wong Brad (2008), *Derivative use, fund flows and investment manager performance*, <https://cloud.irb.hr/proxy/nph-proxy.cgi/00/http/ac.els-cdn.com/S0378426608002306/1-s2.0-S0378426608002306-main.pdf=3f_tid=3d88ca4e86-9572-11e2-995b-00000aab0f02=26acdnat=3d1364233172_c892eb4b8b42206481bca2c93c772fcd>, [20.03.2013.]

Grbić, J. (2014) *Financijski derivati i njihov utjecaj na pojavu svjetske krize 2008. godine*, Diplomski rad, Odjel za ekonomiju Sveučilišta u Zadru.

Hull John C. (2009), *Options, futures and other derivatives*, Pearson education international, Prentice hall, seventh edition.

Klačmer Čalopa Marina, Cingula Marijan (2009.), *Financijske institucije i tržište kapitala*, Fakultet organizacije i informatike, Varaždin

Lo Andrew W. (2008), *Hedge Funds, Systemic Risk, and the Financial Crisis of 2007–2008*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1301217>, [20.03.2013.]

Mateus Abel (2009), *After the crisis: Reforming financial regulation*, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1504895>, [pristuplje no 20.03.2013.]

Minton Bernadette, Stulz René, Williamson Rohan (2008), *How much do banks use credit derivatives to hedge loans ?*, <available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1084058>, [pristuplje no 20.03.2013.]

Mishkin Frederic S. (2010), *Economics of money, banking, and financial markets*, 8. Izdanje, MATE d.o.o., Zagreb

Mishkin Frederic S., Eakins Stanley G. (2003), *Financijska tržišta i institucije*, Mate d.o.o., Zagreb

Martin, M.,A., Rojas, W., Erausquin, J.,L., Vera, D., Y., E. (2009) *Derivates usage by non-financial firms in emerging markets: the Peruvia case*, Journal of economics, finance & administrative science, 14(27), pp. 73-86.

Nguyen Hong, Mensah Michael, Yun Fan (2007), *Derivative Instruments and Their Use for Hedging by U.S. Non-Financial Firms: A Review of Theories and Empirical Evidence*, <: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1082932>, [20.03.2013.]

Norden Lars, Wagner Wolf (2008), *Credit derivatives and loan pricing*, <https://cloud.irb.hr/proxy/nph-proxy.cgi/00/http/ac.els-cdn.com/S037842660800099X/1-s2.0-S037842660800099X-main.pdf?3f_tid=3de17c7e4a-9573-11e2-b048-00000aacb35d=26acdnat=3d1364233755_2001467aff0bb8672567a66ef78cf820>, [20.03.2013.]

Pavković Anita, Vedriš Davor (2011), *Redefiniranje uloge agencije za kreditni rejting u suvremenom financijskom sustavu*, <http://hrcak.srce.hr>>, [20.01.2014.]

Posner Eric, Weyl Glen (2012), *A Proposal for Limiting Speculation on Derivates: An FDA for Financial Innovation*, <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1995077>, [20.03.2013.]

Slakoper Zvonimir, Božina Beroš Marta (2009), *Ugovori o valutnom i kamatnom swapu*, <<http://hrcak.srce.hr/search/?q=izvedenice&next=11>>, [04.01.2014.]

Sorina, Ioana, P. (2014) *Credit rating agencies and their influence of crisis*, Economic science series, 23(2), pp. 271-278.

Scalet, S., Kelly, T, F., (2012) *The ethics of credit rating agencies: What happened and way forward*, Journal of business ethics, 111(4), pp. 477-490.

Slijepčević Sunčana, Živko Igor (2008), *Upravljanje kamatnim rizikom i financijske izvedenice za upravljanje rizikom u hrvatskim bankama*, <<http://hrcak.srce.hr/search/?q=izvedenice&next=11>>, [04.01.2014.]

Sprčić Petar, Krajcar Slavko (2007), *Primjena izvedenica u upravljanju cjenovnim rizikom u energetske kompanijama*, <<http://hrcak.srce.hr/search/?q=izvedenice&next=11>>, [04.01.2014.]

Tuškan, B. (2009) *Upravljanje rizicima upotrebom financijskih derivata u RH*, Zbornik ekonomskog fakulteta u Zagrebu, 7(1), pp. 107-120.

Šestanović Aljoša (2013), *Ishodišta i perspektive uvođenja tržišta burzovnih izvedenica na hrvatskom tržištu kapitala*, <<http://hrcak.srce.hr/search/?q=izvedenice&next=11>>, [04.01.2014.]

Turcoane Ovidiu (2012), *Option price estimations and speculative trading in knowledge society*, Informatica Economica, 16(4), pp. 131. <http://ac.els-cdn.com/S2212567112001761/1-s2.0-S2212567112001761-main.pdf?_tid=ae915a5e76e00000aacb35d&acdnat=1389024646_a0fdb64583e962e4c8349b6584d65d33>, [06.01.2014.]

Tuškan Branka (2009), *Upravljanje rizicima upotrebom financijskih derivata u RH*, <http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=63589>, [20.03.2013.]

Vuković Dragoslav (2012), *Trgovinski repozitorijum – nova infrastruktura tržišta OTC derivata*,

<<http://connection.ebscohost.com/c/articles/83527995/trgovinski-repozitorijum-nova-infrastruktura-tr-i-ta-otc-derivata>>, [04.01.2014.]

Rodrik, D. (1998), *Why Do More Open Economies Have Bigger Governments?* Forthcoming, *Journal of Political Economy* 106 (5), 997-1032.

Summers, L. H. (1998), *Capital-Account Liberalization and the Role of the IMF, Should the IMF Pursue Capital-Account Convertibility?*, Princeton: Princeton University, *Essays in International Finance* 207, 1-10.

Stiglitz, J. (2003), *Globalization and Its Discontents*, Penguin, London.

Žiković, S. (2006), *Implications of Measuring VaR Using Historical Simulation; An Example of Zagreb Stock Exchange Index – CROBEX*. In J. Roufagalas (Ed.), *Resource allocation and institutions: Explorations in economics, finance and law*, 367-389. Athens: Athens Institute for Education and Research.

CHAPTER 31

Anita Radman Peša

University of Zadar, Department of Economics, Zadar, Croatia

Jurica Bosna

University of Zadar, Department of Economics, Zadar, Croatia

Tena Peša

Zadar, Croatia

IMPACT OF THE BLACK SWANS ON THE CROATIAN STOCK MARKET

ABSTRACT

Authors investigate the impact of the news on Croatian stock exchange market in the past decade. News-based measures analyse the impact that common factors have on the return process of an asset. They are designed to distinguish the information effects from other frictions and barriers. In a financially integrated area, one would expect news of a regional character to have little impact on prices and that global news should be relatively more significant. Authors tried to check the hypothesis regarding the impact of black swans on cyclical movement of Crobex stock index. Black Swans Theory is based on events (political, economics etc.) that come surprisingly and we cannot predict them, but, after they arise, we use the method of rationalization. The Black Swan theory is the part of behavioral finance that will be presented through the following important terms: prospect theory, theory of regrets, overconfidence etc. The paper answers the questions regarding the black swans in Croatia in last decade. Authors investigate black swans to detect globally or regionally significations; are they connected to entry admittance of Croatia to European Union; did they have the impact on macro economy of Croatia; how did they manage volatility of Croatian Stock market etc. In the conclusion, authors will provide some guidelines about the future movements of the stock exchange market in Croatia.

Key words: financial integration, stock exchange, news-based measures, Black Swan Theory, Crobex.

Jel classification: G14, G19

1. INTRODUCTION

The way we look investment decision has changed overtime and behavioral finance has had changed it radically. Behavioral finance provides an integrated view that describes how decision is actually made instead of how it should be from a strictly rational point of view. The attention is centred on the decision-maker, instead of on the decision itself, and on the cognitive, psychological, emotional and social aspects, that affect the decision- maker in the decision process (Burton and Shuh, 2013).

While conventional academic finance emphasizes theories such as modern portfolio theory (Markowitz, 1952) and the efficient market hypothesis (Ricciardi and Simon, 2000), the emerging field of behavioral finance investigates the psychological and sociological issues that impact decision-making process of individuals, groups, and organizations. Investors calculate their opportunities or threats on the basis of current information in forecasting country economic stability. That has significant impact on the stock exchange prices and can be seen as periods of extremely low or high stock prices caused by unpredictable events.

Authors investigate information and events that caused higher price volatility in Croatian stock market. In other words, authors try to investigate if there were any black swans¹ in Croatian stock exchange market during the period from 2000 to 2013. The main goal of this paper is to find what kind of information and events could be black swans that would be responsible for higher volatility of Croatian stock exchange market obvious in the movements of CROBEX (Croatian indices) indices. Authors conclude that Croatian stock market faced with few black swans. Paper also provides better understanding of behavioral finance theory.

¹ A Black Swan is a metaphor coined by Nasim Taleb (2007) to describe events that are apparently possible, but could not have been predicted based on past evidence.

2. BEHAVIORAL FINANCE THEORY

Behavioral science comprises human behaviour analyses. It tries to comprehend, show, describe and anticipate human behaviour. Behavioral economy deals with the impact of psychology of individuals on their economic decisions (Horonitz, 2013). Behavioral economy can be defined as combination of economy and the other social sciences which describes human behaviour. The point is to improve descriptive values of economic theories (Weber, 2005). Humans are influenced by various behavioural factors while making decision. Behavioural Finance has thus emerged as an emerging field that studies the influence of psychology on financial decisions (Jaiswal and Kamil, 2012)

Behavioural finance is the study of the influence of psychology on the behaviour of financial practitioners and the subsequent effect on markets. Behavioural finance is of interest because it helps explain why and how markets might be inefficient. Thus, it's a field of finance that proposes psychology-based theories to explain stock market anomalies. Within behavioral finance, it is assumed that the information structure and the characteristics of market participants systematically influence individuals' investment decisions as well as market outcomes (Sewell, 2010).

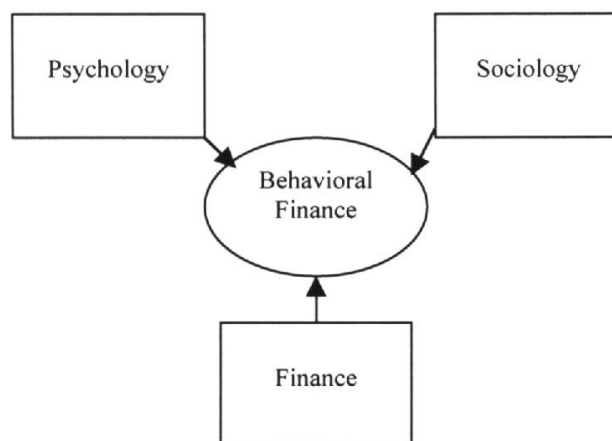
When it comes to investing, trading or making financial decisions, an individual is not always as rational as he thinks he is. Several studies in the field of Behavioural finance have shown how individual emotions and biases cloud over rational thinking and decision-making. Some emotional and cognitive biases such as loss aversion (expecting to get high returns with low risk), herding (imitating others decisions), media response (overreacting to headlines), and timing the market, etc. impact the overall performance of ones investments (Suresh, 2013).

Back in the 1985 DeBondt and Thaler emphasise that when market raises and optimism raises, people tend to be began unrealistic optimists and create unreal predictions. By increasing demand for the real estates or securities result is increasingly high prices. That period of growth lasts until euphoria passes and to the moment when investors decide to take their profit out of the stock market.

Due to uncertainty and continuous change in the game of the market, there is a strong interdependence between personal experiences (autobiographic memory) and rational expectations of the investors

about the future, since their personal experiences influence the way they interpret and select available data (Mitroi and Oproiu, 2014). Key to defining behavioral finance is to first establish strong definitions of psychology, sociology and finance (figure 1).

Figure 1 Behavioral finance integration



Source: Ricciardi and Simon (2000)

Figure 1 demonstrates the important interdisciplinary relationships that integrate behavioral finance.

When studying concepts of behavioral finance, traditional finance is still the centrepiece; however, the behavioral aspects of psychology and sociology are integral catalysts within this field of study. Behavioral finance attempts to explain and increase understanding of the reasoning patterns of investors, including the emotional processes involved and the degree to which they influence the decision-making process. (Ricciardi and Simon, 2000).

In general, however, the impact of social and psychological forces has been neglected by modern economists. In understanding the mechanisms affecting economic and financial decision-making, an interdisciplinary approach is needed. (Baddeley, 2014)

Specifically, behavioral finance has two building blocks: cognitive psychology and the limits to arbitrage. Cognitive refers to how people think. There is a huge psychology literature documenting that people

make systematic errors in the way that they think: they are overconfident, they put too much weight on recent experience, etc. Their preferences may also create distortions. Behavioral finance uses this body of knowledge, rather than taking the arrogant approach that it should be ignored. Limits to arbitrage refer to predicting in what circumstances arbitrage forces will be effective, and when they won't be (Ritter, 2003).

Ricciardi & Simon (2000) state that within the area of behavioral finance there are four main terms: overconfidence, prospect theory, theory of regrets and financial cognitive dissonance:

1. Research scholars from the fields of psychology and behavioral finance have studied the topic of overconfidence. As human beings, we have a tendency to overestimate our own skills and predictions of for success. As investors, we have an inherent ability of forgetting or failing to learn from our past errors such as a bad investment or financial decision. (Ricciardi and Simon, 2000)
2. Prospect theory (Kahneman and Tversky, 1979) deals with the idea that people do not always behave rationally. This theory suggests holds that there are persistent biases motivated by psychological factors that influence people's choices under conditions of uncertainty. Prospect theory considers preferences as a function of "decision weights," and it assumes that these weights do not always match with probabilities. Specifically, prospect theory suggests that decision weights tend to overweigh small probabilities and underweigh moderate and high probabilities.
3. Another prevalent theme in behavioral finance is regret theory (Ricciardi and Simon, 2000). The theory of regret states that an individual evaluates his or her expected reactions to a future event or situation. Regret theory can also be applied to the area of investor psychology within the stock market. Whether an investor has contemplated purchasing a stock or mutual fund which has declined or not, actually purchasing the intended security will cause the investor to experience an emotional reaction. Investors may avoid selling stocks that have declined in value in order to avoid the regret of having made a bad investment choice and the discomfort of reporting the loss.
4. Financial cognitive dissonance (Festinger, 1957) means that people feel internal tension and anxiety when they are subjected to

conflicting beliefs. As individuals, we attempt to reduce our inner conflict. This theory may apply to investors or traders in the stock market who attempt to rationalize contradictory behaviors, so that they seem to follow naturally from personal values or viewpoints.

In the 1930s J.M. Keynes dealt with financial instability, particularly in stock markets, as the outcome of the sociological and psychological forces that dominate in uncertain times. Keynes's psychological forces include not only the propensity to consume from income and the desire to hold money but also the waves of optimism and pessimism that affect stock markets. Keynes also identified sociological forces affecting investors, such as the socially propelled conventions that, in times of uncertainty, encourage speculators to believe what others believe and to do what others do (Baddeley, 2014).

Autors like Pompian & Longo (2004), Ahmad et.al (2011), Mahmood et.al (2014), Baddeley (2014) emphasises the impact of positive and negative information from the environment on investors and traders in the financial markets. That kind of information refers to various events like political, social, financial etc. and has local, regional or global character. In accordance with their character they will have different impact on the volatility of stock market prices.

3. THE BLACK SWANS AND FINANCIAL MARKETS

At present, we are witnesses of the integration process of the national financial markets towards the worldwide, global financial market. Investors tend not to make a distinction between national and foreign financial instruments. In modern financial markets, investors are simply flooded with a variety of information. On a daily basis they receive corporation's earnings reports, revisions of macroeconomics indices, policymaker's statements, and political news. These pieces of information are processed by investors to update their projections of the economy's future growth rate, inflation rate, and interest rate. In turn, these changes in investor's expectations affect stock market prices. However, it's clear that asset prices react to new information (Veronesi, 2000).

Also, Zhao et.al (2011) point out that the movements of stock market are determined by enormous factors including overall economy, inflation,

trading strategies, return on equity, market sentiment, and company itself. Also, it's interesting to mention the black swan theory with its impact on the stock prices.

Taleb (2007) as stated in Estrada (2009) defines a black swan as an event with three attributes: (1) it is an outlier, lying outside the realm of regular expectations because nothing in the past can convincingly point to its occurrence; (2) it carries an extreme impact; and (3) despite being an outlier, plausible explanations for its occurrence can be found after the fact, thus giving it the appearance that it can be explainable and predictable. In short, then, a black swan has three characteristics: rarity, extreme impact and retrospective predictability.

High volatility of stock prices in financial markets are generally caused by the black swans. They are the various events that have a significant impact on future predictions and causes high volatility on stock market returns (Marh and Pfleiderer, 2012). Thus, calculation of stock prices are based on expected future cash flows generated by asset which are highly dependent by significant events - black swans (Mahmood et al., 2014).

In his work Boudoukh (2013) states that a basic tenet of financial economics is that asset prices change in response to unexpected fundamental information. When unexpected fundamental information arrives the volatility of stock prices is 150% higher than in the normal days. The periods with high volatility are found to be associated with important events in each country. The large changes in volatility seem to be related to important country-specific political, social and economic events (Aggarwal et.al, 1999). By Tradeking (2015) there are arguably no better examples of how investment news can impact stock prices than the recent crisis in financial services stocks:

- On September 11, 2008 Lehman Brothers (LEH) announced it was actively seeking a buyer. Right after the announcement, its shares plummeted 45%. Lehman's announcement made it clear they were having troubles finding a suitor. As was expected, on September 15 Lehman filed for bankruptcy, the largest bankruptcy in U.S. history.
- In the same week, insurer American International Group (AIG) admitted that its balance sheets were similarly threatened by the subprime mortgage crisis. Between September 10 and September 16, when the government announced a feverishly constructed rescue plan for the insurer, AIG's stock plunged about 80%.

Adams and Thor (2014) illustrate the existence of black swan events and their historical frequency because the recent financial history has witnessed a number of extreme and often severe events that could not be predicted based on prior events.

4. INVESTIGATING BLACK SWANS IN CROATIAN STOCK EXCHANGE MARKET

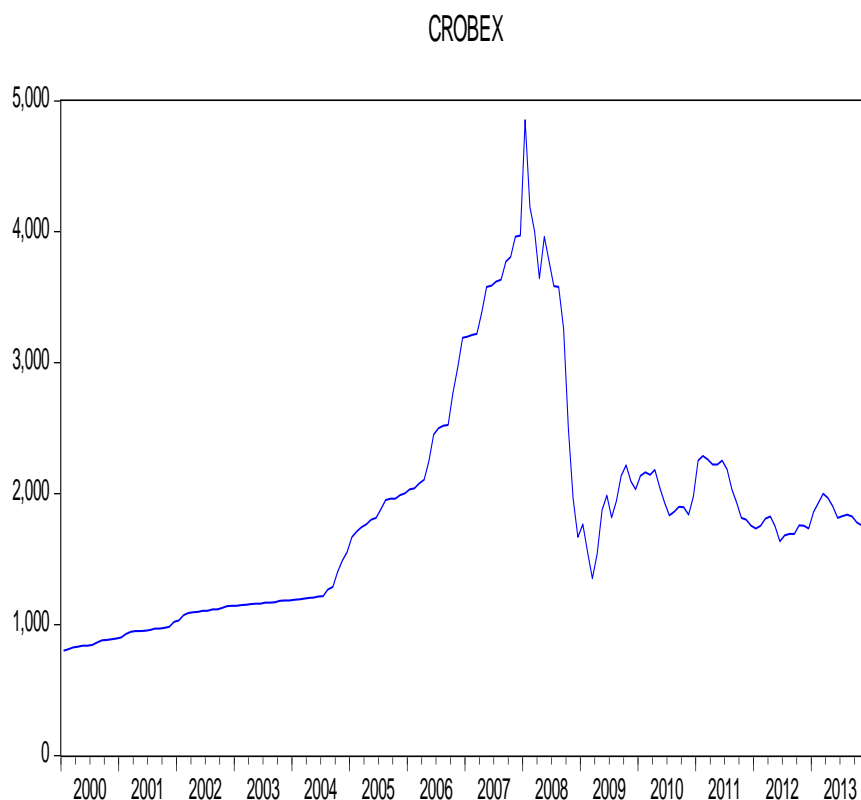
The news-based approach aims at determining whether the returns on assets across countries and segments of financial markets are influenced by local or worldwide news. This enables to identify existing market imperfections such as frictions and barriers, because in the integrated area new information of a local character should have a smaller impact on particular assets than global news. To the extent that the markets are not integrated, local news may continue to influence asset prices significantly (Babecki, 2007).

The Zagreb Stock Exchange in Croatia was founded in 1991 as a profit-making corporation with HRK 2.7 million in registered capital, with the main stock indices CROBEX which were launched on 1 September 1997 with an initial value of 1000 points. While the capital market in Croatia remains small, fragmented and underdeveloped compared to the capital markets of developed countries, the Zagreb Stock Exchange has the highest market capitalization and volume of trade (25 companies) in the region (Radman Peša and Festić, 2012).

Summarizing the findings of Arnerić et al. (2010) it is evident that nonfinancial information, positive or negative had impact on prices volatility in Croatian stock market. So, information efficiency is central to many studies of financial markets. Important to emphasise is that negative events have more pronounced impact on the stock volatility than positive shocks (Ali and Afzal, 2012; Adrangi et.al, 2014).

Authors especially investigate periods with high volatility and they try to link them with the black swans – information and events that cause such a periods (Figure 1).

Figure 1 Authors calculation: Movement of CROBEX and key behavioral events during the observed period



Source: Made by authors

Official candidate status for EU membership Croatia received on June 18th in 2004. In 2005, accession negotiations were opened between the Republic of Croatia and EU. During EU accession negotiations, stock markets in Croatia received massive foreign investment inflows (32% of equity investment) (Peša and Festić, 2012).

Učkar and Cavlin (2011) show that stock prices on the Croatian market from the second quarter of 2005 to the second quarter of 2010 were influenced by other elements than fundamentals. That kind of elements can be related by local events from the environment.

The dramatic increase in stock prices in EU accession countries clearly followed the announcement of EU enlargement, as confirmed in the case of Croatia (Radman Peša and Festić, 2012). It's obvious that high growth of CROBEX indices is related by starting negotiation period about entering Croatia in EU in July 2005. That was the first significant and positive news on Croatian stock market during the period from 2000 to 2013 obvious in the growth of CROBEX (see Graph 1). This event caused massive foreign investment inflows until 2008. It was not black swan because this event was expected.

Recent devastating global financial crisis started from United States, spread all over the world and adversely affected real and financial sectors of developed as well as developing countries. Crises manifested on capital market as a sharp trading share declined (Ali and Afzal, 2012).

Thus, first (negative) black swan on Croatian capital market was global financial crises started in 2008 (see: Graph 1. - There is obvious sharp decline of CROBEX). This black swan was global and has negative impact on local and global indices on the stock exchange markets all over the world. Authors agreed that global crisis 2008/2009 is the black swan because nothing in the past can convincingly point to its occurrence; (2) it carries an extreme impact; and (3) despite being an outlier, plausible explanations for its occurrence can be found after the fact, thus giving it the appearance that it can be explainable and predictable. (Taleb 2007).

At the beginning of 2009 there was a short rising period of CROBEX until the appearance of second black swan - in July 2009 Prime Minister Ivo Sanader suddenly resigned on his function without explanation. That event caused sharp decline of CROBEX (see: Graph 1.). Authors believe this is typical black swan as local (not global) news that influenced financial market. If the black swan has three characteristics: rarity, extreme impact and retrospective predictability (Taleb 2007), this event (the resignation of Prime Minister Ivo Sanader) has got all of them. The resignation was definitely not expected. Ivo Sanader (on his function from 2003) was one of the longest-running Croatian Prime Ministers. It has extreme impact on Croatian economy and some of Croatian opinion maker later try to improve that it was predictable (typically for black swans to believe that could be predicted).

Regarding the entrance of Croatia in EU, authors can't say that it's a black swan because the date of entering was, of course, previously known. However, the positive trend of this event was evident on CROBEX indices in Croatia (July 2013) (see Graph 1).

5. CONCLUSION

Since its formal application for EU membership in 2001, Croatia has faced different political and economic problems such as the delayed start of accession negotiations over its deficient cooperation with the International Criminal Tribunal, significant cases of corruption, effects of global recession, lack of institutional reforms, growing budget deficit and high unemployment. Despite these problems, Croatia has over the past decade also seen some positive trends such as strong foreign direct investment followed by the establishment of a capital market, as part of its opening up to market economy. Capital inflow in Croatia (especially high following the start of EU accession negotiations in 2005) boosted stock exchange markets. Events like world financial crisis started in 2008 and resignation of Prime Minister Ivo Sanader (in 2009) were obviously responsible for high negative volatility on Croatian stock exchange market while notification about starting negotiations entering Croatia in EU and entering Croatia in EU had some positive impact. Croatia has closed its EU accession negotiations in June 2011 and the anticipated full accession in mid-2013 was expected to boost capital investments and make EU structural funds available. Authors conclude that there was some kind of psychological effects on the Croatian stock market that caused positive and negative trends of CROBEX indices in the past decade in Croatia. Authors detected two black swans (global crisis 2008/2009 and the resignation of a former Prime Minister in 2009) on Croatian financial market and two positive psychological impacts based on entering Croatia in EU (starting negotiations entering Croatia in EU and final entry in EU).

REFERENCES

- Adrangi, B., Chatracht, A., Raffiee, K. (2014) *Volatility Spillovers across Major Equity Markets of Americas*, International Journal of Business, 19(3), pp. 255-274.
- Adams, M., Thornton, B. (2014) *Black Swans and VaR*, Journal of Finance and Accounting, 14, pp.1 -17.
- Aggarval, R., (1999) *Volatility in emerging stock market*, Journal of Financial and Quantitative Analysis, 34(1), pp. 33-55.
- Ahmad, A., Rafi, S., Bodla, M., A. (2011) *Impact of Uncertainty Caused by International Events on Karachi Stock Exchange*, Interdisciplinary Journal of Contemporary research in business, 3(1), pp. 823-831.
- Ali, R., Afzal, M. (2012) *Impact of global financial crisis on stock markets: Evidence from Pakistan and India*, Journal of Business Management and Economics, 3(7), pp. 275-282.
- Arnerić, J., Jurun, E., Rozga, A. (2010) *The significance of non-financial information flows in risk management*, [Education and Management Technology \(ICEMT\), 2010 International Conference](#), Egypt: Cairo.
- Babecky, J., Frait, J., Komarek, L., Komarkova, Z. (2007) *Price- and News-based Measures of Financial Integration among New EU Member States and the Euro Area*, Czech Journal of Economics and Finance, 57, pp. 7–8.
- Bouduogh, J., Feldman, R., Kogan, S., Richardson, M. (2013) *Which news moves stock prices? A Textual Analysis*, Working Paper 18725.
- Burton, E., Shah, S. (2013), *Behavioral finance: Understanding the social, cognitive and economic debates*, Wiley finance series
Available on:
http://samples.sainsburysebooks.co.uk/9781118334102_sample_394167.pdf

De Bondt, W., Thaler, R. (1985) *Does the stock market overreact?*, The journal of finance, 11(3), 798-803

Estrada, J. (2009) *Black swans, market timing and the dow*, Applied economics letters, 16, pp. 1117-1121.

Mahmood, S., Iqbal, S., Kamran, M., Ijaz, A. (2014) *Impact of Political Events on Stock Market: Evidence from Pakistan*, Journal of Asian Business Strategy, 4 (12), pp. 163-174.

Mitroi, A., Oproiu, A. (2014) *Behavioral finance: new research trends, socioeconomics and investor emotions*, Theoretical and applied economics, 4(593), pp. 153-166.

Radman Peša, A., Festić, M. (2012) *Testing the EU Announcement Effect on Stock Market Indices and Macroeconomic Variables in Croatia between 2000 and 2011*, Prague Economic Papers, 4, pp. 450-469.

Ricciardi, V., Simon, H., K. (2000) *What is behavioral finance?*, Business, Education and Technology Journal Fall, 2(2), pp. 1-9.

Ritter, R., J. (2003) *Behavioral Finance*, Pacific-Basin Finance Journal, 4(1), pp. 429-437.

Singh, R. (2010) *Behavioral Finance Studies: emergence and development*, Contemporary Management Research, 4(2), pp. 1-10.

Suresh, A. (2013) *Understanding Behavioral Finance through Biases and Traits of Trader Vis-À-Vis Investor*, Journal of finance, Accounting and Management, 4(2), pp. 11-25.

Taleb, N. (2007) *The Black Swan: The Impact of the Highly Improbable*, Random House, London, UK.

Tradeking (2015), Market news drives stock in financials
<https://www.tradeking.com/investing/stock-investment-news>

Učkar, D., Carlin, S. (2011) *Impact of behavioral finance on the Croatian Capital Market*, Financial Management, Proceeding of the 5th International Scientific Conference, Pula: Croatia, pp. 516-582.

Veronesi, P. (2000) *How Does Information Quality Affect Stock Returns?* The Journal of Finance, 55(2), pp. 807-837.

Weber, R. (2005.) *Behavioral Economics*, Handbook of Economics Sociology, Princeton, NJ: Princeton University Press,
Dostupno: [http://www.knjiznice.ffzg.hr/sociologija\(15.01.2009\)](http://www.knjiznice.ffzg.hr/sociologija(15.01.2009))

Zhao, X., Yang, Juan, Zhao, L., Li, Q. (2011) *The Impact of News on Stock Market: Quantifying the Content of Internet-based Financial News*, The 11th International DSI and the 16th APDSI Joint Meeting, Taipei, Taiwan, July 12 – 16.

CHAPTER 32

Urszula Banaszczyk- Soroka

University of Wrocław, Faculty of Law, Administration and Economics,
Wrocław, Poland

Piotr Soroka

University of Wrocław, Faculty of Law, Administration and Economics,
Wrocław, Poland

CONSUMERS SAFETY ON THE FINANCIAL SERVICES MARKET. SHADOW BANKING, LOAN FIRMS

ABSTRACT

This paper is focused on the problems of consumer's safety in the financial services market, which is very complicated and multidimensional matter. Internal market of the EU, and possibilities which are linked with it, are also source of many threats for the consumers. This forces EU and national legislatures to prevent situations in which safety of consumer could be jeopardized. EU Law regulations concerning safety of non- professional participants of financial services market encompasses legal instruments used by supervising authority (for example competences to control etc.) and all supervised financial institutions (for example usage of risk assessment instruments or obligation to present specific data etc.). Parallel to this regulations strong emphasis is put to consumer's financial awareness. Every EU country indicate subjective scope of supervision over institutions which are present on financial services market (for example capital market, securities market, insurance market etc.). According to the EU law member countries can decide which institutions will be supervised by proper bodies and the ones which won't be subject to such supervision. Beyond the scope of supervision there are some financial institutions, which are offering loans or are using its clients savings for investing. Such institutions are sometimes called 'para-banks'. 'Para-banking' can be source of threats for non-professional participant of the financial market. 'Amber Gold' affair, which happened in Poland is an example of such jeopardy. Paper has two parts. In the first part authors present instruments which are designed to protect consumer on the

supervised markets. Second part put emphasis on subjects which are not supervised ('para- banking institutions'), and whose activity might be source dangerous abuses, even criminal ones. In the paper not only polish perspective is analyzed but also other EU member countries regulations are taken into consideration. Authors want to show dangers which might occur because of consumers contact with such 'para-banking' institutions.

Keywords: consumer's safety, financial services, EU, supervision

Jel classification: G2, 590

1. INTRODUCTION

Creation and development of single market in EU has great influence on member states' economies. Integration on so many levels has not only positive effects. An example of threats arising from that phenomenon is growing importance of so-called '*shadow banking*' sector. After the 2007 world economic crisis, in which shadow banking sector in the USA played negative role, many countries, also in the EU (and the EU itself), are much more interested in financial institutions which are providing services beyond the scope of supervision of proper bodies. This problem was noticed in the green paper on shadow banking (European Commission, *Green Paper. Shadow Banking*, Brussels 2012.) The paper contains the data on growing value of this sector. FSB estimates that its value around the world had grown from 21 bln. Euro in 2002 to 46 bln. Euro in 2010 this amounts to 25% - 30% of the global financial system and the half of bank assets (ibid. p. 15).

From the point of view of consumers' safety in the market of financial services, financial sector can be divided into four groups. . First group encompasses institutions, whose functioning is regulated by the acts of EU law, and which are subject to financial supervision and prudential requirements (for example credit institutions). The second group consists of institutions which are also subject to mentioned earlier supervision and requirements, but their functioning is based on national law (for example credit unions). The third group is composed of institutions which are functioning in accordance to the law but are not supervised by any financial supervision bodies nor are subject to prudential requirements(for example loan firms).Finally, there are institutions

which are functioning illegally and beyond the scope of any supervision (so- called loan sharks).

In the authors' field of interest lies only the problem of the loan firms. The analysis is based on Polish solutions which are similar to regulations in other EU countries. The hypothesis is that consumers in relations with loan firms are not fully protected.

2. CREDIT INSTITUTIONS

First of all, it is important to indicate which subjects can be identified as traditional banks and what kind of activities are reserved for such institutions. Regulations of CRD IV Directive and CRR Regulation do not use the term 'bank'¹. Instead, both of these acts, use the term 'credit institution'. According to the article 4.1 (1) of CRR Regulation, such institutions are allowed to take deposits or other repayable funds from public and grant credits for its own account.

National legislations of the EU member states use the terminology deriving from EU acts or create proper terminology which is equal to the term 'credit institution'.

For example German (Section 1(1) of Gesetz uber das Kreditwesen of 1998 laws use the same term as CRR Regulation.

On the other hand, Polish (Article 2 of Ustawa Prawo bankowe of 1997) and United Kingdom's (Section 2(1) of Banking Act of 2009) legislations use the term '*bank*'. Such differences might create confusion, but generally the term '*bank*' in domestic legislation should be understood as '*credit institution*'².

Article 8(1) of CRD IV Directive obliges member states to introduce to national legislation proper permissions for credit institutions. Such permission is necessary to conduct the banking business. Authorizations are granted by various bodies of supervision. In Croatia authorization is granted by Croatian National Bank (Article 60(1) of of Zakon o

¹ DIRECTIVE 2013/36/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC REGULATION (EU) No 575/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012

² In polish law however term 'credit institution' is used for undertakings which have registered office outside Poland.

kreditnim instytucijama of 2013). In Poland permission is granted by Commission of financial supervision (Article 36(1) of Ustawa Prawo Bankowe of 1997). Providing banking services without proper authorization is a criminal offence³. It must be emphasized that every legally established credit institution is a beneficiary of single passport rule. Title V CRD IV Directive gives freedom to credit institutions to conduct banking business in other EU member countries on the basis of freedom of establishment and freedom to provide services. In other words, there is no need for new authorization in each EU country.

Credit institutions are also subject to extended financial supervision and obligations. CRD IV Directive and CRR Regulations contain special requirements for credit institutions which should be met by them. Supervision may be conducted by special supervisory bodies or by central national banks. Obligations and requirements concern, e.g. Funds, capital etc. Moreover, deposits taken by credit institutions are guaranteed. National governments are obliged to create and supervise such deposit- guarantee schemes on the basis of 94/19/EC directive⁴.

Acts of EU law implemented into legal systems of member states guarantee high level client's protection⁵.

The definition of credit institution in CRR Regulation indicates taking deposits from public and granting credits as the two activities reserved for such subjects (Judgement of ECJ C-442/02 para. 16). This might cause confusion whether both of these activities must co-exist in undertaking's business. If so, it would mean that institutions which are only taking deposits or which are only granting credits are not credit institutions (Grzegorzczak F., *Pojęcie instytucji kredytowej w świetle prawa polskiego* [in:] Zeszyty Naukowe Akademii Ekonomicznej w Krakowie vol. 690, 87). Currently it is forbidden by article 9(1) of CRD IV Directive to subjects other than credit institutions to take deposits. What is more, most of national legislations of EU member states indicate, that taking deposits from public requires proper legal form of

³ For example section 54 of Gesetz über das Kreditwesen of 1998 (up to 5 years of imprisonment), article 171 of Ustawa Prawo Bankowe of 1997 (up to 3 years of imprisonment)

⁴ Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes

⁵ See further: Rutkowska- Tomaszewska E.(2013), *Ochrona prawna klienta na rynku usług bankowych*, Wolters Kluwer Polska, Warsaw; on the other sectors of financial market see also: Banaszczyk- Soroka U.(2014), *Firmy inwestycyjne a bezpieczeństwo inwestora na rynku papierów wartościowych w Polsce*, Wydawnictwo Uniwersytetu Wrocławskiego, Wrocław

bank or credit institution. Besides situations permitted under national law, it is impossible for subjects other than credit institutions to provide service of taking deposits from public. On the other hand, borrowing money does not always request a status of credit institution. Some national legal systems perceive credit not as a loan but as a specific banking service⁶.

3. SHADOW BANKING

There is no legal definition of *shadow banking*. That term is created by doctrine. There are many alternative terms such as: *para banking*, *non-banking*, *parallel banking system* etc⁷. Existence of such terms is necessary, because there is a group of financial institutions which are providing banking services even though they are not traditional banks (Srokosz W.(2011), *Instytucje prarabankowe w Polsce*, Wolters Kluwer Polska, Warsaw, 76-77). However, it must be mentioned that shadow banking could be also perceived widely, not only in the context of taking deposits and granting credits and loans but also in the aspect of other financial products such as leasing, factoring, financial brokerage etc.(Masiukiewicz P., *ibid*, 13). The lack of legal definition of shadow banking in the EU law results in different understanding of this term in particular member states. Given such wide understanding of *shadow banking* sector, authors are focusing only on institutions which are granting credits and loans.

Credit and loans sector of *shadow banking* could be divided into three groups. First one includes establishments which are not banks, but on the basis of national law, are allowed to perform activities reserved for banks. Their activity requires a specific permission from proper financial authority⁸. CRD IV Directive does not apply to such institutions because of regulation in article 2. This means that they are not a beneficiary of single passport rule and their cross- border activity is limited. The mentioned article indicates some of these institutions, for example

⁶ For example in Polish law. See further: F.Zoll et. al(2005), *Prawo bankowe. Komentarz. Tom I i II*, Zakamycze, Cracow

⁷ Masiukiewicz P.(2011), *Regulacje a ryzyko shadow banking w Polsce*[in:] *Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego*, Vol. 4/2011, 5-6; It must be emphasised that in Poland the term 'Parabank' is the most commonly used.

⁸ For example article 7(1) of Ustawa z dnia 5 listopada 2009 o spółdzielczych kasach oszczędnościowo-kredytowych, requires from SKOK to have permission from Commission of Financial Supervision (Komisja Nadzoru Finansowego)

SKOKs⁹ in Poland or credit unions in the United Kingdom¹⁰. Moreover, such institutions exist in other countries and they are affiliated in World Council of Credit Unions (WOCCU). It must be noted, that the profit of institution itself is not the goal of credit unions. The purpose of their existence is to serve their members, who are the only subjects allowed to be beneficiaries to credit unions services. According to the data provided by WOCCU there are 57.000 credit unions in 103 countries that have 208 million members. In general, credit unions are subject to supervision and prudential requirements. Also some regulations of banking law apply to them.

In context of consumer safety in this group of shadow banking institutions, it must be noted that lack of supervision of proper government bodies and lack of execution of prudential requirements might result in loss of deposits. As an example Polish credit unions (SKOKs) until 2012 were not under supervision and they were not the part of deposit- guarantee scheme. The audit conducted by the Commission of Financial Supervision revealed a lot of irregularities in Polish SKOKs. It had occurred that only 23 of 55 credit unions met the requirements concerning capital adequacy ratio (CAR) and what is more, 10 of them had CAR below 0¹¹. 40% of loans and credits granted by SKOKs were not repaid on time. 85% had losses and 4 credit unions went bankrupt. Because of the fact that credit unions in Poland were members of deposit- guarantee scheme since year 2013 SKOK members did not lose 2,3 billion złotych. This money was paid from the funds provided by national deposit- guarantee scheme collected from banks and not from credit unions, because they were not a part of the scheme at the time¹².

Due to the fact that credit unions are supervised, and they are members of deposit guarantee schemes, they should be perceived as safe for the consumer. Their similarity to traditional banks raises questions whether they are a part of *para-banking* sector.

⁹ Spółdzielcza kasa oszczędnościowo- kredytowa (Cooperative safe of deposits and credits)

¹⁰ Such institutions also exist in other EU countries (for example in Romania or in the Baltic States)

¹¹ CAR required by Commission of Financial Supervision is on the 5% level

¹² Information on the situation of SKOK sector after 3rd quarter of 2014, Commission of Financial Supervision, Dec. 2014; available at:

http://www.knf.gov.pl/opracowania/sektora_kas_spoldzielczych/raporty/raporty_skok.html ; Since the creation of Polish national deposit- guarantee scheme in 1995 up to 2014 only 5 commercial and 89 cooperative banks went bankrupt. In that term scheme has paid 814,3 million złotych to depositors.

The second group encompass subjects which are not banks nor credit unions, but they are providing financial services for public, excluding taking deposits and granting credits, what should be perceived as core banking activities (Drwiłło A. and Maśniak D. (2009), *Leksykon prawa finansowego. 100 podstawowych pojęć*, CH Beck, Warsaw, 271-272). Other services such as loans or consumer credits could be provided by subjects other than credit institutions. What makes such loan firms different from credit institutions and credit unions is the source of financing of their loan activity. Banks and credit unions are permitted to finance loans or credits from taken deposits. Loan firms, however, can only finance loans from their own capital, income from commissions and fees, credits or issuing of shares and bonds. It must be also noted that legal form of loan firms is not determined by law. They might conduct their activity as a legal persons but it is not necessary. Even natural persons can act as loan firms. The risk which is taken by the credit institutions or credit unions is connected with deposits. On the contrary, the risk of loan firms is limited to typical business risk. Loan firms can represent different business models (tab. 1

Table 1 Business models of loan firms in Poland (exemplary parameters)

Client service	in the firm's branch headquarters	at client's home	On- line
Target groups	natural persons and undertakings		natural persons only
Repayment of loan term(average)	up to 48 weeks	up to 62 weeks	up to 30 days
Communication between client and loan firm	phone, internet, visiting firm's branch	On-line, sms, phone	On – line
Offered loan value	from 50 up to 25.000 zł.	from 200 zł. up to 10.000 zł.	from 100 zł up to 3.000 zł
Installments	mostly weekly		
Form of repayment	transfer	via firm's representative	transfer
Identification and evaluation of client's credibility	in firm's branch headquarters	at client's home	on the basis of basic terms and agreements

Source: own on the basis of PwC p. 23-25

Loan firms are still a novelty in Polish financial market. This sector of market is developing rapidly. Most of the loan firms have appeared in Poland in the past few years. This led to creation of Association of Loan Firms¹³. This organization has created an informal register of loan firms which are conducting their business in Poland. In April 2015 21 loan firms were registered. It is worth mentioning, that some of this loan firms are linked with loan firms established in other EU countries. Other sources claim that there are over 50 loan firms in Poland (<http://www.ipozyczka.pl/lista-firm-pozyczkowych-w-polsce/>). In 2011 loan firms market was estimated at 2,3-2,5 billion zł(Białowolski P.(2012), *Rynek firm pożyczkowych w Polsce. Charakterystyka sektora I*

¹³ Związek firm pożyczkowych

profil klienta., KPF, Warsaw). In 2014 the value of this market reached 4 billion Zł (<http://www.ekonomia.rp.pl/artykul/1109184.html>).

The third groups of parabanks are institutions or persons who grant loans or even credits without proper permission and beyond law. This type of business is mostly illegal. Such undertakings, which are offering small loans but at very high interest rates, are called *loan sharks* (Mayer R., *Loan Sharks, Interest- Rate Caps and Deregulation*, Washington and Lee Law Review, vol. 69, 810-816). Loan sharks are sometimes connected with organized crime. This might lead even to use of force in collecting of debts. It is impossible for proper supervisory bodies to control such financial activities. The only possibility to counter such undertakings is using criminal law institutions. It must be noted that criminal law often forbids performing financial services without permission¹⁴. It is impossible to estimate value of this sector.

4. CONSUMER PROTECTION IN CONTEXT OF CONSUMER CREDIT

One of the goals of CRR Regulation and CRD IV Directives is to establish a proper protection of consumers¹⁵. These acts, however, do not define the term 'consumer'. On the other hand, many EU directives indicate who consumer is. This term is one of the most important legal terms of EU legislation, because of the special protection which is granted to such subjects.

In general, consumer, according to EU law, is a natural person, which is performing an action beyond the scope of its professional activity¹⁶. Opposite to this term is subject which is taking on professional activity¹⁷. Such subjects are not protected like consumers. At the same time member states have freedom to extend the definition of consumer to other subjects in their internal legal systems (Gniewia B.(2007) et. al., *Ochrona konsumenta usług finansowych. Wybrane zagadnienia prawne*, Warsaw. 32). Moreover, in motive 17 to 2011/83/EU directive it was

¹⁴ For example article 171 (1) Ustawa Prawo Bankowe in Poland or section 54(1) in Gesetz über Kreditwesen in Germany

¹⁵ See motive 91 of CRD IV directive and motive 127 of CRR regulation

¹⁶ For example Article 2(1) of DIRECTIVE 2011/83/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council

¹⁷ See ECJ Judgement C-361/89, summary para 1

emphasized that sometimes conducting professional activity might be linked with non- professional activity. In such cases when non-professional goal of contract is dominant, than such subject can be treated as a consumer. On the financial services market the most important act concerning consumers' safety is directive on consumer credit (Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC). In this act the definition of consumer complies with definition mentioned above.

The definition of consumer does not determine other attributes than mentioned before. Doctrine indicates that in general average consumer should be a person which is aware and understands information provided by other party of the contract. This means that person whose conduct is reckless and irresponsible cannot be beneficiary of consumer protection provisions(Ofiarski Z.(2014), *Ustawa o kredycie konsumenckim. Komentarz.*, Warsaw, 108). On the other hand, consumer has the freedom of choice and the right to be informed.(B. Gneta, *ibid.*, 22).

Directive 2008/48/EC¹⁸ indicates that creditor could be natural or legal person who grants credit or is promising to grant such credit. It is not necessary for creditor to be a credit institution. It must be emphasized, that the regulation of mentioned directive applies only to consumer's credit. Such credit is limited by amount of money which can be borrowed and by the person, who can obtain it(Wojtczak D.(2012), *Usługi bankowe w regulacjach Unii Europejskiej*, Warsaw, 148-154). The value of consumer credit must not be lower than 200 euro and not higher than 75.000 euro.

In Polish law the consumers is mentioned in the Constitution of Republic of Poland (Article 76 of Konstytucja Rzeczypospolitej Polskiej of 1997) as the subjects of special protection. The term consumer is defined in civilcode (Article 22¹ of Kodeks Cywilny of 1964). As regards other legal acts the often refer to thedefinition formulated in the Civil code. The definition of consumer in Polish law corresponds with the EU understandin of this term.

Taking into consideration the authors' point of interest, directive on consumer credit (Directive 2008/48/EC of the pean Parliament and of

¹⁸ Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC

the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC) should be perceived as the most important in the context consumer protection in relation to loan firms. In this act the definition of consumer complies with the definition mentioned above. Polish Consumer Credit Act of 2011 uses the definition from civil code.

According to article 3(1) of Act on Consumer Credit of 2011 consumer credit is a credit which value does not extend 255.000 zł (or equivalent amount in foreign currency). In the agreement creditor grants or promises to grant credit in the course of its business. Loan agreement is one of the few types of consumer credit that are foreseen in Polish law. The definition of 'loan agreement' in Polish law corresponds with the definition set out in 2008/48/EC directive.

5. BASIC ACTS OF LAW CONCERNING CONSUMER PROTECTION IN POLAND AND IN THE EU

Polish consumer credit act, which basically is the implementation of 2008/48/EC Directive, enforces proper conduct of loan firm in its relation with consumer throughout duration of cooperation. Owing to that borrower is granted rights which should provide him full protection in his relation with lender. First of all, consumer should be properly informed. Secondly, he is entitled to withdraw from contract. Thirdly, he is allowed to repay the loan earlier. Consumer has also right to proper creditworthiness evaluation.

Information provided by loan firm throughout the cooperation should be full, reliable and must not be misleading. Owing to that advantage of loan firm in its relation with consumer is levelled. The main goal of proper information is to give consumer a chance to choose the best offer. Furthermore, it also helps to eliminate excessive debts. The emphasis need to be put not only on pre-agreement phase but also on the agreement. This concerns especially total cost of credit and annual percentage rate (APR). The research conducted by Polish Consumers' Federation has shown a lot of conflicts between standard contracts clauses and law regulations (<http://www.federacja-konsumentow.org.pl/p,1243,a9248,raport--badanie-wzorcow-chwilowki.pdf>).

In addition, the lack of information and actions which might mislead consumer were also noticed in report as serious problems. Main concerns with these clauses were, among others, the lack of information about APR and total cost of credit, the lack of possibility to withdraw from the contract or to repay the loan earlier, the application of abusive contract terms and conditions such as extensive size of agreement or illegal vindication fees (even up to 50% of total cost of credit). As a result the level of consumer protection was lower (*Ibidem*, 40 – 42)¹⁹. The lack of knowledge of calculating the total cost of the credit results in high level of consumers' risk. In Polish law maximum height of interest rate was indicated. However, it lacks regulations concerning maximum APR. Information about maximum credit's costs helps protecting consumer from other costs than interest rate. Poland is not the only country without such regulations²⁰. Some of the EU countries, however, decided to introduce limitations into their legal systems²¹.

Consumer protection body in Poland conducted a research concerning information aspect of loan firm's commercials (www.uokik.gov.pl/download.php?plik=13278). The report was published in 2013. The main goal of the study was to check the compliance of commercials with rules of fair competition and with regulations of act on consumer credit. Like in the previous research, conducted by Consumers Federation, a lot of irregularities were found. Commercials were misleading as e.g. they suggested that loan does not need consumer creditworthiness evaluation or that it is totally free of charges. Important aspects that should be mentioned were omitted. There were no information about costs of the credit. Yet, some of the loan firms used certificates which were not authorised. As a result, consumer protection body in Poland initiated 23 proceedings concerning collective abuse of consumer interests²². It is not only Polish problem. In the UK loan firms faced similar accusations²³.

¹⁹ See also PwC Polska, Rynek firm pożyczkowych w Polsce, Available at: http://www.pwc.pl/pl_PL/pl/publikacje/assets/pwc_raport_rynek_firm_pozyczkowych.pdf

²⁰ For example Danish, Swedish and UK's law also lacks such regulations.

²¹ For example Lithuania (200%).

²² 37 loan firms were studied. See report mentioned earlier, 46

²³ In the UK over 220 firms are offering payday loans. Estimated market size is around 2.8 billion pounds. See Competition Commission report, p. 56-58 available at: https://assets.digital.cabinet-office.gov.uk/media/54ebb03bed915d0cf7000014/Payday_investigation_Final_report.pdf

Another key issue of consumer- loan firm relations is a question of vindication. Polish regulations also lacks proper instruments concerning consumer protection in this regard. . In practice, loan firms are using many different types of means to collect the debt. For instance, duns, reminders both by post and phone are used. Very often additional fees are linked with this type of vindication. Sometimes loan firms even harass consumers by intrusive visits at their homes or frequent phone calls.

6. SUPERVISION OF LOAN FIRMS

Another important aspect of consumer protection is a problem of supervision of loan firms and enforcement of proper conduct. This matter is regulated differently in EU countries (see tab. 2).

Table 2 Review of loan firms regulations in Europe

	APR limited by law	Authorisation/registration / Supervision	Obligation to report loans to proper bodies
Czech Republic	Limits are the effect of judicial activity	no	no
Denmark	no	no	no
Spain	no	no	no
Lithuania	APR limited by law up to 200%	Central bank supervision	yes
Germany	Limits are the effect of judicial activity	Financial supervision body	no
Slovakia	Limits are the effect of judicial activity	Central bank, which is supervisor of financial services market	Yes, but only quarterly reports concerning new loans
Switzerland	APR limited by law up to 15%	Supervision by canton authority	yes
Sweden	no	Financial supervision body	yes
United Kingdom	no	Consumer protection body	no
Poland	no	Consumer protection body	no

Source:own based on:

<http://cafr.pl/wpcontent/blogs.dir/4/files/filebase/Raport/RAPORT%20rynek%20firm%20po%20C5%BCyczkowych%20w%20Polsce.pdf>

In Poland supervision is conducted by the President of Competition and Consumer Protection Authority (UOKIK), who is main consumer protection body. This supervision is important because Polish regulations do not require a registration from loan firms²⁴. Loan firms are to report some financial data on the basis of regulation concerning prevention of money laundering. What is more, they must also respect rules of data protection.

²⁴ Only basic registration in business registers for all undertakings.

Authors omit those aspects, however, it must be stressed out that such supervision is insufficient. In many situations loan firms do not respect interests of consumers. Financial awareness of consumers is still at a low level. Consumer cannot properly evaluate contract clauses. . Moreover, most of the consumers admit that they do not understand the language or specific notions used in agreements. The methods of APR calculation are totally incomperhensible to them. The research conducted by CBOS has shown that in general consumers have little knowledge about financial market²⁵.

REFERENCES

Acts of European Law

Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes

Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC

DIRECTIVE 2011/83/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council

DIRECTIVE 2013/36/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC

REGULATION (EU) No 575/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on

²⁵ See: information on research. Pole on the financial market; available at: http://www.cbos.pl/SPISKOM.POL/2012/K_152_12.PDF

prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012

Acts of National Law

Kodeks Cywilny of 1964 (Poland)

Ustawa Prawo bankowe of 1997 (Poland) available in english at:
<https://www.nbp.pl/en/aktyprawne/thebankingact.pdf>

Konstytucja Rzeczypospolitej Polskiej of 1997 (Poland)

Gesetz uber das Kreditwesen of 1998 (Germany), available in english at:
https://www.bafin.de/SharedDocs/Downloads/EN/Aufsichtsrecht/dl_kw_g_en.pdf?__blob=publicationFile

Banking Act of 2009(United Kingdom),
available in english at:
http://www.legislation.gov.uk/ukpga/2009/1/pdfs/ukpga_20090001_en.pdf

Ustawa o spółdzielczych kasach oszczędnościowo- kredytowych of 2009 (Poland)

Zakon o kreditnim institucijama of 2013(Croatia),
available in english at:
<http://www.hnb.hr/propisi/zakoni-htm-pdf/e-zakon-o-kreditnim-institucijama-159-2013.pdf>

Literature

Banaszczak- Soroka U.(2014), *Firmy inwestycyjne a bezpieczeństwo inwestora na rynku papierów wartościowych w Polsce*, Wydawnictwo Uniwersytetu Wrocławskiego, Wrocław

Białowolski P.(2012), *Rynek firm pożyczkowych w Polsce. Charakterystyka sektora I profil klienta.*, KPF, Warsaw

Drwiłło A. and Maśniak D.(2009), *Leksykon prawa finansowego. 100 podstawowych pojęć*, CH Beck, Warsaw

Gneta B.(2007) et. al., *Ochrona konsumenta usług finansowych. Wybrane zagadnienia prawne*, Warsaw

Grzegorz F., *Pojęcie instytucji kredytowej w świetle prawa polskiego*[in:] Zeszyty Naukowe Akademii Ekonomicznej w Krakowie vol. 690

Masiukiewicz P.(2011), *Regulacje a ryzyko shadow banking w Polsce*[in:] Prace i Materiały Wydziału Zarządzania Uniwersytetu Gdańskiego, Vol. 4/2011

Mayer R., *Loan Sharks, Interest- Rate Caps and Deregulation*, Washington and Lee Law Review, vol. 69

Ofiarski Z.(2014), *Ustawa o kredycie konsumenckim. Komentarz.*, Warsaw

Rutkowska- Tomaszewska E.(2013), *Ochrona prawna klienta na rynku usług bankowych*, Wolters Kulwer Polska, Warsaw

Srokosz W.(2011), *Instytucje prarabankowe w Polsce*, Wolters Kulwer Polska, Warsaw

Wojtczak D.(2012), *Usługi bankowe w regulacjach Unii Europejskiej*, Warsaw

F.Zoll et. al(2005)., *Prawo bankowe. Komentarz. Tom I i II*, Zakamycze, Cracow

ECJ Judgements

ECJ Judgement C-361/89

ECJ Judgement C-442/02

Other Sources

European Commission, *Green Paper. Shadow Banking*, Brussels 2012,
http://ec.europa.eu/internal_market/bank/docs/shadow/green-paper_en.pdf

World Council of Credit Unions Statistical Report 2013, available in english at:
<http://www.woccu.org/publications/statreport>

Information on the situation of SKOK sector after 3rd quarter of 2014, Commission of Financial Supervision, Dec. 2014;
available at:
http://www.knf.gov.pl/opracowania/sektora_kas_spoldzielczych/raporty/raporty_skok.html

Rynek firm pożyczkowych w Polsce,
available at:
http://www.pwc.pl/pl_PL/pl/publikacje/assets/pwc_raport_rynek_firm_pozyczkowych.pdf

Competition Commission report,
available at:
https://assets.digital.cabinet-office.gov.uk/media/54ebb03bed915d0cf7000014/Payday_investigation_Final_report.pdf

Pole on the financial market, available at:
http://www.cbos.pl/SPISKOM.POL/2012/K_152_12.PDF

PART V
INVESTMENT AND DEVELOPMENT
PERSPECTIVES OF CROATIAN AND
INTERNATIONAL ENTERPRISES

CHAPTER 33

Edo Duran

Belgrade Banking Academy, Belgrade, Serbia

Zoran Grubišić

Belgrade Banking Academy, Belgrade, Serbia

Srdjan Redžepagić

University Nice Sophia Antipolis, Nice, France

APPLICATION OF MODERN PORTFOLIO THEORY ON THE INTERNATIONAL DIVERSIFICATION OF INVESTMENT PORTFOLIO

ABSTRACT

Modern portfolio theory is one of the greatest achievements in the field of investment management and it shows not only the importance of diversifying investments to reduce overall risk, but also an efficient way of performing diversification. The model showed that it is possible to identify a set of portfolios that provide the highest possible expected return for a given level of risk or lowest risk for any given level of expected return. Such a set of portfolios creates an efficient frontier and each portfolio, which is located on the frontier, has an economically efficient trade-off between return and risk. The paper examines the possibilities of application of modern portfolio theory to regional diversification of the investment portfolio. The aim is to design an optimal portfolio of securities from capital markets of Serbia, Croatia and Slovenia which will have a better performance than the benchmark index. Despite the limitations in the markets of the countries listed above, constructed portfolios had a better performance than the index Belex15, Crobex10, SBITOP. The paper emphasizes the impact of international diversification through the construction of regionally diversified portfolio. Regionally diversified portfolio had better performance than, for research purposes, constructed SHS composite index.

Keywords: portfolio analysis, optimal portfolio, international, modern portfolio theory

JEL classification: G11

1. INTRODUCTION

Before the foundation of portfolio theory, investors composed portfolios by selecting stocks with the best performance, considering that this technique maximizes the expected return on the portfolio. Although aware of the risk, investors evaluated portfolio performance on the basis of the rate of return. Measures of risk were not developed, so the concept of risk was not explicitly considered. However, the goal of investors is not only the maximization of the expected return. If it were the only goal, investors would allocate the total assets in securities that bring the highest return regardless of the risk.

The emergence of modern portfolio theory is linked to Harry Markowitz, who in 1952 presented the article 'Portfolio Selection'. Modern portfolio theory helps investors to select a set of securities that give maximum return with the desired level of risk. The development of portfolio theory in the early 1960s pointed to the way of measuring risk observed as variability in return. At that time, no single measure combined both risk and return, but these factors were observed individually. Based on the risk measure (e.g. return variance), the researchers would group portfolios into classes with similar risk and then compare the rates of return of the portfolios from different risk classes.

When selecting a portfolio, a rational investor, according to Markowitz uses two basic parameters: the profit and the risk. Profit is measured by the average rate of return and risk as the deviation from the mean value of the rate of return. The larger the deviation, the riskier portfolio. When deciding on the formation of the portfolio, investors are trying to minimize this deviation by diversification of investments - by investing in financial assets whose rates of return fluctuate in different directions.

The investor is interested in the risk of individual investment. In that way, the investor is not only interested in the variance of that particular investment, but primarily for the covariance with other financial instruments from the portfolio composition.

Markowitz's model (Markowitz, 1991) serves portfolio investors to be used for construction of an effective border while respecting the trade-off of risk and return. For the rational investor who maximizes the expected benefits, the selected portfolio is optimized taking into account the expected return as the criterion of the portfolio profitability and return variance as a measure of risk. The model assumes that the investor is risk-averse, and when deciding on the choice of the portfolio, attention is paid to the expected return and variance of return in a certain period of time of investing. Portfolio with the highest expected return for a given level of risk, i.e. the lowest risk is an effective portfolio.

2. INTERNATIONAL DIVERSIFICATION

When we talk about diversification of the portfolio, the increasing presence of the so-called international portfolio structure should be noted. Investors in search of higher returns for the same level of risk allocate their assets internationally. The situation on the world markets has been changing. Although investors from the US often treat S&P500 index as a proxy for the market index portfolio, this practice is becoming less appropriate.

Research conducted at the US securities market suggest that international portfolio diversification can lead to a better relationship of risk and return than investing solely in the US securities. This relation is derived from the basic rule of diversification: The greater diversification brings about the more stable returns and less risk.

Investors know that portfolio diversification across different industries leads to a lower level of risk for a given level of return. For example, according to research by Shapiro and Sarin (2009) completely diversified US portfolio contains 27 % risk of individual securities. In other words, 73% of the risk of investing in the average securities can be eliminated by diversification. The effects of such diversification are limited because all companies within an economy are more or less related to systemic risk that cannot be diversified. However, the systemic risk of a country can become unsystematic in the context of the global portfolio. If the correlation between the two economies is negative, it means that diversification of portfolio in these two countries may lead to more stable return for a given level of risk. For example, if there was a

dramatic jump in oil prices, it would have a negative impact on the US economy and positive effect on oil exporting countries such as Qatar.

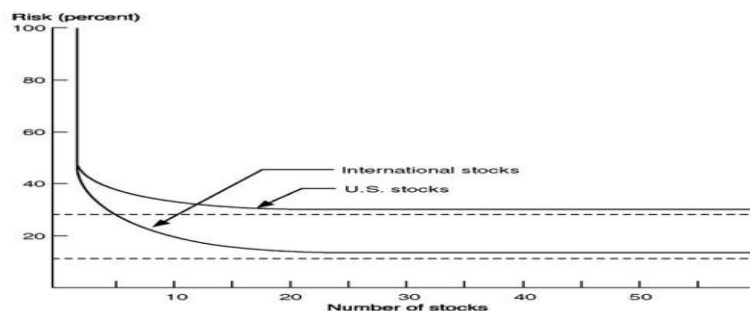
Shapiro and Sarin observed the stock markets of the developed and developing countries in the period from 1988 to 2006. They came to the following conclusions:

Historically, national markets have significant differences in returns and risk (as measured by standard deviations)

1. Emerging markets have generated higher returns and risks than developed countries
2. Morgan Stanley EAFE index which includes Europe, Australia and the Far East had a lower risk than its individual components
3. Morgan Stanley WORLD index which links the EAFE countries with North America had a lower risk than any country except the United States.

This study shows that it is possible to reduce the level of exposure to risk through international diversification. The results show that, in internationally diversified portfolio, the risk of individual securities is 11.7 %. In his study, Bruno Solnik (Solnik , 1995) states that it is possible to reduce the risk at about 50 % by investing in an international portfolio in relation to investing exclusively in the US securities.

Figure 1 International diversification



Source: Solnik, B. (1995), Why not diversify internationally rather than domestically?, Financial analysts journal, p 89-94

2.1. Risks of international diversification

After presenting the benefits of investing in the international portfolio, we will mention the two most important risks which investors may encounter.

The most significant risks of international investments are foreign exchange risk and country risk.

Foreign exchange risk is related to the uncertainty regarding the return on assets due to changes in exchange rates between domestic and foreign assets. However, in the context of an internationally diversified portfolio, the exchange rate risk can be almost completely diversified (Bodie et.al, 2009). Passive investors with well-diversified portfolios do not have to worry about the protection of risks related to foreign currencies.

Investors can protect themselves from the exchange rate risk by using forward and futures contracts. For example, in order to protect the investor from changes in the dollar exchange rate, a British investor would agree to deliver dollar in exchange for pounds at a fixed rate and thus eliminate the risk associated with the transfer of dollars into pounds. However, perfect protection is not possible. If we invest in shares we would not know the value of investments in the future or how long it takes to sell a currency for delivery in the future.

Country risk or political risk is the possibility of seizure of assets, changes in tax policy, limited exchange of foreign currencies for domestic currency or other changes in business conditions in one country (Bodie, Kane, Marcus, 2009). Political risk is very difficult to estimate. Leading organization in the field of risk assessment of the country is the PRS Group (Political Risk Service).

PRS analysis of country risk results in a combined rating of the country in terms of risk on a scale from 0 to 100. The combined rating is the average of the three measures: political risk, financial risk and economic risk. Political risk is measured on a scale of 0 to 100 and financial and economic risks on a scale of 0 to 50. Combined country rating is calculated by adding these three measures and dividing them by two.

3. APPLICATION OF MODERN PORTFOLIO THEORY ON INTERNATIONAL PORTFOLIO DIVERSIFICATION

In the previous part of the paper the theoretical concept of modern portfolio theory is presented in the process of portfolio optimization, as well as a variety of strategies of investing and portfolio performance measuring. In this part of the paper the concept has been applied to particular capital markets of Serbia, Croatia and Slovenia, and then an internationally diversified portfolio has been constructed so as to provide a better ratio of return and risk.

In contrast to developed markets, obstacles appear in the emerging markets in constructing a portfolio of stocks. The problems that are typical for these markets are large stake of individual shares on the market, the small number of shares to be listed on the official stock exchange and predominantly low liquidity of stocks. Due to the current situation on the capital markets in Serbia, Croatia and Slovenia, the modification of modern portfolio theory has been made and the process of portfolio optimization includes only preselected shares that meet certain criteria such as:

1. Securities should be liquid with a market capitalization above the median
2. Securities should be traded by the method of continuous trading in order not to stop due to irregular trade
3. Securities should be listed on the Stock Exchange more than three years to provide enough data for the analysis
4. Shares should be from different sectors to achieve diversification

The study covers a period of 3 years from January 1, 2012 to December 1, 2014. In this paper monthly rates of return have been analyzed that give a better picture of the performance of certain securities (also used in the papers by Goetzmann, W., Kumar, A. (2008) and the Board, J. Sutcliffe, C. (1994). Using the monthly rates of return in developing markets solves the problem of irregular trading of some securities.

In the process of portfolio design 10 securities have been included because in many studies, primarily by Evans, J., Archer, S. (1968), it was concluded that that is the optimal number of securities for diversification. Also, Elton and Gruber were investigating the relationship between risk and the number of stocks in the portfolio and

came to the following conclusions: 51 % of the standard deviation is eliminated by the increase in the number of shares of 1 to 10; adding 10 more shares eliminates only an additional 5 %; the increase to 30 shares eliminates only an additional 2 % Elton, J., Gruber, M. (1977).

Taking into account the above criteria in the portfolio design the following securities are included:

Table 1 Characteristics of the selected securities

	Company	Symbol	Return	Standard deviation
Serbia	Nikola Tesla Airport	AERO	2.13%	7.38%
	AIK banka	AIK	0.58%	6.78%
	Alfa plam	ALFA	3.22%	7.72%
	Energoprojekt holding	ENHL	3.18%	10.85%
	Galenika Fitofarmacija	FITO	1.89%	7.88%
	Imlek	IMLK	2.11%	7.02%
	Komercijalna banka	KMBN	1.68%	10.89%
	Metalac	MTLC	1.01%	5.17%
	NIS	NIIS	1.15%	6.69%
	Soja protein	SJPT	1.32%	11.67%
Croatia	AD Plastik	ADPL	0.475%	4.866%
	Adris grupa	ADRS	1.294%	4.403%
	Atlanska plovdba	ATPL	0.522%	9.805%
	Atlantik grupa	ATGR	2.042%	5.782%
	Erikson Nikola Tesla	ERNT	1.014%	7.494%
	INA	INA	0.140%	4.805%
	Končar	KOEI	0.920%	4.795%
	Ledo	LEDO	1.582%	5.034%
	Podravka	PODR	0.720%	6.285%
	Varteks	VART	3.591%	25.985%
Slovenia	Cinkarna Celje	CICG	2.66%	8.25%
	Gorenje	GRVG	1.29%	9.90%

	Luka Koper	LKPG	4.37%	13.64%
	Krka	KRKG	0.50%	5.63%
	Letrika	IALG	4.59%	11.26%
	Merkator	MELR	-1.58%	9.49%
	Petrol	PETG	1.99%	7.33%
	Pivovarna Lasko	PIPL	3.94%	19.51%
	Sava	POSR	3.40%	8.41%
	Telekom Slovenija	TLSG	2.90%	8.03%

Table 1 shows the selected securities with their monthly returns and standard deviations. Based on the movement of return over three years, covariance and correlation matrices have been formed for each country (Annex 1). Based on the covariance matrix of returns and standard deviations optimal portfolios of individual countries are designed (Annex 2). Comparative review of their performance with benchmark indices can be seen in the following two tables (Tables 2 and 3):

Table 2 Characteristics of optimal portfolios

	Optimal portfolio		
	Serbia	Croatia	Slovenia
Return	1.93%	1.53%	3.37%
Standard deviation	2.62%	3.26%	5.54%
Risk-free rate	0.69%	0.37%	0.26%
Sharp ratio	0.47	0.35	0.56

Table 3 Characteristics of benchmark indices

	Benchmark indices		
	Serbia	Croatia	Slovenia
	BELEX15	CROBEX10	SBITOP
Return	1.10%	0.20%	1.03%
Standard deviation	4.70%	3.39%	5.08%
Risk-free rate	0.69%	0.37%	0.26%
Sharp ratio	0.08	-0.05	0.15

As a measure for ranking the portfolios the Sharp ratio was used, which was described in the previous part of the paper. For the calculation of Sharp ratio it is necessary to determine the risk-free rate which in this paper presents a monthly interest rate on three-month Treasury bills. Sharp ratio shows that the performance of the optimal portfolio of individual countries is considerably better than the performance of the benchmark indices, in other words, investments in optimal portfolios have had greater rewards in return in relation to volatility.

Given that the numerical value of Sharp ratio is difficult to determine, that is we do not know whether the difference of 0.39 is economically significant. M^2 measure of the performance of the portfolio is also presented.

M^2 measure is calculated on the basis of Sharp ratio and shows what would be the return on a portfolio if the standard deviation was the same as the deviation of the benchmark portfolio, and it is calculated as follows:

$$M^2 = r_f + Sh * \sigma_b$$

Table 4 shows M^2 measure for the optimal portfolio in Serbia, Croatia and Slovenia in relation to relevant market index.

Table 4 M^2 measure

Risk measure	Serbia	Croatia	Slovenia
M^2	2,89%	1,55%	3,1%

M^2 shows that the optimal portfolio of each country could achieve significantly better results than the market index for the same level of risk. Thus, for example, the optimal portfolio of Serbia would bring return of 2.89 %, while BELEX15 for the same level of risk amounts to 1,1%.

It was found that the portfolios optimized by using modern portfolio theory showed better performance than the market index.

3.1. International diversification of portfolios

All thirty selected securities were included in the selection of international portfolio. Based on the covariance matrix of return and standard deviation, and by using Excel Solver the optimal regional portfolio was designed. Portfolio that maximizes the Sharp ratio has the following composition:

Table 5 Regional portfolio-structure

Companies	Share	Return	Standard deviation
Cinkarna Celje	4.746%	2.66%	8.25%
Metalac	20.137%	1.01%	5.17%
Alfa plam	15.098%	3.22%	7.72%
NIS	9.811%	1.15%	6.69%
Telekom Slovenija	8.764%	2.90%	8.03%
Adris grupa	8.576%	1.294%	4.403%
INA	8.063%	0.140%	4.805%
Letrika	7.239%	4.59%	11.26%
Galenika Fitofarmacija	6.472%	1.89%	7.88%
Sava	3.431%	3.40%	8.41%
Soja Protein	2.171%	1.32%	11.67%
Energoprojekt holding	1.971%	3.18%	10.85%
Imlek	1.941%	2.11%	7.02%
Ledo	1.514%	1.582%	5.034%
Atlantik grupa	0.065%	2.042%	5.782%

Table 6 Composition of regional portfolio

Metalac	20.137%
Alfa plam	15.098%
NIS	9.811%
Telekom Slovenija	8.764%
Adris grupa	8.576%
INA	8.063%
Letrika	7.239%
Galenika Fitofarmacija	6.472%
Cinkarna Celje	4.746%
Sava	3.431%
Soja Protein	2.171%
Energoprojekt holding	1.971%
Imlek	1.941%
Ledo	1.514%
Atlantik grupa	0.065%

Optimal portfolio included 15 out of 30 securities (4 from Slovenia, 4 from Croatia and 7 from Serbia).

Before the presentation of performance of the regional portfolio it is necessary to compile the benchmark index on the basis of which the effectiveness of diversification can be compared. The most common method is the construction of index using weights defined according to market capitalization. The problem that arises in the international context refers to the appropriateness of this type of weighting. This is partly due to the fact that in different countries different parts of the corporate sector are organized as joint stock companies that are publicly traded. As an example, it has been cited that the structure of the EAFE¹ involves 20.4% of the United Kingdom, and its share in total GDP is 11.1 %, while Germany enters with only 7.2% and its share in GDP is 14, 9 %.

Due to the underdevelopment of capital markets in the observed countries, the

¹ *European, Australian, Far East* index published by Morgan Stanley

SHScomposit index was used in the analysis which is made by using a similar method used by PIMCO² investment company. *SHScomposit* is weighted by gross domestic product. This mode is supported by the fact that a diversified portfolio should invest in shares in proportion to the total asset base of each country, where GDP represents the best approximation.

The composition and performance of *SHScomposit* index is presented in Table 6.

Table 7 The composition and performance of SHScomposit index

	GDP in \$	Share
Croatia	57,868,674,298	38.2%
Slovenia	45,519,650,911	30.1%
Serbia	47,987,303,638	31.7%
Total	151375628847	1
SHScomposit	Return	0.66%
	Standard deviation	4.32%
	Risk-free rate	0.56%
	Sharp	0.023

Regional index performance is shown in Table 7.

Table 8 Regional index performance

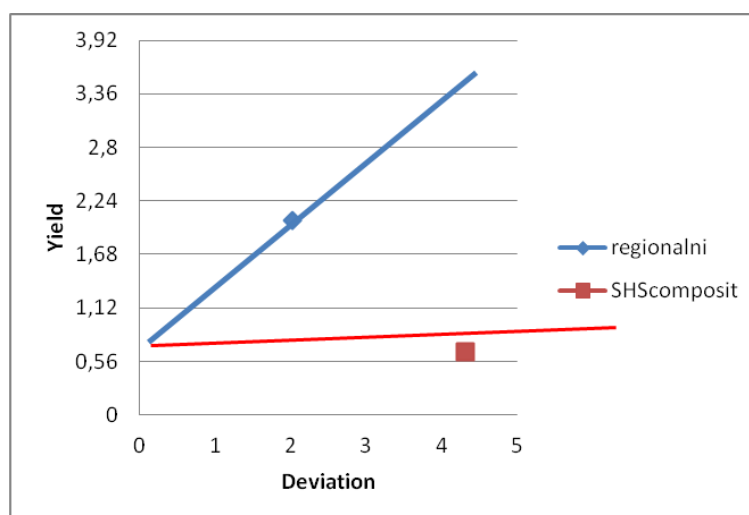
Return	2.03%
Standard deviation	2.02%
Sharp	0.73
M2	3.71%

Regional portfolio has significantly better performance than the benchmark index. For the same level of risk regionally diversified

² PIMCO, Pacific Investment Management Company

portfolio provides a much greater reward in risk as can be seen from the slope of the yield curve (Figure 17).

Figure 2 Slope of the yield curve



Sharp ratio indicates that a regional portfolio outperformed the performance of optimal portfolios of individual countries. This ratio ranked portfolios as follows:

Table 9 Sharp ratio

	Sharp ratio
Regional Portfolio	0,73
Optimal Slovenia	0,56
Optimal Serbia	0,47
Optimal Croatia	0,35

From the analysis of the optimal portfolios and their comparison with benchmark indices it is obvious that modern portfolio theory can be applied at the regional market, but modified in accordance with the stipulated restrictions in the choice of securities. The research results show the successful application of this theory in the national markets, but also the benefits of international portfolio diversification.

4. CONCLUSION

The goal of the modern portfolio theory is to answer the question of what the optimal level of return is for the taken risk through the formation of an optimal portfolio. Through diversification a set of efficient portfolios is obtained in which investors can invest according to their risk aversion.

Modern portfolio theory surpassed the shortages of naive diversification, which is manifested in the decrease of efficiency with the increase in the number of elements of the portfolio. Markowitz pointed out that if we want to reduce the variance, it is not enough just to invest in many different securities, but it is necessary to avoid investing in securities that have high covariance. The model shows not only the importance of diversifying investments to reduce overall portfolio risk, but also an efficient way of performing diversification. It also showed that instead of random selection and random outcomes in the process of forming the portfolio, there is an optimum choice and outcome - an optimal portfolio. It is possible to identify a set of portfolios that provide the highest possible expected return for a given level of risk or lowest risk for any given level of expected return. Such a set of portfolios creates an effective boundary and each portfolio which is located on that boundary has economically efficient trade-off between risk and return.

This paper presents a successful application of the portfolio theory first at national markets of Serbia, Croatia and Slovenia, and then on the international portfolio diversification. Sharp ratio, which is used to rank the portfolio, indicates that the optimal portfolios of individual countries show better performance than the benchmark indices and that the regional portfolio achieved better performance than the SHScomposit index weighted by GDP of Serbia, Slovenia and Croatia.

It should be noted that modified portfolio theory is presented in this paper, because of the aforementioned problems encountered in small and underdeveloped capital markets.

REFERENCES

Board, J., Sutcliffe, C. (1994), Estimation Methods in Portfolio Selection and the Effectiveness of Short Sales Restrictions: UK Evidence, *Management Science*, Vol. 40, No. 4

Bodie Z., Kane A., Marcus A. (2009), *Osnovi investicija*, Belgrade, Data status

Elton E., Gruber M., Brown S., Goetzmann W. (2007), *Modern portfolio theory and investment analysis*, John Wiley & Sons, New York

Elton, J., Gruber, M. (1977), *Risk Reduction and Portfolio Size: An Analytic Solution*, *Journal of Business*, pp. 415-37

Evans, J., Archer, S. (1968), Diversification and the reduction of dispersion: an empirical analysis, *Journal of Finance*, 23, 761-767

Fama, E., French K. (1992), *The Cross- Section of Expected Stock Returns*, *Jurnal of finance*, str. 427-465

Fama, E., French, K. (1992), *Common risk factors in the returns on stocks and bonds*, *Jurnal of Financial Economics*, p 3-56

Markowitz, H. (1952), *Portfolio Selection*, *The Jurnal of Finance*, Volume 7, p 77-91

Markowitz, H. (1991), *Foundations of Portfolio Theory*, *The Jurnal of Finance*, Vol. 46, str. 469-477

Shapiro, A., Sarin, A. (2009), *Multinational financial management*, John Wiley & Sons, New York

Solnik, B. (1995), Why not diversify internationally rather than domestically?, *Financial analysts journal*, p 89-94

www.belex.rs, Belgrade Stock Exchange

www.investopedia.com

www.ljse.si, Ljubljana Stock Exchange

www.mf.gov.si, Ministry of Finance of Slovenia

www.mfin.gov.rs, Ministry of Finance of Serbia

www.mfin.hr, Ministry of Finance of Croatia

www.zse.hr, Zagreb Stock Exchange

Annex 1

Covariance matrix Serbia

	<i>AERO</i>	<i>AIKB</i>	<i>ALFA</i>	<i>ENHL</i>	<i>FITO</i>	<i>IMLK</i>	<i>KMBN</i>	<i>MTLC</i>	<i>NIIS</i>	<i>SJPT</i>
AERO	0.54489%	0.27115%	0.06704%	0.25681%	0.03222%	0.13710%	0.20315%	-	0.11873%	0.13496%
AIKB	0.27115%	0.44658%	0.03572%	0.41432%	0.05902%	0.20720%	0.25149%	0.11378%	0.15799%	-
ALFA	0.06704%	0.03572%	0.57968%	0.15610%	0.06123%	0.06408%	0.10222%	0.02231%	0.07491%	-
ENHL	0.25681%	0.41432%	0.15610%	1.14297%	0.07065%	0.31387%	0.21959%	0.15278%	0.01662%	-
FITO	0.03222%	0.05902%	0.06123%	0.07065%	0.60374%	0.06358%	0.34514%	0.03661%	0.09692%	-
IMLK	0.13710%	0.20720%	0.06408%	0.31387%	0.06358%	0.47821%	0.00393%	0.00839%	0.05912%	-
KMBN	0.20315%	0.25149%	0.10222%	0.21959%	0.34514%	0.00393%	1.15210%	0.20745%	0.21956%	-
MTLC	0.11873%	0.11378%	0.02231%	0.15278%	0.03661%	0.00839%	0.20745%	0.25879%	0.05330%	-
NIIS	0.13496%	0.15799%	0.07491%	0.01662%	0.09692%	0.05912%	0.21956%	0.05330%	0.43438%	-
SJPT	0.21305%	0.16555%	0.01780%	0.17215%	0.35084%	0.00275%	0.71395%	0.29831%	0.18901%	-

Correlation matrix Serbia

	<i>AERO</i>	<i>AIKB</i>	<i>ALFA</i>	<i>ENHL</i>	<i>FITO</i>	<i>IMLK</i>	<i>KMBN</i>	<i>MTLC</i>	<i>NIIS</i>	<i>SJPT</i>
<i>AERO</i>	1									
	0.54966982									
<i>AIKB</i>	6	1								
	0.11928178	0.07021325								
<i>ALFA</i>	9	1	1							
	0.32541439	0.57991800	0.19177							
<i>ENHL</i>	5	9	5	1						
	0.05617582	0.11366292		0.08504309						
<i>FITO</i>	9	4	-0.1035	8	1					
	0.26857568	0.44837077	-	0.42454356						
<i>IMLK</i>	2	1	0.12171	8	0.11833	1				
						-				
<i>KMBN</i>		0.35061029	0.12508		0.41383	0.00529222				
<i>N</i>	0.25640511	8	7	0.19135678	4	4	1			
	-	-				-				
	0.30267010	0.35167541	-	-		0.02621822	-			
<i>MTLC</i>	1	2	0.05682	0.36109203	-0.1052	6	0.3661207	1		
								-		
	0.27741482	0.35870011	-	0.02358565	0.18926	0.12970829	0.3103675	0.2164		
<i>NIIS</i>	4	8	0.14929	1	5	7	5	3	1	
						-				
	0.25085257	0.21530740	-	0.13995360	0.39243	0.00345338	0.5781081	-	0.24925	
<i>SJPT</i>	9	9	0.02032	4	4	4	4	0.4875	1	1

Covariance matrix Croatia

	<i>AD Plastik</i>	<i>Adris grupa</i>	<i>Atlanska plovdba</i>	<i>Atlantik grupa</i>	<i>Erikson Nikola Tesla</i>	<i>INA</i>	<i>Kon;ar</i>	<i>Ledo</i>	<i>Podravka</i>	<i>Varteks</i>
AD Plastik	0.2300%	0.0729%	0.2426%	0.1098%	0.0629%	0.0461%	0.0722%	0.0891%	0.1307%	0.0942%
Adris grupa	0.0729%	0.1883%	0.1051%	0.1555%	0.0703%	0.0154%	0.0440%	0.0163%	0.1059%	0.1825%
Atlanska plovdba	0.2426%	0.1051%	0.9338%	0.1124%	0.0982%	- 0.0763%	0.1163%	0.0788%	0.2009%	0.3584%
Atlantik grupa	0.1098%	0.1555%	0.1124%	0.3247%	0.0642%	- 0.0198%	0.0653%	0.0765%	0.1962%	0.1660%
Erikson Nikola Tesla	0.0629%	0.0703%	0.0982%	0.0642%	0.5456%	0.0220%	0.0359%	0.1766%	0.1594%	-0.3727%
INA	0.0461%	0.0154%	- 0.0763%	- 0.0198%	0.0220%	0.2243%	0.0770%	0.0132%	0.0193%	-0.2749%
Kon;ar	0.0722%	0.0440%	0.1163%	0.0653%	0.0359%	0.0770%	0.2233%	0.1042%	0.1281%	-0.0579%
Ledo	0.0891%	0.0163%	0.0788%	0.0765%	0.1766%	0.0132%	0.1042%	0.2461%	0.1280%	-0.3575%
Podravka	0.1307%	0.1059%	0.2009%	0.1962%	0.1594%	0.0193%	0.1281%	0.1280%	0.3837%	-0.2189%
Varteks	0.0942%	0.1825%	0.3584%	0.1660%	- 0.3727%	- 0.2749%	- 0.0579%	- 0.3575%	- 0.2189%	6.5592%

Correlation matrix Croatia

	<i>AD Plastik</i>	<i>Adris grupa</i>	<i>Atlanska plovdba</i>	<i>Atlantik grupa</i>	<i>Erikson Nikola Tesla</i>	<i>INA</i>	<i>Kon;ar</i>	<i>Ledo</i>	<i>Podravka</i>	<i>Varteks</i>
AD Plastik	100.000%	35.040%	52.334%	40.176%	17.743%	20.303%	31.864%	37.464%	44.005%	7.668%
Adris grupa	35.040%	100.000%	25.055%	62.885%	21.924%	7.485%	21.475%	7.583%	39.394%	16.423%
Atlanska plovdba	52.334%	25.055%	100.000%	20.415%	13.763%	-16.674%	25.477%	16.430%	33.554%	14.481%
Atlantik grupa	40.176%	62.885%	20.415%	100.000%	15.246%	-7.330%	24.267%	27.051%	55.585%	11.373%
Erikson Nikola Tesla	17.743%	21.924%	13.763%	15.246%	100.000%	6.300%	10.291%	48.188%	34.834%	-19.702%
INA	20.303%	7.485%	-16.674%	-7.330%	6.300%	100.000%	34.391%	5.608%	6.567%	-22.661%
Kon;ar	31.864%	21.475%	25.477%	24.267%	10.291%	34.391%	100.000%	44.443%	43.753%	-4.782%
Ledo	37.464%	7.583%	16.430%	27.051%	48.188%	5.608%	44.443%	100.000%	41.633%	-28.139%
Podravka	44.005%	39.394%	33.554%	55.585%	34.834%	6.567%	43.753%	41.633%	100.000%	-13.796%
Varteks	7.668%	16.423%	14.481%	11.373%	-19.702%	-22.661%	-4.782%	-28.139%	-13.796%	100.000%

Covariance matrix Slovenia

	<i>Cinkarna Celje</i>	<i>Gorenje</i>	<i>Koper</i>	<i>Krka</i>	<i>Letrika</i>	<i>Merkator</i>	<i>Petrol</i>	<i>Lasko</i>	<i>Sava</i>	<i>Telekom slovenija</i>
Cinkarna Celje	0.00655	0.00325	0.00577	0.00091	0.00378	0.00032	0.00160	0.00431	0.00239	0.00016
Gorenje	0.00325	0.00980	0.00421	0.00088	-	0.00021	0.00140	0.00167	0.00665	0.00362
Koper	0.00577	0.00421	0.01849	0.00352	0.00302	-0.00014	0.00507	0.00913	0.00381	0.00400
Krka	0.00091	0.00088	0.00352	0.00312	0.00089	0.00020	0.00190	0.00361	0.00136	0.00237
Letrika	0.00378	-	0.00021	0.00302	0.00089	0.01261	-0.00041	0.00112	0.00251	0.00145
Merkator	0.00032	0.00140	-	0.00014	0.00020	-	0.00041	0.00901	0.00018	0.00351
Petrol	0.00160	0.00167	0.00507	0.00190	0.00112	0.00018	0.00536	0.00592	0.00184	0.00367
Lasko	0.00431	0.00665	0.00913	0.00361	0.00251	0.00351	0.00592	0.03806	0.00696	0.00453
Sava	0.00239	0.00362	0.00381	0.00136	0.00145	0.00194	0.00184	0.00696	0.00707	0.00020
Telekom slovenija	0.00016	-	0.00065	0.00400	0.00237	0.00093	-0.00011	0.00367	0.00453	0.00020

Correlation matrix Slovenia

	<i>Cinkarna Celje</i>	<i>Gorenje</i>	<i>Koper</i>	<i>Krka</i>	<i>Letrika</i>	<i>Merkator</i>	<i>Petrol</i>	<i>Lasko</i>	<i>Sava</i>	<i>Telekom slovenija</i>
Cinkarna celje	1									
Gorenje	0.408912053	1								
Koper	0.527671518	0.320792	1							
Krka	0.20268693	0.162613	0.472425	1						
Letrika	0.419043941	-0.01943	0.20218	0.144699	1					
Merkator	0.042385113	0.152968	-0.01148	0.038745	-0.03947	1				
Petrol	0.27181894	0.236931	0.521865	0.473623	0.139687	0.026731	1			
Lasko	0.275716477	0.354507	0.35325	0.338365	0.117441	0.195021	0.426315	1		
Sava	0.35455044	0.447676	0.341617	0.295663	0.157447	0.250547	0.306466	0.436896	1	
Telekom slovenija	0.024820177	-0.08452	0.376106	0.540873	0.105562	-0.01501	0.642063	0.297683	0.030654	1

Annex 2

Composition of optimal portfolio – Croatia

Company	Share
AD Plastik	0.0%
Adris grupa	20.7%
Atlanska plovdba	0.0%
Atlantik grupa	26.7%
Erikson Nikola Tesla	1.7%
INA	12.3%
Koncar	3.6%
Ledo	30.0%
Podravka	0.0%
Varteks	5.0%
Total	1

Composition of optimal portfolio – Serbia

Company	Share
Nikola Tesla Airport	8.0%
AIK banka	0.0%
Alfa plam	22.6%
Energoprojekt holding	4.3%
Galenika Fitofarmacija	8.7%
Imlek	12.2%
Komercijalna banka	0.0%
Metalac	30.0%
NIS	8.7%
Soja protein	5.3%
Total	100.0%

Composition of optimal portfolio – Slovenia

Company	Share
Cinkarna Celje	0.147821
Gorenje	0.032661
Koper	0.030422
Krka	0
Letrika	0.25
Merkator	0
Petrol	0.039096
Lasko	0
Sava	0.25
Telekom slovenija	0.25
Total	1

CHAPTER 34

Marko Tomljanović

University of Rijeka, Faculty of Economics Rijeka, Rijeka, Croatia

Dragan Mišetić

Zagreb, Croatia

Ivan Kožul

Široki Brijeg, Bosnia and Herzegovina

THE SYSTEM OF LAND REGISTRY IN EUROPEAN UNION AND CROATIA AND THEIR IMPACT ON MANAGEMENT DECISION PROCESS: CASE STUDY OF AQUA ALFA LTD¹

ABSTRACT

The purpose of this paper is to analyze and to identify problems in the land registry system by with whom the management of the companies is faced in everyday business. In order to ensure better understanding of presented topic and relations, this paper will, based on the example of Aqua Alfa Ltd., determine the historical sequence of the property and analyze mutual (purchase) relationships between owners. In 2007 Aqua Alfa Ltd bought the property, which was a business unit of the bankruptcy debtor, and paid the total amount of the purchase price. Certain passage of time, and contrary to the Land Registration Act (Article 89), registration of ownership of the mentioned property was not carried out to Aqua Alfa Ltd. This (in) action resulted in negative economic consequences for Aqua Alfa Ltd, which was, by non-registration of ownership, prevented from the realization of the planned projects.

Keywords: system of land registry, management, Aqua Alfa Ltd

JEL classification: G32, H63

¹ The research in this paper is based on business documents of the Aqua Alfa Ltd. company, and the court documents which are available to public and therefore are suitable for publication in this paper.

1. INTRODUCTION

The land registry system at EU level differs between the Member States with a common function of providing services of registration, testing and storing information of the land registry. Also, the information from land registry system must be accessible to the general public and all interested stakeholders. Due to ignorance and lack of awareness of the importance, company management often neglects this aspect of legislative framework, which later may affect the company's business negatively.

The problem in the research work comes out from the lack of education and knowledge about the land registry system by the participating sides in a business processes, as well as the inefficiency of action by public authorities in the Republic of Croatia. In accordance with this problem, the paper defined the subject of the research: The system of land registry in the EU and the Republic of Croatia and its` impact on management decision-making. The purpose of the research work is determining of the land registration system characteristics in the EU and Croatia, and in the case of company Aqua Alfa Ltd., identifying problems with which the management company can be faced, because of the legal aspects ignorance about land registration system, or the action inefficiency by public authorities. The goal of the research conducted in this paper, based on examples from the business practice, demonstrates how inefficient, and non-transparent system of land registry and the inefficiency of the judiciary, may affect the achievement of the business goals of the company negatively.

2. THE LAND REGISTRY SYSTEM IN THE EUROPEAN UNION

The land registry systems at EU level vary between each Member States. What they have in common is performing services of registration, testing and storing of information about land and property, and making the information available to the public and to other interested clients (www.e-justice.europa.eu, 2015.).

There are two land registry networks at the EU level, the European Information Service land (EULIS) and the European Land Registry Association (ELRA).

European land information service (EULIS) is an Internet portal which provides access to the land registry in the European Union.

It allows business users to access information about land and real estates in Europe. The network EULIS and their land and real estate information are currently offered by six countries (Spain, Sweden, Netherlands, Ireland, Austria and Lithuania), members of the European Union, and other ten EU Member States are in various stages of connecting with the service EULIS. (www.eulis.eu, 2015.)

ELRA is a nonprofit organization which operates in accordance with Belgian law and it consists of 29 organizations that are representing national land registry of 22 European member states. The main purpose is Development and understanding the land registry role in the real estates and capital markets. The ELRA association's goal is developing of a pan-European understanding of issues that are of common interest and the creation of attentive forum and exchanging ideas network. Project goals of ELRA's association "CROBECO (cross-border electronic transfer)" and "ELRN (European Land Registry Network)" are an efficient use of information and communication technologies (IKT) for the purpose of information and cooperation in the land registry issues. (www.elra.info, 2015.)

In order to understand the topic that will be analyzed in the paper, it is necessary, besides the basic land registry characteristics in the EU, to show the basic characteristics of the system in the Republic of Croatia as well.

3. THE LAND REGISTRY SYSTEM IN CROATIA

Croatian system of real estate registering and related rights is based on two registers, the land registry guided by ordinary courts (municipal courts) and cadastre which are conducted by the state administration. The real estates which are in the cadastre are described by their technical characteristics, while the cadastral parcels data are joining with the data of the right holders.

Croatian system of real estate registry and related rights has many tasks, and the establishment of security in the legal system and protection of property rights registered in the registers are the most important ones. Thus, the cadastre and the land registry system are one of the basic

registers on which the legal state is founded. (www.e-justice.europa.eu, 2015.)

Since 2003, through the Ministry of Justice and the State Geodetic Administration the Croatian Government conducts national program of property registration and cadastre with abbreviated name Organized land. This program includes the overall activities carried out by the Ministry of Justice and State Geodetic Administration in order to modernize and regulate the situation of real estate registry in Croatia. Besides the regular activities and numerous bilateral projects, one of the important parts of the reform is the land registry system and cadastre, launched with the primary objective to build an efficient land administration system in order to contribute the development of efficient real estate market. (www.e-justice.europa.eu, 2015.)

The reform of land administration system created the conditions for the implementation of an registration property efficient system, within which is developed the Mutual information land registry system and cadastre (LIS), which aim is to establish a unique database and application for registering and maintenance of cadastral and land registers. Modernizing both systems (cadastre and registry) enables faster and easier process of registering real estates and related rights. (www.e-justice.europa.eu, 2015.)

Land registry reform is implemented through the development of "One Stop Shop" applications (OSS), which as part of the Mutual information land registry system and cadastre (LIS) is the establishment of a single cadastre database and land registry, thus a single application for registering and maintaining the data. "One Stop Shop" will provide a better, quicker and easier access to the land registry data and cadastre, leading to an improved level of quality and speed of service delivery, and accelerate the process of registration real estate changes, as a result of larger involvement of external key users. (www.e-justice.europa.eu, 2015.)

Procedure in land registry offices in the Republic of Croatia is regulated by the Land registry law and the internal structure and management regulation, conducting the land registry and performing other tasks in the land courts and other regulations as well. (www.e-justice.europa.eu, 2015.)

This presentation of system and ways of regulating the land registration system in the Republic of Croatia, is the foundation for further processing and understanding of presented topics.

4. ACQUIRING REAL ESTATE COMPANIES

As previously mentioned, the system of land registry in Croatia is regulated and prescribed by the Land registry law. According to the Land registry law (article 3), real rights on the land are entered in the land registry, and other rights as provided by law. Also, the land registry include other facts related to the legal transactions of the real property and it is considered that they reflect the real (factual and legal) state of the land (Article 8).

The company Aqua Alfa Ltd. Zagreb was established as a project company with the aim of investing in the purchase of real estate, and project development and construction of tourist and trading facilities on the acquired real estates. According to its company goal, company has bought several properties that presented the economic unit of the bankruptcy debtor, in the public auction at the Commercial Court in Split and Zagreb Commercial Court.

Although the real estates were awarded in 2007., the company could not assert their legal and property rights for many years, so it will be illustrated in this paper, on the example of one of the purchased real estate (part of cp 134/7) the influence of (in) efficiency of the land books system on the business of companies and decisions that must be made by management.

In the moment of the bankruptcy proceedings against the debtor Building construction engineering Ltd. bankrupt and on 29 June 2004, the real properties were registered as social property indicating that registered right in 1963 were used for the construction of the facility for the benefit of the legal predecessor Contractor Makarska. In order to protect the bankruptcy estate trustee took over the entire assets of the debtor, immediately after the opening of bankruptcy proceedings and he informed the Municipal court and the department of land registry Makarska. Although, the Commercial Court's decision to open bankruptcy proceedings has the effect as a decision of property

execution, and the record of that decision is entered in the land registry, but the land registry department of the Municipal Court in Makarska does not carry on with the decision, but on the contrary the decision is rejected(!?).

It is regulated by the law (professional article of the Commercial court in Zagreb-management of the estate and liquidation of assets of the debtor) that the land registration are allowed only against a person who was at the time of the submission proposal or the registration implementation, registered as the owner or holder of the rights, because of which the registration is requested or that at least they are registered at the same time or signed up. Furthermore, it is defined at the debtors` real estate sale must have a proof (land registry certificates) which shows that the debtor owns the property which is being sold in bankruptcy proceedings, or the documents which are confirming constant series without registration transfer.

In accordance with the law and the previous opinion of the Commercial Court, the assembly of debtor's creditors made a decision on the realization of the estate by selling the real estates. Therefore, based on the of creditor assembly decision (the Republic of Croatia represented by the County attorney's office Split is the largest creditor) and the conclusion of the Commercial Court in Split it was notified that real estate will sell and a date for the hearing. In order to access real estate sale, the debtor has found a subject of sale, in a way that he has made identification of the property, checked and performed all the necessary actions for land registry and secured the land register excerpts. At the hearing, y on October 9, 2007 purchaser AQUA Alfa Ltd. offered the purchase price that has been accepted in accordance with the published terms and which was paid by the company. After the purchase of the real property payment passed the ruling on adjudication (14.11.2007.), the number XIV St-568/04, which adjudicated the property company Aqua Alfa Ltd. Zagreb. The decision on the awarding became final on the 28/11/2007.

According to the the land registry law act (article 89) it is defined in relation to the treatment of real estate on the basis of the decision on the awarding. According to Article 89 of the Law "The judge who makes a decision about the buyer at the public auction (award ruling), shall order by his official duty, recording in the land registry". However, the competent municipal court has not completed registration of adjudicated

properties, even after a significant passage of time, nor in accordance with the legal regulations.

The reason of uncompleted registration is treatment of the land department of the Municipal court in Makarska, which is continuously that proposals for registration continuously refused, stating the reasons which are not based in law and reasons which have occurred precisely because of illegal and unprofessional conduct land registry department (implementation of application sheets after the opening of bankruptcy proceedings). At the moment of the decision from the 2007 award on the subject of land registry particles there were more active fillings which is according to the Article 101 of the first St OZ Split Commercial Court in point 2, the Decision on adjudication ordered the deletion of registered property rights of bankruptcy the debtor and all of the registered property rights of third parties in these real estates.

The purchaser of the Aqua Alfa company, has gained ownership based on validly decision of Split Commercial Court, so land registry registration has not got the constitutive than declaratory character.

The decision on the Commercial Court award, should have been registered in the land registry by the Land registry court by it's official duty, based on the final decision of awarding and the payment certificate with the purchase price, to transfer ownership of the property from the debtor to the customer. However, this wasn't carried out, even after eight years. Although the law prescribes that the decision of adjudgment will determine removing of rights and the burden on the property, which ceased by its sales, therefore the deleting by the official duty, land registry department of the Municipal Court in Makarska is acting contrary to the legal provisions, and after the decision on the award has become validly (10.12.2007.year) seals inscribed "begins" to solve urgently. (after 7-8 years).

The method and time of seals resolution shows that by the end of February 2008, the land registry department urgently "solved" the seals that would, among other things, on 27/2/2008 refused the request of the debtor to change the name of the debtor based on the certificate on privatization, the decision on the testimony of real estate solutions and Commercial court (Z-798/2002), and that on 20/03/2008 year it granted the request of individuals for changes on the individual awarded land registry particles.

By its inactivity (solving the seals even after 6 and more years), the land registry department has disabled bankruptcy debtor to protect the of the bankruptcy estate and creditors and with the implementation of application form which was submitted by individual, the land registry department has directly affected on the change of form and surface of some particles owned by the bankruptcy debtor, in a illegal and unprofessional way.

Although, the cooperation of courts should be constant in these procedures, so it could in one way protect the bankruptcy estate and bankruptcy creditors, and in other way it could protect the rights of purchaser and their business intentions, the cooperation wasn't carried out, on the contrary the Municipal court in Makarska and their land registry apartment did everything in order to obstruct this subject. After the above described illegal and unprofessional actions, the land registry department has refused to register the property of Aqua Alfa Zagreb purchaser, explaining that real estates surface identification does not correspond to the land registry status(!?).

During the subsequent procedures Building, Construction Engineering Ltd. bankrupt Makarska has, with the consent of creditors cooperated with property purchaser AQUA ALFA Ltd. so it could register its ownership and achieve the project goal, which among others, resulted by the adoption of Correction of solution award from since 26 November 2013, which became validly on 19 December 2013. Also, the bankruptcy manager, the bankruptcy judge and deputy of state's attorney has been informed by the purchaser, as after the Correction of solution the municipal court of Makarska still refuses to proceed with the ownership registry, which is all against the law and the court (the verdict of county court in Split Gžst-209/10 since 6th October 2011.), which, among other, states: „*In the situation process where the defendant has concluded a contract of the sale of disputed property in the bankruptcy proceedings and the contract has been completely realized, thus makes him the owner of ex lege, in accordance with the enforcement proceeding srules. This method of property rights acquisition is essentially originary because his right is not derived from the land registry predecessor rights.* "

5. THE INFLUENCE OF THE LAND REGISTRY SYSTEM IMPLEMENTATION ON BUSINESS EFFICIENCY – THE AQUA ALFA CASE

Non-registration of ownership has generated or resulted in negative consequences for the company Aqua Alfa Ltd. which has been confirmed by the statement of Commercial court of Split in November 2013 stating that "by the submission and attachments with the subject submitted to this Court by the Purchaser and received at the Court on 10 October 2013 and as well from the submissions of the Bankruptcy manager received of the Court on 07. and 26 November 2013, were asked to correct the above solution on adjudication of the Court of 14 November 2007, number: XIV-St-568/04, emphasising that, based on the land registry of the Municipal Court in Makarska conducted the application form, which followed after the adoption of the mentioned decision on the award of this Court, the differences in land and land registry appeared, because the certain properties specified in the decision on the award, because some properties has changed the shape and the area by their land divison, which alltogether disables the Purchaser of the Debtors properties in realisation of ownership registration of purchased real estates, and suffers damage as a economic entity, because it can not bring purchased real estates to their purpose, for which the were purchased in the first place. Because of this, they suggested the court to correct the decision on the award, in a way said in this statement.

This above shows how the Aqua Alfa Ltd. as a project company, financed from the owners and the bank credit funds because of the inefficiency and illegal actions of certain public authorities, hasn't provided the economic purpose for the purchased property. Also, it is evident that non-registration for purchased real estates ownership prevents the development of the planned projects (start of construction of the shopping center and hotel apart) which society is suffering great damage and which affects the overall operations of the company. Therefore, based on the Code of Civil Procedure (Article 186) to the competent county State Attorney's Association submitted a request for a settlement in order to identify all the negative financial and commercial effects for society Aqua Alfa Ltd. To initiate the conciliation procedure and determining the overall fact is still not finished.

Faced with the ineffectiveness and with the solution of the land registry department solutions, which are opposite of the legislation, the company management has together with the with the lawyers and other external associates in order to solve the relationship and the final registration of the purchased property, proved with their own activities the historical sequence of the acquirer, and documented the originals, as well as determined all legal actions that are performed by former acquirers of the company Aqua Alfa Ltd itself., that became an owner of real estate in Makarska, by the court court decision and contracts.

The special problem was the land registry parcel (134/7), registered in land register 1486.ko. Kotisina, which had a bigger surface than the one which is shown in Split`s commercial court decision and for which, by the insight in the land registry books has been established that it has been registered since 1963. as state ownership with the rights of predecessor debtor, whose assets were sold by the commercial court of Split and it is determined that since that period untill gaining ownership for Aqua Alfa company real estates with different legal actions, has changed more owners, thus the whole real estate didn`t enter the debtor`s capital during the privatisation process.

In order to avoid the subject real estate consideration as the real estate whose owner is Republic Croatia, considering the registered status and the fact that during the privatisation process, not on the debtor`s, whole documentation (1.) Split`s comercial court confirmation/ adjustment with the ZTD, (2. Act 2. Historical excerpt of Building, construction engineering Ltd. bankrupt 3.) Registration form of 22/10/2001, 4.) Self-management agreement 2/6/1989, 5.) Split`s Commercial Court decision, 6.) Value assessment of buildings, 7.) The bankruptcy meeting council records and decisions 30.01.1992., 8.) A public auction, 9.) Company assets sale agreement for crafts works "Crafts" Makarska, 10.) Three payment evidences, 11.) Conclusion of the bankruptcy proceedings decision, 12.) Historical excerpt of company Amphora Inc. Makarska bankrupt, 13.) Sale contract since 3/5/2001, 14.) Appendix of contract since 16.06.2001., 15.) Table declaration Amphora Maris Ltd. bankrupt, 16.) Historical excerpt from register of the Commercial Court in Zagreb for Amphora Maris doo bankrupt, 17.) Historical excerpt from the register of the Commercial Court in Zagreb for EUROBENZ Ltd. Plates Ltd., 18.) Historical excerpt from the register of the Commercial Court in Zagreb for Hermes Realty Ltd, 19.) The sale contract since

19/10/2000, 20.) Hermes Real Estate Ltd., table declaration 21.) Tabular declaration issued by the Building, Construction Engineering Ltd. bankrupt, 22.) Commercial Court of Split conclusion 10/6/2011, 23.) Agreement since 26/5/2011, 24.) Application Form 22/10/2011 according to decision of the CPF 15/12/2009, 25.) Access to the file Z-11/2003 resolved in 20/3/2008), and explanation of facts have been delivered to Regional state attorney in Split, who after analysing and verification, gave tabular statement to company, where ownership rights to register subject real estate are allowed.

Tabular documents is a seller's declaration which declares that a buyer received the full amount of the agreed purchase price, and land registry allows the transfer of title to the property that is the subject of the sales contract (www.mestarinfo.hr, 2015). The specificity of the tabular document issued by the District Attorney's Office in Split, is in the fact that it contains all the legal actions related to the subject real estate.

According to the registered data, the Municipal Court Makarska land registry registered subject property user the Contractor Makarska, whose legal successor is Building, Construction Engineering Ltd. Makarska (in bankruptcy). Historical series of legal individuals is established by the confirmation of the Commercial Court in Split to adjustment with Law on Commercial Companies (1995), and the historic excerpt for company Building, construction engineering Ltd. in bankruptcy, which was the seller of the property during the bankruptcy procedure.

The subject real estate is in real ownership of the Building company Makarska (now Building, construction engineering doo Makarska, in bankruptcy) was until 1989, when self-management agreement was concluded based on the Associated Labour Law, and the property belonged to the society Crafts Makarska ie. it's legal successor. In 1989, the company OOUR (associated labor basic organizations) Crafts Makarska, because of allocation and organising of the company "Crafts" crafts works with Makarska, quits working.

The bankruptcy procedure started against a debtor Crafts for crafts works Makarska and according to Commercial Court of Split's bankruptcy judge decision, the assessment of the buildings value, and administrative buildings, workshops - hangars, two warehouses and land were made. At the bankruptcy council meeting held in 1992. there a decision on the evaluation of an expert witness was accepted, and the

land registry relationship between Crafts for crafts works Makarska as the debtor and society Contractor Makarska was determined. Also at the same meeting, a decision on the total assets sale of the bankruptcy debtor Crafts for craftwork Makarska was accepted.

On the next council, held in March 1992, the decision on selling of the total assesment of bancruptcy debtor, Crafts for craftwork Makarska, was made, to the best offer Amfora s.p.o. Makarska. Therefore, between them a property selling contract was made. A buyer made a comittment to pay a complete amount, which he has done through three payments (available documentation in cort files) on the account of Crafts for craftwork Makarska that is in bancruptcy process.

The key for understanding in this part, is that at the moment of purchasing subject real estates in Amfora s.p.o. company, the process of conversion started in 1991 wasn't finished. That means that the described real estates in Crafts for craftworking Makarska in bancruptcy were acquired in payment in 1992. They couldn't be estimated as state's capital during the conversion of Amfora s.p.o Makarska in joint stock company Amfora d.d. Makarska., has already been registered in company's balance sheet as other assesments, acquired by regular business.

It could be determined that the assesment evaluation study of Amfora company included the property condition and comitments on 31/12/1991, while the conversion decision of Commercial court Split was made on the 30/12/1993.

It was previously essential for the facts and legal regulations that say that in the case of registration of real estate, which are registered as social property need to have a decision from the Croatian Privatisation Fund, that shows the properties entered in the company share capital that participated in the conversion. Croatian Privatization Fund is an institution established in 1992, in order to conduct the property privatization transferred to the Fund based on the conversion of state companies and assets owned by the Croatian Republic. Fund activities were focused on the conversion, privatization, restructuring, purchase, sale, and the establishment of enterprises and state property management in the companies in which the state had ownership interests. Fund stopped his activities in in 2011, and his role has been taken over by the Agency for State Property Management (AUDIO) (www.poslovni.hr, 2015).

In this case the management of the company Aqua Alfa Ltd., regardless of the awarding decision of the real estates could not get any further Croatian Privatisation Fund confirmation, therefore it was unable to include the property among other properties, that have entered into basic capital, because he had access to Amphora's information and the balance sheets since 31.12.1991. the year in which listed property was not clearly registered, because it was acquired in 1992. by payment. If it was, at the moment of the Commercial Court Split decision on company Amphora conversion's conclusion since 30.07.1993., taken into consideration year the real state of the company's business and changes which occurred during 1992 and 1993 it would be established that there has been material assets value increase (purchased real estates from the Crafts for crafts works Makarska in bankruptcy) and the Croatian Privatization Fund would issue the solution for all the property that were, at that moment in the company Amphora sp. Ownership. The failure of the Commercial Court of Split, and the Croatian Privatisation Fund, in fact the static observation of legal entity has led to all complications later, and to the realization of acquired rights impossibility, in relation to ownership of property.

The converted society Amphora dd, because of the market conditions, has experienced the fate of the bankruptcy process and bankruptcy proceedings against the debtor Amphora Inc. was launched in 2000. In the following 2001 year, there was a public auction at the Commercial Court Split, for the properties owned by Amphora Inc. in bankruptcy, and after the auction the agreement of real estate sale and movable properties of Amphora Ltd. Metkovic was concluded, Amphora Inc. (Seller) with the best offer, and company Amphora Ltd. Metkovic (purchaser). The Commercial Court of Split decision and signed Purchase Agreement of the Amphora Ltd. Metkovic, among other things, became the owner of the properties which Amphora sp. (Later Amphora Inc.) bought in bankruptcy proceedings of Crafts for crafts works Makarska bankruptcy. So, here as well, is the case where the Commercial Court of Split and the trustee, sold the property for which they had no land registry entry with the actual situation at the time of sale, by public auction. In this transaction there is a question of the seller's and as well, the acquirer's responsibility for the necessity of checking documents. With the concluded purchase agreement of Amphora Ltd. Metkovic has gained authorization for further land registry and state holdings change in the Land registry and geodetic

office, what didn't happen because the prepositions for registry didn't contain all the facts, and the legal link from the former owner-user to last acquirer.

The Amphora Ltd. Metkovic legal successor, has, during the time, become the company Amphora Maris d.o.o. Zagreb, which is also a subject of bankruptcy proceedings, and it has issued a tabular statement to the EUROBENZ Ltd. Ploče company (later Hermes Real Estate Ltd.), which entitles him as a owner of the real estates registration in the land registry, based on the Sale agreement of property and the payment.

The shape and size of the property acquired by Hermes Real Estate Ltd. is the result of the parcelling based on the application forms from 2001, which was implemented in the Land Registry of the Municipal Court in Makarska in 2008. Registration form, for the land registry is an integral part of parcelling and other studies, which show the state of land registry data in land registry insert, before preparing the survey and state data, that need to be established after the implementation of the study. (www.lemax.hr, 2015.)

With the signing of the Agreement between the Amphora d.o.o. bankrupt and Amphora Ltd. Metkovic, the authorization is acquired, for further land registry and change of state holdings at land registry and geodetic office. The relevant land registry parcels are registered in the cadastral, at the municipality Makarska - Makar (cadastral registry number 4326/3) and they are implemented in the Land Registry of the Municipal Court in Makarska, forming a new land registry parcel 134/7 with 2266m² surface but without changing the owner (still remains social ownership with the registered right for usage, in favor of the construction company Makarska) which showed a reported dispute on one real estate between several legal subjects, that have acquired property by the awarding decision in the various bankruptcy proceedings. Trying to solve its own problem in 2010, the Aqua Alfa Ltd. company is buying real estates and gets the tabular statement from the Society of Hermes Real Estate Ltd. which is registered as the legal successor company EUROBENZ Ltd.

At the land registry of Municipal Court Makarska, it is registered as the state property in favor of Building co Makarska, and that is evident by the documentation, that the property has changed more owners by payment, and the current legal successor of the construction company Makarska - Building, Construction Engineering Ltd. in bankruptcy, in

accordance with Commercial Court of Split conclusion, with the company Aqua Alfa Ltd. concluded an Agreement and issued a statement tabular-approval, which gives a consent to the company Aqua Alfa Ltd. to be registered as the property for all.

If we consider all this, it was evident that the Aqua Alfa Ltd. company, had basis for the acquisition of whole property ownership, since it was gained from the real owners. Therefore, according to the District Attorney's Office in Split tabular document and, as well as, in accordance with Article 41 of the Land Registration Law, which proposes the last acquirer to implement the registry transfer directly to it, because it proves constant series of acquisitions without registration, that are proposed to the Court for property registry.

With the above-described real estate, firm Aqua Alfa Ltd. had an additional problem for the land catasty 1834/1, Kotišina which was also gained by award decision of the Commercial Court in Split, during the debtor`s Building - Civil Engineering Ltd. bankrupcy assets sale, while in the Land Registry it was registered ownership of the Republic of Croatian, the stream, public water resources. In order to register ownership over property, the company has initiated a process with the Agricultural Ministry of the Republic of Croatian, and issued to establish a termination of public water resources in a common area. 1834/1 Kotišina, which is economic drive since 1963, and it is not a not stream in any case.

The company has proved, that during the conversion process, the particles 1834/1 were estimated as the basic capital in the conversion process of company, in favor of the Construction - Construction Engineering Ltd. Makarska company which led to the issuing of a Termination Decison of on public water property, followed by the conclusion of the County Attorney's Office in Split, with the company Aqua Alfa Ltd. Zagreb on 19th June 2013, concluded out of court settlement which allowed the registration of the ownership part of the property listed. Although the decision of Commercial Court in Split on adjudication XIV St-568/04 the specified particle 2007 was awarded to the company Aqua Alfa Ltd. (?), the additional effort, time and costs for registering a property on a land plot during 2015 was required.

Even though, the company Aqua Alfa Ltd. gained real estates, for the whole or for parts, with legal matters with the Republic of Croatia, or

through the documents issuance that were required by the Commercial Court Split (awarding decision, the correction of adjudication decision), the County State Attorney's Office Split (extrajudicial settlement, tabular statement, Correction of adjudication decision) Land registry officers refused to register the all property. It was only after a complaint, where the additional documentation was submitted, the land registry Municipal Judge of Makarska court, has conducted the registration of all properties that were gained legally with Republic Croatia.

5. CONCLUSION

At EU level, the land registry systems varies between certain Member States, but they have a common function, ie. the registration of tests and storage of information about land and property, and making tehse available available to the public and to other interested clients. In Croatia, the system of real estate registering and related rights, are conducted in order to establish security in the real estate legal system, and protecting the rights entered in the registers, where the cadastral and land registry present one of the legal order foundations. The basic legal act for regulating the activity of land registry department in the Republic of Croatia is the land registry law.

On the Aqua Alfa company example, it is shown how inefficient and non-transparent land registry system, but also unprofessional and illegal work, may adversely affect on the company's business. The Aqua Alfa Ltd. company has bought the property on auction, as a part of a debtor`s whole economy subject, and has paid the full purchase price, for it. After the payment, the competent court gave an adjudication decision of the real property, by which it became the property of the Aqua Alfa company. However, in the contrast to the Land registry law (Article 89), not evenafter a significant passage of time,it has not been implemented in the subject property registration in the land registry, *what made Aqua Alfa Ltd. impossible to achieve registration of property rights on purchased real estate, and they suffered extensive damage as an economic subject, because the purchased properties were not used for economic purpose, for which they had been bought.*

On the example of this property, we showed the influence of land registry system inefficiency on the company's business and on the management decision-making. The long period that has passed, since the final judgment to the ownership registration of the property, has resulted

with slowing down and not conducting the projects which were planned by the Aqua Alfa company and with generating unjustified costs, which prevented the company in achieving the positive business results.

REFERENCES

Business documentation of Aqua Alfa Company

Bankruptcy law, Republic of Croatia, Article 2,
available at: <http://www.zakon.hr/z/160/Ste%C4%8Dajni-zakon>

Bankruptcy law, Republic of Croatia, Article 4
available at: <http://www.zakon.hr/z/160/Ste%C4%8Dajni-zakon>

Municipal Court of Makarska- Land Registry

Simonetti, P. (1991), *The transition of real estates to social ownership during the time: restitution and transformation*, Zbornik Pravnog fakulteta Sveučilišta u Rijeci, Vol.28. No.1. Rijeka, Hrvatska

The bancruptcy procedure XIV St-568/04

The land registry law, Article 3
available at: <http://www.zakon.hr/z/103/Zakon-o-zemlji%C5%A1nim-knjigama>

The land registry law, Article 8,
available at: <http://www.zakon.hr/z/103/Zakon-o-zemlji%C5%A1nim-knjigama>

The land registry law, Article 89,
available at: <http://www.zakon.hr/z/103/Zakon-o-zemlji%C5%A1nim-knjigama>

Internet

www.e-justice.europa.eu

www.elra.info

www.eulis.eu

www.lemax.hr

www.mestarinfo.hr

www.poslovni.hr

CHAPTER 35

Yoji Koyama

Niigata University, Niigata, Japan

CROATIA'S CHALLENGES: CONVERSION OF ITS ECONOMIC DEVELOPMENT MODEL

ABSTRACT

The 2008 global financial crisis revealed the Croatian economy's vulnerability to the external shock. The share of tourism has been predominantly large in the service trade. A huge amount of deficit in merchandized trade balance has been compensated mainly by revenues from tourism and current transfer. Still the country had considerable amount of current account deficit every year. After the global financial crisis deficit in the current account was gradually decreasing and turned positive (1.3%) for the first time in 2013. Eventually the country will start its economic growth again, but as long as its industrial structure remains unchanged the country might fall into a critical situation again. This paper argues that it is necessary for Croatia to convert its economic development model to that of export-led economic development.

Keywords: Croatia, global financial crisis, balance of international payments, economic development model, manufacturing, industrial policy

JEL classification: O25, P52.

1. INTRODUCTION

Since 2000 seemingly the Croatian economy developed steadily with the inflow of abundant foreign capital. However, as it was the consumption-led economic development and gross external debt as a percentage of GDP was reaching nearly 100% the development model became nearly

unsustainable by mid-2000s¹. The 2008-2009 global financial crisis which hit this country and the subsequent recession revealed the Croatian economy's vulnerability to the external shock. Croatia was admitted to the European Union in July 2013. Indeed, it was a matter of congratulation and gave the Croatian people hopes of their brighter future. Nevertheless, the country could not escape from the prolonged recession yet. I think that eventually the country will start its economic growth again, but as long as its industrial structure remains unchanged it is likely that the country will fall into a critical situation again. This paper argues that it is necessary for Croatia to convert its economic development model to that of export-led economic development. I am aware that it is reckless to talk about the current condition of the Croatian economy in front of the Croatian audience. I do not intend to preach at them. Rather, I would like to say how problems facing Croatia are reflected in the eyes of East Asian people.

2. PROLONGED RECESSION

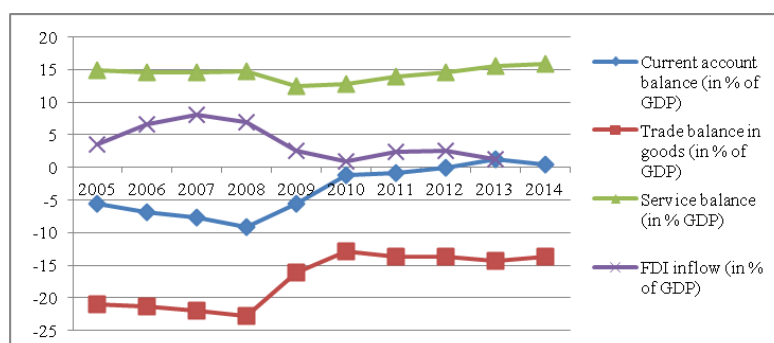
Since 2000, apparently the Croatian economy was steadily developing, but it was consumption-led economic development in the same way as with other countries in the Western Balkans. In Croatia domestic banks were acquired by foreign banks one after another from the end of the 1990s through 2003. Now they account for about 90% of the total assets of the banking sector. Foreign-owned banks stimulated the expansion of private consumption. Along with "Kuna credits not indexed foreign currency", "Kuna credits indexed to foreign currency" – their interest rates are cheaper – are prevalent. At the same time, foreign currency deposits have also become widespread. That is why people regard the Croatian economy to be Euro-ized. While a part of the financial inflow was in the FDI, external borrowing increased rapidly with the intermediation by foreign banks. Much of the external flows went into consumption and non-tradable sectors (construction, real estate, and wholesale and retail trade), feeding into higher imports (IMF, 2009:6).

¹ The World Bank Development Finance report of 2005 demoted Croatia to a "severely indebted middle-income country" from a "moderately indebted middle-income country". The World Bank criterion for a country being "severely indebted" is that either the debt to GDP ratio is above 80% or that the ratio of debt to exports of goods and services is above 220%. Either condition is sufficient. The case of Croatia corresponds to the former (Vidovic and Gligorov, 2006: 23).

However, these countries were hit by the global financial crisis in 2008. The cross-border flow of funds has suddenly stopped and the direction of the flow has been reversed. In Croatia the GDP growth rate turned negative (-6.9%) in 2009. Since then the GDP has been recording negative growth for five consecutive years with its size contracting to 90% of the 2008 level in 2013. It is reported that the growth rate in 2014 was -0.5%. Croatia was only one country which recorded negative economic growth in the East European EU member states in 2014. It is forecast that the growth rate will turn positive only in 2015. The reasons for the prolonged recession have been subdued domestic demand, a sharp decrease in FDI, a slump in exports due to the economic crises in main trade partners (especially Italy), etc. The unemployment rate increased from 8.3% to 16.6% in 2013. The employment rate for people between 20 and 64 years old is about 55%, the lowest next to Greece in the EU member states. In the prolonged recession the budgetary revenue has decreased and at the same time social expenditures have increased, expanding the budget deficit. The budget deficit in 2013 was 5.4% of GDP, well above the reference value of the Maastricht convergence criteria. The European Council opened the Excessive Deficit Procedure for Croatia on January 28, 2013 and recommended it to correct the excessive deficit by 2016. In addition, in March 2014 the European Commission concluded that Croatia was experiencing Excessive Macroeconomic Imbalances. In June 2014 the European Council issued the country-specific recommendations to Croatia. The identified imbalances are risks stemming from high external liabilities, declining export performance, highly leveraged firms and fast increasing general government debt (The European Commission, 2015). In this way, Croatia has been imposed many restrictions on its future development.

Croatia has continuously recorded a deficit in goods trade with export/import ratio being around 50%. Its trade balance deficit reached over 20% of the GDP (22.0% in 2007 and 22.8% in 2008). Looking at the breakdown of the current account, although a huge amount of deficit in goods trade has been substantially covered by surplus in service trade, the current account as a whole recorded a deficit. The share of tourism has been predominantly large in the service trade. In this way a huge amount of deficit in merchandized trade balance has been compensated mainly by revenues from travel (tourism) and current transfer. Still the country recorded considerable amount of current account deficits every year, with it reaching 9.2% of GDP in 2008.

Figure 1 Balance of Payment 2005-2014, Components as a percentage of GDP



Source: The author's own calculation based on data from the Croatian National Bank

After the global financial crisis the current account deficit has been gradually decreasing and it turned positive (1.3% of GDP) for the first time in 2013. One of the main reasons is that imports have gradually been decreasing every year due to a prolonged decrease in demands. However, the surplus in the current account is considered only temporary. As long as the industrial structure remains unchanged, if the economy begins to grow the trade deficit would expand, resulting in an increasing current account deficit. Croatia has the Adriatic coast, a place of scenic beauty with a temperate climate. Its main industries are tourism and marine transportation. One of leading manufacturing industries is shipbuilding. In this regard, it can be said that the country has an industrial structure quite similar to that of Greece. If Croatia continues to depend heavily on tourism, someday the country might face the danger of becoming a second Greece. In order to avoid such a danger, it is very important for the country to develop manufacturing industries.

3. CHARACTERISTICS OF FOREIGN TRADE

In 2005 food and feed, agricultural raw materials, and ore and metals accounted for 10.5%, 3.4% and 3.8% of total Croatian exports respectively. The share of fuels in total exports was rather high and increased from 9.2% in 1996 to 13.9% in 2005. All manufactured products accounted for about 70% (72.4% in 1996 and 68.2% in 2005) of the total exports (Kathuria, ed., 2008: 40). Let us now focus our discussion on foreign trade in manufacturing. Buturac (2009) analyzes

the structure of exports and imports of the Croatian manufacturing during the period 1993-2007. According to him, in 2007 manufacturing of other transport equipment (mostly shipbuilding) had the highest share in total manufacturing exports of (12.6%), followed by manufacture of coal, refined petroleum products (10.7%), manufacture of chemicals and chemical products (9.7%), manufacture of machinery and equipment n.e.c. (8.3%) and manufacture of food products and beverages (8.1%). In the same year the highest shares in total imports were occupied by the three sectors of manufacturing: manufacture of chemicals and chemical products (11.9%), manufacture of machinery and equipment (11.8%) and manufacture of motor vehicles, trailers and semi-trailers (10.8%). These sectors accounted for one-third of total manufacturing imports.

Looking at changes in export structure from 1993 to 2007, the greatest changes were recorded by manufacture of clothing. The share of this activity of the total export of manufacturing decreased by 13.7 percentage points from 17.3% in 1993 to 3.5% in 2007. The reason for a sharp decline in exports of clothing is that Croatia could not compete with Asian countries which were increasing their exports with cheaper wages as a weapon (see Koyama, 2013). Next to the manufacture of clothing tanning and dressing of leather and manufacture of luggage, and the manufacture of chemicals and chemical products decreased significantly during the same period by 4.0 percentage points and 3.3 percentage points respectively. It is manufacture of other transport equipment that greatly increased its share in the total manufacturing exports during the same period. This activity increased its share by 8.9 percentage points, followed by manufacture of machinery and equipment n.e.c. (4.8 percentage points). In imports, tanning and dressing of leather and manufacturing of luggage greatly decreased its share by 10.1 percentage points (Buturac, 2009:441-443).

4. CASE OF SHIPBUILDING INDUSTRY

The reason why I pay attention to shipbuilding industry is that this industry has been playing a leading role in the development of manufacturing. This industry has a long tradition since the period of the Austro-Hungarian Empire's rule. During the period of the former Yugoslav era, Croatia had 80-90% of the total production capacity of the whole shipbuilding industry. In the world shipbuilding deliveries, in 1989 former Yugoslavia recorded 503, 000 GT (Gross tons), occupying

fourth place with its share being 3.5% (Japan occupied first place, followed by South Korea and Germany). In 2008 Croatia recorded 617,000GT, occupying fourth place in Europe (Germany occupied the first place, followed by Italy and Poland), but its share in world deliveries was only 0.9% in 2009, Croatia's ranking dropped to the fifth place in Europe with its deliveries amounting to 412,000 GT (its share being 0.5%) and it was even surpassed by Romania which had a short history in this area and made rapid progress in recent years with cheaper labor costs as a weapon. Still shipbuilding is very important industry which earns 5% of the GDP and it accounts for more than 11% of total exports of the country (Buturac et.al, 2009:683). It employs 12,000 workers, and it is estimated that a further 35,000 jobs are directly linked to the industry. There are six shipyards, of which only Uljanik (Pula) shipyard is profitable. This shipyard has been oriented to produce ships for special purpose and has been realizing positive results with a high level of technological development and rationalization of the number of employees (Kersan-Skabic, 2009:386). The remaining shipyards are loss-making and continue their operations under the support of the government's subsidy. The EU prohibits vertical support to specific industries. For example, two Polish shipyards (Gdynia and Szczecin) were instructed by the European Commission to return subsidies which they have received from the government even after the Polish accession to the EU. As exemplified by this important precedent, this policy has been very strict.

Accession negotiations with the EU began in October 2005, and finally in June 2011 the negotiations were closed. Privatization of shipyards was a precondition for opening the negotiations about market competition. In December 9, 2011 the Treaty of Croatia's Accession to the European Union (European Council, 2011) was signed by Croatia and the EU member states. The Republic of Croatia's pledge to restructure shipbuilding industry was included in the Treaty as Annex VIII. The content can be summarized as follows: Croatia agreed to carry out restructuring of shipbuilding companies by privatizing them on the basis of competitive tenders. All state aid received by these companies since March 1, 2006 was required to be counted as restructuring aid. The overall production capacity of the companies would be reduced by 21% compared with the levels of June 1, 2011. The companies should not receive any new rescue or restructuring aid until at least 10 years have elapsed since the date of signature of the privatization contract. The

European Commission should order Croatia to recover any rescue or restructuring aid granted in breach of this provision, with compound interest. The European Commission should closely monitor the implementation of the restructuring plans and compliance with the conditions set out in this Annex and would receive six-monthly reports from Croatia until the end of 2020. In this way, with the EU accession the production capacity of the Croatian shipbuilding industry has been limited. The country can no longer attain economic development relying entirely on the shipbuilding industry. Currently, however, the privatization of this industry has not been finished. The government continues minimum restructuring aid to this industry. As the production and the export decreased recently, for the time being there still remains a scope to increase its production within the above-mentioned limit.

5. DECLINING INTERNATIONAL COMPETITIVENESS

According to Vidovic and Gligorov (2004), Croatian manufacturing exports to the EU increased only moderately between 1995 and 2002, and Croatia's market share of the EU market (excluding intra-EU trade) declined significantly from 0.42% to 0.29%. This means the international competitiveness of Croatian manufacturing has fallen. There are several contributory factors. First, due to insufficient investment in manufacturing its technology has been lagging behind that of other countries, especially East Asian countries. Second, due to ongoing globalization, products made in East Asian countries have been increasingly flowing into European markets. It is noteworthy that the unit labor cost in Croatia is not only the highest of all the countries in the Western Balkans but also higher than even some new EU member states such as Bulgaria, Hungary and Poland (see Table 1). Third, as many economists point out, the exchange rate has been too high. The exchange rate regime in this country is officially said to be managed floating, but it is in practice very close to Euro peg. The practically fixed exchange rate has reduced borrowing risk. Jurcic says that the stability of exchange rate as an instrument has become an objective by itself (Jurcic, 2009: 747).

Table 1 Unit Labor Costs in the Western Balkans

	2008	2009	2010	2011	2012
Albania	33.4	30.8	28.1	28.7	29.4
Croatia	53.3	53.3	52.6	50.5	48.3
Bosnia	42.8	43.3	42.8	42.6	42.1
Macedonia	33.2	37.5	37.0	36.7	36.0
Montenegro	48.0	49.2	52.4	47.9	47.8
Serbia	52.7	40.0	35.7	36.8	35.3
Reference					
Bulgaria	24.5	26.4	26.3	27.1	28.5
Hungary	40.8	38.2	37.0	37.8	38.4
Poland	50.4	40.2	43.9	43.2	40.8

PPP adjusted. Austria = 100.

Source: Gligorov, *et al.* (2013): 141-146.

If transition countries such as Croatia are prohibited from using tariffs to protect their own industries, then there seems to be no way for them to protect themselves other than devaluation. In its recent issues *Emerging Europe Monitor* has often mentioned the necessity for devaluation of Kuna. However, there are circumstances which have prevented the government from the devaluation of the national currency. Nine-tenths of loans to households and three quarters of loans to enterprises are denominated in foreign currencies. If Kuna is devalued the amount of their foreign currency loans calculated in national currency (Kuna) would increase. In this regard Croatia's position is similar to the dilemma which Latvia faced in 2009. Instead of (external) devaluation of the national currency (Lat), Latvia has chosen "internal devaluation", i.e. to curtail wages and pensions and decrease unit labor costs. In the same way, "the *Economic Recovery Program*", which the coalition government led by the Croatian Democratic Alliance (HDZ) announced in April 2010, proposed "internal devaluation" without mentioning this term. The proposal to decrease the number of workers in the public sector by 5% and to decrease the total payroll of workers in the public sector by 10% seems to be a reflection of the government's intention of doing "internal devaluation". As a matter of course, however, this policy was unpopular. If it is too difficult for the government to devalue, either externally or internally, its national currency, there would be no way other than the adoption of industrial policy by the government for restructuring and activation of the economy. This is a tool that has been

utilized by East Asian countries in the process of catching-up with advanced industrial countries (see Koyama, 2015, Chapter 1).

6. IMPORTANCE OF INDUSTRIAL POLICY

In its introductory part, the *Economic Recovery Program* emphasized that while creating a stimulatory entrepreneurial environment by its activities the state could only promote economic development and that it could not replace private initiatives and possibilities, and appealed to the public, saying “we have to change our conception and habit”. This message was quite natural, but it seems that the HDZ government was not active enough in tackling difficult economic challenges as the *Program* stressed that state intervention in the economy should be decreased. As for short-term policy measures, the *Program* proposed fiscal consolidation and rationalization of public administration, and there was nothing new. According to the *Program*, investment projects shall be stimulated with emphasis on (i) energy (renewable energy is attached importance), (ii) protection of the environment, (iii) education and health, (iv) agriculture and irrigation, and (v) infrastructure. In description of a new investment cycle, the *Program* mentioned only private capital and financial resources from the EU funds, etc., as well as FDI and lacks concrete explanation. If we take into account the fact that the accumulated national debt amounts to 60% of the GDP and the government has to rely on financing through the international financial market for about a half of the total treasury bills, it would be understandable that the government cannot rely on funds from the budget. Still, there remains an impression that industrial policy which the *Program* proposed is unsatisfactory. The *Economic Recovery Program* was a program adopted as one of emergency measures, and it was thrown away when the HDZ government was defeated in the elections in December 2011.

The newly-formed coalition government led by Social Democratic Party announced “*Plan 21*”, which has been updated every year. According to its latest version which was published two years after the formation of the government (Kukuriku Koalicija, 2013), it aims at consolidation of the state public finance and restructuring and rationalization of the state and public sector and at the same time it aims at enforcement of measures for recovery and new growth of the economy. It seems that the government has been more positive toward “interventionist measures” in

the economy compared with the HDZ government. In order to decrease the public debt within a short time the government intends to sell majority share which the government possesses (for example, the Croatian Insurance) or to enforce concession of part of the state asset.

With the EU accession, Croatia has become able to receive financial support through Structural Funds, Cohesion Fund and the Common Agricultural Policy. It is forecast that the sum will increase year by year, amounting to 3.5% of GDP after 2018 and that Croatia will have the inflow of funds equivalent to 2.5% of GDP even after deducting Croatia's contribution to the EU budget (IMF, 2014). *Plan 21* stresses that while the government will invest in infrastructure actively using funds of the EU it will stimulate investment in the economy by both foreign and domestic investors. However, when we take into account that FDI inflow has not increased at all in recent years the improvement of business climate might be greatly needed as *Emerging Europe Monitor* often points out. It seems that the present government has been more positive toward the industrial policy by the government compared with the previous government. Long-term economic development requires a substantial increase in investment in R&D, but *Plan 21* does not mention it at all. I think that in spite of the severe fiscal constraint more active industrial policy will be needed.

Ken'ichi Ohno (2013), a Japanese specialist of Development Economics, enumerates areas of the standard menus for the reinforcement of industrial ability: (1) framework on legislation and policy-making; (2) training of capable persons for industry (education and training); (3) reinforcement of enterprises (management and technology); (4) funding; (5) invitation of FDI; (6) marketing and inter-companies cooperation; and (7) innovation. In addition to these, maintenance and upgrading of infrastructure, transportation and physical distribution, appropriate measures for social and environment issues and comprehensive regional development are enumerated. He emphasizes that none of the enumerated policies is in breach of international rules such as the WTO, FTA and EPA (Economic Partnership Agreement). According to him, it is preferential treatment for domestic products and domestic producers compared with imported products and foreign enterprises that the WTO prohibits (Ohno, 2013:88).

The country will be required to make full use of technologies and skills already developed in the shipbuilding and related industries for new areas of manufacturing. As we have seen, labor costs in Croatia have already been substantially high, and consequently, it is very difficult of Croatia to compete with Asian countries in the area of labor-intensive industries. In the long run it will be necessary for this country to bring up and develop new areas of more technology-intensive and knowledge-based manufacturing industry. Currently I have no idea about how new areas of manufacturing will take shape. They will be found by Croatian entrepreneurs in practice. In the long run it will be also necessary to put more emphasis on enhancing the people's levels of education and skills in preparation for the near area of more technology-intensive and knowledge-based manufacturing industry.

I think that another industry which has big potential is physical distribution. In his interview with a Japanese reporter, President of the Republic at that time Josipovic expressed a policy to develop Croatia as a distribution center which would connect Asia and Europe (*Nihon Keizai Shimbun*, October 16, 2010). It seems difficult to believe that FDI from the EU member states will increase significantly, taking into account the ongoing credit insecurity in the Eurozone. Rather, Arabic and Asian countries might be more promising investors on the ground of its geographical location. Croatia's excellent sea ports (especially Rijeka) on the Adriatic coast could offer attractive conduits to land-locked neighbors such as Bosnia and Herzegovina, Hungary, the Czech Republic, Slovakia and Austria. If port, railway and road infrastructure is improved, it might be possible for Croatia to play an increasingly important role in transit trade between these countries and Middle East and Asian countries, thereby accelerating economic development.

7. CONCLUSION

I will summarize my argument. First, eventually Croatia will start its economic growth again, but as long as its industrial structure remains unchanged it is likely that the country will fall into a critical situation again. It is necessary for the country to convert its economic development model to that of export-led economic development. The state has many things to do in the economy in the process of the conversion. Second, Croatia is required to improve the export competitiveness of manufacturing industries. The country will be

required to make full use of technologies and skills developed so far in the shipbuilding industry and related industry for new areas of more technology-intensive and knowledge-based industries. Third, if port, railway and road infrastructure is improved, it might be possible for Croatia to play an increasingly important role in transit trade between land-locked neighboring countries and Middle East and Asian countries, thereby accelerating the country's economic development.

REFERENCES

Buturac, Goran (2009), *Structural Characteristics of Exports and Imports of Croatian Manufacturing*, *Ekonomski Pregled*, Godina 60, Broj 9-10.

Buturac, Goran, Edo Rajh and Ivan Teodorovic (2009), *Hrvatsko Gospodarstvo u Svijetlu Globalne Recesije*, *Hrvatsko Gosdarstvo u Svijetlu Globalne Recesije*, *Ekonomski Plegled*, Godina 60, Broj 12.

Emerging Europe Monitor: South East Europe, London: Business Monitor International.

European Commission (2015), Country Report Croatia 2015 including an In-Depth Review on the Prevention and Correction of Macroeconomic Imbalances, http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_croatia_en.pdf [accessed on April 9, 2015].

Gligorov, Vladimir, *et.al.* (2013), *Animal Spirits still Dimmed: Slow Recovery Expected, Current Analyses and Forecasts 12*, Vienna: wiiw.

IMF (2009), Republic of Croatia: 2009 Article IV Consultation – Staff Report; Publication Information Notice on the Executive Board Discussion; and Statement by the Executive Director for the Republic of Croatia, IMF Country Report No. 09/185, <http://www.imf.org/external/pubs/ft/scr/cr09185.pdf> [accessed on February 26, 2011]

IMF (2014), Republic of Croatia: 2014 Article IV Consultation – Staff Report; Press Release and Statement by the Executive Director for the Republic of Croatia, IMF Country Report No.14/124,

<http://www.imf.org/external/pubs/cat./longress.aspx?sk=41565.0>
[accessed on June 16, 2014]

Jurcic, Ljubo (2009), Hrvatska: Velika Transformacija (Uvodno izlaganje i poruke Savjetovanja), 17. Tradicionalno Opatijsko Savjetovanje Hrvatskih Ekonomista, Ekonomski Pregled, Godina 60, Broj 12, pp. 738-753.

Kathuria, Sanjay (ed.) (2008), *Western Balkan Integration and the EU : An Agenda for Trade and Growth*, World Bank.

Kersan-Skabic, I. (2009), *Brodogradnja u Europskoj Uniji i Hrvatskoj – Realnost i Izazovi*, *Ekonomska Misao Praksa*, God XVIII, Broj 2.

Koyama, Yoji (2013), *Crisis in Transitioning Countries*, Chapter 3 of Rosefielde, Kubonia and Mizobata (eds.), *Prevention and Crisis Management: Lessons for Asia from the 2008 Crisis*, Singapore: World Scientific.

Koyama, Yoji (2015), *The EU's Eastward Enlargement: Central and Eastern Europe's Strategies for Development*, Singapore: World Scientific.

Kukuriku Koalicija (2013), *Pola puta: Pregled ostvarenog is Plan 21 u prvoj polovici mandata Vlade RH*, <http://www.kukuriku.org>. [accessed on April 11, 2015]/

Nihon Keizai Shimbun [Japanese Economic Newspaper], Tokyo.

Vidovic, Hermine and Vladimir Gligorov (2004), Croatia's Delayed Transition: Competitiveness and Economic Challenges, *wiiw Research Reports*, No. 304.

Vidovic, Hermine and Vladimir Gligorov (2006), Croatia: Growth Slowdown and Policy Alternatives, *wiiw Research Reports*, No. 324.

Vlada Republike Hrvatske (2010), Program Gospodarskog Oporavka, http://vlada.hr/en/naslovnica/novosti_i_najave/2010/travanj/predsjednica_vlade_predstvila_program_gospodarskog_oporavka [accessed on May 5, 2010]

CHAPTER 36

Verica Budimir

Polytechnics in Požega, Požega, Croatia

Ivana Dražić Lutitsky

Faculty of Economics and Business, Zagreb, Croatia

Svjetlana Letinić

Polytechnics in Požega, Požega, Croatia

PERFORMANCE INDICATORS DEVELOPMENT IN FUNCTION OF CROATIAN'S HOSPITALS EFFICIENCY AND QUALITY MONITORING¹

ABSTRACT

The aim of this paper is to explore issues of hospital's performance indicators development in Croatia. Accepted standards and regulations require defining of key performance and quality indicators of healthcare organizations. Performance indicators are defined at the sector level. Healthcare organizations are obligated to measure and track performance in accordance with the standards of quality assurance in health care and defined strategic objectives. Tracking performance is important for financing of healthcare organizations and performance monitoring of selected institution's program goals and healthcare system in general. For hospitals, it is important to monitor and improve the quality. For that purposes they need to develop adequate and comparable performance indicators. In order to create comparable indicators it is necessary to conduct a detailed analysis of performance measurement of related hospitals in Croatia and Europe. The basis for performance measurement is information that institution owns, acquires and processes. In order to be relevant, indicators need quality information basis for their measurement. This paper analyzes the current performance indicators of selected Croatian and European

¹ This work has been supported in part by Croatian Science Foundation's funding of the project 8509 Accounting and financial reporting reform as a means for strengthening the development of efficient public sector financial management in Croatia. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of Croatian Science Foundation.

hospitals' performance measurement models. Based on the analysis, as the result of work, we propose indicators for one hospital in Croatia. Authors propose a methodology for development of indicators, as well as a way of measuring and monitoring performance. Through a case study, we explore the use of performance indicators in monitoring and improving the quality of hospitals. Special emphasis has been placed on the role of performance indicators in the financing of health care institutions, and mutual comparison of hospitals as the basis for the development and improvement of the institution's quality.

Key words: Performance indicators, efficiency, quality, hospitals

JEL classification: M48, I18

1. INTRODUCTION

Services of health care institutions people use for a number of reasons: to treat or prevent disease, reduce pain, increase quality of life or just for information's on the health status and opportunities offered to them. The development of technology and society as a whole and the general increase in awareness of the importance of quality in health care for the welfare of people placed in front of the health care system a number of challenges in different activities. Patients are being better informed about possibilities in the health care system and become actively involved in medical processes. Health care institutions, globally, more and more are under pressure to provide more and better, often expensive service (Bosa & ATHAUS; 2014). Health care costs are growing (OECD, 2014, CIHI; 2014B, 13), and the need for responsible management operations of health care institutions increases (Shaw, 2004, 7, Johnson, et al.; 2006, 423). While medicine and technology have advanced rapidly in the past period, a system for the provision of health services are often not able to provide a consistently high quality of health care to all users (Bango, et al .; 2006, 4). At the same time increase in the quality of service, reduce costs, improve performance and increase customer satisfaction, become major challenges to the health care system today (AHA Board of Trustees; 1999, 2, Dubnicka; 2005, 380). Management of health care institutions in these conditions is extremely complex and demanding. Managers of health care institutions need to responsibly pursue goals by taking care of quality, performance and availability of services and information to all interested stakeholders (Reginato, et al .; 2011, 382).

The financing of the health care system can be private or public. Public financing of state provides health care for all or most of the population (European countries, Australia, Canada) through the national health care insurance (Kovačić, 2013, 552). Private financing means that individual self-paid for the health care. Public spending on health care in Croatia is about 7% of GDP per year (WHO, 2015) which belongs to the group of countries with the highest health spending in Europe (Dye; 2013, 83). Private funds only cover 16% of health care costs (Barić & Smolić; 2011, 48). Given the level of public expenditure on health and the needs of users that are considerably larger than the limited budgetary possibilities, it has developed the need for responsible and efficient management of health care institutions. The complexity of the health care system, the differing interests of stakeholders and a number of internal and external constraints thereby aggravating effect on the decision-making process (Smith et al .; 2008, 1).

For successful decision-making, public managers of health care institutions should more strongly rely on entrepreneurial business principles, performance measurement and monitoring costs (Soares et al .; 2014, the AHA Board of Trustees; 1999, 11, Martinez; 2001, 10). Under the concept of performance measurement in health care system there is monitoring, evaluation and providing information in the extent to which different aspects of the health care system meet their key objectives (Smith, 2008, 2). Measuring ranges vary depending on the objectives, the information needed for stakeholders but also development opportunities of the health care system and the state as whole. The most common include the area of quality, efficiency, satisfaction and finance (Nerenz; 2001, 6-9). As a tool for measuring and monitoring performance it is common to use performance indicators. The selection and definition of indicators is a complex process dependent in internal (development institutions, strategies, availability of data) and external (users, the default standards of quality, comparability, the development of the health system, etc.) factors.

2. THE ROLE OF PERFORMANCE MEASUREMENT IN MONITORING THE QUALITY OF THE HEALTH CARE SYSTEM

The first performance measurement in health care system occurs before 250 years (McIntyre, 2001, 9). However, the full development and implementation of performance measurement has began in the last 25 years. The reasons for this are numerous: cost containment needs, informing users about their options and choices, control, accountability and quality of individuals and institutions, advances in technology that allows easier collection and dissemination of information (Smith, 2005, 3). In today's health care system, performance measurement is of utmost importance in the processes of quality assurance and monitoring efficiency.

Differences in the quality of medical procedures and results in similar institutions have created the need to ensure efficient, effective, equally high quality and equally accessible health care in all health care sectors, at all levels of health care in the country (NCQA; 2015, 6, Law on Health Care Quality ; 2011, Article 6). Taking care of assurance and improvement of health care quality is leaded by the body established in the country (Croatia Agency for Quality and Accreditation in health and social care) and at international level (OECD, WHO). Quality assurance is a set of activities carried out in accordance with the standards, in order to monitor and improve performance and ensure maximum efficiency and safety of health care services provided (Brown, 1998, 12). The quality of the health care system is usually measured through several dimensions: effectiveness, safety, responsibility, accessibility, fairness and efficiency (Kelley & Hurst, 2006, 13). The success of achieving the set goals and set standards for quality is measured by performance indicators (quality).

According to Donabedian (1988, 1745) conclusions about the quality of the health care system can be obtained on the basis of information classified into three groups:

- Structure: characteristics associated with the setting in which the health care system operates, such as material (eg. building, equipment, finance) and human resources (eg. by qualified personnel) and organizational structure (eg. the organization of medical staff).

- Process: highlights actions taken in providing (by patients who receive services) and receiving (by trained personnel who makes a diagnosis and determines therapy) health services.
- The result (outcome): indicates the effects that the service provided has on the health of the patient and the general public (eg. patient satisfaction, increase public knowledge).

Given the importance and complexity of the health care system, interests of stakeholders are strongly influenced by the establishment of a system for performance measurement and definition of indicators. Individuals and organizations to which the health care system affects or interests them there is a lot: providers and financiers of health services, public and individual patients, interest associations, regulators, policy-makers, employees, media (AHA Board of Trustees; 1999, 3, Donabedian; 1988, 1744). Their interests are different, and often conflicting. Solberg et al. (1997) points out that it is necessary to distinguish between performance measurement for the purpose of improving health care services, research and accountability to users. To successfully establish a system of performance measurement is therefore important to distinguish: who and what activities we want to evaluate and what we want to achieve these activities (strategies), which quality standards to be achieved and which data are available (Donabedian; 1988, 1745, Loeb, 2004, i7).

Constant and rapid changes in the environment, followed by the processes of globalization and the growth of competition and limited resources extremely complicate decision-making processes in health care sector. Research shows that currently the biggest problems create financial challenges to the health managers (efficient allocation of resources, a revenue cycle, finding new sources of financing, etc.), or the need for balance between health and financial goals (to improve financial performance without compromising on quality of service) (Gabenski & Pink; 2007, 8). In order to successfully respond to the challenges, health care institutions are introducing strategic planning and business management. For making quality strategic decisions managers of health facilities requires sound financial and non-financial information.

At national level, however, one of the key budget issues is the choice of models for financing health care. In European Union countries healthcare is financed through public (social security contributions and / or taxes) and private (private insurance and / or pay-per-provided

service) mechanisms. Funds raised in the budget, health care institutions are awarded through contracts concluded between the national centre for social security and health care institutions or transfer via regional (local) authorities. Methods of financing health care also differ in the European countries. Prospective methods based on a defined budget include salaries and capitation per patient. Retrospective methods based on commission for health care services are in the form of fees for the service or payment per case (Thomson et al.; 2009, 41). The disadvantage of these methods is poor transparency between the funding and activities. Therefore, in the last 10 years the main mechanism of payments in European hospitals became ABC method (Dražić Lutilsky; 2014, 108). The funding system based on activities increases efficiency, improves service quality and transparency of funding covers the costs and establish a connection with the activities of the services (O'Reilly et al.; 2012, 78). The application of the ABC method creates a useful baseline for measuring the financial performance of healthcare organizations. Type of allocation of budgetary resources affects the efficiency of the organization of health services, their availability and quality, enables cost control and financial sustainability of the system as a whole.

3. ANALYSIS OF THE RELEVANT MODELS FOR PERFORMANCE MEASUREMENT HOSPITAL

The success is a term that is often mentioned in the health care system in recent years. Since the mission of hospitals related to the provision of specific health care services that can solve the health problems of patients (efficiency) in the best possible way (quality) and at the lowest cost (efficiency), the performance actually measure their achievement (Barliba et al. ; 2012, 1) . But success is not unique concept and it is not easily measured.

In order to define the model for performance measurement applicable to the hospital that operates in Croatia, in accordance with international standards, the authors have explored the existing models in the environment. The results showed that there are many models applicable at the sector and institutional level. Since the characteristics of some models overlap, relevant is rated 10 models that are presented in Table 1. For each model it is provided: relevance area - a sector (international/

national) or institutional, area measurements, which includes examples and performance indicators.

Table 1 Models for hospital performance measurement

Source	Model	Field of measurement	Performance indicators
<i>OECD (Kelley & Hurst; 2006, 15)</i>	Health Care Quality Indicators (HCQI) - internationally	Quality: Effectiveness, Safety, Responsiveness / Patient centeredness Access: Accessibility Cost/expenditure	Structure indicators: inputs (such as whether doctors are suitably qualified and whether hospitals are appropriately equipped) Process indicators: delivery of appropriate (or inappropriate) health care (such as whether children are immunized appropriately, or at risk patients' blood pressure is checked regularly by a physician) Outcome indicators: health improvements (such as rates of hospital-acquired infections or rates of 1 year survival following acute myocardial infarction)
<i>Cercone & O'Brien; 2010, 31</i>	World Health Organization - Performance Assessment Tool for Quality Improvement in Hospitals (PATH) - internationally	Clinical effectiveness and safety Patient centeredness Production efficiency Staff orientation Responsive governance	Clinical Effectiveness and Safety (Mortality, etc.) Efficiency (Length of stay, etc.) Staff Orientation & Safety (Training expenditure, etc.) Responsive Governance (Health care transitions, etc.) Patient Centeredness (Patient expectations, etc.)
<i>Cercone & O'Brien; 2010, 26</i>	Hospital Compare - USA	Process of care Outcome of care Patients hospital experience Medicare payment and volume	Acute Myocardial Infarction (Aspirin at arrival, etc.) Heart Failure (Smoking cessation advice/counseling, etc.) Pneumonia (Initial antibiotic timing (within 4hrs), etc.) Surgical Care Improvement Project (Prophylactic antibiotic selection, etc.) Children's Asthma Care (Use of reliever medication for inpatient asthma, etc.) 30 day risk-adjusted mortality rate (Pneumonia, etc.) Patient Satisfaction (Patient survey of Hospital Experience, etc.)
<i>Cercone & O'Brien; 2010, 29 - 30</i>	Health Consumer Powerhouse - EU	Patients' rights and information Waiting times Outcomes 'Generosity' of public healthcare systems Pharmaceuticals	Patients' rights & Information (Right to second opinion, etc.) Waiting Times (Direct access to specialist care, etc.) Clinical Outcomes (Heart infarct mortality <28 days after getting to hospital, etc.) Generosity of Public Healthcare Systems (Infant 4-disease vaccination, etc.) Pharmaceuticals (Access to new drugs, etc.)
<i>CIHI; 2013</i> <i>CIHI, 2014a</i>	Health indicators – Canada	Health System Performance: Acceptability, Accessibility, Appropriateness, Competence, Continuity, Effectiveness, Efficiency, Safety Hospital Financial Performance Indicator	Health System Performance: Hospitalized acute myocardial infarction event, Injury hospitalization, Self-injury hospitalization, 30-day acute myocardial infarction in-hospital mortality, 30-day medical readmission, 30-day stroke in-hospital mortality, Ambulatory care sensitive conditions, etc. Financial Performance: Total margin, Current ratio, Administrative services expense as a percentage of total expense, Information systems expense as a percentage of total expense, Nursing inpatient services total worked hours per weighted case, Diagnostic services total worked hours per weighted case, Clinical laboratory total worked hours per weighted case, Average age of equipment, etc.
<i>NHPA; 2014</i>	Hospital Performance and Healthy Communities - Australia	National Health Performance: Effectiveness, Safety, Continuity of care, Accessibility, Responsiveness, Efficiency & sustainability	Effectiveness – Safety and quality (Hospital Standardized Mortality Ratio, Unplanned hospital readmission rates, etc.) Effectiveness - Patient experience (Measures of the patient experience with hospital services) Equity and effectiveness - Access (Access to services by type of service compared to need, Emergency Department waiting times by urgency category, etc.) Efficiency - Efficiency and financial performance (Relative Stay Index for multi-day stay patients, Cost per weighted separation and total case weighted separations, Financial performance against activity funded budget (annual operating result), etc.)

<i>CIHI; 2014</i>	Performance for hospitals activities - Croatia	Quality Success	Quality indicators (number of re-hospitalization within 30 days since release, Mortality Ratio, Myocardial infarction in-hospital mortality, stroke in-hospital mortality, percentage of treatment in daily hospital, percentage of admission through emergency room,) Success indicators (ratio of health care staff in number of total hospital staff, number of staff per bed, number of health care staff per bed, bed capacity, „turnover“ of patient per bed, etc)
<i>Northcott & Llewellyn; 2004, 7</i>	Balanced Scorecard (BSC) - institutional	Financial Process and Efficiency Patient and Quality Organizational Health and Learning	Financial indicators: Return on Net Funds Employed, Operating Margin to Revenue, Revenue to Net Funds Employed, Debt to Debt plus Equity Ratio Process and Efficiency indicator: Resource Utilization Ratio, Performance to Contract, Inpatient ALOS* x Patient Admission Rate, Percentage Eligible Elective Day Case Surgery Patient and Quality: Patients' Overall Satisfaction, Hospital Acquired Blood Stream Infections, Emergency Triage Times, Percentage of Complaints Resolved/Closed Organizational Health and Learning: Staff Turnover (voluntary), Staff Stability Rate, Sick Leave Rate, Workplace Injuries
<i>Caballer Tarazona et al.; 2010, 1097</i>	Data Envelopment Analysis (DEA) - institutional	Efficiency	Indicator 1: Incomes/doctors Indicator 2: Interventions/doctor
<i>CRH, 2014</i>	Chesterfield Royal Hospital - institutional	Quality Performance Finance Employees	Quality indicators (Stroke care, Hospital Standardized Mortality Ratio, Patient Experience, etc.) Performance indicators (Time spent in the emergency department, delayed receiving care, etc.) Finance indicators (Return on Assets, EBITDA Margin, etc.) Employment indicators (Sickness absence, Age profile, Gender and work pattern, etc.)

Source: authors

Based on the analysis of selected institutional and sector models of performance measurement it can be concluded that performance indicators of the health care system (sector indicators) have been developed and presented through reports on national and international level. Hospitals in Croatia, as well as at the international level, have not yet developed a practice of measuring and reporting on key performance indicators. It is also noticed that hospitals that define performance indicators usually are associated with sector indicators and projects within which they operate. The choice of indicators and areas of measurement is dependent on the needs of the user information. The measurement results are used for different purposes: accreditation, quality evaluation, ranking, comparing (benchmarking), finance, business decision-making and reporting. As a part of the health care system the financial and non-financial performance indicators are defined. The number of performance indicators at the level of institutions is too large (preferably about 20 to define key performance indicators). Indicators are classified in the area of monitoring, with the

most common areas as: process quality, efficiency, patient experience and finance.

These conclusions will be used when creating a model on the example of a hospital in Croatia.

4. THE DEVELOPMENT OF PERFORMANCE INDICATORS IN THE EXAMPLE OF HOSPITAL IN CROATIA

4.1. Selecting and defining performance indicators

Based on the analysis of needs for performance measurement in the function of monitoring the quality and efficient business management, and analysis of the current state of monitoring the performance of the health sector, the following shows the selection and definition of performance indicators for a hospital in Croatia.

The assumptions underlying the selection of indicators are as follows:

- Hospital operates as a public institution in Croatia,
- Hospital is engaged in health care (diagnostics, internal, surgery, children's Hospital, etc.),
- An analysis of the internal and external factors,
- Defines the mission, vision and strategy of the hospital,
- Financing is carried out through the Diagnostic-Related Groups (DRGs) and by price days of hospital care (DHC) for treatment,
- The information needed to calculate the indicators are available at the hospital level,
- Key performance indicators are used to monitor the quality and strategic business management of the hospital,
- Collected information are presented internally (patients, employees, management) and externally (agency, department, public) system stakeholders,
- Measurement results are used to make business decisions of various interest groups, but they are not the only source of information and should be supplemented by the necessary quantitative and qualitative data.

To track the performance of a wide range of hospital activities, it is proposed to define indicators through four areas: the process of health care, patients, health of the organization and training, resources. Ensuring quality and efficiency, as the component for performance monitoring, are stretched through all four areas.

Table 2 Areas of measurement and performance indicators on the hypothetical example of hospital in Croatia

Measurement area	Performance indicators	
The process of health care: quality performance of hospital processes, availability and efficiency of resource utilization	1. The rate of mortality 2. Number of re-hospitalization within 30 days 3. The number of interventions per physician (percentage of resource utilization)	4. Waiting time for service 5. Turnover of patients per bed 6. Percentage cure (remission within one year)
Patients: customer satisfaction, quality and safety of provided services	1. Patient satisfaction 2. Percentage of resolved complaints 3. Quality of service provided	4. The percentage of mistreatment
Health of organizations and training: quality and staffing, motivation for training and advancement	1. Qualification of health professionals 2. The rate of employees stability 3. Number of professional promotion	4. The number of awarded medical professionals 5. The percentage of plan training of health professionals
Resources: physical (space, equipment, financial resources, etc.) and personnel (doctors, nurses, administration, etc.).	1. Rate in equipment of hospitals (average age) 2. The number of employees per bed	3. Percentage of budget execution 4. Margin (ratio of liabilities to sources of ownership) 5. Cost per activity

Source: authors

On the example of the hypothetical hospital, authors have selected 20 key performance indicators that provide to the interested users information about the quality and effectiveness. Number of indicators may differ, as well as areas of measurement, depending on the interests of stakeholders. In order for measurement to be successful it is necessary to describe each indicator, its purpose and objective, method of calculation, method of collection and sources of information, reporting

deadlines, availability and way of presenting the results. For management purposes it is important to specify measures which are to be taken in order to increase the success of the hospital.

4.2. The use of performance indicators in monitoring and improving the quality of hospital

Once defined, performance indicators can be applied in several areas that contribute to the quality of the health care system at the institutional and sector level. The use of indicators is particularly useful in the accreditation and evaluation of the quality, comparing (benchmarking) the quality of institutions, ranking, financing, business decision making and reporting. The significance, the use and interpretation of indicators in these processes varies, depending on the objectives and tasks of the procedure itself as well as national goals and values of health.

Accreditation is a process of external, independent, evaluation of the quality of the hospitals on the basis of conformity assessment of their work with the established optimum standards for activities that they perform (Law on Health Care Quality; 2011, Article 2). The accreditation process in Croatia is done by the Agency for Quality and Accreditation in health and social care, on the basis of laws and regulations (Regulation on the accreditation standards for hospital health institutions; 2011, Regulation on standards of health care quality and the manner of their application; 2011). In the process of evaluation, it is estimated the quality of the hospital through a series of performance indicators, such as: the qualifications of health care professionals, the waiting time for service, customer satisfaction, etc. By comparing the results of the evaluation with the specified standards and other similar institutions, accreditation body may make the assessment about the level of quality that the institution has achieved. Hospitals that continually monitor their performance indicators can detect in time any weakness and by implementing measures they could improve compliance with the set quality standards.

Performance indicators are an important tool in comparing (benchmarking) quality hospitals with each other, with the results of the health system as a whole, the targeted sizes and the results achieved in previous periods. Key figures such as cure rate, the number of awarded health care professionals, the cost per activity, etc. provide hospitals the ability to assess their quality, as well as insight into the areas of weaknesses, advantages and possible improvements. Performance

indicators enable benchmarking hospitals on the (inter) national and institutional levels. On the (inter) national benchmarking performance enabled the evaluation and ranking of hospitals. At the institutional level comparing quality encourages competition and competitiveness among hospitals, which is a powerful tool for change and improvement of the quality of institutions.

Public hospital managers are responsible for ensuring the provision of high quality health care services to patients, with the lowest costs for taxpayers (Eng. Value for money). At the national level it is important to make a suitable and optimal allocation of limited financial and physical resources taking care of continuous improvement of health care patients. Performance indicators such as cost per activity, the percentage of budget execution, the number of employees per bed, etc. provides managers with hospital quality information necessary for the successful and balanced management of hospitals, and the efficient allocation of budgetary resources.

Indicators of the time required to wait for service, rank of patient satisfaction, mortality rates, etc. are a good basis for the preparation and presentation of reports on performance. These reports can be presented to different groups of internal and external stakeholders, as the basis for decision making or promoting the success of the institution. Measuring and reporting on the performance of hospitals is particularly important for good information to patients about the possibilities offered to them in order to make good decisions and to better engage in health processes; to health care professionals about areas of possible improvement and motivation for improvement; to financiers, taxpayers and patients about the level of responsibility that effectively manage significant resources invested in the health care system.

5. CONCLUSION

Measuring performance in the Croatian health care system becomes important because of the need to ensure uniform quality of health services provided at a national level, the development of strategies to improve quality, large budgetary allocations for health and, accordingly, the effective management of health care institutions. Patients at present time expected (or are entitled to) understand information related to the process of health care, choice and participation in decision-making related to their health treatment. Taxpayers, liable to pay contributions

and fund health insurance, want to make sure that the money is spent effectively and in accordance with their expectations. Government and regulatory authorities have a duty to protect the safety and welfare of patients, to ensure the health of the nation and establish a health policy of the state. Hospitals and other health care institutions should monitor and improve health services. Health care professionals must be in step with the latest health practices and have the ability to continually improve their performance. The public wants to be sure that, if necessary, have adequate and quality health care. In order to successfully meet the interests and needs of numerous internal and external stakeholders system, health institutions should define performance indicators as a basis for measuring and monitoring the performance of all organizational processes.

Application performance indicator in health at national and organizational level is broad. Indicators allow for evaluation and improvement of quality of health care institutions, their mutual comparison, ranking and competition, identifying strengths and weaknesses in operations, adoption of efficient business decisions, transparency and accountability to the public.

Despite the clear necessity of defining performance indicators, their creators do not have an easy task. Defining indicators is difficult: the complexity of the health system, the different interests of the stakeholders, the differences in performance monitoring for decision making and accountability, poor availability of information required for measurement, environmental conditions, and a number of other internal and external factors of the system. Model for performance measurement of hypothetical hospital proposed in this paper is the result of an analysis of relevant models from the world and the needs of stakeholders in the Croatian health system. Model shown is a framework proposal that can be used for hospital development indicators and mechanisms for measuring success in their own terms and conditions. It is important to emphasize that for a comprehensive assessment of the quality and efficiency, in addition to the results of key indicators, it is necessary to consider a number of other quantitative and qualitative information, depending on the needs of stakeholders.

Since the key performance indicators are not defined at the level of hospitals in Croatia, and the paper has shown the need for them, it is expected that this paper will contribute to the discussions on measuring

performance at the organizational and national level in Croatian health care system.

REFERENCES

AHA Board of Trustees (1999). Accountability – The Pathway to Restoring Public Trust and Confidence for Hospitals and other Health Care Organizations, AHA.

Bangoa, R. et al. (2006). Quality of Care: A process for making strategic choices in health systems, WHO, ISBN 92-4-156324-9, ISBN 978-92-4-156324-6, Geneva.

Barić, V. & Smolić, Š. (2011). Stabilnost zdravstvenog sustava u recesiji, Zbornik radova s 90 godina Ekonomskog fakulteta u Zagrebu, Obadić, A., Šimurina, J. & Tica, J. (ur.), pp. 47-58., ISBN: 978-953-6025-41-1, Zagreb, 23 November, 2010, Biblioteka Ekonomika i razvoj, Zagreb.

Barliba, I. (2012). Relevance of Key Performance Indicators (KPIs) in a Hospital Performance Management Model, Journal of Eastern Europe Research in Business & Economics, Available at: <http://www.ibimapublishing.com/journals/JEERBE/2012/674169/674169.pdf>, Access (17-02-2015).

Bosa, I. & Althaus, R. (2014). Accounting in healthcare: what reality are we really measuring? Paper in progress, Proceeding of the 8th international EIASM Public Sector Conference, Edinburgh, 2-4 September 2014, university of Edinburgh, Business School.

Brown, L. D. (1998). Quality assurance of health care in developing countries, Quality Assurance Methodology Refinement Series, Available at: http://pdf.usaid.gov/pdf_docs/Pnabq044.pdf, Access (11-02-2015).

Caballer-Tarazona, M. et al. (2010). A model to measure the efficiency of hospital performance, Mathematical and Computer Modelling, Elsevier, 52(2010), str. 1095-1102., Available at:

<http://www.sciencedirect.com/science/article/pii/S089571771000124X>,
Access (22-02-2015).

Canadian Institute for Health Information (2013). Health Indicators 2013, CIHI, ISBN 978-1-77109-186-2 (PDF), Ottawa.

Canadian Institute for Health Information (2014a). Canadian MIS Database: Hospital Financial Performance Indicators, 2008–2009 to 2012–2013—Methodological Notes, CIHI, ISBN 978-1-77109-284-5 (PDF), Ottawa.

Canadian Institute for Health Information (2014b). National Health Expenditure Trends, 1975 to 2014: Report, CIHI, ISBN 978-1-77109-316-3 (PDF), Ottawa.

Cercone, J. & O'Brien, L. (2010). Benchmarking Hospital Performance in Health, Sanigest international.

Chesterfield Royal Hospital (2014). Performance Center,
Available at: <https://www.chesterfieldroyal.nhs.uk/about/perf-centre/index?ts=1>, Access (22-02-2015).

Donabedian, A. (1988). The quality of care: how can it be assessed? JAMA, 260(12), pp. 1743-1748.

Dražić Lutilsky, I. & Bešenić, D. (2014). Iskustvo u primjeni metode ABC u nekim europskim zemljama, TIM4PIN magazin, 2(11), pp. 108-113., ISSN 1848-7610.

Dubnick M. J. (2005). Accountability and the Promise of Performance: In Search of the Mechanisms, Public Performance and Management Review, 28(3) pp. 376-417.

Dye, C. at al. (2013). Research for Universal Health Coverage, WHO, ISBN 978-92-4-069083-7, Luxembourg.

Gabenski, L. C. & Pink, G. H. (2007). Understanding healthcare financial management: fifth edition. Health Administration Press, ISBN-13: 978-1-56793-264-5, Chicago.

Croatian Institute for Health Insurance (CIHI), Hrvatski zavod za zdravstveno osiguranje (2014). Pokazatelji rada bolnica, HZZO, Available at: <http://www.hzzo.hr/hzzo-predstavio-pokazatelje-kvalitete-i-ucinkovitosti-za-bolnicke-zdravstvene-ustanove>, Access (21-02-2015).

Johnson, J. H. et al. (2006). The Crucible of Public Health Practice: Major Trends Shaping the Design of the Management Academy for Public Health, *Journal of Public Health Management and Practice*, 12(5), pp. 419–425, http://www.maph.unc.edu/jphmp/PHH12_5_03_419-425.pdf, Access (05-02-2015).

Kelley, E. & Hurst, J. (2006). Health care quality indicators project: Conceptual framework paper, OECD.

Kovačić, N. (2013). Financiranje zdravstva – situacija u Hrvatskoj, *Ekonomski vjesnik*, 26(2), pp. 551-563., ISSN 0353-359X

Loeb, J. M. (2004). The current state of performance measurement in health care, *International Journal for Quality in Health Care*, 16(1), pp. I5-i9., ISSN 1464-3677.

Martinez, J. (2001). Assessing quality, outcome and performance management, WHO, Available at: http://www.who.int/hrh/documents/en/Assessing_quality.pdf, Access (07-02-2015)

McIntyre D. et al. (2001). Overview, history, and objectives of performance measurement. *Health Care Financing Review*, 22(3), pp. 7–21, Available at: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/HealthCareFinancingReview/Downloads/01Springpg7.pdf>, Access (10-02-2015)

National Health Performance Authority (2014). Performance Indicator Reporting, NHPA, Available at: <http://www.nhpa.gov.au/internet/nhpa/publishing.nsf/Content/Performance-Indicator-Reporting>, Access (21-02-2015).

NCQA (2015). The essential guide to health care quality, NCQA,

Available at:

http://www.ncqa.org/Portals/0/Publications/Resource%20Library/NCQA_Primer_web.pdf, Access (11-02-2015)

Nerenz, D. R. & Neil, N. (2001). Performance Measures for Health Care Systems, Commissioned Paper for the Center for Health Management Research. Available at: www.hret.org/chmr/resources/cp19b.pdf, Access (10-02-2015)

Northcott, D. & Llewellyn, S. (2004). The balancing act in hospital performance measurement: A comparison of UK and New Zealand approaches, Research executive summaries series, 5(2), ISSN 1744 - 7038 (online), CIMA

OECD (2014). OECD Health Statistics 2014.

Available at:

http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT, Access (04-02-2015).

O'Reilly, J. et al. (2012) Paying for hospital care: the experience with implementing activity-based funding in five European countries, Health Economics, Policy and Law 7(1), pp. 73–101., Cambridge University Press.

Pravilnik o akreditacijskim standardima za bolničke zdravstvene ustanove, Regulation on the accreditation standards for hospital health institutions, Official Gazette, 31/2011.

Pravilnik o standardima kvalitete zdravstvene zaštite i načinu njihove primjene, Regulation on standards of health care quality and the manner of their application Official Gazette, 79/2011.

Reginato, E. et al. (2011). Modern public internal control systems and accountability in health care organizations, Economia Aziendale Online, 2(4), pp. 381-396, ISSN 2038-5498.

Shaw, R. P. (2004). New Trends in Public Sector Management in Health: Applications in Developed and Developing Countries, The International Bank for Reconstruction and Development / The World Bank, ISBN 1-932126-76-7, Washington, DC.

Smith, P. C. et al. (2005). Performance Measurement for Health System Improvement: Experiences, Challenges and Prospects, WHO, Available at: http://www.euro.who.int/_data/assets/pdf_file/0007/135970/E94887_Part_I.pdf, Access (10-02-2015)

Smith, P. C. (2008). Performance measurement for health system improvement: experiences, challenges and prospects, Background documents prepared for the WHO, European Ministerial Conference on Health Systems „Health Systems, Health and Wealth”, Tallinn, 25–27 June 2008, WHO.

Soares, T. et al. (2014). Good Governance Practices and Information Disclosure in Portuguese Public Enterprise Entity Hospitals, Proceeding of the 8th international EIASM Public Sector Conference, Edinburgh, 2-4 September 2014, University of Edinburgh, Business School.

Solberg, L. I. (1997). The Three Faces of Performance Measurement: Improvement, Accountability, and Research, Journal on Quality Improvement, 23(3), pp. 135-147., ISSN 2050-1315.

Thomson, S. et al. (2009). Financing health care in the European Union: Challenges and policy responses, The European Observatory on Health Systems and Policies, ISBN 978-92-890-4165-2, Copenhagen.

World Health Organization (2015). Croatia: Statistics. Available at: <http://www.who.int/countries/hrv/en/>, Access (06-02-2015)

Zakon o kvaliteti zdravstvene zaštite, Law on Health Care Quality, Official Gazette 124/2011.

CHAPTER 37

Urban Šebjan

University of Maribor, Faculty of Economics and Business, Maribor, Slovenia

Polona Tominc

University of Maribor, Faculty of Economics and Business, Maribor, Slovenia

ENTREPRENEURIAL INTENTIONS IN CHANGING ECONOMIC AND CULTURAL ENVIRONMENT IN SLOVENIA AND CROATIA

ABSTRACT

Present study is focused on the two countries, Slovenia and Croatia, that are historically quite similar but nowadays they differ regarding several characteristics of the economy, cultural and social norms, as well as regarding the early-stage entrepreneurial activity levels and several other dimensions. The purpose of this paper is to contribute to the understanding regarding the variation of entrepreneurial intentions in these two countries. Following existing literature we link entrepreneurial intentions of individuals to variables describing Ajzen's antecedents to entrepreneurial intentions. Cultural differences are also considered. Although our model does not allow the identification of causal effects our study contributes to clarifying the importance of these variables on entrepreneurial intentions of individuals in Slovenia and Croatia. Our paper is based on the Adult population survey (APS) that is taking place within the Global Entrepreneurship Monitor (GEM) research project. The data used in this paper were collected within APS in the 2013 research cycle. Representative samples of the adult population were surveyed. The sample size was N=2,000 in Croatia and N=2,002 in Slovenia. Our study suggests that the process from perceptions to entrepreneurial intentions is similarly shaped in both countries, although there are several differences in specific institutional environment in each country that shape the entrepreneurial intentions.

Keywords: Entrepreneurial intentions, motivational antecedents, cultural and developmental differences.

JEL Classifications: L26

1. INTRODUCTION

Entrepreneurship is regarded as a key to economic development and to the creation of wealth and employment - there is no doubt that the development of any economic and social system is grounded to a large extent in the development of entrepreneurship (Kelley et.al, 2011, Bosma and Levie 2010, Acs and Szerb 2009, Baumol 1990, Leibenstein 1968, etc.). One way of fostering economic development on the basis of entrepreneurship is to stimulate existing entrepreneurs to develop their companies, while another is to motivate and encourage the adult population to start their own entrepreneurial careers. In this paper, we are interested in the latter. More precisely, we analyze one step before the actual venture creation, namely the process of entrepreneurial intentions creation.

Entrepreneurial intentions may be viewed as a first step in the process of venture creation. According to the cognitive theories, two dominant models of entrepreneurial intention are usually referred to when analyzing the process of entrepreneurial intentions creation, namely the model of entrepreneurial event (Shapero and Sokol, 1982) and the theory of planned behavior (Ajzen, 1988).

Present study is focused on the two countries, Slovenia and Croatia, that are historically quite similar but nowadays they differ regarding the Hofstede's cultural dimensions, regarding the Global Competitiveness Index, GDP per capita, as well as regarding the early-stage entrepreneurial activity levels and several other aggregate and individual measures that are used in the present research model, with the purpose to contribute to the understanding of variation of entrepreneurial intentions in these two countries.

In this paper the theoretical background is presented along with review of empirical analyses of entrepreneurial intentions from different viewpoints that are increasingly common in the literature. Following existing literature we link entrepreneurial intentions of individuals to variables describing Ajzen's antecedents to entrepreneurial intentions (1991). Cultural differences are also considered. Although our model does not allow the identification of causal effects our study contributes to

clarifying the importance of these variables on entrepreneurial intentions of individuals in Slovenia and Croatia.

2. THEORETICAL BACKGROUND

In the theory of entrepreneurial event, Shapero and Sokol (1982) focused specifically on the behavior of engaging in entrepreneurial activity and argued that entrepreneurial intentions depend on an individual's perception of the relative credibility of alternative behaviors and a propensity to act. The credibility refers to perception of behavior as both desirable and feasible. Propensity to act refers to a person's ability of initiating and maintaining goal-directed behaviors.

In the theory of planned behavior (Ajzen, 1991), antecedents to entrepreneurial intentions are attitude toward the behavior, subjective norm and perceived behavioral control. The actual entrepreneurial behavior depends also on several non-motivational factors as availability of opportunities as well as required funding. Entrepreneurial intentions are shaped also by culture, as well as by the level of development of economic system.

As Ajzen pointed out (Ajzen, 1991) antecedents must be assessed in the relation to the particular behavior of interest. In the context of entrepreneurial intentions personal attitude toward start-up refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the entrepreneurship. Subjective norm refers to the perceived social approval or pressure to perform or not perform the entrepreneurial behavior, while perceived behavioral control refers to the perceived ease or difficulty of performing the entrepreneurial activity and the perception about the controllability of the behavior (Linan and Chen 2009).

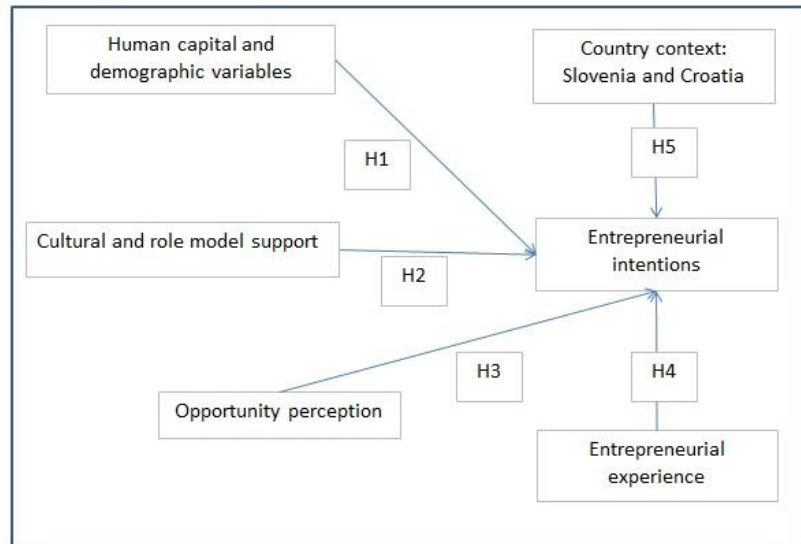
Krueger and Brazeal (1994) combined two dominant models of behavioral intentions, Ajzen's theory of planned behavior (Ajzen, 1991) and Shapero's theory of entrepreneurial event models (Shapero 1984, Shapero and Sokol 1982) into the entrepreneurial potential model. Krueger et.al, (2000) also compared the theory of planned behavior and theory of entrepreneurial event models in terms of their ability to predict entrepreneurial behavior. They found that results offered a strong statistical support for both models.

Theory of planned behavior considers that intentions describe a self-prediction to engage in a behavior. Many studies have supported the

predictive validity of intentions on actual behavior (Sheeran, 2002). In general, the stronger the intentions to engage in a behavior, the more likely should be its performance; however, as Ajzen (1991) pointed out, the performance (actual behavior) depends also on several non-motivational factors as availability to requisite opportunities and resources. Behavioral achievement therefore depends jointly on motivation (intention) and ability (behavioral control) – this idea is extremely important in the field of entrepreneurship. Douglas and Shepard (2002) stated that no actual entrepreneurship will occur without sufficient opportunities and required funding, even if there are the strongest entrepreneurial intentions.

The venture creation process includes at least three main stages: the “discovery” of opportunities, their evaluation and their exploitation (Shane and Venkataraman, 2000). Variation among people in their motivations and abilities to act has an important effect on all phases of the venture creation. As Shane, Locke and Collins (Shane et.al, 2003) explain, the attributes of people making decisions about the entrepreneurial process influence the decisions they make. All human actions are the result of motivational and cognitive factors on the one hand and also the result of external factors, on the other hand. While entrepreneurial motivation includes a set of personality traits, such as a need for achievement, locus of control, desire for independence, goal-setting etc., cognitive factors include ability, intelligence and skills. External factors in their model refer to economic environmental conditions, such as the status of the economy, the availability of venture capital, government regulations etc. *As past research results show* the perceived approval of social environment for the decision to start up an entrepreneurial career may also be an important factor. In the past studies included this element differently (Kolvereid and Isaksen, 2006; Linan and Chen, 2009) while other studies omitted it (Krueger, 1993). The expected support for entrepreneurship in the society and support of role model or mentor (Krueger et.al, 2000) is expected to have the important impact on venture creation. Other entrepreneurs can function as role models and make entrepreneurship a more attractive career option for others. In explaining variations regarding the entrepreneurship process across countries, much attention is also devoted to cultural variables (Hofstede et.al, 2004; Gianetti and Simonov, 2005) as well.

Figure 1 The research model



As Shane, Locke and Collins suggest (Shane et.al, 2003), the transition of individuals from one stage of entrepreneurial process to another is the result of the combination or integration of motivation and cognition. Furthermore, environmental conditions and entrepreneurial opportunities matter, while the motivations and ability of particular people might lead to different types of entrepreneurial actions under the same environmental conditions.

Following the above described theoretical foundations, hypotheses are formed, and the research model of the present study is presented by Figure 1 above:

H1: Human capital and demographic variables have a positive impact on entrepreneurial intentions.

H2: Cultural and role model support has a positive impact on entrepreneurial intentions.

H3: Opportunity perception has a positive impact on entrepreneurial intentions.

H4: Entrepreneurial experience has a positive impact on entrepreneurial intentions.

H5: Country differences are significant.

2.1 Country similarities - some social, economic and historic features

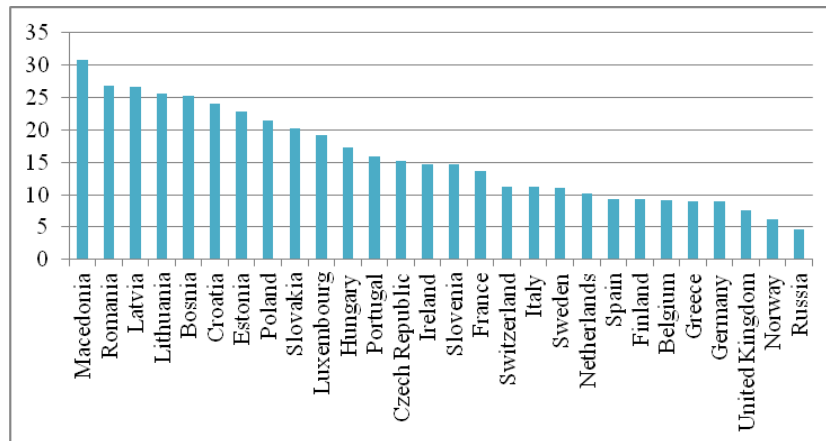
The two neighbor countries that are included into this analysis, have a lot of common features: they share a common history with the Austrian-Hungarian Monarchy, they also share the experience of almost half a century of socialism and a similar communist history; the countries also spent seven decades as part of the same state, having similar government institutions, as well as the same legal and economic system, etc... Both countries have its own prevailing ethnicity – Slovenians and Croats. Countries are highly ethnically homogenous (at 90% of prevailing ethnicity), and with one dominant language: 92% (Slovenia) and 96% (Croatia). In both countries analyzed, ethnic minorities of the other country can be found. The two populations are predominantly Roman Catholic.

Some characteristics of the analyzed countries are presented in Table 1, which shows, among other things, that total early stage entrepreneurial activity indices (TEA indices) in both countries are on the low side of the global scale. TEA index describes the prevalence rate of individuals in the working age population who are actively (as owners and managers of firms) involved in business start-ups, either in the phase in advance of the birth of the firm (nascent entrepreneurs) or in the phase of spanning over 42 months after the birth of the firm (new entrepreneurs (Amoros and Bosma 2014), with the birth of a firm considered as a time when firm is paying wages for more than three months. In 2013 the highest TEA rate in Europe was in Italy (3.25%) and the highest in Latvia (13.43%)¹.

Entrepreneurial intention rates are defined as a prevalence rate of individuals in the working age population who intend to start a business in the next three years. Entrepreneurial intention rates in the European countries, participating in the GEM research are presented by Figure 2.

¹ Of course, the “quality” of entrepreneurial activity differs across countries (necessity and opportunity driven entrepreneurship, export oriented entrepreneurship, growth aspirations etc.)

Figure 2 Entrepreneurial intention rates in European countries, participating in GEM 2013.



According to the Growth Competitiveness Report, none of the countries can be considered as either technologically developed or globally competitive. Economies, according to the phase of economic development may be classified as factor-driven, efficiency driven and innovation-driven (Porter, 1990). These categories are included in the Global Competitiveness Report (GCR), which identifies these three phases of economic development based on GDP per capita and the share of exports comprising primary goods. Global Competitiveness Report (Schwab and Sala-I-Martin, 2013) classifies Slovenia as innovation-driven and Croatia as in transition from efficiency-driven to innovation-driven economy.

Table 1 GCI-overall, GDP per capita (PPP), Total early-stage entrepreneurship prevalence rate and Entrepreneurial intention prevalence rate

Country	Global Competitiveness Index – overall 2013-2014 (<i>rank</i>) ^{a)}	GDP per capita (PPP) ^{b)}	Total early-stage entrepreneurship prevalence rate ^{c)}	Entrepreneurial intention prevalence rate ^{c)}
Croatia	4.13 (75)	21,366	8.27	24.09
Slovenia	4.25 (62)	28,996	6.45	14.68

^aSource: Global Competitiveness report 2013-2014 (Schwab and Sala-I-Martin 2013).

^bSource: World Bank, International Comparison Program database: GDP per capita based on purchasing power parity (PPP) (current international \$).

^cSource of data: Global Entrepreneurship Monitor, Adult Population Surveys, 2013.

In Table 2 the aggregate country measures that are used in the present research at the individual level are presented. These aggregate measures are – percent of adult population of age from 18 to 64 years old, that:

- believed that in their country, they often see stories in the public media about successful new businesses (Media attention);
- believed that successful new entrepreneurs had a high status and respect in the society, in the country where they lived (High social status);
- believed that becoming an entrepreneur is considered as a good career choice, in the country where they lived (Entr. as a good career choice).
- believed to have the knowledge, skills and experiences required to start a business (Entr. skills).
- answered that fear of failure would prevent them from starting a business (Fear of failure).
- answered that they knew someone personally, who started a business in the previous two years (Role models).
- had previous entrepreneurial experience (Entr. experi.).

Table 2 Aggregate country measures (in % of the adult population of age 18 – 64 years old)

Country	Media attention	High social status	Entrep. as a good career choice	Entr. skills	Fear of failure	Role models	Entr. experi.
Croatia	42.87	40.07	61.47	47.18	46.03	24.45	14.9
Slovenia	50.50	68.10	57.40	51.50	41.98	39.30	12.9

Source of data: GEM, Adult Population Surveys, 2013.

3. DATA, METHODOLOGY AND VARIABLES

Empirical analysis of the early-stage entrepreneurship found in the literature is often based on Global Entrepreneurship Monitor (GEM) research. GEM is a project carried out since 1999, by a research consortium dedicated to understanding the relationship between entrepreneurship and national economic development. GEM enables research and analyses of characteristics, relationships and dependencies at the individual level as well as on aggregate country level. It also allows the exploration of business characteristics. Slovenia and Croatia are participating in GEM research since 2002.

Within GEM there are four major data sources: adult population surveys (APS), unstructured interviews and questionnaires completed by national experts, and assembly of relevant standardized measures from existing cross-national data sets. Within APS a representative sample of 2,000 adults is interviewed in each country using a standardized questionnaire, translated into the official language of each country. Respondents in all countries are asked precise questions about their involvement in, and attitudes towards, entrepreneurship. This is very important for providing the harmonized data sources that serve as a rich basis for comparative research from several view-points.

The data used in the present study were collected within the 2013 Global Entrepreneurship Monitor research cycle. Representative samples of the adult population were surveyed, with respondents' weighting factors that take into account age and gender distribution of samples in order to match the standardized U.S. Census International Data Base. A detailed data collection design within GEM is reported by Reynolds et al. (2005). Sample characteristics in Slovenia and Croatia are presented in Table 3.

Table 3 Characteristics of national samples

Country	Sample size	Number of males in the sample	Number of females in the sample	Average age (in years)
Croatia	2,000	994	1,006	41.70
Slovenia	2,002	1,028	974	41.28

Source of data: GEM, Adult Population Surveys.

In this research logistic regression is used to estimate the likelihood of an individual's intention to start a business in the next three years. We used the binomial logistic regression (Hosmer and Lemeshow, 2000) that estimates the probability of an event happening, which in our case was the presence of the entrepreneurial intentions by an individual or not. The dependent variable is entrepreneurial intention, while explanatory variables were defined as follows.

Human capital and demographic variables:

- *Age* of an individual- categorical variable: 18-24 years, 25-34 years, 35-44 years, 45-55 years, 55-64 years old.
- *Gender* is binary variable: 0 for males and 1 for females.
- *Education*: education was taken into account as the binary variable, having value of 0 if an individual holds secondary degree or less and 1 otherwise.
- *Confidence in one's skill*: Respondents were asked if they believed to have the knowledge, skills and experiences required to start a business. This measure is binary variable (1 = Yes, 0 = No).
- *Fear of failure*: Respondents were asked if fear of failure would prevent them from starting a business. This measure is binary variable (1 = Yes, 0 = No).
- Cultural and role models variables:
- *Media attention for entrepreneurship*. Respondents were asked if they believed that in their country, they often see stories in the public media about successful new businesses. The measure is binary variable (1 = Yes, 0 = No).
- *Good career choice*: Respondents were asked whether they believed that becoming an entrepreneur is considered as a good career choice, in the country where they lived. The measure is binary variable (1 = Yes, 0 = No).

- *High status in society*: Respondents were asked whether they believed that successful new entrepreneurs had a high status and respect in the society, in the country where they lived. The measure is binary variable (1 = Yes, 0 = No).
- *Role models or mentor*: Respondents were asked whether they knew someone personally, who started a business in the previous two years. The measure is binary variable (1 = Yes, 0 = No).
- Opportunity perception variable:
- *Opportunity perception*: respondents were asked if they believed that, in the 6 months following the survey, good business opportunities would exist in the area where they lived. The measure is binary variable (1 = Yes, 0 = No).
- Entrepreneurial experience variable:
- *Entrepreneurial past experience*: Respondents were classified as individuals with past entrepreneurial experience (nascent, new or established entrepreneurs or those who exited an entrepreneurial career in the past) or as non-entrepreneurs. This measure is also a binary variable: 1 = an individual with past entrepreneurial experience, 0 = non-entrepreneur.

Maximum likelihood estimations were used to estimate the coefficients of logistic regression function, which denote changes in the log odds of the independent variable. The goodness of fit of the model was assessed by the Model χ^2 , the rate of correct classifications and the Nagelkerke R^2 . In order to test whether the inclusion of predictor variables led to statistically significant improvements of the model we used the Blok χ^2 . In order to test the significance of the regression coefficient we used the Wald test. The 0.05 (two-tailed) significance level was used.

4. RESULTS

Research results in Table 4 for the proposed model show, that the logistic regression model is significant at 0.000 level (model Chi-square = 510.304, $p < 0.05$), that the percentage of correct predictions is 82.1%, as well as that the Nagelkerke R^2 equals 0.267. Nevertheless, 73.3% of variance is unexplained, indicating that additional variables, not included into the model, also have the impact on intentions of individuals for starting an entrepreneurial career in the future (such a result is similar to other studies addressing similar issues (for example Arenius and Minniti, 2005).

Logistic regression function results in Table 4 indicate that human capital and demographic variables are important: gender and age are statistically significantly related to the entrepreneurial intentions. Negative coefficient for gender and odds ratio that equals 0.779 indicate that women are less likely as men to have entrepreneurial intentions in the following three years. Positive regression coefficients and log odds ratios for age groups show, that in comparison with those from age group 55 to 64 years old, individuals from other age groups are much more likely to have entrepreneurial intentions – those in the age group from 18 – 24 years old are even more than 8 times more likely (log odds ratio equals 8.490). These findings are consistent with findings in the literature showing that “entrepreneurship is a young man’s game”, (Arenius and Minniti 2005:238; Shinnar et.al, 2012); this obviously holds true also for entrepreneurial intentions. Education is positively related to the prevalence of entrepreneurial intentions, but the relation is not statistically significant. As expected, confidence in one’s skill is positively related to entrepreneurial intentions, while risk aversion is negatively. Negative regression coefficient at the fear of failure variable (and log odds that equal 0.781) confirm, that fear of failure negatively impacts individual’s entrepreneurial intentions.

On the other hand, self-confidence in entrepreneurial skills, knowledge and experience, significantly positively impacts one’s entrepreneurial intentions (positive regression coefficient and log odds ratio that equals 2.634). Our results confirm that individuals face fears regarding the entrepreneurial activity and therefore, as expected, risk aversion, expressed by the fear of failure, reduces the entrepreneurial intentions. Also according to Henderson and Robertson (2000), entrepreneurial intentions may be limited due to doubts into own skills and necessary qualities for entrepreneurship as well as due to risk aversion attitude.

Therefore the hypothesis H1 that human capital and demographic variables have a positive impact on entrepreneurial intentions is confirmed, except for education variable.

Table 4 Logistic regression model

Variable	Variable categories	Model Coeff. B (S.E.)	Wald	Exp(β)
Gender		-0.250* (0.110)	5.224	0.779
Age	Age 18 – 24 years	2.139*** (0.206)	107.585	8.490
	Age 25 – 34 years	1.435*** (0.189)	57.959	4.201
	Age 35 – 44 years	1.003*** (0.189)	28.062	2.725
	Age 45 – 54 years	0.709*** (0.192)	13.677	2.032
	Age 55 – 64 years ^{b.c.}			
Education		0.146 ^{n.s.} (0.119)	1.509	1.158
Confidence in one's skills		0.969*** (0.124)	60.878	2.634
Fear of failure		-0.247* (0.112)	4.897	0.781
Good career choice		0.148 ^{n.s.} (0.112)	1.750	1.160
High status in society		0.105 ^{n.s.} (0.115)	0.825	1.110
Media attention		0.229* (0.110)	4.352	1.258
Role models		0.595*** (0.115)	26.961	1.813
Opportunity perception		0.632*** (0.126)	24.980	1.882
Entrepreneurial experience		0.935*** (0.133)	49.332	2.548
Slovenia		-0.848*** (0.116)	52.984	0.428
Constant		-3.012*** (0.271)	123.274	0.049
Model χ^2 (df)		510.304*** (15)		
-2LL		2245.389		
Nagelkerke R^2_N		0.267		
Cox & Snell R^2_{CS}		0.169		
% of correct predictions		82.1		

Notes: *** significant at $p < 0.001$; ** significant at $p < 0.01$; * significant at $p < 0.05$; ^{n.s.} not significant; ^{b.c.} base category

Results regarding cultural and role model variables show that perceived high social status of successful entrepreneurs and perceiving entrepreneurship as a good career choice don't have a significant impact on entrepreneurial intentions, although the coefficients are positive. On the other hand the positive media attention and role models impacts are statistically significant and positive. Role models (and being part of networks) reduce uncertainty and provide information about entrepreneurship, therefore the results are expected. Those who know a successful entrepreneur are on average 1.8 times as likely to have entrepreneurial intentions as compared to those, who do not.

Therefore the hypothesis H2 that cultural and role model support has a positive impact on entrepreneurial intentions is partly confirmed; the significant impact is confirmed regarding the media attention and role models impacts.

The concept of opportunities has been increasingly used in entrepreneurship research, and perceiving good business opportunities was assumed to be important for entrepreneurship (Kirzner, 1973; Kirzner, 1979; Shane and Venkataraman, 2000; Reynolds et.al, 2003). Since our paper focuses particularly on entrepreneurial intentions the concept of perceived opportunities was adopted. Our research results confirm that those individuals who are receptive to business opportunities in the environment are on average more likely to express entrepreneurial intentions as compared to those who do not – log odds ratio equals 1.882. Entrepreneurial experience has a significant and positive impact on entrepreneurial intentions, indicating that the prior behavior has an impact on later behavior – those who experienced entrepreneurial activity in the past, are on average 2.5 times as likely to have entrepreneurial intentions as compared to those who have never been included into the entrepreneurial activity personally in the past.

Therefore the hypothesis H3 that opportunity perception has a positive impact on entrepreneurial intentions is confirmed, as well as the hypothesis H4 that entrepreneurial experience has a positive impact on entrepreneurial intentions.

Country differences regarding the level of entrepreneurial intentions are significant. We analyzed the country effects by including the Slovenia dummy variable into the analysis, having value 1 for Slovenia and 0 otherwise. Introducing country effect to the model by country dummy variable, leads to significant result, but it does not decrease (nor change) the importance of explanatory variables included into the model. It means that specific institutional environment in each country shape the entrepreneurial intentions. The hypothesis H5, that country differences are significant, is confirmed.

5. DISCUSSION

Our research results suggest that the impact of all explanatory variables is similar in Slovenia and Croatia.

Human capital and demographic variables have significant impact on entrepreneurial intentions, except the education: men and younger individuals are more likely to express entrepreneurial intentions as compared to women and to older adults. Also confidence in one's skill is

positively related to entrepreneurial intentions, while risk aversion is negatively, as expected.

Cultural and role models variables proved to have significant impact on entrepreneurial intentions, which hold true for media attention and role model variables, while that perceived high social status of successful entrepreneurs and perceived entrepreneurship as a good career choice don't have a significant impact on entrepreneurial intentions.

For both countries the research results confirm also that those individuals who are receptive to business opportunities in the environment are on average more likely to express entrepreneurial intentions as compared to those who do not. For both countries we can as well confirm that those who experienced entrepreneurial activity in the past, are on average more likely to have entrepreneurial intentions as compared to those who have never been included into the entrepreneurial activity personally in the past.

Overall, our study suggests that the studied view points of the process from perceptions to entrepreneurial intentions are shaped very similarly in Slovenia and Croatia, although there are several institutional macroeconomic characteristics of the countries that influence the relationship of antecedents of entrepreneurial intentions and likelihood of reporting entrepreneurship intentions.

Several extensions of this study are possible. In our study we didn't focus on institutional variables, but their influence and the impact of macroeconomic characteristics of the countries that influence entrepreneurial intentions is worth studied in the future. The important view point would be also the analysis of strength of entrepreneurial intentions together with the analysis of the influential factors in the transformation process from intentions to actual behavior, since the general rule, as Ajzen pointed out (1991) is, that the stronger the intentions to engage in a behavior, the more likely should be its performance.

REFERENCES

Acs, Z. and Szerb, L. (2011), *The Global Entrepreneurship and Development Index*, Edward Elgar: UK, USA.

Ajzen, I. (1988), *Attitudes, personality, and behavior*. Milton-Keynes, England: Open University Press & Chicago, IL: Dorsey Press.

Ajzen, I. (1991), The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, Vol 50, 179-211.

Amoros, J.E. and Bosma, N. (2014), GEM, 2013 Global Report. Babson Park MA, Santiago, Chile: Babson College. Universidad del Desarrollo.

Arenius, P. and Minniti. M. (2005), Perceptual variables and nascent entrepreneurship. *Small Business Economics*, Vol. 24 (3), 233-247.

Baumol, W. (1990), Entrepreneurship: Productive, Unproductive, and Destructive, *Journal of Political Economy*, Vol. 98, 5.

Bosma, N. and Levie, J. (2010). Global Entrepreneurship Monitor, 2009 Executive Report, Babson College, London Business School, and GERA.

Douglas, E.J., Shepard, D.A. (2002), Self-employment as a career choice: attitudes, entrepreneurial intentions and utility maximization. *Entrepreneurship Theory and Practice*, 26(3), 81-90.

Giannetti, M. and Simonov, A. (2005), Social Interactions and Entrepreneurial Activity, paper presented at the Conference on Economics and Psychology, Toulouse, France.

Henderson, R. and Robertson, M. (2000), Who wants to be an entrepreneur? Young adult attitudes to entrepreneurship as a career. *Career Development International*, Vol. 5 (6), 279-287.

Hofstede, G., Noorderhaven, N.G., Thurik, A.R., Uhlaner, L.M., Wennekers, A.R.M., Wildeman, R.E. (2004), Culture's Role in Entrepreneurship: Self-employment out of Dissatisfaction, In: Brown, T. E. and Ulijn, J. (Eds.), *Innovation, Entrepreneurship and Culture*, Cheltenham, UK: Elgar.

Hosmer, D.W. and Lemeshow S. (2000), *Applied Logistic Regression*, 2nd Edition. New York: Wiley.

Kelley, D., Bosma, N. and Amoros, J.E. (2011), Global Entrepreneurship Monitor, 2010 Global Report, Babson College, Universidad del Desarrollo, London Business School, and GERA.

Kirzner, I.M., (1973), Competition and Entrepreneurship, Chicago, IL: University of Chicago Press.

Kirzner, I.M., (1979), Perception, Opportunity and Profit, Chicago, IL: University of Chicago Press.

Kolvereid, L. and Isaksen, E. (2006), New business start-up and subsequent entry into self-employment, *Journal of Business Venturing*, Vol. 21 (6), 866-885.

Krueger, N.F. (1993), The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship Theory and Practice*, Vol. 18 (1), 5-21.

Krueger, N.F. and Brazeal, D.V. (1994) Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship Theory and Practice*, Vol. 19 (3), 91-104.

Krueger, N.F., Reilly, M.D. and Carsrud, A.L. (2000), Competing models of entrepreneurial intentions, *Journal of Business Venturing*, Vol. 15 (5-6), 411-432.

Leibenstein, H. (1968), Entrepreneurship and Development, *American Economic Review, Papers and Proceedings*, Vol. 58, May.

Linan, F., Chen, Y.-W. (2009), Development and Cross-Cultural Application of a Specific Instrument to Measure Entrepreneurial Intentions, *Entrepreneurship Theory and Practice*, Vol. 33 (3), 593-617.

Porter, M. (1990). The competitive advantage of nations. New York: The Free Press.

Reynolds, P., Bygrave, B. and Autio, E. (2003), GEM 2003 Executive Report, Babson College, London Business School, E. M. Kauffman Foundation.

Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P. and Chin, N. (2005), Global Entrepreneurship Monitor: Data Collection Design and Implementation 1998-2003, *Small Business Economics*, Vol. 24 (3), 205-231.

Schwab, K. and Sala-I-Martin, X. (2013). Competitiveness report 2013-2014. Geneva: World Economic Forum

Shane, S. and Venkataraman S., (2000), The Promise of Entrepreneurship as a Field of Research, *Academy of Management Review*, Vol. 25 (1), 217-226.

Shane, S., E.A. Locke and Collins, C.J. (2003), Entrepreneurial Motivation, *Human Resource Management Review*, Vol. 13, 2, 257-279.

Shapero, A. (1984), The entrepreneurial event. In C.A. Kent (ed.) *The environment for entrepreneurship*. Lexington, Mass.: Lexington Books.

Shapero, A. and Sokol, L. (1982), Social dimensions of entrepreneurship. *Encyclopedia of Entrepreneurship*, 72–90

Sheeran, P. (2002), Intention-behavior relations: A conceptual and empirical review. *European Review of Social Psychology*, Vol. 12 (1), 1-36.

Shinnar, R.S., Giacomini, O. and Janssen, F. (2012). Entrepreneurial perceptions and Intentions: The role of Gender and Culture, *Entrepreneurship Theory and Practice*, Vol. 36 (3), 465-493.

PART VI

LEGAL ENVIRONMENT OF THE EU

CHAPTER 38

Edita Čulinović Herc

Faculty of Law, University of Rijeka, Rijeka, Croatia

Nikolina Grković

Faculty of Law, University of Rijeka, Rijeka, Croatia

CROWDINVESTING REGULATORY FRAMEWORK IN FRANCE AND ITALY¹

ABSTRACT

Crowdfunding is a recently emerged business practice which challenged the application of an extensive European and national legislative framework designed in mind with practice of traditional capital market actors. The paper points out specificities of crowdfunding, inherent risks and possible investor protection mechanisms as well as the role of the platform. The second part of the paper examines and compares legislative approaches of French and Italian legislators in course of legislation addressed specifically to crowdfunding.

Keywords: crowdfunding, capital market law, investor protection, seed financing

Jel classification: K22, E22, G24

1. INTRODUCTION

Crowdfunding is a relatively new model of business financing, based on the idea that small amounts of money invested by large number of contributors via Internet platform, when put together could be a valuable source of financing. Although firstly used in financing of artistic and

¹ This paper has been supported by the Croatian Science Foundation project no. 9366 "Legal Aspects of Corporate Acquisitions and Knowledge Driven Companies' Restructuring"

non-profit projects with social component, CF emerged as an alternative method of raising capital for start-ups, micro and small enterprises (Lambert, Schwienbacher 2010; Hermer, 2011), finding its niche at the capital market. While there are different types of CF, such as donation CF, reward based or pre-selling CF, CF lending, equity CF (Hermer,2011; Bradford,2012), the focus of this paper is placed on crowdfinancing, where in return for money contributions, the crowd/investors acquire equity or debt financial instruments. This form of CF is faced with high degree of uncertainty from a legal point of view (Heminway, Hoffman, 2011; Larralde, Schwienbacher 2012; Pope 2011) since capital market in Europe is regulated by an extensive European and national legislative framework which has been designed having in mind with operating practice of traditional capital market actors. Having in mind benefits of crowdfinancing which were already been recognised at European level (EC Communication on unleashing the potential of CF, 2014) and the fact that extensive regulation could result in diminishing those benefits, the first part of the paper deals with the risks arising from crowdfinancing, possible investor protection mechanisms and the role of the platform, while second part examines regulatory approaches and solutions of French and Italian legislators.

2. ANATOMY OF CROWDFINANCING

2.1. High risk investments and investor protection issues

Majority project holders who raise funds via platform are unlisted smaller businesses or start-ups (Schwienbacher, Larralde, 2010; Parsont, 2014), i.e. companies in an early phase which often rely on innovative business concepts not yet proven on the market. That is why in general they face high default rates and may record considerable losses during the first few years of their activity. They choose relatively inexpensive corporate entity type (such as a closely held company) and issue equity or debt instruments which may or may not be transferable. In the best case scenario, instruments are transferable, but still relatively illiquid due to the limited secondary market (Grković, 2014:60; ESMA Advice, 2014:8). As a consequence, certain risks arising from crowdfinancing - such as the risk of total or partial loss of capital, liquidity risk, the risk of no recovery, the risk of dilution of equity holdings in subsequent rounds of capital raising, information asymmetries, are inherent when investing in such types of financial instruments (Bradford, 2012). Those risks also

exist when the same financial instruments are distributed through traditional means. One of the main hurdles associated with crowdfinancing is therefore, its open nature (De Buysere et. al, 2012). What was at first mostly opened to business angels and VC funds, now in practice becomes easily accessible to retail investors as well. At the same time, the openness is one of the most significant benefits of crowdfinancing, since it provides the access to a larger pool of investors (Bradford, 2012). The nature of the financial instruments concerned, risks attached thereto and easy access of retail investors calls for analysis of investor protection mechanisms. Since it is typically argued that amounts per investor are rather small and therefore the impact of the aforementioned risks to a retail investor seems to be reduced (Pope, 2011:985), this could be the object of a debate. On one hand, one might argue there is a need for a legislator to impose restrictions as to the maximum amount invested per retail investor (JOBS Act solution) especially due to the evolving nature of crowdfinancing industry which still explores different business models. On the other hand, those who advocate more flexible approach are of opinion that that it is sufficient to oblige the platform to conduct a MiFID appropriateness or adequacy test (art. 19(4) (5) MiFID) and to warn investor of the inherent risks of such investment. In latter case a certain level of financial knowledge is required from an average retail investor who invests via CF platform operator, complemented by his reliance on its general investment recommendations. Since there are situations where MiFID appropriateness test is not an absolute duty (e.g. when financial instruments offered are out of the scope of MiFID financial instruments as defined in Sec C of Annex II MiFID), there is a need to ensure that investment opportunities reach investors for whom they are likely to be appropriate, especially in the context of high risk investments.

The open access inherent to crowdfinancing raises the issue of a public offer (art. 2 (1) (d) PD) and general solicitation (Belleflamme et al, 2010, Heminway, Hoffman, 2011). Some company forms by provisions of national law are not allowed to raise capital by launching a public offer (Schwienbacher, Larralde, 2010). Therefore, if the project holder wants to benefit from crowdfinancing, it is required to use an entity type which might not perfectly match its needs, especially taking into account the low cost orientation of start-ups and SMEs. In the crowdfinancing context, information asymmetries seems are even more accentuated, at least when compared to an early stage financing by other subjects (such as banks, VC funds and business angels). Therefore it is difficult for an

investor to render informed investment decision. The reasons behind this lack of information are various. First, there is an issue of the costs associated with producing adequate information which may require some form of due diligence. Second, like pointed out by some authors, the operators of CF platforms believe that only sophisticated investors are capable of evaluating this information (Schwienbacher, Larralde, 2012). Third, providing the smaller amount of information, at least until a potential investor actively indicates its investing initiative, might help the CF platform to escape definition of the public offer or application of the solicitation rules (Livre Blanc, 2013). On the other hand, since CF platform typically enables not only direct communication between project holder and investors, but also an interaction and discussion between (potential) investors, it is considered that this exchange of information and opinions facilitates making investment decision and mitigates the risk of fraud (Surowiecki's "Wisdom of the Crowd", Schwienbacher, Larralde, 2010; Bradford, 2012). Nevertheless, the opinions of the e-community and peer review are not helpful if opinions are biased. In the context of crowdfinancing, there are at least three possible approaches in resolving pre-investment information asymmetries. First relies on the assumption that combination of traditional risks (arising from project holders and financial instruments offered) and risks arising from crowdfinancing (limited amount of information on specific project, ambiguous wisdom of crowd) is such that investors should be provided with more information than in traditional investment context, while the amount of information to be provided to investors should be proportionate to the risks. This approach is rather formalistic since traditional risks could be mitigated by using other mechanisms (limit per investor and/or MiFID test). Therefore emphasis should be placed on the quality of provided information, rather than the quantity. Second approach argues that traditional mechanisms (issuance of a previously approved prospectus) should apply, which may potentially impose significant costs for issuers. Namely, a public offer of transferable securities triggers the obligation to issue a prospectus approved by the national competent authority, unless certain exemptions regarding the size of the offer and investor profile apply. It should be noted that Prospectus Directive (PD) excludes the obligation to publish a prospectus for offers of the amount less than 100 million EUR (art. 3(2)(e) PD). Moreover, when the offer is addressed to less than 150 non-qualified investors per Member State (art. 3(2)(b) PD), issuer is exempted from duty to publish prospectus. Since crowdfinancing

generally involves larger number of non-qualified investors and the amount of the offer usually exceeds the abovementioned threshold (see e.g. NESTA's analysis on UK CF platforms), it seems that both exemptions are not relevant for crowdfinancing. Although some CF platforms have designed their business models to fit into these exemptions (Grković, 2014), latter practice reduces the pool of potential investors. However, according to PD, Member States have a discretion to apply their own national regime in relation to offers in range between 100 000 EUR and 5 million EUR, meaning that an obligation to issue a prospectus will largely depend on the provisions of national law. Third approach challenges *status quo* by arguing a need to review situations when issuing a traditional prospectus is necessary. It takes into account CF specificities (internet context and specific type of issuers), but also issues which have much broader implications (same type of issuers outside CF context). First, Internet enables two-way communication between the project holder and investors making possible for investor to acquire relevant information to reach its informed investment decision. The risk that information obtained in such manner could be inaccurate/misleading is mitigated by the fact that the project holder should be responsible to provide the information that is fair, clear and not misleading. Second, issuing a traditional prospectus is costly and administratively burdensome for SMEs and start-ups while in the same time excessively detailed for target investors (i.e. crowd). The review could be done at a European level, by a revision of PD. The prospective revision would provide exemptions either exclusively related to crowdfinancing, or covering SMEs and start-ups in general. Even the latter “larger scope” approach (beyond crowdfinancing context), does not seem to be unlikely because EC has already initiated public consultations in that respect (EC press report: Unlocking Funding for Europe's Growth – EC consults on Capital Markets Union, February 2015). In the meantime, Member States could create their own national regimes within the discretion given by the PD currently in force. Therefore, there is a prospect that in the context of crowdfinancing investors will be provided with certain core information about the issue(r), although reduced when compared to traditional prospectus.

2.2. The role of the platform

CF platforms involved in crowdinvesting developed different innovative business models and being *start-ups* as well, became extremely adaptable to market's needs (Heminway, Hoffman, 2011; Hermer, 2011), operating with substantially lowered costs than traditional financial intermediaries. Definition and legal qualification of the services provided by platform operator to project holders and investors seems to be crucial. First, project holders as well as investors need to be certain in legal nature of the services offered (Rubinton 2011) and the extent of the platform's responsibilities and charged fees. Second, in case where services are related to MiFID financial instruments, it is vital to determine whether these services fall within the scope of MiFID investment services (as enumerated in sec. A of Annex I MiFID). This has significant impact on the platform operator. Namely, if the platform is providing MiFID investment services in relation to MiFID financial instruments, it is required to obtain prior authorisation from national competent authority, i.e. to operate as an investment firm (art. 5 MiFID), or be operated by investment firm (art. 20 MiFID), or act as a tied agent (art. 23 MiFID). Depending on each type of investment service, platform operator should meet certain capital requirements (art. 12 MiFID and Directive 2013/36/EU),² organisational requirements (art. 13 MiFID) and should apply rules of conduct. Third, legal qualification of services is necessary to determine whether Member States can design their own national regime (outside of MiFID) in relation to CF platforms, i.e. exercise an optional exemption provided by art. 3 MiFID. Conditions set in art. 3 MiFID suggest that this would be possible only if platform does not hold clients' funds or securities, provides only the investment services of reception and transmission of orders (RTO) and/or investment advice and transmits orders only to authorised firms.

Although the main function of the platform is to connect supply and demand, its role, i.e. services it provides to project holders and investors can vary significantly, especially when platform takes more active role and provides services beyond its core activity. While the main service provided to project holders seems to be providing access to a pool of potential investors and collection of their "commitments" (ESMA Advice, 2014), the essential service given to investors is providing

² Capital requirements vary in range from 50 000 EUR (or professional indemnity insurance) until 730 000 EUR. Amount depends on certain investment service and the fact whether the firm is authorized to hold client money.

information on investment opportunities and transmission of their investment decision/ commitments/ expression of interest to the project holders. Some platforms also offer additional services like advising project holders and/or provide certain administrative services since SMEs and start-ups generally do not have necessary experience in this field (Hermer, 2011:10). In some cases platforms also transfer funds once the target amount is reached. The first dilemma is whether the main service provided to the project holders may be qualified as a placing of financial instruments without a firm commitment basis (hereafter "placement").³ The dilemma arises from the fact that "placement" is not described in MiFID and CESR's advice although instructive, does not resolve the issue. This leaves the term and its scope rather ambiguous even in traditional context. It is recognised that "there is no one single process followed by investment firms and credit institutions in providing the services [...] of placing" and that "processes depend on the instrument involved, the issuer and the mores and rules of the local market" (CESR's advice, 2010:10). Therefore, it is evident that placing is considered as "a process" which includes a package of services typically combining advising, legal and accounting activities before the offer is launched (e.g. discussions on precise structure of the issue, including the pricing), contacting the network of potential investors, financial promotion and distribution, the sale of financial instruments to investors and operating a single 'pot' order book. Nevertheless, this process may also involve law and accounting firms and independent financial advisers which are not performing "regulated activity". It also evidently consists of other investment services (at least RTO for subscription) and financial promotion. It remains unclear how active the intermediary should be in search of clients. Also, if an active search of clients is a relevant criteria, how it can be applied in Internet context where platform operates a website which facilitates investments. At the same time, the core platform activity could be qualified simply as "providing support or taking care of subscription forms", which does not constitute the service provided exclusively by licenced financial intermediaries.

In relation to investors, one can argue that "collecting commitments or an expression of interest" is nothing else but the investment service of RTO where the platform receives orders from investors and transmits them to the other party (see ESMA Advice, 2014). The notion of 'order'

³ If that would be the case, platform could not be exempted under the art. 3 MiFID optional exemption and would be required to have capital in the amount of 730 000 EUR. Nevertheless, it could act as a tied agent.

is not defined in MiFID but it should be emphasized that MiFID does not make a difference between primary and secondary capital market. Once we establish that "commitments or expressions of interest" are equal to the order, we can also argue that (unless the deal was concluded elsewhere without involvement from the platform) the platform "acted to conclude agreements to buy or sell one or more financial instruments on behalf of clients" therefore providing the service of execution of orders on behalf of clients (art. 4(1)5 MiFID). Additionally, in great number of cases the platform operator imposes certain selection criteria and procedure for „listing“. It might decide not to list particular project (*vetting process*), to introduce selection process based on its own criteria (such as evaluation of a business plan) (De Buysere et. al, 2012) and to conduct a *due diligence* process the scope of which varies (Grković, 2014). The more complex and rigorous listing procedure is, the more probable is investor's reliance in the quality of the project. From the point of view of investor it may be perceived as investment advice, regardless of the fact that it might not legally constitute a personal recommendation which is essential element of investment advice (art. 4(1)4. MiFID). In a case where the platform acts both on behalf of the issuer (providing the service of placement) and on behalf of the investor (providing the service of execution of orders), conflict of interest may arise, as well as in the situation where both issuers and investors to a certain extent seem to rely in platform's advice. Additionally, some platforms operate on a co-investment model (De Buysere et. al, 2012), which could be another source of conflict of interest. While all activities listed above concern platform's activities in primary market, small numbers of platforms are also offering so-called bulletin boards, trying to develop secondary markets for these financial instruments. This activity calls for a closer examination whether the platform is operating the MTF (as defined in art. 4(1)15. MiFID) or a new category introduced by MiFID II (OTF) (Grković, 2014:69).

It should be noted that typical crowdfinancing campaign, even when successfully managed creates a capital structure, which is unattractive to other investors in subsequent funding rounds. Therefore, the likelihood of future external funding through venture capitalists or business angels declines and every new round including more investors seems to make investing too complex to deal with. Nevertheless, certain platforms have spotted this loophole and have designed their business model in order to overcome this inconvenience and to make crowdfinancing more

compatible with the investments of venture capitalists (Grković, 2014). Those platforms typically step into or interfere the relationship and/or communication between specific project holder and its investors. Sometimes platforms act as a nominee of investors, e.g. when it comes to exercise of their voting rights and in some cases they look for exit opportunities for investors. From a legal point of view it is of the utmost importance to determine whether the platform operates in the concept of direct or indirect crowdfunding. Investments are direct if investors acquire directly shares or bonds issued by the issuer company (project holder). On the other hand, investments are indirect when investors become shareholders of a newly formed entity, i.e. SPV or collective investment scheme (established by the platform or a third party), which in turn invests in shares or bonds of the target company/project holder. Typically, SPV invests in a single project (ESMA Advice, 2014:7), previously chosen by a sufficient number of investors. The latter business model is usually referred to as a 'holding model' (Hermer, 2011:16, Tomczak, Brem, 2013:346). If platform is considered to manage a collective investment scheme, it actually acts as a manager of investment fund, i.e. a manager of alternative investment fund (AIF) and should comply with the set of requirements and rules set in Alternative Investment Fund Managers Directive (AIFMD).⁴ The decisive legal concepts which should be taken into consideration are the definition of "a collective investment scheme" and "investing in accordance with a defined investment policy" (art. 4(1)a AIFMD). One might argue that in line with ESMA's guidelines, new entity established by platform or third party, as an "intermediary investor" between project holder and end investors, may be considered as "a collective investment scheme" (para12, ESMA/2013/611), especially since 'pooling of funds obtained from the crowd seems to be at the heart of the CF' (Heminway, Hoffman, 2011; Livre Blanc, 2012). However, the straightforward conclusion cannot be made in relation to prerequisite of "investment policy." It is because investors themselves make an investment decision in which project holder they will (indirectly) invest and the platform itself has no discretion in relation to investor's decision. On the other hand, one can also argue that, especially in a case when platform also acts as a selector of projects, it actually performs a rather restrictive investment policy (ESMA Advice, 2014:22) and that investment decision taken by end investors is actually a decision whether to invest

⁴ While marketing of AIFs is in principle restricted to professional investors, Member States may choose to allow marketing of AIFs to retail investors.

in an AIF or not. Additional legal uncertainties rise from the fact that AIFMD contains various exclusions from its scope. In the context of indirect crowdfinancing, the platform can escape an application of obligations imposed by AIFMD if it acts as a "holding company" (art. 2(3)(a) AIFMD in relation to art. 4(1)(o) AIFMD) or as a "securitisation special purpose entity" (art. 2(3)(g) AIFMD). Also, the exemption set in art. 3(2) AIFMD allows entities with total Asset Under Management less than 100 million EUR (where there is leverage) or less than 500 million EUR (where there is no leverage and no redemption rights are exercisable for 5 years after the initial investment) only to register at the home Member State and to provide information on the AIFs they operate, their investment strategies and exposures. In latter case, a platform operating as AIFMD could also be able to carry out additional MiFID services and to be authorised under MiFID. That is a significant factor, since other AIFMs (which are not within the art. 3(2) AIFMD exemption) could only market the shares or units of an AIF, although Member States may permit them to provide MiFID services of RTO and/or investment advice (art. 6(4)(2) AIFMD), if AIF manager is external. In case where this regulation seems to be too burdensome for a platform operating under indirect model, there is also a possibility to rely on EuVECA Regulation designed for investments in SMEs. This regulation, under certain conditions offers a "lighter regime", the closer examination of which goes beyond the scope of this article.

3. FRANCE

In France, regulatory framework relevant for crowdfinancing (*financement participative*) includes French Monetary and Financial Code (MFC), General Regulation of AMF (GR AMF) and Commercial Code (CC). Although by 2013 enthusiasm for crowdfunding was high, amounts collected were largely unbalanced in favour of donation based CF (Livre Blanc, 2013:5). From the standpoint of CF industry representatives, the main reason was not that the French are risk adverse, but high regulatory constraints designed in line with the logic of traditional financial intermediaries (Livre Blanc, 2013). On May 14th 2013, French national authorities (AMF and ACPR) published a Guide for CF addressed to platforms and project holders,⁵ leaving some issues

⁵ List of possible services provided by a platform included placement of financial instruments (art. D 321-1, 7 CMF), RTO (art. D 321-1, 1 CMF), execution of orders (art. D 321-1, 2 CMF), operating a MTF (art. L 424-1 CMF) and investment advice (D 321-1, 5 CMF).

unclear. According to Industry Review of Crowdfunding Regulation published in October 2013 there were at least four crowdinvestment platforms operating in France, some even employing an indirect model. They were authorised as financial investment advisers (*conseiller en investissements financiers*, CIF), which is a French specific status defined by art. L.541-1 CMF.⁶ Inspired by new CF regulation in USA (JOBS Act, 5 April 2012) French CF industry representatives made several proposals during the 2012 and 2013 encouraging more flexible legislative regime (Livre Blanc, 2013). They argued that existing exemptions in relation to the obligation to issue a prospectus should be expanded above the existing thresholds. Additionally, it was suggested to allow simplified joint stock company (*société par actions simplifiée*, SAS) to collect funds via platform and to be exempted from obligation to issue a prospectus. As to the position of a platform it was argued that a new status of '*établissement de financement participatif*' should be created as well as new structure of investment funds (*fonds commun participatif*) under the national regime, which would not have legal personality and would issue shares representing the project under conditions defined by its own rules (Livre Blanc, 2013:58). Even before EC launched public consultations on CF (October 2013) and published subsequent Communication (March 2014), French officials proposed legislative reforms impacting CF (30 September 2013). New rules were adopted by Ordonnance n° 2014-559 of 30 May 2014, Decree n°2014-1053 of 16 September 2014 and elaborated in new CF guide published by ACPR and AMF in 30 September 2014.

Ordonnance n° 2014-559 created a new status CF equity investment advisors (*les conseillers en investissements participatifs*, CIP), inspired by previously used CIF which is subject to a less restrictive regulation. CIP is defined as a legal person established in France (L 547-1-I and L547-3-I CMF) engaged in investment advisory activity (art. L. 321-1 5 CMF) on ordinary shares and fixed rate bonds not admitted to trading on a regulated market or a MTF (art. L 547-1-I CMF, art L 411-2 II, 2, I bis CMF, art. D 547-1 CMF). All other financial instruments are expressly excluded. In addition to abovementioned advisory activities, CIP may also provide ancillary services referred to in 3 of art. L. 321-2 CMF, i.e. providing advice to undertakings on capital structure, industrial strategy

⁶ In relation to CIF, a less onerous licensing regime applies.

and related issues as well as providing advice and services relating to mergers and takeovers. Another ancillary service is 'taking care of subscription forms' provided under the conditions set by in art. 315-66-1 RG AMF and art. 325-50 RG AMF. The performance of any other activity is expressly f This paper has been supported by the Croatian Science Foundation project no. 9366 "Legal Aspects of Corporate Acquisitions and Knowledge Driven Companies' Restructuring" or forbidden. CIP status excludes providing payment services (art. L547-1-III CMF) and receiving client's funds and securities (art. L. 547-6 CMF). Another decisive element of CIP status is that this activity is conducted through a restrictive access website, i.e. website meeting characteristics laid down by the art. 325-32 GR AMF (art. L 547-1-I CMF). Website has to offer several projects which were selected on the basis of criteria and procedure published on the site (*due diligence*). Also, potential investors may have access to details of the offers (i.e. prospectus or mini prospectus) only after they provide contact information and confirm they are aware of inherent risks,⁷ while subscription assumes that investors have provided information that enables the platform to perform suitability test and assess whether the proposed offer meets customer's situation. Therefore, website presumes restrictive access both in relation to the project holders and potential investors, as well as in relation to the amount of information potential investors may access. As explained in Position given by AMF and ACPR, using a restrictive access website is one of the conditions under which it will not be considered that a platform provides the service of placement of financial instruments. The other condition is that platform does not actively search subscribers for specific activity.⁸ According to new Guide to CF issued in September 2014 and in line with the rules on promotion and direct marketing, platform can promote its the services in a general manner, but not advertising specifically the characteristics of an investment deals it offers (CF Guide, 2014:11). In contrary, it will be subject of the obligation to issue a prospectus. The same obligation arising from the public offer of financial instruments has also been examined. First, Ordinance allows SAS to raise funds via CIP if it issues ordinary shares or fixed rate bonds not admitted to trading on a regulated market or a

⁷ As explained in a Position given by the AMF and ACPR, before the identification phase, a platform may provide a brief presentation of the project to be financed, i.e. issuer name and brief description of its activity, amount sought, subscription sheet date or subscription intentions.

⁸ As explained, the active approach in the search of subscribers, would exist if platform is bound by a contract with the issuer whose purpose is to search for subscribers or purchasers, or if it is actively engaged in research subscribers or purchasers to present them a specific operation and to encourage them to invest.

MTF and if the amount of the offer is less than 1 million EUR (art L 411-2 CMF, art D 411-2 CMF, art. 211-2 RG AMF).⁹ Nevertheless, in that case SAS also has to comply with certain provisions of SA related to voting rights and general meetings, i.e. with the provisions of art L 225-122 until L. 225-125 CC, art. L. 225-96 until L. 225-98 CC, the third para of art L. 225-105 CC. The exemptions of a public offer are wider, both for SA and SAS. Nevertheless, before any subscription issuer must provide via the same website a set of information referred in art. 217-1 GR AMF¹⁰ which does not have to be previously approved by AMF. According to the art. 217-1, 314-106 and 325-38 of the GR AMF and AMF document (DOC-2014-12), those information should be supplemented by the information provided by investment firm or CIP¹¹ and communicated by e-mail to investors before any subscription, as well as be possible to download from the website, in its synthetic and full version.

Ordonnance and GR AMF set conditions for individuals who have the power to manage or administer CIP concerning age requirement, good reputation and professional competence (art. L 547-3-II CMF, art. D 547-2 CMF). CIP also must be a member of professional association approved by AMF. Since there are no minimum capital requirements, a professional indemnity insurance policy is required (art. L. 547-5.-I. CMF). In addition, art. L. 547-9. CMF imposes rules of conduct which include a duty to conduct a business with due skill, care and diligence, to act in the best interests of clients, to collect information on investors and ensure that the proposed offer meets customer's situation. In the case where (potential) customers do not communicate the required information, the offer cannot be considered as suitable (art. L 547-9, 6°

⁹ It should be noted that Consultation document of competent ministry of September 2013 opened this exemption only for offers of the amount less than 300 000 EUR.

¹⁰ These information concern its business, project (including last existing accounts, forward-looking statements on the business as well as a chart of the management team and shareholders) and specific risks. Also a comprehensive information should be given on all the rights attached not only to the securities offered but also on other securities and their beneficiaries, as well as the information on the level of participation which the officers of the issuer have committed themselves in the context of the offer. Another set of information includes agreement or statute provisions which make conditions and limitations to the liquidity of securities and conditions under which investors can obtain inscription copies from the books of the issuer, copies of last year's and current reports on general meeting assembly.

¹¹ Investment firm or CIP has to inform on the arrangements for collection and transmission subscription forms and the rules applied in case of over subscription, details of fees charged to the investor as well as the ability to obtain on request a description of the services provided to the issuer of securities whose subscription is considered and the costs related thereto and the risks inherent in the project and in particular the risk of total or partial loss of capital, liquidity risk and the risk of no recovery. In the case of indirect CF, the platform has the obligation to ensure that the subscriber receives the information about the project it supports. In any event, the interposition of a SPV should not impede the delivery of information listed above.

CMF). Ordonnance clearly distinguishes indirect CF, since it imposes a duty on CIP to ensure that, where the company in which their clients invest is to own and manage shares in another company, clients' interests are not harmed and that they have all the information necessary for the appreciation of their investment (art. L 547-9, 9° CMF). Also, CIP has to ensure that companies in which their clients invest directly or indirectly by a company whose purpose is to hold and manage participation in other companies comply with (where applicable) the provisions of art L. 227-2-1 of the CC regarding the SAS (art. L 547-9, 8° CMF).

CIP status is one of the options which Ordonnance offers to CF platforms. Platform may also opt for the status of investment firm providing investment advice. In that case, the provisions on restricted access website, organizational rules and rules of conduct are also applicable, but such investment firm may choose between 'mini prospectus' or prospectus approved by AMF. Benefits of such status are EU passport, possibility to expand to all categories of securities and services it provides, as well as the possibility of holding a client's assets. Nevertheless, in that case it has to comply with minimum capital requirements (CF Guide, 2014). One of the downside of the CIP status is that, as a specific national regime does not enjoy the benefits of EU passport.

2. ITALY

In Italy, legislative amendments were designed in substantially different context when compared to the one in France. A specific regulation for crowdfunding was made much earlier while Italian crowdfunding business practice was rather underdeveloped (see analysis of Castrataro and Pais) and with a view to unleash its potential. Also, it was a part of broader legislative package aimed at fostering the development of innovative start-ups during its whole life cycle. Passing the Law Decree 179/2012 of 18 October 2012 (so called Growth Decree bis), subsequently converted into Law 221/2012 of 17 December 2012 and later developed by CONSOB's Regulation of 26 June 2013 (REG), Italy became the first country in Europe to adopt a legislation specifically directed at crowdfunding. Nevertheless, it was considered highly restrictive and potentially harmful for the industry growth. A first revision was made very soon by Law Decree 76/2013, followed by

second revision in the beginning of 2015 (Law Decree 3/2015 of 24 January 2015).

Law Decree 179/2012 and Law 221/2012 made amendments on Consolidated Finance Act (*Testo Unico della Finanza*, TUF) by introducing “the service of management of portals for the collection of risk capital for the innovative start-ups” (art. 50-quinquies (1) TUF). This service may be provided either by an authorised investment firms and banks or by special entity, under condition of transmitting the orders for subscription to the investment firms or banks (art. 50-quinquies (2) TUF). The first category must simply notify the CONSOB prior to commencement of this activity and is enrolled in a special section of the CONSOB’s REG (art. 5(2) REG), while the second category must require an authorization (art. 5(1) REG). In order to be authorised, it is required to be an entity of specific legal form,¹² whose legal or administrative seat or stabile organisation (for EU subjects) is in Italy and whose only objective is to provide the service of management of aforementioned portals (art. 50-quinquies (3) TUF). It is also required to provide a detail description of its intended activity (all 2(A) REG)¹³ and meet the requisites of honourability and professionalism set by CONSOB’s REG. Once registered, it is excluded from the obligation to apply rules of conduct (art. 21- 25-bis TUF) and provision on promotion (art. 32 TUF) applicable to investment firms and banks. Nevertheless, CONSOB’s REG introduces special set of rules of conduct and other investor protection mechanisms for retail investors. Apart from general obligations on diligence, fairness, transparency and equal treatment of clients (art. 13(1) REG), CONSOB’s REG identifies information that must be published by a platform operator in detail, correct and easily comprehensible manner (art. 13(2) REG). This approach is taken since the exemption to issue a previously approved prospectus is applied to offers of the amount less than 5 million EUR (art. 100-ter TUF, art. 2 (1) g REG in relation to art. 34-ter (1c) of CONSOB regulation on issuers) which is a remarkably high threshold. Information published on portal includes information on operator itself (art. 14. REG)¹⁴ and individual

¹² Joint stock company, partnership limited by shares, limited liability company or cooperative.

¹³ The description should indicate the project selection criteria, advisory services provided to project holders, whether it intends to publish regular information on milestones achieved by innovative start-ups, periodic reports on their progress, provide mechanisms to facilitate the flow information between the innovative start-up and investors or between investors.

¹⁴ It includes not only information on activities, cost born by investors and method of project selection, but also possible delegation to third parties, manner of the management of orders, measures taken to reduce and

offers available on the portal.¹⁵ The operator has to refrain from recommendations on the financial instruments which are the object of individual offer (art. 13(4) REG) and ensure that retail investors may access information of particular offer only after they have read information on investor education, confirmed they are aware of risks inherent to investments in start-ups (by filling the questionnaire) and declared they are able to financially bear the entire loss of investment (art. 15(2) REG). The operator draws the attention to retail investors whether high risk investments are adequate in relation to their budget (art. 13(2) REG). In relation to the orders for subscription, operator may execute them only if their amount is under defined thresholds, i.e. for orders of individuals 500 EUR per order or 1000 EUR per year, and for legal persons 5000 EUR per order or 10 000 EUR per year (art 17(4) REG exemption). Above those thresholds, operator has the obligation to transmit orders in accordance with the time sequence they were received (art 17(1) REG) to banks or investment firms (art 17(2) REG) which execute them in line MiFID rules (art 17(3) REG). Holding client's funds or instruments is not allowed (art. 50-quinquies (4) TUF). Funds necessary for the execution of the order are kept on the specially formed account unavailable to the issuer (art 17(6) REG, art. 25(1) REG). Retail investors who have indicated their will to subscribe offered financial instruments have a right to revoke their decision in cases where in period between the launch of the offer and its closure, new fact arose which is capable of affecting the investment decision (art. 25(2) REG).

Art. 24 REG implements additional retail investor protection mechanisms. In a situation when after the offer members having control in innovative start-up transfer the control to the third party, retail investors which subscribed the financial instruments offered via portal are entitled either to withdraw from the company (withdrawal right) or to co-sell its holdings together with members having the control (tag-along right). It is the operator's responsibility to verify whether these rights, as well as the procedures established to exercise them, are included in issuer's statute or articles of incorporation. These rights exist at least three years after completion of the offer (art. 24(1)(a) REG). The operator's responsibility is to verify whether issuer's statute or articles of

manage the risk of fraud, conflict of interest and complaints procedures, data on offers and their outcome, as well as the relevant regulation included as a website section on investor education.

¹⁵ While complete and accurate disclosure of information related to individual offer (such as risk of loss of capital, liquidity risk, limitation on distribution of profits, tax treatment, the bankruptcy law exemptions, the content of business plan, the right of withdrawal and rules related to its realization) is responsibility of the project holder, the operator has also the obligation to disclose a list of information related to the offer.

incorporation contains provisions related to the communication of start-up and the publication of shareholders' agreements in the issuer's website. In addition, at least 5% of financial instrument offered has to be subscribed either by professional investors, banking foundations or start-up incubators (art. 24(2) REG). The latter condition was the subject of a debate during public consultations (Micic, 2015:45)

The amendments made in 2013 and 2015 reflected the view that too strict requirements were set in relation to the qualified project holders defined as innovative start-ups (art. 25(2) of Law 221/2012) (Micic, 2015:48).¹⁶ Classifying criteria for innovative start-up were therefore slightly simplified in 2013, while amendments made in 2015 broadened the category of suitable crowdinvesting project holders including innovative SME, one type of investment funds (*organismi di investimento collettivo del risparmio*) and other companies that predominately invest in innovative start-up or SME. Financial instruments which may be subject of the offer made via portal are shares or units representing a capital (art. 2(1)h REG). In addition, amendments made in 2015 created an alternative regime for subscription and transfer of limited liability company's units (art. 100-ter, 2-bis TUF).

5. FINAL REMARKS

Solutions provided by French and Italian legislator both aim to establish a light or at least specific regimes for CF platforms. Nevertheless, at least in the terms of qualification of services provided by the platform, legislative approaches are significantly different. French legislator's main concern was obviously open access and the key solution restricted access website which entails suitability test, obviously inspired by MiFID. It is an elegant solution because at the same time it resolves public offer issues and serves as a tool to tailor an investment advice service, as well as a line of distinction between investment advice and the investment service of placement. Similar solution is provided by the Italian legislator, but not as a tool to create investment advice service.

¹⁶ Innovative start-ups are defined as companies of capital, including cooperatives, the shares of which are not listed on a regulated market nor on a MTF. Company has to be operational for less than 4 years, have its seat in Italy and a yearly turnover lower than 5 million EUR. It is not allowed to distribute profits and has to develop and commercialize innovative products or services of a high tech value. It should not be a result of a merger, split-up or selling-off of a company or branch. In order to be considered as innovative three optional criteria are set.

Although Italian legislation does not positively enumerate services provided by the platform, it obviously considers that one of them is RTO and designs very interesting regime in relation to execution of the orders, combining maximum threshold solution and MiFID test. What is more, the investor protection mechanisms are implemented even in the content of the offer and were largely inspired by some of the clauses typically used in early stage finance by business angels and VC funds. Additional encouragement to involve in crowdfunding is the confidence which retail investor may have when one of the investors is accredited one. What seems to be a uniform solution is that both Italy and France focused on financial instruments not admitted to trading on a regulated market or a MTF and expanded exemptions to issue a prospectus, requiring a disclosure of specific list of information. In relation to the indirect crowdfunding, it will be interesting to observe the development of this market sector and regulatory approaches of Member States and ESMA.

REFERENCES

AMF and ACP: S'informer sur le nouveau cadre applicable au financement participatif, 30 septembre 2014.

AMF e ACP Guide du financement participatif à destination des plateformes et porteurs de projets, publié le 14 mai 2013.

Arrêté du 22 septembre 2014 portant homologation des modifications du règlement général de l'Autorité de marché financiers concernant le financement participative, JORF n°0223 du 26 septembre 2014, texte n° 12.

Baeck, Peter, Collins, Liam, Zhang, Bryan (2014): Understanding Alternative Finance, The UK Alternative Finance industry report 2014, NESTA, University of Cambridge,
Available at: <https://www.nesta.org.uk/sites/default/files/understanding-alternative-finance-2014.pdf>

Belleflamme, P./Lambert, T./Schwienbacher, A. (2010): Crowdfunding.: An Industrial Organization Perspective
Available at:
http://www.researchgate.net/profile/Paul_Belleflamme/publication/2284

[68454Crowdfunding_An_Industrial_Organization_Perspective/links/02bfe5146fedab2af1000000.pdf](https://ssrn.com/abstract=1916184)

Bradford, Steven: Crowdfunding and the federal securities laws, Columbia Business Law Review, Vol. 2012, No 1, 1-150, available at: <http://ssrn.com/abstract=1916184>

Castrataro, Daniela, Pais, Ivana: Analysis of Italian Crowdfunding Platforms, November 2012
Available at: <http://twintangibles.co.uk/wp-content/uploads/2012/12/CrowdfundingInItaly1.pdf>.

Commission Directive 2006/73/EC of 10 August 2006 implementing Directive 2004/39/EC of the European Parliament and of the Council as regards organizational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive, OJ L 241, 2.9.2006, p. 26–58.

Décret n° 2014-1053 du 16 septembre 2014 relatif au financement participatif, JORF n°0215 du 17 septembre 2014, texte n° 11.

DECRETO-LEGGE 24 gennaio 2015, n. 3: Misure urgenti per il sistema bancario e gli investimenti, *GU n.19 del 24-1-2015*.

DECRETO-LEGGE 28 giugno 2013, n. 76 Primi interventi urgenti per la promozione dell'occupazione, in particolare giovanile, della coesione sociale, nonché in materia di Imposta sul valore aggiunto (IVA) e altre misure finanziarie urgenti. (13G00123) (GU Serie Generale n.150 del 28-6-2013)

Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council and repealing Council Directive 93/22/EEC, OJ L 145, 30.4.2004, p.1.

Directive 2010/73/EU of the European Parliament and of the Council of 24 November 2010 amending Directives 2003/71/EC on the prospectus to be published when securities are offered to the public or admitted to trading and 2004/109/EC on the harmonization of transparency

requirements in relation to information about issuers whose securities are admitted to trading on a regulated market, OJ L 327, 11.12.2010, p. 1–12.

Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010, OJ L 174, 1.7.2011, p. 1–73.

Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, OJ L 176, 27.6.2013, p. 338–436

Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, 12.6.2014, p. 349–496.

ESMA's Opinion on investment –based crowdfunding, 18 December 2014, ESMA/2014/1378

Grković, Nikolina, Pravni aspekti državnog poticanja ulaganja u obnovljive izvore energije i uloga privatnog kapitala, završni rad na Poslijediplomskom specijalističkom studiju Financijsko pravo trgovačkih društava na Pravnom fakultetu Sveučilišta u Rijeci, 2014.

Hemer, Joachim (2011) : A snapshot on crowdfunding, Working papers firms and region, No. R2/2011

Available at: http://www.isi.fraunhofer.de/isi-wAssets/docs/p/de/arbap_unternehmen_region/ap_r2_2011.pdf

Heminway, J., and S. Hoffman. 2010– 2011. “Proceed at Your Peril: Crowdfunding and the Securities Act of 1933.” Tennessee Law Review (78): 879– 922.

Instruction AMF relative aux Informations aux investisseurs à fournir par l'émetteur et le conseiller en investissements participatifs ou le

prestataire de services d'investissement dans le cadre d'une offre de financement participatif (DOC-2014-12).

Jason W. Parsont (2014): Crowdfunding: the real and the illusory exemption, *Harvard Business Law Review*, Vol. 4, 2014, 281-343.

Livre Blanc – Finance Participative, Plaidoyer et propositions pour un nouveau cadre réglementaire, FinPart, 29.07.2013.

Micic, Igor: Crowdfunding: Overview of the industry, regulation and role of crowdfunding in the venture startuo, Hamburg, Anchor Academic Publishing 2015.

Ordonnance n° 2014-559 du 30 mai 2014 relative au financement participatif, JORF n°0125 du 31 mai 2014, texte n° 14.

Pope, N. 2011. "Crowdfunding Microstartups: It's Time for the Securities and Exchange Commission to Approve a Small Offering Exemption." *Journal of Business Law* 13 (4): 973–1002.

Position AMF (DOC-2014-10) et position ACPR (2014-P-08) sur le placement non garanti et le financement participatif.

Position n° 2012-08 de l'AMF et Position 2012-P-02 de l'ACP du 16 juillet 2012 relatives au placement et à la commercialisation d'instruments financiers.

Regolamento sulla raccolta di capitali di rischio da parte di start-up innovative tramite portali on-line, Adottato dalla Consob con delibera n. 18592 del 26 giugno 2013 (Gazzetta Ufficiale n. 162 del 12 luglio 2013 e in CONSOB Bollettino quindicinale n. 7.1., luglio 2013.)

Regulation (EU) No 345/2013 of the European Parliament and of the Council of 17 April 2013 on European venture capital funds, OJ L 115, 25.4.2013, p. 1–17.

Schwienbacher, Armin and Larralde, Benjamin: Crowdfunding of small entrepreneurial ventures, Book chapter forthcoming in *Handbook of Entrepreneurial Finance* (Oxford University Press), 2010

Available at: [http://www.em-a.eu/fileadmin/content/REALISE IT 2/REALISE IT 3/CROWD OUP_Final Version.pdf](http://www.em-a.eu/fileadmin/content/REALISE_IT_2/REALISE_IT_3/CROWD_OUP_Final_Version.pdf)

Testo del decreto-legge 18 ottobre 2012, n. 179 (pubblicato nel supplemento ordinario n. 194/L alla Gazzetta Ufficiale 19 ottobre 2012, n. 245), coordinato con la legge di conversione 17 dicembre 2012, n. 221 (in questo stesso supplemento ordinario alla pag. 1), recante: «Ulteriori misure urgenti per la crescita del Paese.». (12A13277) (GU Serie Generale n.294 del 18-12-2012 - Suppl. Ordinario n. 208)

CHAPTER 39

Ivana Kunda

University of Rijeka, Faculty of Law, Rijeka, Croatia

Danijela Vrbljanac

University of Rijeka, Faculty of Law, Rijeka, Croatia

(This paper is written under the support of the Croatian Science Foundation project no. 9366 “Legal Aspects of Corporate Acquisitions and Knowledge Driven Companies’ Restructuring”.)

JURISDICTION IN INTERNET DEFAMATION CASES AND CJEU'S POLICY CHOICES

ABSTRACT

The Brussels I bis Regulation (1215/2012), sequel to the Brussels I Regulation (44/2000), contains rules on international jurisdiction of the EU Member States’ courts in cross-border cases. Although the EU provision on jurisdiction for non-contractual cases follows the same principle as the respective Croatian national provision, its interpretation goes much beyond its actual wording. There is a growing number of cases related to violation of rights over the Internet, and in particular with the manner in which the jurisdictional provision based on a traditional territorial connection might be adjusted to the online environment. In its rulings, the CJEU regularly applies the purposive interpretation rather than strictly literal one, thus allowing flexibility in reading the existing provisions. In doing so, the CJEU necessarily takes account of the underlying economic and social as well as private interests. The purpose of this paper is to scrutinize the operation of the special jurisdictional provision for torts in Internet defamation cases and assess its socio-economic implications over the stakeholders. Application of those provisions poses challenges not only to legal practitioners, but also to media industry and individuals in Croatia.

Keywords: European law, personality rights, international jurisdiction, Internet, underlying principles, media

JEL classification: K13, K40

1. INTRODUCTION

One of the tasks of the private international law is to determine the courts, which will have jurisdiction to decide the case connected to more than one country. In many situations, such a connection is established based on territorial principle, such as the domicile of the defendant, the place of the fulfilment of the contract, the place where the immovable is situated and the place where a party has acted. The concretisation of territorial principle in the form of special jurisdiction provisions is justified by the close connection between the dispute and a country of a court seised with the dispute. A sharp turn occurred with the expansion of the Internet since the mid-nineties, because of the omnipresent nature of the Internet. Naturally, these developments instantly captured the focus of international legal scholars (see for example Boele-Woelki & Kessedjian, 1998). Developments that are more recent include the Web 2.0. Its interactivity and dynamism created a favourable environment for popularizing social networks and the World Wide Web in general. Under such circumstances, the personality rights violations on the Internet became a growing social and legal issue, presenting concerns in the area of private international law as well. Recent cases referred to the Court of Justice of the European Union (hereinafter: the CJEU) have placed a difficult task on that Court – to adapt traditional territory-based jurisdiction provisions to Internet disputes defying geographic limitations.

The paper provides an analysis of the CJEU case law, which explains the scope of the applicable provision, its interpretation, and finally the approach the CJEU adopted to resolve Internet disputes. Due to its secondary applicability, a limited part of the paper is dedicated to the special jurisdiction provision of Croatian national law, which is brought into play in Internet defamation cases. The central part of the paper relates to the criteria upon which the CJEU based its decisions regarding jurisdictional issues in disputes originating in online personality rights violations, an in depth analysis of the underlying policy choices and stakeholders' interests.

2. LEGAL FRAMEWORK

2.1. Special jurisdiction in torts in EU law

The Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters (hereinafter: the Brussels Convention, Consolidated version OJ C 27, 26.1.1998, pp. 1–27) was introduced in 1968 as one of the most important instruments of European private international law. Being a so called “double convention” it incorporated two categories of rules, the ones determining international jurisdiction of the Member States’ courts, and the ones prescribing conditions under which judgments rendered in one Member State could be recognized and enforced in another. In 2001, after the European legislator had gained the necessary legislative powers to unify the European judicial area in civil and commercial matters, the Brussels Convention was transformed, with minor amendments, into the Council Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (hereinafter: the Brussels I Regulation, OJ L 12, 16.1.2001, pp. 1–23). At the end of 2012, the Brussels I Regulation was replaced by the Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (hereinafter: the Brussels I bis Regulation, OJ L 351, 20.12.2012, pp. 1–32) which preserved intact the majority of the Brussels I Regulation text, with some modifications. The Brussels I bis Regulation entered into force on 10 January 2015.

Several provision in the Brussels I bis Regulation may come into play when determining jurisdiction in Internet defamation cases, but one, which is particularly pertinent to the topic of this paper, is contained in Art. 7(2) of the Brussels I bis Regulation (formerly, Art. 5(3) of the Brussels I Regulation). This provision applies in matters relating to tort, delict or quasi-delict, and confers jurisdiction to courts of the Member State where the harmful event occurred or may occur.

The CJEU developed an extensive interpretation of the provision of Art. 7(2) of the Brussels I bis Regulation (and its predecessors in the Brussels I Regulation and Brussels Convention). Regarding the scope of the said provision, the CJEU held that the term “matters relating to tort, delict or

quasi-delict” entails the relationship between parties that cannot be qualified as a contract. Therefore, the first step by the national courts in determining whether a relationship between the parties may be characterised as a matter relating to tort, delict or quasi-delict, must be to exclude the existence of a contractual link. The contractual nature of the relationship in the sense of Art. 7(1) of the Brussels I bis Regulation is to be understood as covering a situation in which there is an obligation freely assumed by one party towards another (Judgment in *Handte v TMCS*, C-26/91, EU:C:1992:268, paragraph 15). More recently, the CJEU restated that the contractual relation “presupposes the establishment of a legal obligation freely consented to by one person towards another and on which the claimant’s action is based” (Judgment in *Engler v Janus Versand*, C-27/02, EU:C:2005:33, paragraph 51). On the other hand, the dispute is to be classified as non-contractual if it seeks to establish the liability of a defendant that is not related to a contract (Judgment in *Kalfelis v Schröder and Others*, C-189/87, EU:C:1988:459, paragraph 18).

Turning to the jurisdiction criterion, it has to be pointed out that the entire CJEU case law on the issue concerns the cases of distant torts, i.e. torts in which an event giving rise to damage takes place in one country (*locus actus*) while the consequences of such event are produced in another country (*locus damni*). In one of its early judgments, the CJEU adopted the principle of ubiquity when holding that the term “harmful event” means both the place where the damage occurred and the place of the event giving rise to it. This issue was decided in *Handelskwekerij Bier v Mines de Potasse d’Alsace* (C-21/76, EU:C:1976:166). The CJEU replied in the affirmative to the preliminary question whether a Dutch plaintiff may institute the proceedings against the French company managing a French mine before the Dutch courts, in which he claims compensation of damages to the crops in the Netherlands as the result of the saline waste which floated through Rhine from a French mine. The principle of ubiquity underlying the provision of Art. 7(2) is justified by the fact that both the court of the place where the damage occurred and the court of the place where the wrongdoer acted present appropriate fora for collecting the evidence and conducting the proceedings, and thus satisfy good administration of justice.

It is important to bear in mind that the place where the damage occurred refers only to the place where the direct damage occurred. Indirect

consequences of a harmful act are not an acceptable criterion for establishing jurisdiction. The CJEU decided so in *Dumez France and Others v Hessische Landesbank and Others* (C-220/88, EU:C:1990:8). The French companies filed a lawsuit against German banks before French courts based on Art. 7(2) of the Brussels I bis Regulation. According to the plaintiffs, the damage occurred in France to the companies' assets as a result of the damage their German subsidiaries initially sustained following the cancellation of the loans to the contractor by the German banks. Because only the damage arising to the German subsidiaries may be qualified as direct damage, French courts do not have jurisdiction over the claim in question. The rationale for limiting the *forum damni* to the court of the direct damage only is to avoid multiplication of competent courts because it might increase the risk of irreconcilable judgments rendered in different Member States. What is more, the Brussels I bis Regulation is in principle averse to conferring jurisdiction to the court of Member State of the plaintiff, unless it is appropriate due to the close connection with the dispute. While the apparent proximity exists between the place of the direct damage and the action for establishing the perpetrator's liability, the connection does not exist with the place of the financial repercussions deriving from direct damage. The latter is not warranted in the interest of efficient judiciary and is highly unpredictable to potential defendants.

The next step in the interpretation of the respective provision was owed to *Shevill and Others v Presse Alliance* (C-68/93, EU:C:1995:61). In this case, the CJEU was faced with the circumstances in which damage occurred in several Member States. On the plaintiff's side appeared Ms. Shevill, an English citizen residing in England who worked in the exchange office in Paris, as well as three companies incorporated under the laws of different Member States, managing an exchange office in Paris. The defendant was the company Presse Alliance SA, the publisher of the France Soir newspapers, in which an article was published, suggesting that companies managing the exchange office and Ms. Fiona Shevill were involved in money laundering as part of a drug trafficking network. The plaintiffs instituted the proceedings before the English court claiming compensation for defamation. The case raised issues concerning constitutive elements of "harmful event" and their localisation. The CJEU clarified that in the event of personality rights violations the rules developed in previously mentioned cases involving a physical damage or damage to assets, still apply. The plaintiff may

initiate proceedings in respect of all damage caused before the court of the publisher's establishment, as the place where the event giving rise to damage occurred. Additionally, the jurisdiction is conferred to the court of each Member State in which plaintiff claims to have suffered the damage as a result of copies of the newspapers distributed there, but only regarding the amount of damage sustained in that particular Member State. Such partitioning of *locusdamni* jurisdiction by portions of damage is often called the mosaic principle. In this paper it is referred to as the distributive jurisdiction, as opposed to the jurisdiction in the *locus actus* which is called aggregate jurisdiction.

2.2. Special jurisdiction in torts in Croatian law

In the Republic of Croatia, the majority of rules on establishing international jurisdiction are contained in Croatian Private International Law Act (hereinafter: the Croatian PIL Act, Official Gazette No. 53/1991, 88/2001). Subsequent to the accession of the Republic of Croatia to the European Union, the Brussels I Regulation, and its later amendments introduced by the Brussels I Regulation bis Regulation, became directly applicable. Accordingly, the Croatian PIL Act applies only in cases, which fall out of the scope of application of the Brussels I bis Regulation, such as where the defendant's domicile is outside the EU. There are several provisions in the Croatian PIL Act, which might be pertinent to Internet defamation cases, such as on general jurisdiction and on tacit prorogation of jurisdiction. Since they do not pose particular issues in Internet disputes, they are not dealt with in this paper. The provision specifically relevant to the Internet defamation cases is contained in Art. 53. According to it, the Croatian courts have jurisdiction if the damage occurred in the territory of the Republic of Croatia.

The term "damage" from Art. 53 of the Croatian PIL Act refers only to direct damage. The Supreme Court of the Republic of Croatia laid down this principle in its landmark judgment in *Katić* (VSRH, Revt 51/2003-2 of 27 February 2007). The plaintiff was a seaman who suffered severe bodily injuries during the inspection of the safety equipment in the lifeboat while the ship was anchored in Piraeus, Greece. The plaintiff whose domicile was in Croatia sued the Dutch shipowner in Croatia for pecuniary and non-pecuniary damages relying on Art. 53 of the Croatian PIL Act. The Commercial Court in Rijeka awarded him damages and the

High Commercial Court affirmed. However, upon the defendant's appeal on points of law, the Croatian Supreme Court quashed both judgments holding that Croatian courts do not have jurisdiction to hear this case. Seeing that the harmful event in which the plaintiff has suffered bodily injuries and health damage occurred abroad, the Supreme Court concluded that the damage occurred there and not on the territory of the Republic of Croatia. As the Croatian High Commercial Court reasoned in one of the later judgments (Pž-462/04 of 22 November 2007) relying on *Katić*, Art. 53 should be interpreted restrictively as it represents an exception to the general rule of jurisdiction, and therefore a close connection must exist between the subject matter and the competent court other than the court of the defendant's domicile. The Croatian Supreme Court thus chose to follow the same line of reasoning as developed by the CJEU's case law concerning the provision of the Brussels Convention and later regulations on international jurisdiction in non-contractual disputes, discussed in the former chapter (*supra* Ch. 2.1.). By doing so, the Supreme Court changed the direction of the long-standing Croatian court practice which failed to differentiate indirect from direct consequences of the harmful event for the purposes of international jurisdiction in torts (see, for example the High Commercial Court judgment Pž-6000/04 of 3 February 2006).

There seems to be no consensus in Croatian legal scholarship as to whether Art. 53 of the Croatian PIL Act incorporates the principle of ubiquity or not. Older theories suggest that Art. 53 refers only to the consequences of the damage (Dika, 1991: 197). However, more recent viewpoints lean towards an extensive interpretation according to which Art. 53 covers both the place of the event giving rise to damage and the place of the damage (Sajko, 1994: 239). Despite the fact the literary interpretation speaks in favour of the *locus damni*, Croatian scholarship tends to justify a broader interpretation by several points: Both jurisdiction criteria have equal importance, place of the event giving rise to damage is often more closely related to the harmful event, court in the place of the event giving rise to damage is competent to rule on the entire damage and not just the segment related to that specific country (Tomljenović 1998: 908), and this is the type of jurisdiction which is of elective nature so the plaintiff should have a choice between the two equally relevant jurisdiction criteria (Kunda 2008: 475).

3. OPERATION OF PROVISIONS ON SPECIAL JURISDICTION IN TORTS IN INTERNET DEFAMATION CASES

In the vein of its predecessors, the Brussels I bis Regulation does not contain a specific jurisdictional rule that applies in cases concerned with personality right violations on the Internet, including Internet defamation cases. Instead, the provision of Art. 7(2) is brought into play. The CJEU had a chance to clarify in which manner the provision of Art. 7(2) is applied to Internet defamation disputes. The issue appeared in *eDate Advertising* and *Olivier Martinez* (C-509/09 and C-161/10, EU:C:2011:685). In this case, X whose domicile is in Germany was convicted before the German court to a prison sentence, along with his brother, for the murder of a famous Austrian actor. In 2008, he was released on parole. eDate Advertising, a company domiciled in Austria, published an article on the website it manages mentioning X by his full name. The article alleged that X and his brother intend to prove that the witnesses gave false information during the trial. X sent a cease and desist letter to eDate Advertising concerning information on his conviction. The disputed content was subsequently removed from the website. In the proceedings instituted before the German courts, X sought that court orders eDate Advertising to stop using his full name in articles reporting on the murder. The company objected to international jurisdiction of German courts. The German Supreme Court was in doubt whether the jurisdiction of German courts could be established relying upon Art. 7(2) of the Brussels I bis Regulation. By the request for the preliminary ruling, the Court wished to resolve the dilemma as to interpretation of the place where the harmful event occurred: May the injured party sue the defendant before the courts of any Member State in which the disputed online content is accessible, regardless of the Member State in which the defendant's domicile is? Alternatively, is the existence of a close connection between the website and the content, on one hand and the Member State of the seised court, on the other, required? A further question intended to establish the circumstances which could indicate the presence of such a connection, mentioning: the intent of directing the website to a certain Member State, the number of times the website has been accessed from the territory of the Member State of the court seised, and the objective connection between the disputed information and the Member State of the court seised reflecting itself in the fact that the conflict of interest between the injured party and

the wrongdoer occurred or could have occurred in the Member State of the court seised.

In a joined case, the famous actor Olivier Martinez and his father instituted the proceedings before the French courts alleging the violation of Olivier Martinez's privacy rights. The suit was filed against MNG, the company incorporated under English law that manages the website of the British newspaper Sunday Mirror. The company published an article headed "Kylie Minogue is back with Olivier Martinez" on its website carrying out the details of their encounter. MNG objected to the jurisdiction of the French courts claiming the absence of an adequate connection between the disputed content and the damage allegedly sustained in France. Since the French court was not certain how to interpret the provision on jurisdiction in non-contractual disputes in an online environment, it referred to the CJEU several questions for preliminary ruling. The court wished to clarify whether a mere fact that the website is accessible from a Member State suffices for establishing the jurisdiction of the court in that Member State or should the existence of a significant connection be established between the harmful act and the territory of the Member State. In the case of a latter, the French court further inquired as to whether such a connection may be based on a number of visits to the webpage from the Member State of the court seised in total or compared to the number of visits in other Member States, or nationality or residence of the injured party or persons concerned, or the language in which the disputed content was communicated or other circumstance that could demonstrate the publisher's intention of directing information to Internet users in a certain Member State, or the place where the reported event took place or where the photographs were taken, or perhaps some other criteria.

In its ruling, the CJEU restated that the courts of the publisher's establishment, as courts for the place where the event giving rise to the damage occurred, have aggregate jurisdiction. The CJEU's answer to referred questions is that the courts of every Member State in which the disputed content is accessible (without any further requirement) have distributive jurisdiction. A novelty introduced by the *eDate Advertising*, and limited to cases of personality violation over the Internet, is that in addition to mentioned fora, the court of the place where the injured person's centre of interest is based has the jurisdiction to decide on the entire damage suffered by the injured person. This will most commonly be in the place of the injured party's habitual residence, but under the

circumstances might also be elsewhere. The CJEU reasoned that the court in the place of the injured party's centre of interest is the most appropriate forum to decide on the impact the violation had on the victim's life and it is appropriate to confer such jurisdiction to the court for the place where the injured person's interest is based. Consequently, there are two potential fora with aggregate jurisdiction to hear the claims on total damage (the place of the event giving rise to damage and the place of the injured party's centre of interest) and a number of fora (practically in all Member States) with distributive jurisdiction to hear respective portions of damage (the places where the damage occurred).

The only cases which were decided under Art. 53 of the Croatian PIL Act were similar to *Katić*. To the authors' knowledge, it is not reported that this provision was tested before Croatian courts in a distance tort case. Against this background, it would be highly speculative to attempt to construe any projection as to its interpretation in an Internet defamation case.

4. THE UNDERLYING POLICIES

In defamation cases occurring both online and offline, three categories of stakeholders can be identified, whose interests have to be balanced in law-making process as well as in rendering court decisions. Those are: an individual, whose interest is in protecting his or her private sphere against unlawful infringements; a publisher, whose interest is regularly of commercial nature and directed at publishing the content that will attract the audience as wide as possible; and public, whose interest is in having access to as much information as possible. The latter two interests generally coincide, whereas they are both frequently in conflict with the former interest of an individual. Balancing of these interests is indeed a difficult task, all the more since they are recognised as specific human rights: the freedom of expression on the part of media and public, and the right to human dignity and respect for private and family life on the part of individuals (Charter of Fundamental Rights of the European Union, Arts. 1, 7 and 11). While balancing of these conflicting interests is probably a more tangible process in substantive law under which the merits of a defamation case are resolved, it seems to be an inevitable point of reference for private international lawmakers in determining international jurisdiction criteria.

Previously scrutinized CJEU's case law demonstrates that the term "harmful event", as uncomplicated as it may seem at first glance, was able to generate a large corpus of interpretative case law. It is possible to tie the need for comprehensive clarification to the CJEU's effort to accomplish a satisfactory level of symmetry among the conflicting interests of the stakeholders. These interests are also represented in the principle of legal certainty and the principle precluding multiplication of the competent fora aimed at minimising the risk of irreconcilable judgments in the European area of freedom, security and justice. Along these lines, the question is raised as to the CJEU's motives to confer in Internet defamation cases such a variety of jurisdictional choices (a distributive jurisdiction on courts of virtually every Member State, an aggregate jurisdiction in the Member State of the event giving rise to damage and additional aggregate jurisdiction in the place of the injured party's centre of interest) at the account of these legal principles.

In *Shevill*, the CJEU believed to have struck the right balance between the interests of the injured party for protection of his or her personality rights, on the one hand, and the interest of the publisher to impart information and general public to receive information as components of the freedom of expression (on the freedom of expression see e.g. Barendt 2012: 899; Verpeaux 2010: 48 et seq.). For obvious reasons, the actions in cases concerned with personality right violations in media will most frequently be brought by the injured party against the publisher. The first option for the injured party is to bring the action in respect of all damage before the court of the publisher's establishment. From the publisher's point of view, besides being the most predictable forum and corresponding to its legitimate expectations, this is probably the most favourable forum as the publisher itself chooses the place of its establishment. This will often mean reference to the defendant's domicile (Art. 4(1) of the Brussels I bis Regulation), which may turn into the plaintiff's domicile if the publisher decides to commence the proceedings, for instance, asking the court to declare there was no violation. Undoubtedly, this criterion is very much in line with the publisher's interests, and with the coinciding interest of the public, and not as much with the injured party's interest. The injured party will usually have to turn to the courts of another Member State, which puts her or him in disadvantageous position. Namely, the official language of the court might be unknown to the injured party, as well as the legal system, in particular procedural rules. Besides, the cost of travel to and

stay in that Member State for the hearings or consultations, along with the cost of legal representation and translation might be significantly higher than compared to the proceedings in the Member State of her or his domicile.

The injured party's second option is to institute the proceedings before the courts of each of the Member States in which damage to one's reputation occurred. These will be the Member States in which the defamatory information is disseminated and in which the injured party is known prior to or after (as a consequence of) its dissemination (compare judgment in *Keeton v Hustler Magazine*, 465 U.S. 770 (1984) where the US court held that even if an injured party did not have a reputation in a certain place prior to publishing of the violating content, it might have one afterwards). The criterion of the place of damage is again highly predictable to publisher. The publisher that appears as defendant can easily limit the number of jurisdictions in which it may be sued under this criterion by territorially restricting the distribution or broadcasting of the information it publishes. Besides, publisher's legitimate expectations are protected by denying any relevance to hearsay in establishing jurisdiction in the place of damage (Nagy 2012: 256). The place of damage is somewhat less predictable to injured party. Although injured party is generally aware of places where she or he has reputation prior to publishing, she or he might become known in other places only because of the defamatory content distributed there. Whatever the case may be, the court of the Member State, other than the one where publisher's establishment is situated, has jurisdiction to decide the claim related to damage sustained in that Member State only. Although in such instances injured party has *de iure* wide options among available fora, these options are *de facto* very limited, as it is inconvenient, if not practically impossible, for the injured party to seek damages in multiple fora. It has been suggested that injured party faced with the choice of aggregate jurisdiction in publisher's establishment and distributive jurisdictions in other Member States where damage is sustained will usually choose the former (see Opinion of the Advocate General Villalón in joined cases *eDate Advertising* and *Olivier Martinez*, C-509/09 and C-161/10, EU:C:2011:192, paragraph 38; Oster, 2012: 115). Thus the injured party would get as much damages as possible for as little litigation costs as needed. In practical terms, thus, the distributive jurisdiction criterion favours publisher rather than injured party. Owing

to marginal chilling effect over the freedom of expression, this criterion is also favourable to the interest of the public to receive information.

In responding to the national court's preliminary questions in *eDate Advertising*, the CJEU attempted to remain consistent with its ruling in *Shevill* (see Gillies, 2012: 1014 et seq.). While two abovementioned criteria remain intact, their effect on the parties' interests is intensified due to the differentiating element in *eDate Advertising* and *Shevill*, i.e. the nature of the media by which the disputed information was communicated to the public. In *Shevill*, the defamatory statement was published in the traditional form of newspapers, the medium whose distribution and accessibility is *per se* limited to a definite number of countries. On the other hand, in *eDate Advertising*, the information was published on the webpage and became instantly accessible in virtually every country in the world (see Judgment in *eDate Advertising*, EU:C:2011:685, paragraph 45; see also Nagy, 2012: 260-261). The CJEU based its ruling on the premise that accessibility of the defamatory content in a certain Member State is sufficient to result in distributive jurisdiction there (discussion on accessibility vs. targeting see in Kunda 2013: 477-482). Unlike some who object that the mere accessibility results in exorbitant jurisdiction (Winkler, 2012: 816), authors of this paper believe that it is warranted by the need to compel everyone, including publishers, to act more responsibly on the Internet. In particular, in cases concerned with online personality rights violation, the harm caused to a person is much more intense and much less repairable than in the case of offline personality rights violation.

Because in situations of online defamation the defamatory content is virtually accessible in all countries in the world, including all Member States, the application of the criterion of distributive jurisdiction to these situations results in the exponentially larger number of potential fora. In a regular case subject to the Brussels I bis Regulation, the courts in 28 Member States would be competent to decide on the respective portions of damages suffered as a consequence of online defamation. For the abovementioned disadvantages in suing in more than one forum, publisher's interest in not being sued before the courts of distributive jurisdiction are probably even safer with online than traditional media. Most likely, the plaintiff would prefer to seek the award of the total amount of damages before one court; hence, the alternative to the distributive jurisdiction under *Shevill* would be aggregate jurisdiction of

the court of the publisher's establishment. This is again unfavourable to the injured party.

The uselessness of the distributive jurisdiction in Internet defamation cases, coupled with the seriousness of the harm suffered as a result of defamation in an online publication (Judgment in *eDate Advertising*, EU:C:2011:685, paragraphs 46 and 47), is counterbalanced by adding a new jurisdiction criterion – the centre of injured party's interests. This CJEU's choice of criterion has been both criticised (e.g. Winkler, 2012: 814-816) and praised (e.g. Muir Watt, 2012: 404) in the legal literature. In the opinion of the authors of this paper, the introduction of such a criterion is an important contribution to efficiency in legal protection of personality rights on the private international law level. This criterion enables injured party's recovery of total amount of damages before one court, which is proximate to injured party, but also proximate to the harmful event as a whole, since this is where the injured party suffers the consequences of a harmful act most intensely. This criterion is also very predictable to both injured party and publisher. As a rule, publisher will be able to establish, prior to publishing, where the respective person's centre of interest is located. In majority of cases, as the CJEU explains, the injured party's centre of interest should correspond to her or his habitual residence, but it might also be another place, such as the place where she or he pursues her or his commercial activity (Judgment in *eDate Advertising*, EU:C:2011:685, paragraph 49).

Mindful of the advantages of this additional aggregate jurisdiction criterion, it is hard to disregard its weaknesses, the main one being in its concretisation as the habitual residence. Not known in the Brussels I bis Regulation or its predecessors, the criterion of habitual residence thus entered the area of jurisdiction in civil and commercial matters through the back door. The Brussels I bis Regulation is a strict system of jurisdictional rules, founded on the principle that a normally well-informed defendant should be able to reasonably foresee before which courts, other than those of the Member State of her or his domicile, she or he may be sued (Judgment in *Owusu*, C-281/02, EU:C:2005:120, paragraph 40). Regardless of the fact that habitual residence as a jurisdictional criterion spread into the matters such as divorce or succession, the civil and commercial matters have been resistant to these developments. The revised Brussels I bis Regulation, which entered into force in January 2015, did not involve any such amendments. Perhaps

the reason is not only in preserving well-established traditional approach (the Brussels Convention dates back to 1968), but also in the fact that habitual residence is a flexible notion based on particular circumstances of each case, and thus prone to reduce the level of the judicial efficiency at the stage of establishing jurisdiction.

In its intention to protect the injured party as the weaker party, the CJEU possibly overstepped the boundaries set by the European legislator. In other instances where the weaker parties merit special protection the Brussels I bis Regulation provides for the jurisdiction in the place of the weaker party's domicile (see rules on jurisdiction protecting the weaker party in consumer and insurance contracts, Sections 3 and 4 of the Brussels I bis Regulation). The same principle could have been followed concerning online violations of personality rights (in the same vein also Lazić, 2014: 102 et seq.; Rühl, 2014: 340 et seq.). Opting for domicile instead of habitual residence, the CJEU would have achieved the same goals: a suitable level of protection of the injured party and satisfactory degree of predictability, but not at the account of the judicial efficiency and good administration of justice. Perhaps the CJEU regarded the overt adoption of the criterion of the injured party's domicile as too radical a choice, given that this would in fact equal to introducing the *forum actoris*, a taboo in the EU law on jurisdiction in civil and commercial matters.

5. CONCLUSION

With this paper, the authors sought to analyse the provisions of European and Croatian private international law, which are applicable in disputes arising out of non-contractual liability. Special attention is devoted to the manner in which these provisions operate in cases of violation of personality rights over the Internet. Following the analysis of the judgment in *eDate Advertising*, the authors came to the conclusion that the CJEU was correct in providing a new criterion for aggregate jurisdiction. This criterion serves to strike fairer balance between publisher's and injured party's interests. Otherwise, the injured party would be *de facto* deprived of access to full justice (i.e. full damages). However, the attempt to create the criterion named as the centre of the injured party's interest is not particularly helpful for either the involved parties or the judicial system. It is a new concept relying on the notion of habitual residence. Being hard to define with certainty and reliant on the

facts of a particular case, the concept of habitual residence operates at the account of legal certainty and judicial efficiency. The injured party's domicile would have been a safer choice: less ambiguous and more in line with the principles underlying the Brussels regime in civil and commercial matters.

REFERENCES

EU legislation

Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters, consolidated version OJ C 27, 26.1.1998, 1–27.

Charter of Fundamental Rights of the European Union, OJ C 83, 30.3.2010, 389–403.

Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters, OJ L 12, 16.1.2001, 1–23.

Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (hereinafter: the Brussels I bis Regulation, OJ L 351, 20.12.2012, 1–32.

Croatian legislation

Civil Procedure Act, NN Nos. 53/1991, 91/1992, 112/1999, 129/2000, 88/2001, 117/2003, 88/2005, 2/2007, 96/2008, 84/2008, 123/2008, 57/2011, 25/2013, 89/2014.

Private International Law Act, NN Nos. 53/1991, 88/2001.

Judgments of the Court of Justice of the European Union

Joined cases *eDate Advertising* and *Olivier Martinez*, C-509/09 and C-161/10, EU:C:2011:685.

Judgment in *Dumez France and Others v Hessische Landesbank and Others*, C-220/88, EU:C:1990:8.

Judgment in *Handelskwekerij Bier v Mines de Potasse d'Alsace*, C-21/76, EU:C:1976:166.

Judgment in *Handte v TMCS*, C-26/91, EU:C:1992:268.

Judgment in *Kalfelis v Schröder and Others*, C-189/87, EU:C:1988:459.

Judgment in *Owusu*, C-281/02, EU:C:2005:120.

Judgment in *Shevill and Others v Presse Alliance*, C-68/93, EU:C:1995:61.

Opinion of the Advocate General Villalón in joined cases *eDate Advertising* and *Olivier Martinez*, C-509/09 and C-161/10, EU:C:2011:192.

Judgments of the Croatian Courts

Judgment of the Croatian High Commercial Court, Pž-462/04 of November 22, 2007.

Judgment of the Croatian High Commercial Court, Pž-6000/04 of February 3, 2006.

Judgment of the Croatian Supreme Court, Revt 51/2003-2 of February 27, 2007.

Judgments of the US Courts

Judgment of the US Supreme Court, *Keeton v Hustler Magazine* 465 U.S. 770 (1984).

Books and Articles

Barendt, E. (2012), *Freedom of Expression*, in: Rosenfeld, M. and Sajó, A. (eds.), *The Oxford Handbook on Comparative Constitutional Law*, Oxford University Press, Oxford, 891-908.

Boele-Woelki, K., and Kessedjian, C. (1998), *Internet: Which Court Decides? Which Law Applies?/Quel tribunal decide? Quel droit s'applique?*, Kluwer Law International, The Hague.

Dika, M. (1991), *Članak 53*, in: Dika, M., Knežević, G. and Stojanović, S., *Komentar Zakona o međunarodnom privatnom i procesnom pravu*, Nomos, Belgrade.

Gillies, L. (2012), *Jurisdiction for Cross-Border Breach of Personality and Defamation: eDate Advertising and Martinez*, *International and Comparative Law Quarterly*, Vol. 61, No. 4, 1007-1016.

Kuipers, J. J. (2011), *Towards a European Approach in the Cross-Border Infringement of Personality Rights*, *German Law Journal*, Vol. 12, No. 8, 1681-1706,
Available at:
<http://www.germanlawjournal.com/index.php?pageID=11&artID=1379>
(20.4.2015).

Kunda, I. (2008), *Pravo mjerodavno za povrede prava intelektualnog vlasništva* (Doctoral Thesis), Pravni fakultet u Rijeci, Rijeka.

Kunda, I. (2013), *Competencia judicial internacional sobre violaciones de derechos de autor y derechos conexos en Internet*, *Anuario Español de Derecho Internacional Privado*, Vol. 13, 457-485.

Lazić, V. (2014), *Procedural Justice for 'Weaker Parties' in Cross-Border Litigation under the EU Regulatory Scheme*, *Utrecht Law Review*, Vol. 10, No. 4, 100-117.

Oster, J. (2012), *Rethinking Shevill. Conceptualising the EU private international law of Internet torts against personality rights*, *International Review of Law, Computers & Technology*, Vol. 26, Nos. 2-3 (July-November), 113-128.

Muir Watt, H. (2012), *Note on eDate Advertising*, *Revue critique de droit international privé*, Vol. 101, No. 2, 402-411.

Nagy, C. I. (2012), *The Word is a Dangerous Weapon: Jurisdiction, Applicable Law and Personality Rights in EU Law - Missed and New*

Opportunities, Journal of Private International Law, Vol. 8, No. 2, 251-296.

Rühl, G. (2014), *The Protection of Weaker Parties in the Private International Law of the European Union: A Portrait of Inconsistency and Conceptual Truancy*, Journal of Private International Law, Vol. 10, No. 3, 335-358.

Sajko, K. (1994), 4.2.6.4. *Perspektiva razvoja međunarodnog privatnog prava: O Briselskoj i Luganskoj konvenciji o nadležnosti i izvršenju sudskih sluka u građanskim i trgovačkim stvarima i kako Hrvatsko pravo uskladiti s tim konvencijama*, in: Gavella, N., Alinčić, M., Klarić, P., Sajko, K., Tumbri, T., Stipković, Z.,

Josipović, T., Gliha, I., Hrvatsko građanskopravno uređenje i kontinentalnoeuropski pravni krug, Pravni fakultet u Zagrebu, Zagreb.

Tomljenović, V. (1998), *Posebna međunarodna nadležnost u sporovima izvanugovorne odgovornosti za štetu – neka otvorena pitanja tumačenja i kvalifikacije*, Zbornik Pravnog fakulteta Sveučilišta u Rijeci, Vol. 19, suppl., 867-914.

Verpeaux, M. (2010), *Europeans and their rights – Freedom of expression*, Council of Europe, Strasbourg.

Winkler, M. (2012), *Giurisdizione e diritto applicabile agli illeciti via web: nuovi importanti chiarimenti dalla Corte di giustizia*, Responsabilità civile e previdenza, No. 3, 806-821.

CHAPTER 40

Dionis Jurić

University of Rijeka, Faculty of Law, Rijeka, Croatia

LEGAL FORMS FOR ECONOMIC ACTIVITIES OF FOREIGN COMPANIES IN CROATIA

ABSTRACT

Croatian Companies Act regulates the position of foreign companies and conditions for their economic activities on Croatian market. They can choose: a) to establish an agency according to Croatian Act on Commerce, b) to establish a branch according to Croatian Companies Act and c) to establish a subsidiary according to Croatian Companies Act. Foreign companies or firms formed in accordance with the law of a Member State and having their registered and real seat within the European Union are in favourable position in relation to foreign companies established in other countries if they wish permanently perform their economic activities on Croatian market. The agency does not have legal personality. It can be established to perform auxiliary activities of the foreign company. The branch is also a part of the foreign company. All legal transactions concluded by the branch with domestic legal entities have the nature of contracts with international element. The subsidiary has its own legal personality. This provides advantages for the founder because he transfers risks for success of cross-border economic activity to the subsidiary, which is entirely governed by Croatian law. As regards to application for registration of subsidiaries and branches, Croatian law enables on-line registration and registration on paper, with mediation of notary public and HITRO.HR office.

Keywords: foreign company, cross-border economic activity, agency, branch, subsidiary, on-line registration

JEL classification: K22, M13

This paper has been supported in part by the Croatian Science Foundation project no. 9366 “Legal Aspects of Corporate Acquisitions and Knowledge Driven Companies’ Restructuring” and in part by the University of Rijeka project no. 13.08.1.2.01 “Protection of beneficiary on the Croatian and European financial services market”.

1. INTRODUCTION

Croatian Companies Act regulates position of foreign companies and conditions for their economic activities on Croatian market. Foreign companies are free in selection of legal form for economic activities in Croatia according to their needs. They can choose: a) to establish an agency according to Croatian Act on Commerce, b) to establish a branch according to Croatian Companies Act and c) to establish a subsidiary according to Croatian Companies Act.

Since 1 July 2013 Croatia became Member State of the European Union (EU) and this introduced significant changes in economic activities of foreign companies on Croatian market. Foreign companies or firms formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the EU are in favourable position in relation to foreign companies established in other countries if they wish permanently perform their economic activities on Croatian market. In such cases they establish subsidiary or branch with less strict conditions governed by Croatian law. According to the freedom to provide services these companies can also directly provide services on Croatian market, if they temporary perform their economic activities.

2. FREEDOM OF ESTABLISHMENT AND CROSS-BORDER TRANSFER OF SEAT IN EU LAW

The Treaty on the Functioning of the EU (TFEU) provides freedom of establishment as one of fundamental freedoms of the EU. Its realization enables functioning of the internal market of the EU. Organs of the EU saw obstacles for its realization in national legislations of Member States regarding the recognition of legal personality of companies from other Member States.

Seat of the company is important for determination of nationality of a company. This is regulated by individual country's own private international rules. The seat refers to applicable national law for a company (*lex societatis*). The applicable national law governs legal position of a company since its establishment and until its dissolution.¹ Member States apply the incorporation theory or real seat theory, which induces differences in determination of the applicable national law and creates obstacles for transfer of the seat of a company from one Member State to another (Werlauff, 2003:4).

In Member States which apply the incorporation theory, the applicable national law for a company is the law of country where the company is established and where it has its seat determined by articles of association (registered office).² These Member States enable transfer of real seat of a company to another Member State, if it also applies the incorporation theory. On the other hand, if a company intends to transfer its registered seat to another Member State, this changes the applicable national law. This is possible only with winding-up of the company in the country of its establishment and new establishment of a company in the country in which registered seat is transferred. The incorporation theory takes into account the will of founders of a company who choose applicable national law (Barbić, 2008:378, Commission of the EC, 2007:9, Kucich, and 2004:62). This theory promotes cross-border economic activities of companies.

In Member States which apply the real seat theory, the applicable national law for a company is the law of country where the company has its central administration or principal place of business (head office). These countries demand that registered and real seat of company must be in same Member State.³ This disables founders of a company to choose the applicable national law. In these countries transfer of real seat of a company is legally impossible or it is limited by conditions set by the country of establishment. The transfer of the registered seat is forbidden, except if the company simultaneously transfers its registered and real seat in another country. This leads to winding-up of the

¹ For example its legal personality, form and internal organization, rights, duties and liabilities of its organs and shareholders, representation of the company, its dissolution etc.

² This theory is accepted in the UK, Denmark, the Netherlands, Sweden, Czech Republic, Slovakia, Finland, Hungary, Bulgaria, Croatia, Ireland, Malta and Cyprus.

³ This theory is accepted in Belgium, France, Germany, Spain, Luxembourg, Portugal, Greece, Lithuania, Poland, Estonia, Norway, Austria, Slovenia, Romania and Latvia.

company in the country of its establishment and new establishment of a company in the country in which registered and real seat is transferred (Barbić, 2008:378, Commission of the EC, 2007:9, Kucich, 2005:59).

The freedom of establishment is defined by Articles 49 and 54 of the TFEU. It includes the right to take up and pursue activities as self-employed persons and to set up and manage undertakings, in particular companies or firms in the EU. Primary establishment means the right to set up a new company in another Member State⁴ or to transfer real seat of already established company in another Member State.⁵ Secondary establishment means the right to set up agencies, branches or subsidiaries by already established companies in other Member States.⁶ Beneficiaries of the freedom of establishment are natural persons who are nationals of Member States and legal persons (companies or firms) formed in accordance with the law of a Member State and having their registered office, central administration or principal place of business within the EU. The TFEU guarantees to companies only the right to transfer real seat in another Member State, while national rules of Member States regulate the transfer of registered seat of the company in different ways. Because of this the European Commission proposed the Fourteenth Directive on the cross-border transfer of registered office in 1997 (Werlauff, 2003:94). In 2007 the European Commission decided to withdraw proposal of the Fourteenth Directive because of lack of interest of Member States (Commission of the EC, 2007). The cross-border transfer of registered seat is possible only for European Company (SE) and European Co-operative Society (SCE) (Ballester and del Monte, 2012:14).⁷ On the other hand, the European Court of Justice in its numerous judgements accepted the application of the incorporation theory as regards to secondary establishment. This promotes cross-border activities of companies on internal market of the EU.⁸ Judgements of the European Court of Justice effected national rules of Member

⁴ This is the case of launching the economic activities of a company from beginning.

⁵ The transfer of the central management and control of a company to another Member State amounts to the establishment of the company in that Member State because the company is locating its centre of decision-making there, which constitutes genuine and effective economic activity (Case Daily Mail (C-81/87)).

⁶ This is the right to maintain more than one place of work within the EU.

⁷ Another mechanism for cross-border transfer of registered seat is cross-border merger. These mechanisms may be used by companies wishing to transfer their registered seat cross-border from a Member State applying the real seat theory, without having to wind up company in country of their establishment.

⁸ See judgements in cases Centros (C-212/97), Überseering (C-208/00), Inspire Art (C-167/01), SEVIC Systems AG (C-411/03) and Vale (C-378/10). If the company is validly established in one Member State, another Member State, in which the company performs its economic activities or has its real seat, cannot effect on the legal personality of the company by applying of its national rules. This allows founders to set up their company in Member State which has simpler and cheaper registration procedure.

States which applied the real seat theory (Ballester and Del Monte, 2012:12).⁹

3. DEFINITION OF FOREIGN COMPANY IN CROATIAN LAW

The Croatian Companies Act (CA) defines foreign companies as companies which have been properly established in accordance with the law of country where they have registered seat outside the Republic of Croatia.¹⁰ This Act accepts the incorporation theory in determining of the nationality of Company. If Company has registered and real seat in the Republic of Croatia it will be domestic company.¹¹

The domestic company may alter its seat according to the procedure envisaged by its article of association.¹² If a domestic company wishes to transfer registered seat abroad, it must obtain previous approval of the Ministry of Finance. This condition is set because of possible alteration of fiscal regime for such company. This depends on mandatory rules of foreign country in which registered seat is transferred. Every alteration of the seat must be registered (Barbić, 2008:371).

Under Article 612 of the CA foreign companies will be afforded the same treatment as domestic persons with respect to performance of economic activities in Croatia. They cannot permanently perform economic activities in Croatia before having established a branch in Croatia (Barbić, 2008:584). Foreign persons are free in performing of preliminary activities for establishment and registration of a company or a branch.¹³

⁹ Some Member States have adopted a mixed system which incorporates characteristics of the incorporation theory and the real seat theory (Portugal, France, Italy, Luxembourg, Germany, Greece and Poland). Estonia, Latvia and Lithuania have adopted the incorporation theory.

¹⁰ Article 611 of the Companies Act, Official Gazette no. 111/93, 34/99, 121/99, 52/00, 118/03, 107/07, 146/08, 137/09, 125/11, 152/11, 111/12, 68/13.

¹¹ According to Article 37 of the CA domestic company may have only one seat. This is the place which is determined by the articles of association (registered seat) and where company has its central administration or principal place of business (real seat). The seat of the company is registered in the Court Register. If the real seat of the company is located at a place other than registered seat, the place entered in the Court Registers shall be regarded as the seat.

¹² Article 38 of the CA. Articles of association may determine certain organ of the company which makes such decision. If there is no such rule in the articles of association, the seat of the company may be altered only by decision on alteration of the articles of association. In such cases the decision brings the shareholders meeting by qualified majority of votes.

¹³ Performing of economic activities shall not be considered occasional or one-time activities, or performing individual tasks. Whether the activities may be considered permanent performing of economic activities shall be assessed according to the specific circumstance of the case in question. Article 73(1) of the Aliens Act (Official Gazette no. 130/11, 74/13) provides that a foreign citizen may work in the Republic of Croatia

4. ESTABLISHMENT OF AN AGENCY OF FOREIGN COMPANY IN CROATIA

Procedure for establishment of an agency of foreign company in Croatia is regulated by the Commercial Act¹⁴ and the Regulation on conditions for establishment and activities of agencies of the foreign persons in the Republic of Croatia.¹⁵ Since 1 July 2013 Article 52 of the Commercial Act does not apply on foreign companies with registered seat in Member States of the EU. These foreign companies do not need to establish an agency in Croatia, and already established agencies ceased to exist by law.¹⁶ Other foreign companies must establish and register agencies in Croatia.

The agency is a part of foreign company (founder).¹² It does not have separate legal personality and performs its activities under instructions of the founder.¹⁷ The agency operates under the firm name of its founder with the indication that it is an agency.¹⁸ It differs from branch because it can perform non-economic activities, such as the investigation of the market, advertising and information activities or representation of the founder.¹⁹ Foreign founder must designate an authorized person in agency, who represents the agency and works under instructions of the founder.²⁰ The founder must register the agency before its opening in the Registry of agencies of the foreign persons, which is kept by the Ministry of Economy.²¹ Condition for registration is reciprocity, but it

on the basis of a stay and work permit or business permit. Carrying out preliminary activities for the establishment and registration of a company, registration of crafts or self-employment shall not be considered as work (Article 73(4) of the Aliens Act).

¹⁴ Commercial Act, Official Gazette no. 87/08, 96/08, 116/08, 76/09, 114/11, 68/13, 30/14.

¹⁵ The Regulation on conditions for establishment and activities of agencies of foreign persons in the Republic of Croatia, Official Gazette no. 21/09. The Regulation does not apply on agencies of foreign persons regulated by special provisions (for example agencies of foreign credit institutions).

¹⁶ If these foreign companies wish to continue activities on investigation of the Croatian market and their representation, which they performed through agencies (non-economic activities), there is no need to register an agency in Croatia. Labour relations of employees in such agencies will be regulated by national provisions of the Member State in which employer has registered seat.

¹⁷ Article 52(3) of the Commercial Act, Article 4 paragraphs 1 and 2 of the Regulation.

¹⁸ Article 4(3) of the Regulation.

¹⁹ Article 53(4) of the Commercial Act and Article 3(1) of the Regulation. The agency cannot perform economic activities of the founder or enter into contracts with third parties for the founder (Article 3(2) of the Regulation). There is an exemption for agencies of the foreign air carriers which may sell transport documents in accordance with bilateral and international agreements concluded by the Republic of Croatia (Article 3(3) of the Regulation).

²⁰ Article 15(1) of the Regulation.

²¹ Article 52(5) of the Commercial Act. In the Registry of agencies of the foreign persons on 28th April 2014 there were 51 registered agencies. Six registered agencies were established by non-EU founders.

does not apply on Member States of the World Trade Organization.²² Croatian provisions are applied on the activities of agencies established by foreign companies. Croatian supervisory authorities supervise their work.²³

5. ESTABLISHMENT OF A BRANCH OF FOREIGN COMPANY IN CROATIA

If foreign company wishes to permanently perform its economic activities in Croatia, it must establish a branch.²⁴ Provisions of the Croatian Companies Act on branches and national provisions on accounting and tax issues are applied on branches of foreign companies.

Main reason for establishment of a branch of foreign company in host country is control over economic activities of such branch by the host country. National provisions of the host country may impose additional conditions for economic activities of branches of foreign companies, especially regarding to assets of the branch located in the host country.

5.1. Definition of branch

National provisions of Member States and legal sources of the EU does not define the branch. From national provisions it is possible to derive main characteristics of the branch: a) it does not have separate legal personality, b) it is established for permanent performance of economic activities outside the seat of the founder, c) it is established for an indefinite period, d) it should have financial resources, staff and equipment which are necessary for performance of economic activities of the founder and e) an authorized person at the branch may

²² Article 12 paragraphs 2 and 3 of the Regulation. After the registration of an agency the non-resident founder must open a non-resident bank account in Croatia, on which it allocates cash that is necessary for performing of activities of an agency. The agency of the foreign company in Croatia is considered to be a non-resident (Article 2(2) of the Foreign Exchange Act, Official Gazette no. 96/03, 140/05, 132/06, 150/08, 92/09, 133/09, 153/09, 145/10, 76/13).

²³ Article 15 paragraphs 2 and 3 of the Regulation. On labour relations of employees in the agency, who are Croatian citizens, the Croatian Labour Act shall be applied (Article 16(1) of the Regulation). Foreign citizens who are employed in the agency must obtain work permit under the Aliens Act (Article 16(2) of the Regulation).

²⁴ Article 612(2) of the CA. Branches may be established also by foreign sole traders and foreign co-operative societies. On 30 November 2014 there were 672 registered branches of foreign companies or sole traders, of which 479 branches were active. See in Croatian Bureau of Statistics, Monthly Statistical Report no. 12/2014, pp. 10-11.

have certain autonomy in performance of its activities, although he primarily acts under instructions of the founder (Sørensen, 2013:9).

The branch is a part of the company (founder).²⁵ It concludes contracts and takes legal actions in the name and on behalf of the founder. The profit which is realized in a branch belongs to the founder. A branch performs activities under its own firm name and indicates its seat as well as the seat of its founder (Barbić, 2008:383).²⁶

The branch is established for permanent performance of economic activities outside the seat of the founder.²⁷ Its activities should be run on a stable and continuous basis, which means the branch must be intended to exist for an indefinite period.²⁸

This characteristic of the branch is important for distinction of freedom of establishment and freedom to provide services (Sørensen, 2013:10).²⁹

The freedom to provide services enables foreign companies formed in accordance with the law of a Member State and having their registered and real seat within the European Union to directly provide services on Croatian market; if they temporarily perform their economic activities. The seat of a branch is determined by the decision of founder.³⁰ It indicates a specific place and the address where the branch permanently performs its activities.

It must have financial resources, business premises and equipment which are necessary for performance of economic activities of the founder.³¹ The branch must have employees and founder must designate an authorized person who will represent him in transactions undertaken by the branch.³²

²⁵ Article 7(3) of the CA.

²⁶ The firm name of a branch shall include: a) the firm name or the abbreviated firm name of the company (founder), b) denotation of the activities of the branch and c) words indicating that this is a branch (Article 26(2) of the CA).

²⁷ Article 7(1) of the CA.

²⁸ See judgement of the European Court of Justice in case Factortame (C-221/89).

²⁹ The freedom of establishment seeks that there must be genuine intention of the founder to perform economic activities through a branch. In case Centros (C-212/97) the European Court of Justice held that there was an establishment even in situation where a company was set up in one Member State with sole intention to establish a branch in another Member State, and even if the entire economic activity of the company was in the Member State where the branch was situated.

³⁰ Article 39 of the CA.

³¹ Branches of foreign companies and sole traders which are registered in the Court Register in Croatia are considered as residents (Article 2(1) of the Foreign Exchange Act).

³² Article 7(4) of the CA. Employees and authorised person of the branch may be Croatian or foreign citizens. Labour relations are regulated by Croatian provisions. A foreign citizen may work in the Republic of Croatia on the basis of a stay and work permit or business permit. Foreign citizens granted permanent stay may work

5.2. Registration of a branch of foreign company in Croatia

Provisions of the CA governing the establishment of branches by domestic companies shall apply to establishment and registration of branches of foreign companies.³³ For protection of third parties and legal order of the Republic of Croatia there are special provisions on establishment and registration of branches of foreign companies. Foreign company may establish a branch in Croatia without its establishment in country of registration of the foreign company (founder) (Barbić, 2008:603).

The application for registration of a branch into the Court Register shall be filed by the founder at the register court having jurisdiction for the seat of the branch.¹³ The decision on the establishment of a branch, if the founder is a foreign company, must contain data referred to in Article 7(4) of the CA¹⁴ and in addition data on the amount of share capital and the amount of paid up contributions for shares.¹⁵ These additional data are not required if founder has seat in a Member State of the EU.¹⁶

The application for registration of a branch shall, in addition to data referred to in Article 8(3) of the CA,¹⁷ include registered economic activities of the founder and the name of the Register in which the founder has been registered and the number under which it is registered there in or shall state that the founder was established in a country where there is no requirement that it be entered in such a Register.¹⁸ The application for registration of the branch into the Court Register shall be

without a stay and work permit or business permit (Article 73 of the Aliens Act). The annual quota of work permits shall not apply to work permits issued to foreign citizens holding key positions in companies, branches and agencies (Article 76 paragraphs 1 and 2 of the Aliens Act). The founder may give the procurator for economic activities of one or more branches, which shall have effect on third parties only if it has been entered into the Court Register (Article 48(2) of the CA). A procurator has wider authority than an authorized person in the branch.

³³ Article 613(1) of the CA. These provisions shall be also applied on foreign sole traders and other persons who may establish a branch.

¹³ Article 613(3) and article 37(1) of the CA.

¹⁴ These are data which must be contained in decision on establishment of a branch of domestic company (firm name and seat of the founder and a branch, economic activities of a branch and personal data on authorized persons in a branch).

¹⁵ Article 613(2) of the CA. If the founder is a foreign partnership or a foreign sole trader, the decision on the establishment of a branch must contain the names of partnership members who are personally liable for obligations of the partnership or name of the sole trader.

¹⁶ Article 613(8) of the CA.

¹⁷ These are data which must be contained in application for registration of a branch of domestic company (firm name and seat of the founder, the firm name, seat and economic activities of the branch and personal data on authorized persons in the branch).

¹⁸ Article 613(4) of the CA.

supplemented by the following documents in the original and as a certified translation into the Croatian language: a) proof that the founder is registered in the country in which it has a registered seat,¹⁹ b) the decision of the founder on the establishment of the branch c) copy of the statement on establishment or of the articles of association of the founder, officially authenticated in accordance with the law of the country where the founder has its registered seat and d) officially authenticated summary of the last annual financial statement of the founder.²⁰

Along with the grounds for dismissal of the application for registration of any branch into the Court Register, the register court shall dismiss the application if the founder fails to prove: a) that its establishment is valid in the country where it has the registered seat²¹ and b) that in the country of the registered seat of the founder, persons from the Republic of Croatia are allowed to open branches under the same conditions applicable to the founder in the Republic of Croatia (reciprocity).²² The founder shall be deemed to have proven the reciprocity, unless it is summoned by the court to furnish evidence of reciprocity.²³ The reciprocity is not applied to the founder with seat in a Member State of the EU or in a Member State of the World Trade Organization.²⁴ Such arrangement of the reciprocity facilitates establishment of branches of foreign companies and rationalize work of register courts (Barbić, 2008:603). The Act on Court Register²⁵ in Article 37(3) sets data which are entered into the Court Register for branches of foreign companies. Its provisions are harmonized with provisions of the Eleventh Directive of the EU.²⁶

¹⁹ This is an excerpt from the register in which the founder is registered or, if the founder was established in the country where no such registration is required, valid documents concerning its establishment, officially authenticated in accordance with the law of the country where the founder has its registered seat.

²⁰ Article 613(5) of the CA. If the foreign founder is established in one country for sole purpose of establishing a branch in Croatia, there is no need to supplement application for registration of the branch with the officially authenticated summary of the last annual financial statement of the founder (case Centros (C-212/97)).

²¹ The foreign founder does not need to perform its economic activities in the country in which it has the registered seat. Registered and real seat of the founder should not be in the same country.

²² Article 613(6) of the CA.

²³ Article 613(7) of the CA. In case of doubt, the reciprocity shall, upon request of the register court, be proven by the Ministry of Justice. If reciprocity cannot be proven, the branch may be registered on the grounds of approval of the Ministry of Economy.

²⁴ Article 613(8) of the CA.

²⁵ Act on Court Register, Official Gazette no. 1/95, 57/96, 1/98, 30/99, 45/99, 54/05, 40/07, 91/10, 90/11, 148/13.

²⁶ Directive 89/666/EEC and Directive 2012/17/EU.

The founder shall report to the register court any change of data stated in Article 7(4) and in Article 613 paragraph 2 and 4 of the CA, for the purpose of its registration in the Court Register.²⁷ Should the register court find that change of the aforesaid data has not been reported, it shall summon the founder to do so within a given time limit. If the founder fails to meet the court's order within that term again, the register court shall delete the branch from the Court Register *ex officio*.²⁸

The founder is obliged to submit its annual financial reports and other financial documents required by law to the register court in which the branch is registered within 15 days of the date of their adoption.²⁹ There is no need to draw up a separate annual financial report for the branch. It is a part of the founder and its economic activities are shown in the annual financial reports of the founder (Werlauff, 2003:218).

One founder may establish several branches in the Republic of Croatia. These branches must be entered into the Court Register of the register court where the main branch is registered.³⁰ The establishment of several branches is carried out in accordance with Article 613 of the CA. The application for registration in the Court Register shall indicate which branch is the main branch, and the order of the rest of branches shall be marked by ordinal numbers.³¹ The founder shall appoint one or more persons in each branch to represent the founder. The same persons may be appointed for several branches or the founder may determine that the authorized person in the main branch is authorised to represent the founder through activities carried out by other branches.³² The authorized person may represent the founder only in business relations. He cannot represent the founder in court proceedings because the branch is not a legal person (Barbić, 2008:606).³³ The submission of annual financial reports and other financial documents of the founder required by law

²⁷These are essential elements of the decision on the establishment and the application for registration of the branch.

²⁸Article 613(9) of the CA and Article 37(4) of the Act on Court Register.

²⁹Article 613(10) of the CA.

³⁰Article 37(2) of the Act on Court Register.

³¹Article 615(1) of the CA. The firm name of the branch shall clearly indicate it is the main branch or one of other branches of the same founder.

³²Article 615(2) of the CA.

³³The party is the founder who may be represented by legal representative (director) or attorney. If the founder appointed a procurator in the branch, then he can represent the founder in court proceedings in relation to activities undertaken by the branch.

shall be entered into the register court in which the main branch is registered.³⁴

After registration in the Court Register, the information referred to in Article 7(4) and in Article 613 paragraph 2 and 4 of the CA shall be published. In case the founder has several branches in the Republic of Croatia, the information referred to in Article 615(1) of the CA shall also be published.³⁵

5.3. Legal position of the branch and its dissolution

The activities of the branch shall entail rights and obligations for the founder.³⁶

From the fact that foreign company had established a branch in Croatia cannot be concluded that company has real seat in Croatia. The nationality of the founder is determined according to its registered office in foreign country. A branch shall act under its firm name indicating its seat and the seat of the founder.³⁷ The foreign company may directly enter into contracts with domestic persons, although it had established the branch in Croatia.³⁸ The authority to represent the founder in Croatia, in addition to the authorized person in a branch, may have other persons who are authorized to represent the founder (Barbić, 2008:606).³⁹

Main disadvantage of the performance of economic activities through the branch is that all transactions have international element. In such transactions the other party is a foreign person, so it is necessary to contract appropriate securities. It shall be necessary to ensure the jurisdiction of domestic courts or arbitration in case of dispute from such transactions. The Croatian Act on International private law in Article 49 sets that parties in transactions with the international element may agree on the jurisdiction of foreign court for the resolution of disputes (Barbić, 2008:607, Werlauff, 2003:222).

³⁴ Article 615(3) of the CA.

³⁵ Article 614 of the CA. The publication is done in the "Official Gazette" and on the website of the Court Register (Article 64(1) of the CA and Article 18(2) of the Act on Court Register).

³⁶ Article 616(2) of the CA.

³⁷ Article 616(1) of the CA.

³⁸ The branch must present these contracts in its business books, thereby preventing circumvention of Croatian accounting and tax provisions.

³⁹ For example legal representatives (directors), attorneys, procurators and others.

The branch shall keep business books in accordance with the Croatian provisions when it performs activities in Croatia.⁴⁰ The business books of the branch are kept by the authorized person. This enables the supervision of the Ministry of Finance (the Tax Administration) on the financial transactions of the branch established by the foreign founder. Croatian tax provisions, especially the Act on Corporate Income Tax are applied on these branches and their economic activities in Croatia (Werlauff, 2003:217).⁴¹

The founder shall decide on the dissolution of a branch, as defined in the statement on establishment or in the articles of association of the founder.⁴² The founder shall file an application for deletion of the branch from the Court Register, enclosing the decision on dissolution of the branch.⁴³ The register court in the territory of the seat of the branch may, *ex officio* or at the proposal of an interested person, make a decision to dissolve the branch: a) if the founder is dissolved in the country in which it has its seat or if, in accordance with the laws of that country, it has lost its capacity to act or the right to dispose of its assets or b) if the country of the founder no longer respects the reciprocity.⁴⁴ The provisions of Article 621 to 623 of the CA on the dissolution of companies shall apply *mutatis mutandis* to the dissolution of a branch.⁴⁵

6. ESTABLISHMENT OF A SUBSIDIARY OF THE FOREIGN COMPANY IN CROATIA

Finally, foreign company may establish a subsidiary. The subsidiary has its own legal personality and it is domestic company. This provides advantages for the founder because he transfers risks for success of cross-border economic activity to the subsidiary. On the other hand, domestic persons conclude domestic legal transactions with the subsidiary, which is entirely governed by Croatian law. In practice foreign companies mostly use this legal form for economic activities in Croatia. They can choose legal form of the subsidiary according to provisions of the CA or the Act on the Introduction of the European Company (SE) and the European Economic Interest Grouping (EEIG).

⁴⁰ Article 617 of the CA.

⁴¹ Article 2(2) and Article 4(1) of the Act on Corporate Income Tax, Official gazette no. 177/04, 90/05, 57/06, 80/10, 22/12, 146/08, 148/13.

⁴² Article 618(1) of the CA.

⁴³ Article 618(4) of the CA.

⁴⁴ Article 618(2) of the CA.

⁴⁵ Article 618(3) of the CA. In case of dissolution of a branch there is no need to wind up the branch because it is a part of the founder.

The CA enables establishment of the single-member public limited liability companies and the single-member private limited liability companies.⁴⁶ Its provisions are harmonized with the provisions of the Directive on single-member private limited liability companies from 2009.⁴⁷ In 2012 the Croatian Parliament amended provisions of the CA and introduced the simple private limited liability company. This legal form is a subtype of the ordinary private limited liability company that is characterized by a simpler procedure and reduced costs for its establishment. The aim of the establishment of a simple limited liability company is to reduce the migration of Croatian companies to other Member States and facilitate performance of the economic activities in Croatia (Brnabić and Ivančev, 2014:450).⁴⁸ The simple private limited liability company may be established as a single-member company by domestic or foreign persons.

The simple private limited liability company may have a maximum of three members and one member of the management board (director). It can be established in a simplified manner.⁴⁹ Founder of the simple private limited liability company must use a template of articles of association. A notary public must fill in the template of articles of association. Its form and content is prescribed by the CA.⁵⁰ Firm name of the simple private limited liability company must include the words "simple private limited liability company" or the abbreviation „j.d.o.o.“.⁵¹ Founders of the company autonomously determine in the template registered economic activities, amount of share capital, firm name and seat of the company

⁴⁶ Article 159(2) and Article 385(1) of the CA.

⁴⁷ A company may have a sole member when it is established and also when all its shares come to be held by a single person (single-member company).

⁴⁸ There were similar legislative initiatives in other Member States of the EU regarding to reduction of the minimum share capital of private limited liability companies and reduction of incorporation costs.

⁴⁹ On 30 November 2014 there were 17.023 registered simple private limited liability companies, of which 17.021 companies were active. There were 1.374 registered public limited liability companies, of which 1.191 companies were active. There were 139.553 registered private limited liability companies, of which 121.886 companies were active. From these statistics it is not possible to determine the number of single-member companies which are established by foreign companies. See in Croatian Bureau of Statistics, Monthly Statistical Report no. 12/2014, pp. 10-11.

⁵⁰ Article 387(2) and Article 390.a(1) of the CA. Except with respect to the application of prescribed template, it is not possible to agree on departures from the provisions of the CA. The filled template is valid as a list of members of the company, a list of persons authorized to manage activities of the company (directors) and contains a declaration of the director that he accepts the appointment. It also contains signature of the director which shall be deposited in the Court Register. In other matters regarding to the template, provisions of the CA on articles of association shall be properly applied.

⁵¹ Article 13 paragraph 2 subparagraph 4 and Article 390.a(2) of the CA.

and they appoint a director of the company.⁵²Provisions of the CA shall be applied on all matters not covered by the template, which may be regulated by the articles of association. The purpose of the introduction of the template is reduction of incorporation costs and faster establishment of the company.

Formation of the simple private limited liability company is possible only by its establishment *ex nihilo*. It cannot be formed by conversion of existing company. Already established ordinary private limited liability company cannot reduce its share capital below minimum capital requirement and thus transform to simple private limited liability company (Brnabić and Ivančev, 2014:455).

The minimum initial capital of the company is 10,00HRK and the nominal share amount may not be lower than 1,00 HRK. The share capital and shares of the company shall be denominated in full amount of HRK.⁵³Upon establishment each founder can subscribe only one share. Minimum capital requirement is the main difference between simple and ordinary private limited liability company. The minimum initial capital of ordinary private limited liability company is 20,000.00 HRK. The amount of the share capital of a simple private limited liability company is determined by the template of articles of association and can be in the range of 10,00HRK to a maximum of 19.999,00 HRK.

Contributions for subscribed shares shall be paid only in cash. Contributions in kind are prohibited. Application for registration in the Court Register shall be submitted after complete payment of contributions for all subscribed shares of the company.⁵⁴

The simple private limited liability company is a transitional form to ordinary private limited liability company. It should increase its share capital on the amount of 20,000.00 HRK after its establishment and continue to operate as ordinary private limited liability company. The company does not have duty to increase its share capital nor a deadline to do so (Brnabić and Ivančev, 2014:455). Because it has a low initial capital, which cannot be a guarantee to creditors for collection of claims,

⁵²The template contains data on firm name, registered economic activities, members of the company, amount of share capital and acquisition of shares, seat of the company, duration of the company, costs related to the establishment of the company that shall be compensated by the company and personal data on a director.

⁵³Article 390.a (3) of the CA.

⁵⁴Article 390.a (4) of the CA.

the CA Act imposes the duty to form legal reserves in a simple private limited liability company. The company shall contribute to legal reserves the quarter part of profits accrued during the current year reduced by the amount of loss in the previous year. The legal reserves may be used for increasing the share capital from the company assets or covering the loss if it cannot be covered from the company profit.⁵⁵ This duty significantly reduces the freedom of members of the company to decide on distribution of profits, but at the same time ensures the financial stability of the company. It also provides financial resources for possible increasing of share capital of the Company (Brnabić and Ivančev, 2014:458). The shareholders meeting shall be convened immediately if the company is threatened by the insolvency.⁵⁶

If the simple private limited liability company increases its share capital on the amount of 20,000.00 HRK, the company is no longer subject to the provisions of Article 390.c paragraphs 3 to 6 of the CA. In such case it can keep its firm name with the words "simple private limited liability company" or the abbreviation „j.d.o.o.“. On the share capital and shares of the company the provisions of Article 390(1) of the CA shall be applied. These provisions are applied on ordinary private limited liability companies.⁵⁷

7. ON-LINE REGISTRATION IN CROATIA

Since 2005 Croatian law enables on-line registration of the establishment of companies through **HITRO.HR office**. **Services of the HITRO.HR office** can be used only for establishment of private limited liability companies with initial capital completely paid in cash or for establishment of simple private limited liability companies.⁵⁸ The procedure for registration may be initiated by a written application with a specified request for entry of data or a request to change the entered data. The application may be submitted to the registration court on paper or electronically.⁵⁹ The application for registration shall be submitted to the court in the form of a notarial deed or electronic form filed to the

⁵⁵ Article 390.a (5) of the CA.

⁵⁶ Article 390.a (6) of the CA.

⁵⁷ Article 390.a (7) of the CA.

⁵⁸ HITRO.HR office only mediates between founders of a company and the registration court. The founders must take certain actions personally in office of a notary public (authentication of the application for registration and some of the additional documents).

⁵⁹ Article 9(1) of the Act on Court Register.

court electronically by a notary public or HITRO.HR office.⁶⁰ The basis for this were amendments of provisions of the Act on Court Register, which are harmonized with provisions of the EU directives. Croatian law does not provide possibility for a direct on-line registration of a company because the submission of electronic application seeks mediation of a notary public or HITRO.HR office.

8. CONCLUSION

A foreign investor may establish companies in Croatia or participate in their establishment and acquire rights and assumes obligations with respect to such companies under the same conditions and with the same position as domestic persons. Foreign companies formed in accordance with the law of a Member State and having their registered and real seat within the EU are in favourable position in relation to foreign companies established in other countries if they wish permanently perform their economic activities in Croatia. In such cases they establish subsidiary or branch with less strict conditions governed by Croatian law. In practice foreign companies mostly establish a subsidiary for permanent economic activities on Croatian market. Foreign founder transfers risks for success of cross-border economic activity to the subsidiary, which is a domestic company. As regards to application for registration of subsidiaries and branches, Croatian law enables on-line registration and registration on paper, with mediation of notary public and HITRO.HR office. This produces additional incorporation costs for foreign founders.

⁶⁰Article 39(1) of the Act on Court Register. A notary public may, in accordance with its powers and provisions of the Act on Court Register, communicate electronically with the registration court and is authorized to submit the electronic application (Article 5 of the Act on Court Register). Persons who work in the HITRO.HR office are authorized to submit the application for the establishment of companies through the e-Company (Article 5.a of the Act on Court Register). If the application is submitted electronically, additional documents are submitted in the same way and they must be identical to the original documents. The original application and additional documents shall be submitted within three days from the date of granting a reference number for electronic registration (Article 40 of the Act on Court Register). If the application for registration of a private limited liability company is filed electronically through the HITRO.HR office, the registration must be carried out within 24 hours after the date of receipt of the application (Article 53 of the Act on Court Register).

REFERENCES

- Ballester, B. and del Monte, M. (2012), *Directive on the cross-border transfer of a company's registered office (14th Company Law Directive)*, No. 3, EAVA, Brussels, available at <http://www.europarl.europa.eu/committees/en/studies.html>
- Barbić, J. (2008), *Pravo društava, Knjiga prva: opći dio*, Organizator, Zagreb
- Brnabić, R. and Ivančev, M. (2014), *Jednostavno društvo s ograničenom odgovornošću*, Zbornik radova Pravnog fakulteta u Splitu, Vol. 51 No. 2, 449-469.
- Commission of the EC (2007), *Commission Staff Working Document – Impact assessment on the Directive on the cross-border transfer of registered office, Part 1*, SEC(2007) 1707, Brussels
- Kucich, E. (2004), *Premješta jregistriranog sjedišta trgovačkog društva iz jedne u drugu državu članicu EZ*, *Pravoiporezi*, Vol. 13 No. 12, 62-65.
- Kucich, E. (2005), *Premještaj europskog društva u drugu državu članicu Europske zajednice i porezni propisi*, *Hrvatska pravna revija*, Vol. 5 No. 3, 58-65.
- Sørensen, K. E. (2013), *Branches of Companies in the EU: Balancing the Eleventh Company Law Directive, National Company Law and the Right of Establishment*(May 13, 2013), *Nordic & European Company Law Working Paper No. 10-37*, available at <http://ssrn.com/abstract=2264091>
- Werlauff, E. (2003), *EU Company Law – Common business law of 28 states*, DJØF Publishing, Copenhagen

CHAPTER 41

Katarzyna Andrzejczak

Poznan University of Economics, Poznan, Poland

THE CHALLENGES OF EUROPEAN GMO REGULATIONS

ABSTRACT

European Union as an organization of states decided that promotion of innovativeness in Member States is indispensable to increase competitiveness of the region in dynamic reality of globalised World. Nevertheless, the desire for technology development and innovation in knowledge based economy may not be unlimited. Social, cultural, moral norms require conscious use of science for the purposes of human lives improvements. European Union claims to pursue a global objective of ensuring a high level of protection of human life and health and welfare, environment and consumer interests. For these reasons, a legal framework aimed at safe use of modern biotechnology, with special regard to genetically modified organisms has been adopted. These regulations cover a number of aspects considering biotechnology, such as contained use, deliberate release into the environment, food and feed, traceability and labeling, plants and seeds, intellectual property, and transboundary movements of genetically modified organisms. This paper is an attempt to assess the effectiveness of this legal system, with reference to international regulations, Member States interests and developing countries policies. The effectiveness of European biotechnology laws is hampered by the complex social norms, economic development interests and unpredictable long-term environmental effects. More predictable biotechnology laws and more reflective communication with public opinion remain the challenges for European lawmakers.

Keywords: technology development, biotechnology, research and development, Sub-Saharan Africa, GMO, Cartagena Protocol, technology transfer

JEL: K32, Q57

Note: This research is a part of Sonata Project no. DEC-2013/09/D/HS4/01849 financed by the National Science Center in Poland.

1. INTRODUCTION

Since natural resources are necessary for economic development, biological diversity has been recognized as a global asset by international community. In 1988 United Nations Environment Programme (UNEP) convened the Ad Hoc Working Group of Experts on Biological Diversity to explore the need for an international convention on biological diversity. As a result, the Convention on Biological Diversity was ready and open for signature from the Conference on Environment and Development "Earth Summit" in 1992 until 1993. It was signed by 168 countries, what represents general global approval to the objectives expressed in the act. The CBD is aimed at conservation of biodiversity, the sustainable use of its components, and fair and equitable sharing of benefits arising from the use of genetic resources (Karembu Otunge and Wafula, 2010). Biotechnology laws derive from the Convention on Biological Diversity. As an element of a broader concept of biosafety, biotechnology is therefore an internationally regulated issue.

The CBD defines biotechnology as: *"any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use"* (UN, 1993). Although biotechnology may be used in variety of industries, including pharmaceutical, chemical etc., the most pressing concern is on "green use" of biotech in crops and food. It is one of the most controversial technologies of these times. While many governments are willing to research and commercialize genetically modified organisms (FAO, 2014), the societies resist consumption of modified products (Greider, 2003; Wojtasik et al., 2014). Some researchers claim, that biotechnology, compared to traditional methods, is rapid, cost-effective and precise technology, which enables improvements in agricultural production (Karembu Otunge and Wafula, 2010), others claim that it constitutes a threat for environment and that the future consequences of genetic modifications are unknown. The dichotomy of attitudes towards

GMO divides the World not according to North-South, rich-poor logics, but culturally and socially, opposing USA and Europe, Burkina Faso and Ethiopia. Commercial use of biotechnology has a potential to create economic and social consequences, but also to influence the environment in a way scientifically difficult to assess at the moment. This leads to production of strongly opposed, emotionally grounded views. Producers' lobbies from both opponents and proponents neither neutral or free from bias influence the public opinion. There is a lack of serious communication with independent researchers on actual biotechnology influence of environment

European Union as an organization of states decided that promotion of innovativeness in Member States is indispensable to increase competitiveness of the region in dynamic reality of globalised World. The declaration of a policy aimed at smart, sustainable, and inclusive growth has been clearly articulated in the Europe 2020 strategy plan, which follows the Lisbon Process first enhanced in 2000. Nevertheless, the desire for technology development and innovation in knowledge based economy may not be unlimited. Social, cultural, and moral norms require conscious use of science for the purposes of human lives improvements. Establishment of legal framework, which encompasses these norms in an applicable body of rules, is required to protect the values important for the society. In case of European Union, it means adoption of norms relatively general, which express a compromise between different national, political, and ideological groups and pursue an objective of ensuring a high level of protection of human life, health and welfare, environment and consumer interests. In this paper, European regulations in the context of social pressure and international obligations are studied. Polish experiences with European Commission depicted the tendency to support the GMO presence on the common market, regardless the bottom-up opposition. The goal was to analyze the complexity of international, regional and national interests, as the challenges for lawmakers. The role of public opinion as a challenge of biotechnology regulations in Europe and in other parts of the World has also been studied. The controversies of agricultural biotechnology laws will be analyzed in the following sections in the context of the adopted regulations, exemplary international disputes, the increasing use of GMO crops and some social aspects of the use of genetic modifications in agriculture.

2. BIOSAFETY AND BIOTECHNOLOGY REGULATIONS IN EU

Introduction of biosafety laws, especially on genetic modifications in agriculture, is a complex process, which influences the institutional relations, funding mechanisms, research and the scope of commercialization in certain sectors of agriculture. Also individual opportunities for scientists, farmers, and entrepreneurs depend on the pathways defined in the relevant laws. It is therefore a pivotal factor for the delimitation of biotechnology use in agriculture. Contradictory opinions and polarized attitudes towards the use of biotechnology make regulatory process even more challenging. In different parts of the World a vast array of approaches to genetic modification, from rejection to approval are represented (Randall, 2011; Pillarisetti, Lawrey and Radel, 2007). Nevertheless, establishment of legal framework is indispensable to either allow application of biotechnology in trade or to reject biotechnology from commercial use. Regardless the approach, the appropriate regime of admissibility or denial of biotechnology (technology use, products, trade etc.) is required in every country under international law.

CBD lays the foundation for international biotechnology regulations. Based on the article 19 paragraph 3 of CBD: *“The Parties shall consider the need for and modalities of a protocol setting out appropriate procedures, including, in particular, advance informed agreement, in the field of the safe transfer, handling and use of any living modified organism resulting from biotechnology that may have adverse effect on the conservation and sustainable use of biological diversity”*, a supplementary agreement to the Convention on Biological Diversity was adopted in year 2000 under the name of Cartagena Protocol on Biosafety (Cartegena Protocol). It is an international treaty regulation on the movements of living modified organisms resulting from modern biotechnology from one country to another. It is also an important source of international biotechnology regulations. Parties to the protocol are obliged to take necessary and appropriate legal, administrative and other measures to assure application of biotechnology with regard to safety of the environment and human health. This provision imposed the obligation to develop and implement National Biosafety Frameworks, a combination of legal, policy, administrative and technical instruments in countries which are parties to the Cartagena Protocol (CPB, 2000). Moreover, the Protocol requires parties to implement regulations which

would develop public confidence in biotechnology (Karembu Otunge and Wafula, 2010). A sensitive issue given the paradox of general reluctance towards GMOs with mutual desire for biotechnology, observed especially in developed societies.

Regulations on biosafety as international matter constitute a compromise of wide range of views often not consistent and reconcilable. Apart from Cartagena Protocol, also international Application of Sanitary and Phytosanitary Measures (SPS Agreement) requires application in the legal framework of World Trade Organization members. To make it even more complicated, there are some conflicts between the provisions of these documents (Ansari and Wartini, 2014). Nevertheless, European commitments to free trade obligations under UN and WTO did not deter regional resistance to GMO. These diverging views were expressed in the WTO settlement procedures. In 2003 Argentina filed a complaint against European Community (EC) to Dispute Settlement Body and asserted that the moratorium applied by the EC since October 1998 on the approval of biotech products has restricted imports of agricultural and food products from Argentina. A number of EC member States maintained national marketing and import bans on biotechnology products regardless these have already been approved by the EC. Upon a request made by Australia, Brazil, Canada, India, Mexico, New Zealand and the United States, these countries joined the proceedings. A panel, which has been established, confirmed that the European Communities applied a general de facto moratorium on the approval of biotech products between June 1999 and August 2003. The final ruling against EC did not create any immediate effect, however it showed the need for transparent regulations with regard to international trade containing GMOs. Finally, in 2010 Argentina and EU agreed to establish a bilateral dialogue on the application of biotechnology to agriculture (WTO, 2015). The WTO decision has been criticized. It claimed that risk assessments presented by some Member States to justify their bans were: *“not considered to meet requirements of “risk assessment” laid out in SPS Agreement”* (Brankov and Lovre, 2013). However, Brankov and Lovre bring up that the Panel relied only upon six individual experts to determine such central issues as whether the delay in approvals was justified pending scientific study and whether risk assessments were adequate under the SPS Agreement (2013). International pressure on EU to allow the GMOs stands in a contradiction to bottom-up trends in the

Community. Member States require from the European Commission to set more effective measures to effectively ban the GMO use.

The volatility of the green GMO use issue is reflected in the biotechnology laws. The system tries to marriage the international agenda with local interests. The approval of GM soybeans in 1996 by the EU caused backlash of consumers and food retailers, anti-GM campaign were organized (Kurzer, 2006; Heisenberg, 2006). The moratorium which was subjected to WTO dispute settlement was issued by the Commission under the Member State and European public opinion pressure (Kurzer, 2006). European consumers expressed their preference not to eat GM foods in polls conducted afterwards (Heisenberg, 2006). French activists organized civil disobedience, lobbying and media campaigns to promote the notion of nationwide 'crop destructions' and negative image of GMOs (Darren McCauley, 2014). Even trace levels of GM material presence in food labeled as GM-free, increases the concerns of the public opinion, which considers ubiquity of GM as threatening (Partridge and Murphy, 2004). European society, contrary to American, does not trust in regulatory system to protect them from the potential risks of GMO (Kurzer, 2006). In some countries, such as France, Italy, Austria, Denmark, Greece and Luxembourg, these fears are traditionally bigger than in others, such as Spain (Ryland, 2001).

European regulations are aimed to reconcile divergent risk assessments, avoid trade disputes and protect the consumers, which are the goals hardly compatibles. European Union regulations cover a number of aspects considering biotechnology, such as contained use, deliberate release into the environment, food and feed, traceability and labeling, plants and seeds, intellectual property, and transboundary movements of genetically modified organisms. The most important regulations on GMOs in European Community are: Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed and Regulation (EC) No 1830/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labeling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC. Apart from that, the Directive 2009/41/EC on the contained use of genetically modified micro-organisms (GMMs) lays down common

measures for the contained use of GMMs, aimed at protecting human health and the environment.

Under European regulations a common procedures for risk assessment and authorization for GM use in crops has been established. The procedure of GMO verification applies to every product which contain nontrivial amounts of GMO. The authorization procedure allows to assess the risk, and: *“the authorization criterion is that the product must be determined, by tests using the most advanced knowledge and technology available, to be as safe to humans, animals, and the environment as their conventionally derived counterparts”* (Randall, 2011). Uncontrolled mixing with conventional plants is forbidden. Also, the labeling policy, including the farmers using GM feed, is established for consumer protection. Procedures for procedure for authorizing deliberate release and marketing of GMOs and common methodology for assessing environment risks throughout the EU are stated in Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC - Commission Declaration. These provisions require that initial authorizations for GMO use can be granted for maximum of 10 years and renewable and prior public consultation is compulsory. At all times GMOs must be monitored once placed on the market. Regulation EC 619/2011 allows the Commission to harmonize the implementation of the zero-tolerance policy on non-authorized GM material in feed in all Member States. It is especially important with regard to non-EU import practices. This Regulation apply to the official control of feed and stipulates the technical zero level at 0.1 % - the lowest level of GM material considered by the EU Reference Laboratory for the validation of quantitative methods.

The European system is governed by the precaution principle, but generally allows the use of GMOs under certain conditions, with respect to international agreements under UN and WTO (Ansari and Wartini, 2014). Although, according to this principle, if the adverse effect of anything is not determinable, it is better not to introduce it into the environment or for human consumption, the fact is that European regulations allow GMO use. It is mostly due to the pressure made by public opinion on Member states, that caused numerous bans on GMO use, which were often considered contrary to European law afterwards.

Polish experience shows, that the Commission continued to foster the use of GMOs on the common market rather than to allow any derogations.

3. GMO - POLAND V. COMMISSION

Poland continues to implement European GMO regulations and establish own biotechnology law since the 2000s, however the society is generally unaware of the consistence of this framework. Legal system is criticized by public opinion without knowledge of the rules imposed by the system. This is an effect of a strong negative campaign in Poland, which is supported by the eco-groups and by the right side political powers (Twardowski). GMO regulatory process requires some crucial elements, such as consensus between key government actors, clearly assigned responsibilities, strategy plan to advocate desired law and policy, alliances with different stakeholders, engaging experts from different fields in the regulation process, communication strategy, stakeholder mapping, involvement of good legislators, media strategy and involvement of public opinion (Karembu Otunge and Wafula, 2010). Biotechnology as a both debatable and relatively technical matter is not easy to be well communicated to public opinion, so the communication with public opinion and education are crucial (Adigun, 2014; Jha, Jha and Gautam, 2011). The strategy for food security requires therefore not only explicit regulations of biotechnology, but also supporting legal solutions in related branches of law. Polish biotechnology law introduction path has not been tailored with accordance to any such requirements. The process, apart from purely legal aspects, seems to be non-managed.

There are several legal acts which regulate GM in Poland with regard to the contained use, the food and the feed. The fundamental law is Act on genetically modified organisms of 22 June 2001, amended in 2003 (GM Act). Apart from this, there is a number of delegated legislation of Ministry of Environment and Finance, which regulate the procedures of GMO use. In 2004 Polish Government officially announced the binding force of Cartagena Protocol in the Republic of Poland (Oświadczenie Rządowe, 2004), and in 2006 the International Treaty on Plant Genetic Resources for Food and Agriculture (International Seed Treaty in Court) applicability has been confirmed (Oświadczenie Rządowe, 2006). Apart from that, the European Regulations have been implemented in Food

security Act of 2006. Art. 50 of this act sets the requirements of food labeling in accordance with Regulation 1830/2003. The control mechanism is also directly imposed to Polish law by the *explicite* reference to European Acts. Currently, in February 2015, Poland has adopted a revision of GM Act in order to transpose Directive 2009/41/EU on the contained use of genetically modified micro-organisms. The legislation received a lot negative comments in the Internet. The analysis of Internet websites content with regard to GMOs conducted in February 2015 depicts that the communication on green biotechnology is quite ineffective. What is especially disturbing is that there is no easily accessible information on the actual use of GMO crops in Poland provided by the government. A person trying to search information on the official websites acquirers' general information on legislation, procedures to apply GMOs, and GMOs crops accepted by EU, without reference to practice or explanation of the system operation in Polish agriculture. A person searching information in the common browsers (key words such as "*GMO in Poland*" or "*GMO crops*") exposes to negative campaign websites, which often contain misleading or incorrect information in emotional context. The information on GMO is therefore unclear and apparently not appropriately managed by the authorities, especially provided that it is quite an important topic.

GMOs are now generally rejected by public opinion in Poland, and there is a pressure put on the government to ban the GMO green use. Poland has diverted its laws from European regulations for that matter. Poland notified the Commission of a draft Act which derogated in part from Directive 2001/18/EC on 17 April 2007. The Commission rejected these derogations by decision taken on 12 October 2007, but which was notified to the Polish authorities only on the following 4 December, after the expiry of the six-month period laid down by art. 95 ust. 6 of EU Treaty. The Court consequently annulled the decision, based on failure of formal requirements by the Commission. However, the scope of derogation from the directive, which embraced: (1) the obligation on the person applying for authorisation for the deliberate release of GMOs into the environment to produce written declarations from the owners of holdings neighbouring the site of the deliberate release, in which they state that they do not object to the release, and a certificate from the mayor of the municipality, town or city confirming that, as regards the need to protect the local environment, nature and the cultivated landscape of the area concerned, the local land development plan

provides for the possibility of deliberate release and (2) the prohibition of the cultivation of genetically modified plants in the national territory, subject to the possibility of cultivating those plants in areas specifically designated by the Minister responsible for agriculture, were denied by the Commission. The substance of the decision was to reject the draft Act for failure to produce new scientific evidence in accordance with Article 95(5) EC (T-69/08). If not for the formal reasons, these regulations would not be admissible under European law. Also, Poland lost the other case *v. Commission*. National legislation prohibiting the marketing of seed derived from genetically modified varieties and the registration of such varieties in the national catalogue of varieties was ruled infringement of Articles 22 and 23 of Directive 2001/18/EC and of Articles 4(4) and 16 of Council Directive 2002/53/EC of 13 June 2002 on the common catalogue of varieties of agricultural plant species (C-165/08). Polish experience clearly shows the dichotomy of European and state level comportment to GMOs. Considered that in the dispute before WTO the Commission is regarded as cautious with GMO use, the gap between the European states and WTO is even more disturbing.

In order to support public opinion, Poland along with other Member States made a request to Commission in 2009, calling for more consideration on GMO allowance. In response to Member States petition, the political agreement was reached in 2014 by the European Council and Member States to allow restrictions or ban of GMO cultivation in their territory. Before that, under the regulations, the States could have ban or restrict cultivation of GMO only by adopting safeguard clauses where new serious risks to human health, animal health and the environment are identified after the GMO has been authorized. Article 23 of Directive 2001/18/EC states: *“Where a Member State, as a result of new or additional information made available since the date of the consent and affecting the environmental risk assessment or reassessment of existing information on the basis of new or additional scientific knowledge, has detailed grounds for considering that a GMO as or in a product which has been properly notified and has received written consent under this Directive constitutes a risk to human health or the environment, that Member State may provisionally restrict or prohibit the use and/or sale of that GMO as or in a product on its territory.”* This provision, interpreted restrictively limited the states control over the GMOs use in agriculture. GMO products are admissible so long as the scientific assessments do not flag particular problems or

risks. However, the agreement reached in 2014, provides a legal basis to restrict or prohibit the cultivation GMOs authorized at EU level in Member States territories.

4. GMO CONTROVERSIES IN INTERNATIONAL RELATIONS

International regulations generally allow introduction of GMO crops in agriculture. Some regional agreements, such as European Union regulations impose more strict approach and limited possibilities of GMO use upon procedural approval. On the state level, the differences are quite important, and while some countries allow GMOs, other strongly oppose to it. Legal framework of green biotechnology and institutional solutions adopted in different countries, show an amalgam of different approaches to GMOs in practice. The challenges of agricultural biotechnology laws may be analyzed in the context of the increasing use of GMO crops, the research topics and cultural aspects.

Despite these differences of approach that exist at present, the global biotechnology crop hectareage increased at 12% (12.3 million hectares) per year until 2012 (since 2013 it generally slowed down). The overall area of GM crops is 174 million of hectares (GMO Compass, 2014). The big four bt crops are soybeans, maize, cotton and rapeseed. The number of countries planting biotech is growing (around 20), especially in developing countries, in Africa in particular (e.g. South Sudan, Burkina Faso, Egypt). The World leader is USA (50% of global share), followed by Argentina, Brazil, Canada, China and India. Among European countries Spain, France, Czech Republic, Portugal, Germany, Slovakia, Romania and Poland were planting biotech crops in 2007 (ISAAA, 2012). Although in 2007 MON 810 maize crops were commercially introduced in Poland, due to public opinion pressure, they were banned in January 2013. Maize is the Worlds' most ubiquitous cereal. This plant is entirely susceptible for commercial use, serving as food and animal feed. First European country to introduce Bt maize was Spain. In 1998 it approved commercial use of Syngenta Compa CD seeds (Demont and Tollens, 2004). Currently, 137 000 hectares, a 30% share of the Spanish maize production are genetically modified (GMO Compass, 2015).

Table 1 Cultivation of GM plants in the EU in 2007-13 (in hectares)

EU country	2007	2008	2009	2010	2011	2012	2013
Spain	75.148	79.269	76.057	76.575	97.325	116.306	136.962
France	21.147	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Czech Rep	5.000	8.380	6.480	4.680	5.090	3.080	2.800
Portugal	4.500	4.851	5.094	4.868	7.723	9.278	8.171
Germany	2.685	3.171	n.a.	n.a.	n.a.	n.a.	n.a.
Slovakia	900	1.900	857	1,248	760	189	100
Romania	350	7.146	3.244	822	588	217	834
Poland	320	3.000	3.000	3.000	3.900	4.000	n.a.

Source: own elaboration based on http://www.gmo-compass.org/eng/agri_biotechnology/gmo_planting/392.gm_maize_cultivation_europe_2013.html, based on: Industrieverband EuropaBio, ISAAA, USDA / Foreign Agriculture Service (2010, 2011, 2012, 2013) and Federal Bureau for Consumer Protection and Food Safety, BVL

The scope of application of GMOs in agriculture is influenced by the outcomes of research conducted by state and private research institutes. The interest of science is another way of evaluation of biotechnology perspectives on different markets. Generally, developed countries are more advanced in the biotechnology research than emerging and developing economies (FAO, 2011b). Some biotechnology technics for strain improvement, which are widely employed in developed countries (eg. classical mutagenesis and conjugation, hybridization) are only beginning to be applied in developing countries for the improvement and development of starter cultures (FAO, 2011b), others, such as tissue culture, genetic modification (genetic engineering) and molecular breeding (marker-assisted selection) are most commonly used scientific techniques in the developing countries agriculture (Karembu, Nguthi and Ismail, 2009). Countries which favor the use of GMO concentrate biotechnology research concentrate on cost-reduction technics and problems such as corn borer loses are addressed (Demont and Tollens, 2004). The scientists from countries which disapprove of GMO go in other directions. Interesting, that the rejection of GMOs by public opinion influences not only regulations, but also the research. Some scientific works are dedicated to produce solutions acceptable for the European societies. Scientists try to develop new technology for new plant type's generation which uses the knowledge resulting from analysis of genetically modified plants to generate favorably altered plants while omitting the introduction of heterologous genes to their

genome in order to respond to social denial of GMO (Wojtasik et. al., 2014).

It has been noticed by WTO, that the existence of different regulations regarding the testing and approval procedures necessary to place GMOs and their products on the market, and the disagreement about labeling and identification requirements cause trade problems between countries. The reluctance of the EU and European consumers influence other parts of the World. According to Hesenberg, not only did several developing countries refuse GMO crops in 2002, but also refused GMO contained food aid donated by the USA (2006). According to Kurzer, African developing states fear that they will be excluded from the EU market once they start using GMOs (2006). This however is debatable. While some claim that African states' motivation behind non-adoption of GM varieties is their concern about losing the European market, other assert that African Model Law on Safety in Biotechnology provisions are more comprehensive than those required by the Cartagena Protocol, embrace the precautionary principle and recognize the sovereign right to require a rigorous risk assessment before any GMO use (Pillarisetti, Lawrey and Radel, 2007). Despite the discussion, in some countries, the use of GM crops for the purposes of biodiversity and health protection is banned, like in Ethiopia (Cochrane, 2014), whereas in others, such as Burkina Faso or South Sudan, they are accepted.

The advantages of biotechnology for farmers from developing countries is not evident. First, they suffer because of insufficient level of state funding and domination of private equity (Chataway, 2005). Consequently, there are no modified seeds of local tropical plants due to lack of incentives from private companies to research them (poor farmers may be perceived as weak target market) (Paarlberg, 2005), and once the GM seeds are available on the market, the problem of the costs of the biotechnology as the object of intellectual property protection (IPR) arises (Chataway, 2005). Apart from IPR, the international trade barriers and regulations concerning modified products are a potential limitation for the farmers to profit from biotechnology use. Diverse biotechnology regulations and zero tolerance policy in some countries affect the international trade of modified products (Paarlberg, 2005; FAO, 2014). Developing countries policy makers fear of running commercial risks of losing sales to markets such as European Union (Paarlberg, 2005). Rejection or market withdrawals of modified products

by importers in developed countries have several socio-economic impacts on producers, consumers and agribusiness firms (FAO, 2014). Different policies on GMOs, unintentional movement of GM crops, different timing of approvals for GMOs, and difficulty in accessing information for products are the major constraints in the GMO related trade (FAO, 2014).

Table 2 GMO approaches in different regions

GMO yes	Increased food production	More effective agriculture large-scale	comportment to	Barriers in international trade	Consumer backlash to GMO	farming, traditional	Precaution, unknown effects	human health and environment	GMO no
-		x			x	x	x	x	EU
USA	x	x	x	x*					-
Africa	x	x		x*	x*	x	x	x	Africa

* EU influence on international trade

Source: own elaboration.

The controversies on the use of GMO have also social and cultural aspect. Different approaches to GMO have been shown in the Table 2. The table shows general recognition and importance of the arguments for GMO use in these regions and is not distinctive. It is claimed that the common approval of GMOs in United States is a consequence of a large scale of farming and lack of traditional values attached to small rural house hold traditions. It is not only the foodstuff that is provided by farmers in Europe, but also more intangible sociocultural artifacts related to the management and conservation of the natural environment, that they supply (Kurzer, 2006). Social barriers to GMOs are also present in developing countries, especially in some states in Sub-Saharan Africa. People fear the risk of dominance of agricultural production for exports over-responding to local demand for consumption, reinforcements of big plantations position in comparison to small ones, concern due to the use of highly effective clones and propagation of in vitro, and domination of foreign investments through expanding patents on African plants cultivation means (Andrzejczak, 2014). Also, genetic modifications may be perceived as against the value system that respects products provided by the Creator (Muchopa, Munyuki-Hungwe and Matondi, 2006). Social and cultural values acknowledged by different groups are therefore

important pre-conditions for GMO laws and use on certain territories, and they differ significantly.

5. CONCLUSIONS

The GMO creates more controversy than any other issue in international agriculture before, and as such constitutes a major regulation challenge for policymakers in European Union. Lack of consensus on GMOs resulting from different factors of practical, social, cultural, economic and scientific grounds, creates a complex regulation sphere. Every decision not to allow GMO crops has to be balanced with the corresponding regulations on GMO imports, national farmers interests must be balanced with international agriculture regulations, culture and habits should be balanced with morals and sustainability, and productiveness with environmental threats. There are strongly opposing arguments in the debate on using/not using of scientific, cultural and economic nature. Randall calls for protection from disproportionate risks without unduly stifling innovation in evaluation of GM crops. He underlines that, cautious approach to novel interventions in general could be very costly in terms of innovation benefits foregone (Randall, 2011). Ansari and Wartini differentiate the scope of application of precaution principle depending on the beneficiaries of GMO use: in a country, where people are starving and food supplies are needed, the soft precaution should be applied, whereas if the movement on GMOs is a matter of trade, the hard precaution should be applied (Ansari and Wartini, 2014)

From institutional point of view, the European Union is exposed to international pressure from USA and WTO to be more open to GMO and to internal pressure from Member States and European public opinion to allow more restrictions on GMOs. European Union society influence the governments on national and regional level, strongly protecting the traditions and rejecting the possibility to take the unknown risks of GMOs. At the same time, American society shows exactly reversal comportment, fully accepting the GMOs. It is noteworthy, that both these geographically designated groups are in the economically advantageous situation to have the choice and capacity to bear its consequences.

However, the approval of GMO in North America and general denial of GMO in Europe influence not only national farmers, but also the governments of developing countries, especially from Sub-Saharan Africa. Whichever approach is applied in developed countries, they matter for African states. The decisions undertaken in one region influence other regions because of international movement of goods (food, seed, plants, LMO, etc.). Shortages in food supply can be addressed with the use of GMOs. However such possibility depend on the solutions adopted not only in the regions that suffer from alimentation problems, but on the legal system as a whole. Contrary to European and American societies, the populations of many African states do not have the economic power to bear such risks without real economic consequences.

The attempts to create a legal framework on international, regional and national level aimed at safe use of modern biotechnology, with special regard to genetically modified organisms are undertaken since over two decades. These efforts did not create predictable international legal framework on green biotechnology use so far. The challenge is to create the system that will serve the sustainable development for the whole humanity. This however means addressing a number of different needs and interests and requires extended communication, which so far has been dominated by the pressure groups focused on their own agendas.

REFERENCES

Adigun G. T. (2014). Emerging Agribusiness Enterprises: the Need for Food Safety Policy in Nigeria. *International Journal Of Agriculture, Environment & Biotechnology*, 7(2), 381-390. doi:10.5958/2230-732X.2014.00259.9

Andrzejczak K. (2014) Technologies Development Perspectives in Sub-Saharan African Countries in: *Economy and Social Conditions in Transition*, ed. Gorges I., Winkler L., Dr. Kovac GMBH Hamburg, Hamburg: Verlag, 81-104.

Ansari H. A., Wartini S., (2014) *Application of precautionary principle in international trade law and international environmental law: A comparative assessment*, *Journal of International Trade Law and Policy*, Vol. 13 Iss: 1, pp.19 – 43.

Brankov T.P., Lovre K. (2013) *Wto Law And Genetically Modified Products*, 135 EAAE Seminar Challenges for the Global Agricultural Trade Regime after Doha, Belgrade.

C-165/08 - Commission v Poland, Judgment of the Court (Second Chamber) of 16 July 2009.

Cartagena Protocol on Biosafety, United Nations.

Chataway J. (2005). Introduction: is it possible to create pro-poor agriculture-related biotechnology? *J. Int. Dev.*, 17: 597–610.
doi: 10.1002/jid.1226

Convention on Biological Diversity, United Nations.

Demont, M., & Tollens, E. (2004). *First impact of biotechnology in the EU: Bt maize adoption in Spain*. *Annals Of Applied Biology*, 145(2), 197-207.

Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms

Directive 2009/41/EC on the contained use of genetically modified micro-organisms (GMMs)

EU (2010) Communication From The Commission To The European Parliament, The Council, The Economic And Social Committee And The Committee Of The Regions on the freedom for Member States to decide on the cultivation of genetically modified crops, Brussels, 13.7.2010 COM(2010) 380 final

FAO (2014). Low levels of GM crops in international food and feed trade: FAO international survey and economic analysis, Technical Background Paper 2, Rome.

Food security Act (2006) Ustawa z dnia 25 sierpnia 2006 r. o bezpieczeństwie żywności i żywienia (Dz.U. 2006 nr 171 poz. 1225)
GMO Compass (2015) <http://www.gmo-compass.org/>

eng/agri_biotechnology/gmo_planting/392.gm_maize_cultivation_europe_2013.html

Greider, W. (2003). A High-Level Food Fight. *Nation*, 277(14), 16.

Heisenberg D. (2006), Can the European Union Control the Agenda of Globalization? In Janet Laible, Henri

J. Barkey (ed.) *European Responses to Globalization (Contemporary Studies in Economic and Financial Analysis, Volume 88)* Emerald Group Publishing Limited, pp.19 – 39.

ISAAA (2012) ISAAA Brief 44-2012: Executive Summary Global Status of Commercialized Biotech/GM Crops: 2012
<http://www.isaaa.org/resources/publications/briefs/44/executivesummary/>.

Karembu M., D. Otunge, Wafula D. (2010). Developing a Biosafety Law: Lessons from the Kenyan Experience, ISAAA Afri Center, Nairobi, Kenya.

Kurzer P. (2006), Who Steers the Field of Consumer Protection and Environmental Regulations? An American–European Comparison, in Janet Laible, Henri J. Barkey (ed.) *European Responses to Globalization (Contemporary Studies in Economic and Financial Analysis, Volume 88)* Emerald Group Publishing Limited, pp.41 – 63.

McCauley D. (2014), Exploring Ideology as a ‘Resource’ for Environmental Justice Activism: Reflections from the Anti-GMO Movement in France, in Liam Leonard, Sya Buryn Kedzior (ed.) *Occupy the Earth: Global Environmental Movements (Advances in Sustainability and Environmental Justice, Volume 15)* Emerald Group Publishing Limited, pp.171 – 193.

Oświadczenie Rządowe z dnia 2 kwietnia 2004 r. w sprawie mocy obowiązującej Protokołu kartageńskiego o bezpieczeństwie biologicznym do Konwencji o różnorodności biologicznej, sporządzonego w Montrealu dnia 29 stycznia 2000 r. Dz.U. 2004 nr 216 poz. 2202

Oświadczenie Rządowe z dnia 2 marca 2006 r. w sprawie mocy obowiązującej Międzynarodowego traktatu o zasobach genetycznych roślin dla wyżywienia i rolnictwa, sporządzonego w Rzymie dnia 3 listopada 2001 r. Dz.U. 2006 nr 159 poz. 1129

Paarlberg R. (2005). From the Green Revolution to the Gene Revolution. *Environment*, 47(1), 38-40.

Partridge M., Murphy D.J., (2004) "Detection of genetically modified soya in a range of organic and health food products: Implications for the accurate labelling of foodstuffs derived from potential GM crops", *British Food Journal*, Vol. 106 Iss: 3, pp.166 – 180.

Muchopa Ch., Munyuki-Hungwe M. and B Matondi P. (2006). *Biotechnology, Food Security, Trade and The Environment, A Synthesis of Issues Impacting on Consumers Rights in Africa*, <https://www.google.pl/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#>

Ram Pillarisetti J., Lawrey R., Radel K., (2007) "GM crops in sub-Saharan Africa: A critical comment on GTAP modelling", *International Journal of Social Economics*, Vol. 34 Iss: 3, pp.188 – 196.

Randall A. (2011), *Chapter 14 Innovation, Risk, Precaution, and the Regulation of GM Crops*, in Colin A. Carter, GianCarlo Moschini, Ian Sheldon (ed.) *Genetically Modified Food and Global Welfare (Frontiers of Economics and Globalization, Volume 10)* Emerald Group Publishing Limited, pp.337 – 367.

Regulation (EC) No 1829/2003 of the European Parliament and of the Council of 22 September 2003 on genetically modified food and feed

Regulation (EC) No 1831/2003 of the European Parliament and of the Council of 22 September 2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms

Ryland D., (2001) "Regulating genetically modified organisms in the interests of whom?", *Managerial Law*, Vol. 43 Iss: 6, pp.1 – 33.

T-69/08 Poland v Commission, Judgment of 9 December 2010.

Twardowski T. *Opinia publiczna a GMO*, Instytut Chemii Bioorganicznej PAN w Poznaniu i Politechnika Łódzka
<http://www.pfb.info.pl/files/artykuly/06.Opinia%20publiczna%20a%20GMO-160407.pdf>

Wojtasik, W., Kulma, A., Boba, A., & Szopa, J. (2014). *Oligonucleotide treatment causes flax β -glucanase up-regulation via changes in gene-body methylation*. BMC Plant Biology, 14(1), 2-31. doi:10.1186/s12870-014-0261-z

WTO (2015) *European Communities — Measures Affecting the Approval and Marketing of Biotech Products*, Dispute Settlement: Dispute DS293,
https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds293_e.htm

CHAPTER 42

Kristijan Poljanec

University of Zagreb, Faculty of Economics and Business, Zagreb,
Croatia

SUBSTANTIVE, PROCEDURAL AND CONFLICT OF LAWS ISSUES OF IMPLEMENTATION OF PROVISIONS ON COMMERCIAL AGENTS' RIGHTS ACCORDING TO THE DIRECTIVE 86/653/EEC ON THE COORDINATION OF THE LAWS OF THE MEMBER STATES RELATED TO SELF- EMPLOYED COMMERCIAL AGENTS

ABSTRACT

The system of subjective monetary claims according to Directive 86/653/EEC on commercial agents is analysed – right to remuneration, right to commission, right to seek damages, right to indemnity. The current system of commercial agents' rights is under significant influence of German model (Rheinsmodel). Differences between remuneration and commission are analysed. Particular attention is given to the civil law institute of indemnity and its relation to institute of damages. The institute of indemnity is discussed in light of differences among common law and civil law legal systems. An overview of United Kingdom's and German national legal solutions as regards monetary claims of commercial agents is given. In light of current discussion on future of the Commercial Agents Directive, herein it is stated that the Commercial Agents Directive is only the beginning of harmonisation of agency law, which comprises conceptually different national legal solutions. Namely, the common law system takes a stand that commercial agents can enforce only those rights they have managed to agree on with the counter-party. Limits of parties' autonomy in cross – border commercial agency contracts are discussed, in context of the CJEU judgements in Ingmar, Unamar and Tamoil. The CJEU's decisions in aforementioned cases significantly influenced national legal systems, the German Commercial Code (Handelsgesetzbuch) in particular. Further insisting on the social component in commercial agency contracts would seriously undermine the faith in proper

functioning of the internal market and discourage principals located outside the EU to entrust commercial agency to agents acting in the internal market. The contractual autonomy is particularly emphasized in cross-border commercial agencies where the parties to the contract are used to the possibility to agree on applicable law. In addition to aforementioned, the EU should bear in mind the co-existence of an international level of commercial agency regulation. The author concludes that the social-protective concept of indemnity should be in balance with the principle of parties' autonomy.

Keywords: Directive 86/653/EEC on commercial agents, right to remuneration, right to commission, right to compensation, right to indemnity, limits of parties' autonomy

JEL classification: K12

1. INTRODUCTION

This paper deals with commercial agents' rights under the Council Directive 86/653/EEC of 18 December 1986 on the coordination of the laws of the Member States relating to self-employed commercial agents (Official Journal of the European Communities, L 382/17, p. 45)¹ and issues which arise regarding its application to situations with a cross-border element. An overview of the basic features of commercial agents' rights is presented. The institute of commission is particularly elaborated. Substantive and procedural legal aspects of the institutes of damages and indemnity, whose coercive legal character is a social-protective element in agency law, are presented. The aim of this paper is to display the system of commercial agents' rights in terms of substantive law, procedural law and conflict of laws, as well as indicate the insufficiency of rule coordination and a need for the harmonisation of rules on commercial agents' rights in order to preserve the integrity of the internal market. The aforementioned topic is a subject of study in the research papers of both Croatian (Kordiš, 2011; Zubović, 2000; Vukmir, 1997, Vukmir, 1984) and European legal science (Schmidt, 2014; Genzow, 2014; Fernández Gregoraci and Saintier, 2009; Rühl, 2007; Gibson, 2006; Bremont, 1995, Huyssen, 1915). Analysis of case law provides an overview of the legal issues encountered in practice, when

¹ Hereinafter: the Commercial Agents Directive.

deciding on commercial agents' rights. The existing solutions are influenced by German law, which leads to difficulties in harmonisation and application of common rules of the European Union² in the Member States with a common law system.³

2. COMMERCIAL AGENTS' RIGHTS UNDER THE COMMERCIAL AGENTS DIRECTIVE

2. 1. Remuneration

Remuneration is prescribed as important precondition for the application of the Commercial Agents Directive (*arg. ex. art. 2* of the Commercial Agents Directive). One can distinguish two distinct institutes. Remuneration in the broad sense is the overall income of a commission agent which he acquired as a monetary consideration for the activities performed during the contract period. It can appear as remuneration in the strict sense or a fixed fee and a variable fee (commission). When determining the amount of remuneration, one can speak of degrees of remuneration determination. The main criterion for determining remuneration is the agreement of the parties. Since the Commercial Agents Directive states "any agreement" (art. 6 of the Commercial Agents Directive), an agreement on the determinability of remuneration should be deemed sufficient.⁴ In the absence of agreement between the parties, a commercial agent is entitled to the remuneration that commercial agents appointed for the goods forming the subject of his agency contract are customarily allowed in the place where he carries on his activities (art. 6 of the Commercial Agents Directive). The use of customary remuneration is limited by the application of the compulsory provisions of the Member States concerning the level of remuneration (Art. 6 of the Commercial Agents Directive). In a series of subsidiary criteria, reasonable remuneration is mentioned, which is determined by taking into account all the aspects of the transaction (Art. 6 of the

² Hereinafter: the EU.

³ The concept of the commercial agent differs significantly in civil law and Anglo-American law. Unlike the civil law notion of representative, the Anglo-American concept of agency (representation) includes commercial agents who not only work in the name and on behalf of another, but also those who do business in their own name, such as factors, commission agents, stockbrokers. The concept of agency includes situations where the third party knows the name or existence of a principal (disclosed agency) or where such information remains hidden (undisclosed agency).

⁴ E.g. a provision that the remuneration should be determined by an expert witness, that a tariff of a Chamber of commercial agents should be held as authoritative or to refer to the terms and conditions of the commercial agent, etc.

Commercial Agents Directive). Reasonableness should be qualified depending on whether the commission agent only negotiated⁵ in the name and on behalf of the customer or has completed a deal. Effort, length of negotiation and expenses incurred should be taken into consideration. It should also be considered that the received remuneration covers any expenses and statutory contributions.

2. 2. Commission

Commission is a part of the remuneration which varies with the number or value of business transactions (Art. 6 par.2 of the Commercial Agents Directive). Commission is a “reward for success” (Kordiš, 2011:63), a percentage of the value of sales for the effort invested (Huysen, 1915:6). While the amount of remuneration in the strict sense may be also be determined by external criteria – peremptory regulations, customary practice or a reasonable fee, it should be noted that the same is not true for commission. The definition of commission implies that its amount is not static and does not correspond to fixed costs. The manner of its determination should be stipulated in the contract by specifying the calculation formula or by referring to an expert who might determine its height according to the scope and quality of the work carried out (determinable commission). Commission may be interpreted as a part of a commercial agent’s net fee, as earnings which reflect the value added to principal’s operations, besides the amount of (fixed) costs incurred for the purpose of carrying out representation activities. As commission is an amount generally determined as a percentage of transaction value with third parties, a “transaction value with third parties” should be regarded as gross remuneration (price) payable to the third party by the principal in “purchase deals” and remuneration (price) payable to the principal by the third party in “sales deals”. Such value would represent the general calculation basis for commission (Kordiš, 2011:68). A commercial is entitled to commission after the agency contract has terminated in two situations (Art. 8 of the Commercial Agents Directive). The first situation applies to transactions mainly attributable to the commercial agent's efforts during the period covered by the

⁵ Here one must mention the judgment of the High Court of Ireland in *Kenny vs Ireland ROC Limited* [2005] IEHC 241, in which the court dealt with the term “commercial agent”. According to the Irish court, the term “negotiation” does not only imply a process of bargaining in the sense of invitation to treat, offer, counter offer and finally acceptance, but that the activities of a commercial agent include a „significant level of skill or consideration in relation to dealing with, managing or conducting the purchase and sale of products on behalf of the principal. (...)“.

agency contract and entered into within a reasonable period after that contract terminated (Art. 8 par. 1a of the Commercial Agents Directive). The meaning should be sought in the prolonged effects of agency in form of a causal connection which exists between the subsequently concluded deals and previous involvement of the commercial agent. The second situation applies to the right to commission on commercial transactions concluded after the contract has terminated if, in accordance with the conditions mentioned in Article 7, the order of the third party reached the principal or the commercial agent before the agency contract terminated.

2. 3. Institute of Damages and Indemnity

2. 3. 1. General Assumptions

The Commercial Agents Directive regulates the institutes of damages and indemnity in relation to commercial agents (Art. 17 of The Commercial Agents Directive). The Commercial Agents Directive prescribes the common reasons when the obligation to pay indemnity or compensation is excluded. The indemnity or compensation referred to in Article 17 shall not be payable where the principal has terminated the agency contract because of default attributable to the commercial agent which would justify immediate termination of the agency contract under national law, where the commercial agent has terminated the agency contract, unless such termination is justified by circumstances attributable to the principal or on grounds of age, infirmity or illness of the commercial agent in consequence of which he cannot reasonably be required to continue his activities and where, with the agreement of the principal, the commercial agent assigns his rights and duties under the agency contract to another person (Art. 18 of the Commercial Agents Directive). One must be careful when interpreting the absence of agreement on transfer of the agency contract to another person. It does not follow, if indemnity or compensation are not be payable where, with the agreement of the principal, the commercial agent assigns his rights and duties under the agency contract to another person, that such obligation would arise if it is done unilaterally. By unilaterally assigning rights and duties to another person, the transfer of the contract would be invalid and such a legal transaction would have no effect towards the principal. Should another person carry out the rights and duties of the commercial agent, bearing in mind the trust relationship as the basis of

agency and the fact that the principal decided to appoint a particular person as his commercial agent, such actions ought to be characterised as wrongful conduct of the commercial agent which would also exclude the right to indemnity or compensation. The aforementioned situation should be distinguished from the situation in which the actions of the commercial agent are performed by his employee as a legal representative of the employer, as in such case there had been no transfer of rights and duties under the agency contract to another person.

2. 3. 2. Indemnity

The roots of the institute of indemnity can be found (Bremont, 1995:123) in Article 89b of the German Commercial Code (the Commercial Code of Germany, RGBL. I S. 219 of 10 May 1897, last amended 15 July 2014, BGBL. I S. 934).⁶ Being a civil law institute, it is unfamiliar to the Member States with a common law system (Vukmir, 1997:198). The right to an indemnity at the termination of the agency contract (i.e. the terminal charge) is an expression of fairness (Schmidt, 2014: 881) or special social protection (Vukmir, 1984: 55). At the EU level, a commercial agent is regarded as the weaker party in commercial agency (Vukmir, 1997: 195, 196; Vukmir, 1984: 27, 55) and is treated differently than in common law systems (Vukmir, 1984: 3).⁷ Upon termination of the contract, principals continue to use the circle of clients provided by the commercial agent (Vukmir, 1997: 195). Commercial agents lose their business contacts, as they continue to be used independently by the principals themselves. Incorporation of the institute of indemnity into the Commercial Agents Directive created an obligation for the United Kingdom and Republic of Ireland to incorporate indemnity into their national law. In June 1996, the European Commission made the Report on the application of Article 17 of Directive 86/653/EEC on the coordination of the laws of the Member States relating to self-employed commercial agents (86/653/EEC) (COM (96)364 final, Bruxelles, 23 July 1996)⁸. Due to the diametrically opposite standpoints on the concept and role of indemnity in civil law and common law countries, one cannot say the Commercial Agents

⁶ Hereinafter: the Commercial Code. The aforementioned institute is a part of German agency law since 1953 and has since developed a rich jurisprudence.

⁷ In common law, as opposed to civil law, commercial agents generally have no special status and do not enjoy special protection. The protection of commercial agents by special rules is characteristic of continental legal systems of commercial agency.

⁸ Hereinafter: the Report on the application of Article 17.

Directive is used to harmonise the European agency law. Rather, it is a lower level of approximation of national laws, i.e. the coordination of laws. Namely, Member States are not required to incorporate both the institute of indemnity and the institute of damages but alternatively (Bremont, 1995: 123)⁹, incorporating at least one.¹⁰ At present the regulation of commercial agents' rights to indemnity and damages within the EU is heterogeneous. While some Member States recognise either indemnity or damages, others recognise both institutes (Bremont, 1995:123)¹¹ and a third group has distinctive legal solutions. Common law takes the market approach. A commercial agent should have as many rights as he was able to secure in a contract (Vukmir, 1997:198). Such an approach is a stronger expression on the principle of party autonomy. This includes various insurance clauses in case of termination, such as possible indemnity. The differences in application of the Commercial Agents Directive among Member States stem from the contrasts between the social-protective and the liberal, market concept. According to Article 17 par. 2 of the Commercial Agents Directive, "the commercial agent shall be entitled to an indemnity if and to the extent that he has brought the principal new customers or has significantly increased the volume of business with existing customers and the principal continues to derive substantial benefits from the business with such customers, and the payment of this indemnity is equitable having regard to all the circumstances and, in particular, the commission lost by the commercial agent on the business transacted with such customers (...)." Indemnity should be viewed as a payment for benefits the principal continues to derive after the cessation of the agency contract (the Report on the application of Article 17, 1996:1). This form of indemnity in the EU law is called goodwill indemnity. The Directive sets the upper limit which the amount of the indemnity may not exceed. According to Article 17 par. 2 b of the of the Commercial Agents Directive, „The amount of the indemnity may not exceed a figure equivalent to an indemnity for one year calculated from the commercial agent's average annual remuneration over the preceding five years and if the contract goes back less than five years the indemnity shall be calculated on the average for the period in question." The said limit

⁹ Ibid Court of Justice of the EU in *Honyvem Informazioni Commerciali Srl v Mariella De Zotti*, C-465/04, EU:C:2006:199, para 20.

¹⁰ The above is derived from the interpretation of the word "or" in Art. 17 par. 1 of the Commercial Agents Directive.

¹¹ National legal systems, which indemnify the commercial agent for both direct loss and contribution to developing the goodwill of the principal's business, can be said to implement the so-called two-tier system.

comes into play in the third stage, provided that the amount calculated during stages one and two exceeds the upper limit. Should it be determined that the amount of equity indemnity, based on the criterion of commission lost, is lower than the amount of goodwill indemnity, the amount of goodwill indemnity will not be lowered to the amount of equity indemnity automatically. According to Article 17 of the Commercial Agents Directive, “the commercial agent shall be entitled to an indemnity if and to the extent that (...) the payment of this indemnity is equitable (...)” It is not excluded that granting the amount of considerable benefits accrued could be considered as equitable. Since the amount of commission lost is only used for example, the amount of benefits accrued and the equitable amount may coincide. In other words, it is equitable to grant the amount of benefits accrued. This stance was confirmed by the Court of Justice of the EU in *Turgay Semen v Deutsche Tamoil GmbH*, C-348/07, EU:C:2009:195¹². In the aforementioned case, the question of whether it is compatible with Article 17 par. 2a of the Directive to limit the indemnity to which a commercial agent is entitled by the amount of commission lost as a result of the termination of the agency contract, even though the benefits which the principal continues to derive have to be given a higher monetary value, was referred (*Tamoil*, para 11). The Court of Justice of the EU has confirmed the abovementioned three-stage procedure for the calculation of indemnity amount (*Tamoil*, para 19). The criterion of commission lost is only one of several elements (*Tamoil*, para 20) relevant to determining whether the amount of indemnity is equitable. The Court of Justice of the EU has stressed that it is for the national court to determine, whether the indemnity granted is equitable (*Tamoil*, para 20). The discretion to adjust the indemnity cannot be construed to the effect that the indemnity can only be adjusted downwards (*Tamoil*, para 23). The Court of Justice of the EU deems impermissible (Genzow, 2014:134) the practice, whereby the courts automatically exclude, for the purposes of the application of the criterion of equity, in a case where the benefits which the principal continues to derive exceed the estimated commission lost by the commercial agent, the possibility of any increase in that indemnity up to the maximum of the ceiling laid down in Article 17 par. 2b of the of the Commercial Agents Directive (*Tamoil*, para 24). The *Tamoil* case is important because the Court of Justice of the EU

¹² Hereinafter: *Tamoil*, with reference to the paragraph.

addressed the question of how the fact that the principal belongs to a group of companies influences the calculation of indemnity and whether the benefits accruing to other companies within the group to which the principal belongs should also to be taken into consideration for the purposes of the above calculation (*Tamoil, para 11*). Under the German influence and until the aforementioned judgement was rendered, one can conclude that a method of calculation based on the practice of the decreasing amount of indemnity dynamics by transition from a lower to a higher level of calculation (the criterion of the reducing commission lost) was in effect. Future occurrences on both the agent's and the principal's side weren't taken into account by previous jurisprudence,¹³ instead fixing indemnity on the part of the market lost to the agent at the moment of termination of the agency contract (the Report on the application of Article 17, 1996:1). By reaffirming the *goodwill* method of the calculation of indemnity, the circumstances at the time of determining the amount of indemnity or commission lost, began to lose their former significance.

2. 3. 3. Damages

One must differentiate the right to indemnity from the right to damages. The latter is an institute of the French legal system. Indemnity is a payment for benefits accrued to the principal or perhaps a payment for commission lost. It is not an expression of suffering damage, but instead a form of protection for the commercial agent at the termination of the agency contract. The commercial agent has a right to damages for the damage he suffers (*arg. ex. art. 17 par. 3. of the Commercial Agents Directive*). The general prerequisite is the termination of his relations with the principal. It should be noted, though, that termination must not necessarily result from breach of contract by the principal. There are two particular cases in which such damage shall be deemed¹⁴ to occur. Those are when the termination takes place in circumstances "depriving the commercial agent of the commission which proper performance of the agency contract would have procured him whilst providing the principal with substantial benefits linked to the commercial agent's activities and/or which have not enabled the commercial agent to amortize the costs and expenses that he had incurred for the performance of the

¹³ See judgement in BB 227/70 *Celle*, 13 November 1969.

¹⁴ It should be held that the said presumption is rebuttable, ie. that it is valid only if and to that extent in which the defendant (the principal) fails to rebut it by evidence to the contrary.

agency contract on the principal's advice" (Art. 17 par. 3 al. 2 of the Commercial Agents Directive). In the described situations one can notice the institutes of lost profits in the form of denial of future commissions, i.e. "what could reasonably have been obtained, for the rights which the agent had been enjoying (...) "(*McQuillan v McCormick* [2010] EWHC 1112) and/or decrease in assets due to the commercial agent's inability to amortize the costs and expenses (*Lonsdale v Howard & Hallam Ltd* [2006] EWCA 63). The solutions prescribed for the right to indemnity and the right to damages are relatively peremptory, in accordance with a social-protective concept of indemnity, but also damages.

3. CONFLICT OF LAWS RULES OF THE EU ON AGENCY CONTRACTS

In the absence of specific rules on the law applicable to agency contracts, general conflicts of laws rules of the EU apply. The parties of agency contracts are free to choose the applicable law under the principle of party autonomy in accordance with the provisions of the Regulation (EC) No. 593/2008 of the European Parliament and the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I) (OJ L 177, 4 July 2008, pp. 6-16).¹⁵ It is important to point out that "the question whether an agent is able to bind a principal (...) in relation to a third party" is excluded from the scope to the Rome I Regulation (Article 1 par. 2g of the Rome I Regulation). The issue of external relationship (the power of attorney) effects will be resolved through conflict of laws rules of national law, while the issue of internal relationship (mandate) effect will be resolved through conflict of laws rules of the Rome I Regulation. Derogation of the law applicable to the contract in favour of the national law of the forum, including the derogation of the law chosen autonomously by the parties, is justified in situations when the prevailing mandatory rules are applied. In *Ingmar GB Ltd v Eaton Leonard Technologies Inc.*, C-381/98, EU:C:2000:605,¹⁶ the question of the legal nature¹⁷ of provisions set by Article 17 of the

¹⁵ Hereinafter: the Rome I Regulation. According to Article 1 par. 1 of the Rome I Regulation it applies to contractual obligations in civil and commercial matters. According to the Court of Justice of the EU jurisprudence, the proceedings relating to the payment of commission to an independent commercial agent are proceedings in matters relating to a contract. *Mutatis mutandis* the same should apply to indemnity and damages. See judgement in *SPRL Arcado v SA Haviland*, C-9/87, EU:C:1988:127, para 16.

¹⁶ Hereinafter: *Ingmar*, with reference to the paragraph.

¹⁷ In the opinion of the European Commission, Articles 17 and 18 of the Commercial Agents Directive are mandatory rules and accordingly, the courts of the Member States can apply the law of the forum in

Commercial Agents Directive arose. The basic argument expressed during the proceedings was that the freedom of contracting parties to choose the system of law by which they wish their contractual relations to be governed is a basic tenet of private international law and that that freedom is removed only by rules that are mandatory (*Ingmar*, para 15). The Court of Justice of the EU stated that the purpose of Articles 17 to 19 of the Directive, in particular, is to protect the commercial agent after termination of the contract (*Ingmar*, para 21). It emphasised that the purpose of the regime established in Articles 17 to 19 of the Directive is thus to protect, for all commercial agents, freedom of establishment and the operation of undistorted competition in the internal market (*Ingmar*, para 24). The mandatory nature of Article 17 is confirmed by Article 19 of the Commercial Agents Directive (*Ingmar*, para 22). Consequently, “It must therefore be held that it is essential for the Community legal order that a principal established in a non-member country, whose commercial agent carries on his activity within the Community, cannot evade those provisions (of Articles 17 and 19 of the Commercial Agents Directive, A/N) by the simple expedient of a choice-of-law clause. The purpose served by the provisions in question requires that they be applied where the situation is closely connected with the Community, in particular where the commercial agent carries on his activity in the territory of a Member State, irrespective of the law by which the parties intended the contract to be governed” (*Ingmar*, para 25). The Court of Justice of the EU ruled that “Articles 17 and 18 of the Directive (...) must be applied where the commercial agent carried on his activity in a Member State although the principal is established in a non-member country and a clause of the contract stipulates that the contract is to be governed by the law of that country” (*Ingmar*, para 26). This set the limits of parties’ autonomy in choosing applicable law as the basic tenet of private international (contract) law. After the *Ingmar* judgement, certain authors (Rühl, 2007:892) began to consider these to be directly applicable as mandatory rules. The clause on applicable law shall not apply to the extent that it would lead to the non-application of the aforementioned rules or the application of national rules contrary to them. (Rühl, 2007:892). A question may be raised if such an attitude can be justified in cross-border situations with a non-EU element. The problem of expansion of the national implementation measures in situations with a cross-border element appears as the problem of

accordance with the 1980 Rome Convention and thereby ensure the application of the Commercial Agents Directive. See the Report on the application of Article 17, p. 10.

expansion of the Commercial Agents Directive's scope of application in a way that the level of protection, which goes beyond the limits set by the Commercial Agents Directive, is provided. Such a problem arose in *United Antwerp Maritime Agencies (Unamar) NV v Navigation Maritime Bulgare*, C-184/12, EU:C:2013:663.¹⁸ Unamar, as commercial agent, and NMB, as principal, concluded a commercial agency agreement for the operation of NMB's container liner shipping service (*Unamar*, para 20). Bulgarian law was applicable. Due to financial difficulties on the principal's side, the contractual relationship was terminated and Unamar brought an action, seeking compensation in lieu of notice, a goodwill indemnity and supplementary compensation for dismissal of staff (*Unamar*, para 21). The action was brought before a Belgian court, which ruled that Article 27 of the Law on commercial agency contracts (Moniteur belge, p. 15621 of 2 June 1995) was a conflict-of-law rule which was directly applicable as a 'mandatory rule' and which thus rendered the choice of Bulgarian law ineffective (*Unamar*, para 23). The court of appeal took the view that the aforementioned Article 27 was not part of Belgian public policy and considered that the Bulgarian law chosen by the parties also allowed the protection of the Commercial Agents Directive, even if that Directive provided for only a minimum level of protection (*Unamar*, para 24). Against that background, in the view of the court of appeal, the principle of the freedom of contract of the parties had to prevail and, therefore, Bulgarian law was applicable (*Unamar*, para 24). The case reached the Belgian Court of Cassation, which took the view that the objective of Article 27 is to offer an agent whose principal place of business is in Belgium the protection of the mandatory rules of Belgian law, irrespective of the law applicable to the contract. The problem arose from the fact that Belgian law offers wider protection to commercial agents than the minimum laid down by the the Commercial Agents Directive or Bulgarian law in which the minimum protection provided by the Directive has been implemented (*Unamar*, para 26). The question referred to the Court of Justice of the EU by the Belgian Court of Cassation was, essentially, whether Articles 3 and 7(2) of the Rome Convention¹⁹ must be interpreted as meaning that the law of a Member State which meets the requirement for minimum protection laid down by

¹⁸ Hereinafter: *Unamar*, with reference to the paragraph.

¹⁹ In the current enumeration these would be the abovementioned Articles 3 and 9 of the Rome I Regulation.

the the Commercial Agents Directive and which has been chosen by the parties to a commercial agency contract may be disregarded by the court before which the dispute has been brought, established in another Member State, in favour of the law of the forum on the ground of the mandatory nature, in the legal order of that Member State, of the rules governing the position of self-employed commercial agents (*Unamar*, para 29). The Court of Justice of the EU points out that the possibility of pleading the existence of mandatory rules under Article 7(2) of the Rome Convention does not affect the obligation of the Member States to ensure the conformity of those rules with European Union law (*Unamar*, para 46). Otherwise, the primacy and uniform application of European Union law would be undermined (*Unamar*, para 46). The Court points out that the considerations underlying such national legislation can be taken into account only in terms of the exceptions to market freedoms expressly provided for by the Treaty (of the European Community, A/N) and, where appropriate, on the ground that they constitute overriding reasons relating to the public interest (*Unamar*, para 46). The Court of Justice of the EU concludes that to give full effect to the principle of the freedom of contract of the parties, it must be ensured that the choice freely made by the parties as regards the law applicable to their contractual relationship is respected in accordance with Article 3(1) of the Rome Convention (*Unamar*, para 49). It is for the national court, in the course of its assessment of whether the national law which it proposes to substitute for that expressly chosen by the parties to the contract is a 'mandatory rule', to take account not only of the exact terms of that law, but also of its general structure and of all the circumstances in which that law was adopted (*Unamar*, para 50). Such a case might be one where the transposition in the Member State of the forum, by extending the scope of a directive or by choosing to make wider use of the discretion afforded by that directive (*Unamar*, para 50). The Court of Justice of the EU concludes that: "Articles 3 and 7(2) of the Convention on the law applicable to contractual obligations (...) must be interpreted as meaning that the law of a Member State of the European Union which meets the minimum protection requirements (for the commercial agents, A/N) and which has been chosen by the parties to a commercial agency contract may be rejected by the court of another Member State before which the case has been brought in favour of the law of the forum, owing to the mandatory nature, in the legal order of that Member State, of the rules governing the situation of self-employed commercial agents, only if the court before which the case has been

brought finds, on the basis of a detailed assessment, that, in the course of that transposition, the legislature of the State of the forum held it to be crucial, in the legal order concerned, to grant the commercial agent protection going beyond that provided for by that directive, taking account in that regard of the nature and of the objective of such mandatory provisions”(Unamar, para 53).

4. CONCLUSION

The goal of the Commercial Agents Directive is to eliminate the legal obstacles to unimpeded activity of commercial agents in the internal market of the EU. Most of the civil law Member States implemented the right to indemnity and the right to damages. The main issues stem from the different concepts of commercial agents' rights in civil law and common law systems. The German legal tradition seeks to protect the commercial agent by peremptory provisions, independent of party autonomy. The common law approach considers that a commercial agent as a merchant should have as many rights as he was able to secure in a contract. In the *Tamoil* judgement, the Court of Justice of the EU deemed impermissible the practice of automatic downward adjusting of indemnity based exclusively on the criterion of commission lost, and declared the aforementioned criterion as only one of several elements relevant to determining whether the amount of indemnity is equitable. The above judgment strongly influenced the further development of German law. In the *Ingmar* judgement, the Court of Justice of the EU set limits of parties' autonomy in choosing applicable law in contracts with a cross-border, non-EU element. It was ruled that the provisions of Articles 17 and 18 of the Commercial Agents Directive are mandatory in nature. In the *Unamar* judgement, the Court of Justice of the EU has shown the inclination to affirm the parties' autonomy by reaching into the mandatory provisions of national law. The differences in implementation of the provisions of the Commercial Agents Directive, its provisions on indemnity and damages in particular, show that the EU was not entirely successful in harmonising national agency laws. Rather, one can speak of coordination mechanisms for protection of commercial agents. The idea of harmonisation of rules on commercial agents' rights must not overemphasise the social-protective element and put into question the parties' autonomy as the fundamental tenet of private international contract law. Said approach would seriously compromise the trust in the EU internal market and discourage principals with seat

outside of the EU to entrust the activities of commercial agency to agents from the EU.

REFERENCES

Literature and publications

Brémont, Olivier, Compensating a Commercial Agent in the UK: Have Equitable Principles Been Displaced by Political Pragmatism?, *European Business Law Review*, 6:5/1995

Fernández Gregoraci, Beatriz; Saintier, Séverine, Indirect Representation and Undisclosed Agency in English, French and Spanish Law: A Comparative Analysis, *European Review of Private Law*, 17:1/2009

Genzow, Christian F., § 89b HGB: Die Falschberechnung des Ausgleichsanspruchs, *Internationales Handelsrecht: Zeitschrift für das Recht des Internationalen Warenkaufs und Warenbetriebs*, 14:4/2014

Gibson, Emily, Commercial Agents and the Art of Negotiation, *Irish Business Law Quarterly*, 1:2/2006

Huyssen, Robert, *Die Voraussetzungen für den Provisionsanspruch des Handelsmäklers und Handlungsagenten*, Inaugural-Dissertation, Hohe Juristische Fakultät der *Königlichen Universität Greifswald*, Iserlohn, 1915

Kordiš, Hrvoje, Zastupnička provizija (II.), *Pravo i porezi*, 20:1/2011

Rühl, Gisela, Extending *Ingmar* to Jurisdiction and Arbitration Clauses: The End of Party Autonomy in Contracts with Commercial Agents?, *European Review of Private Law*, 15:6/2007

Schmidt, Karsten, *Handelsrecht: Unternehmensrecht I*, 6. Auflage, Köln, 2014.

Vukmir, Branko, Trgovački zastupnici agenti u kontinentalnom (evropskom) i anglo-američkom pravu, *Privreda i pravo*, 1:-/1967

Vukmir, Branko, Pravo međunarodnog trgovinskog zastupanja, Zagreb, 1984.

Vukmir, Branko, Pravo međunarodnih plaćanja. Instrumenti osiguranja plaćanja i ugovorne klauzule plaćanja. Prilozi za pripremanje i polaganje ispita iz predmeta Pravo međunarodnih plaćanja, Zagreb, 1997.

Zubović, Antonija, Praksa Europskog suda iz područja trgovinskog zastupanja, Hrvatska pravna revija, 8:10/2000

Legal acts

The Commercial Code of Germany (RGrB. I S. 219) of 10 May 1897, last amended 15 July 2014, (BGrB. I S. 934)

Directive 86/653/EEC of 18 December 1986 on the coordination of the laws of the Member States relating to self-employed commercial agents, Official Journal of the European Communities, L 382/17

Regulation (EC) No 593/2008 of the European Parliament and of the Council of 17 June 2008 on the law applicable to contractual obligations (Rome I) (OJ L 177, 4 July 2008)

Report on the application of Article 17 of Directive 86/653/EEC on the coordination of the laws of the Member States relating to self-employed commercial agents (86/653/EEC) (COM (96)364 final, Bruxelles, 23 July 1996

National case law

BB 227/70 *Celle*, 13 November 1969

Kenny vs Ireland ROC Limited [2005] IEHC 241

Lonsdale v Howard & Hallam Ltd [2006] EWCA 63

McQuillan v McCormick [2010] EWHC 1112

Case law of CJEU

C-465/04, Honyvem Informazioni Commerciali Srl v Mariella De Zotti,
EU:C:2006:199

C-381/98, Ingmar GB Ltd v Eaton Leonard Technologies Inc.,
EU:C:2000:605

C-9/87, SPRL Arcado v SA Haviland, EU:C:1988:127

C-348/07, Turgay Semen v Deutsche Tamoil GmbH, *EU:C:2009:195*
C-184/12, United Antwerp Maritime Agencies (Unamar) NV v Navigation
Maritime Bulgare, EU:C:2013:663

PART VII
COOPERATION CHALLENGES
AFTER THE EU ACCESSION OF
CROATIA – PART OF THE JEAN
MONNET PROJECT (ECSA
SLOVENIA)

CHAPTER 43

Ivan Tolić

Zagreb Holding, Zagreb, Croatia

Igor Živko

University of Mostar, Faculty of Economics, Mostar, Bosnia and Herzegovina

Jelena Hrnkaš

Zagreb Holding, Zagreb, Croatia

THE IMPACT OF THE ACCESSION OF THE REPUBLIC OF CROATIA INTO THE EUROPEAN UNION

ABSTRACT

The article analyses foreign trade exchange of Croatia before and after the accession to the European Union. Foreign trade exchange is one of determinants of the Gross Domestic Product, besides private and public consumption and investments. Considering significantly greater imports than exports of goods and a big foreign trade deficit during the last almost two decades, the accession of Croatia into the European Union signified a long anticipated turning point for the Croatian economy. Analysis in the thesis shows that during the first eight months of 2014 in comparison to the first eight months of 2013 exports increased by 10% and imports increased by 3,6%, which affected the decrease of the trading balance by 4,5%. The consequence of bigger increase of exports than imports was increase of the export import ratio.

Increase of the exports was registered with most of the EU countries (17 out of 27), as well as with the CEFTA countries, while at the same time the imports from the CEFTA countries decreased. The thesis emphasizes competitiveness or non-competitiveness of the Croatian economy, which caused and still causes a high deficit in the foreign trade balance. Out of 148 countries according to the global competitiveness index of the World Economic Forum Croatia is rated as 75th on the list. The thesis describes the example of pooling of small and medium sized enterprises into clusters, which could in this way (but still are not) be more

competitive to bigger companies, increase their capacities and effectiveness and achieve better international competitiveness.

Key words: foreign trade exchange, import, export, Croatia EU

Jel classification:

1. INTRODUCTION

For the economic growth and development of every country, and especially of a small open economy such as the Croatian one, international exchange makes an important factor of economic progress. On one hand there are the processes of trade liberalization and economic integrations, and on the other there is an increasing global competitiveness. This considerably affects the export and import of goods, having direct and indirect impact on the gross domestic product. When it comes to exports, the Croatian economy is confronted with certain drawbacks such as: fragmented production of the Croatian economy, insufficient production capacities, lack of clear national export strategy, more difficult access to world capital, problems related to the transfer of new technologies and knowledge, etc. (Kovač, 2012). Foreign trade exchange is analyzed through the foreign trade balance of a country that provides a systematic overview of all transactions relating to the exchange of goods between residents of a country that produces and residents of other countries. Together with the balance of transfers and the balance of services it makes an integral part of the current part of the balance of payments. Each country conducts foreign trade policy which represents a set of measures and instruments of economic policy by means of which the government and other state bodies influence the relative prices of goods and markets in merchandise exports and imports. It is an integral part of the overall macroeconomic policy of a country and it consists of foreign exchange policy, policy of customs and non-tariff protection, domestic currency exchange rate policy and financial-credit relations policy. With regard to the Croatia's accession to the European Union and the change of foreign trade policy in terms of customs and non-tariff protection as well as weak competitiveness of Croatian products in the EU market, on one hand there was fear of Croatia's entering into the large European market with over 500 million consumers but also hope that it was an opportunity to increase production and export of products. With its 4.2 million inhabitants,

Croatia makes less than 1 percent of the EU population. The EU market offers great opportunities for export of Croatian products but on the other hand there is the possibility of increased imports due to the absence of trade barriers. A significant problem that Croatia has been facing since the beginning of the Croatian War of Independence is a process of deindustrialization of the Croatian economy which caused disappearance of many local products and decay of production capacities. With their disappearance no new added value was created and investments in the remaining production capacities are insufficient, affecting their reduced competitiveness on the European as well as on the world market.

Given that since the Croatia's accession to the EU there have passed almost 15 months and that there are statistical data for foreign trade exchange, in the continuation of this paper there is an analysis of the situation before and after the accession, where the analysis of exports and imports is based on the time period from January to July i.e. August 2014.

2. FOREIGN TRADE EXCHANGE AND GROSS DOMESTIC PRODUCT

The most important macroeconomic variable is gross domestic product (GDP), which is expressed in monetary units and shows the market value of final goods and services produced in a country during one calendar year (and is also often indicated on a quarterly basis). The structure of GDP according to expenditures approach¹ consists of the sum of four variables (Babić, 2002):

$$GDP = C + I + G + X$$

Where C = personal spending, I = investments, G = government spending and X = the difference of exports and imports.

Foreign trade exchange is analyzed through the X variable and it influences the GDP movements. Being a small country² in its surface as well as in the number of inhabitants, Croatia is more exposed to

¹ One of the most frequently used approaches for measuring GDP. There are also the income approach and the production approach for measuring GDP.

² Total area of Croatia is 87.661 km², 56.594 km² of land and total population of 4.284.889.

international exchange and market openness to imported products and services. Croatia's accession to the European Union (EU) has certainly additionally contributed to even greater integration of the Croatian market in the European market thus providing the opportunity to increase the exports due to the huge market of the EU with a population of over 500 million, but on the other side also the Croatian market is becoming a desirable destination for products and services from all the EU member states. One of the main determinants of exports and imports of goods is the competitiveness of Croatian products, with regard to both the price and the quality. The movement of the GDP structure in the period from 2000 to 2013 is shown in Table 1.

Table 1 GDP in constant price, in previous year prices, reference prices in 2005, in billion HRK

Year	GDP	Government spending	Personal spending	Gross investments	Export of goods and services			Import of goods and services		
					Total	goods	services	Total	goods	services
2000.	214	47	127	39	84	40	43	84	67	17
2001.	222	44	132	46	92	42	49	93	75	18
2002.	233	47	143	56	93	42	51	106	85	20
2003.	246	48	149	65	103	44	59	119	98	21
2004.	256	49	154	67	109	50	59	124	102	22
2005.	267	51	161	72	113	53	60	130	109	21
2006.	280	53	166	82	120	59	61	140	120	21
2007.	294	56	176	87	124	61	64	149	129	20
2008.	300	55	179	95	126	61	66	155	135	20
2009.	279	56	166	74	106	51	55	122	103	19
2010.	273	55	163	62	111	58	53	118	99	19
2011.	272	54	164	62	113	57	56	121	102	19
2012.	267	53	159	58	114	57	57	118	100	18
2013.	264	54	157	57	112	54	58	116	98	18

Source: First Release number 12.1.1/4. (Quarterly gross domestic product estimate for fourth quarter of 2013), www.dzs.hr

Export of goods and services increased by 50 percent and import of goods and services by 85 percent until the beginning of the crisis in 2008. In the same period, the export of goods increased also by 50 percent and the import twice as much, 100 percent. In the structure of export there is no significant difference between exports of goods and services due to the dominant share of export of services through tourism.

On the other hand, import of goods is 5-6 times higher than import of services.

Coverage of import by export is one of the most important indicators that measures a domestic country's ability to compete in the world market.

It is calculated as the ratio of exports of goods against imports of goods of the same country in the observed time t (month, quarter, half-year, year). The formula for calculating the coverage of import by export is given by the following relation:

$$r = \frac{X}{M} * 100\%,$$

Where:

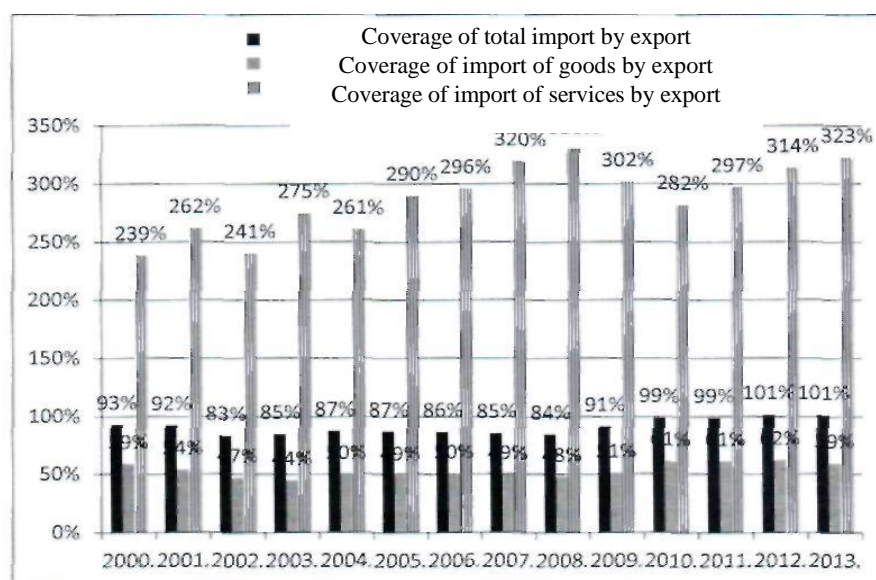
r - Coverage of import by export during time t,

X - Export during time t,

M - Import during time t.

Coverage can be calculated at the total level as well as per sections and divisions of the National Classification of Economic Activities (NKD). Chart 1 shows the coverage of import by export of goods during the period from 2000 to 2013.

Chart 1 Coverage of import by export during the period from 2000 to 2013



Source: Calculated by the author based on the First Release number 12.1.1/4. (Quarterly gross domestic product estimate for fourth quarter of 2013.), www.dzs.hr

The coverage of imports of goods and services by exports in the analyzed period ranged from a maximum of 101 percent in 2012 and 2013 to a minimum of 83 percent in 2002. At the same time the coverage of import of goods by export was considerably lower, amounting to a maximum of 62 percent in 2012 and a minimum of 44 percent in 2003. On the other hand, export of services through tourism has contributed to a very high coverage of import of services by export. It ranged from a minimum of 239 percent in 2000 to a maximum of 330 percent in 2008.

3. COMPETITIVENESS AS A DETERMINANT OF FOREIGN TRADE EXCHANGE

Competitiveness is a term that has been used in economics since Adam Smith³, who was explaining the international competitiveness of countries by theories of international exchange, until today and Michael Porter who in his work *The Competitive Advantage of Nations* (Porter, M. 2008) proposed a new theory of competitiveness. According to the National Competitiveness Council⁴ competitiveness can be defined as the ability of a country to achieve success in the global market, which in turn enables a better standard of living for all. Competitiveness is a result of many factors, particularly competitiveness at the level of enterprises and favorable business environment that encourages introduction of new products, processes and investments. All these factors, while mutually interacting, lead to higher productivity, higher income and sustainable development.⁵ In the long run, competitiveness is essentially a question of increasing the productivity i.e. the level of efficiency and quality of production and services and it is in the long-term the key determinant of the standard of living. However, competitiveness also depends on the costs and the ability of companies to compete in international and domestic markets. In the short term, movements of prices, costs, salaries and exchange rate significantly affect the competitiveness of domestic companies, regardless of the level of productivity.

A frequently used definition of competitiveness is the definition by the OECD, according to which the competitiveness is a country's ability to produce, under free and equal market conditions, goods and services that pass the test of international markets, while at the same time maintaining and, in the long-term, increasing real income of the population.

With regard to all the above mentioned and in particular the last definition by the OECD, competitiveness is certainly a major determinant of foreign trade exchange because it encompasses a number

³ Smith, A., *An inquiry into the nature and causes of wealth of nations*, London, 1776.

⁴ Annual Report on Croatia's Competitiveness 2008, National Competitiveness Council, page 23, 2009

⁵ In the long run, competitiveness is essentially a question of increasing the productivity i.e. the level of efficiency and quality of production and services and it is in the long-term the key determinant of the standard of living. However, competitiveness also depends on the costs and the ability of companies to compete in international and domestic markets. In the short term, movements of prices, costs, salaries and exchange rate significantly affect the competitiveness of domestic companies, regardless of the level of productivity.

of variables - both the macroeconomic and the microeconomic ones. The competitiveness of Croatia against other European and world countries is usually expressed in the Global Competitiveness Report that measures the competitiveness of 148 countries in different stages of economic development. Taking into account the impact of the key factors that contribute to creating the conditions for competitiveness, particular emphasis is placed on the macroeconomic environment, the quality of state institutions, the state of technology and supporting infrastructure. Results are based on a survey of businessmen in 14.000 companies around the world and statistical data of the two preceding years (<http://www.aikinvest.hr/konkurentnost/mjerenje-konkurentnosti/index-globalne-konkurentnosti/>). The analysis is based on the Global Competitiveness Index of the World Economic Forum. The index consists of three separate subindexes that are key to the different ways of managing economy and are made up of 12 "pillars"(The Global Competitiveness Report 2013-2014, (ed. Klaus Schwab), World Economic Forum, p. 9.):

1. Basic requirements:

- Institutions,
- Infrastructure,
- Macroeconomic environment,
- Health care and primary education.

2. Efficiency enhancers:

- Higher education and training,
- Goods market efficiency,
- Labor market efficiency,
- Development of the financial market,
- Technological readiness,
- Market size.

3. Innovation factors:

- Business sophistication,
- Innovativeness.

According to the Global Competitiveness Index published in the last Report 2013 - 2014, Croatia is ranked 75th which is an advance of 6 places compared to the previous report. This is definitely not satisfactory but it is certainly in line with the situation of foreign trade balance,

which has for over two decades been in a significant deficit and is a reflection of the poor condition of the 12 "pillars that the Croatian economy stands on".

The situation has worsened significantly, since in 2006 it was ranked number 51. Since 2007 Croatia's ranking has been depending on the change of other countries' scores, while the score of our competitiveness has in real terms been stagnating. There were a number of policies, strategies and analyses how to increase the competitiveness of Croatia (Bezić, 2008) but the foreign trade balance has not improved and it certainly remains one of the priority areas of economic policy. One of the ideas was, thus, to increase own capacities and abilities and to achieve better international competitiveness by merging small and medium entrepreneurs into clusters so as to be able to compete more efficiently with larger companies⁶

Thus, there were defined 12 different clusters:

1. Food processing sector
2. Wood processing sector
3. Automotive sector
4. Creative and cultural industries
5. Textile, leather and footwear industry
6. Defense industry
7. Construction industry
8. Section of electric power and manufacturing machines and technologies
9. Health care industry
10. Chemical, plastics and rubber industry
11. ICT industry
12. Maritime industry.

Results of creation of clusters are still not visible. The last strategic plan to increase the competitiveness is also the Strategic Plan of the Agency for Investments and Competitiveness for the period 2014 -2016 which indicates the objectives and ways of their realization.

Among them are:

- creation of quality bases for improving competitiveness,

⁶ Clusters are geographic concentrations of interconnected companies, specialized suppliers, service providers, enterprises in related sectors and associated institutions in areas that compete, but also cooperate with each other. Companies that are members of clusters are better prepared to face the dynamic changes in business operations and competition in the global market precisely thanks to the process of mutual learning and cooperation (Source: <http://www.mmpo.hr/default.aspx?id=423>).

- keeping the database of the development potential,
 - conducting analyses regarding the key components of competitiveness,
 - monitoring of trends in the country and in the world regarding competitiveness and development of key sectors,
 - support in the preparation of strategic documents aimed at strengthening the competitiveness and their implementation,
 - support in the establishment and operation of competitiveness clusters.
- It remains to find out whether the desired results are going to be achieved.

4. STATE AND TRENDS OF CROATIA'S FOREIGN TRADE EXCHANGE

State and trends of Croatia's foreign trade exchange have been analyzed through:

- commodity exchange between Croatia and foreign countries,
- export and import according to the National Classification of Economic Activities (NKD) 2007,
- export and import by sections of the Standard International Trade Classification,
- export and import by economic classifications of countries.

Considering the fact that Croatia entered the EU on July 1, 2013 and the last monthly data exist for July 2014 (i.e. there are available also the interim results for August), there was made an analysis with regard to the 12 i.e. 13 calendar months of the EU membership and impact on foreign trade exchange.

4.1. Commodity exchange between Croatia and foreign countries

Commodity exchange between Croatia and foreign countries was analyzed on a monthly basis for the period from 2011 to August 2014 (Table 2.)

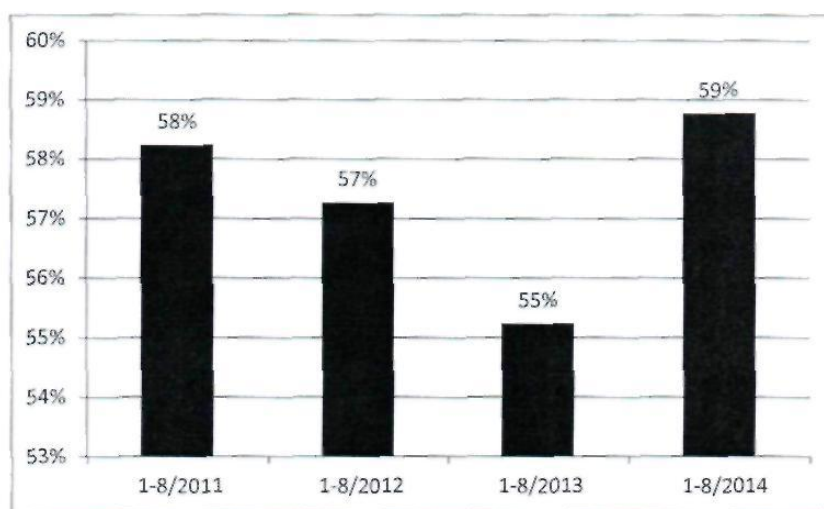
**Table 2 Commodity exchange between Croatia and foreign countries in the period from 2011 to 2014
(In billion HRK)**

Year	2014			2013			2012			2011		
Month	Export	Import	Merchandise trade balance	Export	Import	Merchandise trade balance	Export	Import	Merchandise trade balance	Export	Import	Merchandise trade
I.	5,87	9,73	-3,86	4,61	8,55	-3,94	5,03	8,62	-3,59	4,82	7,44	-2,62
II.	5,80	9,62	-3,82	5,33	9,19	-3,85	5,17	9,65	-4,48	5,73	9,30	-3,56
III.	6,37	11,08	-4,71	5,79	10,52	-4,72	6,83	11,81	-4,98	5,69	11,48	-5,79
IV.	6,35	11,83	-5,48	5,45	10,41	-4,96	5,40	10,11	-4,71	6,75	10,25	-3,50
V.	6,59	11,08	-4,49	6,27	10,82	-4,55	6,15	10,98	-4,83	5,77	11,17	-5,40
VI.	6,54	11,29	-4,74	5,55	11,90	-6,35	5,95	10,25	-4,31	6,17	10,25	-4,08
VII.	7,37	12,13	-4,76	7,08	11,55	-4,48	6,35	11,03	-4,69	6,02	11,03	-5,01
VIII.	5,64	9,24	-3,64	5,78	10,08	-4,30	6,30	9,91	-3,62	5,74	9,24	-3,51
I.-VIII.	50,54	86,00	-35,50	45,85	83,01	-37,16	47,17	82,37	-35,20	46,68	80,16	-33,48
IX.				6,77	10,93	-4,15	5,83	9,64	-3,81	6,65	11,12	-4,47
X.				6,92	10,91	-3,99	7,26	11,38	-4,11	6,05	10,73	-4,68
XI.				6,40	10,43	-4,03	6,81	10,08	-3,27	5,57	10,18	-4,61
XII.				6,66	9,78	-3,12	5,31	8,44	-3,13	6,29	8,85	-2,56
I. — XII.				72,59	125,05	-52,46	72,38	121,90	-49,52	71,23	121,04	-49,80

Source: Analysis by the author based on the First Release number 4.21/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January until July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013); Commodity exchange between the Republic of Croatia and foreign countries for the period from January until August 2014, http://vwww.dzs.hr/Hrv/system/first_results.htm)

On a yearly basis in the period from 2011 to 2013, export of goods was at the level of about 72 billion HRK, without major changes. At the same time, the import of goods in 2011 and 2012 amounted to about 121 billion HRK, but increased to 125 billion in 2013 as a result of growth in higher imports in the period after the Croatia's accession to the EU. At the same time also the merchandise trade balance increased from 50 billion HRK to 52.5 billion. Analysis of the first eight months of 2014 compared to the eight months of 2013 shows that exports grew by 10 percent and imports by 3.6 percent, resulting in the reduction of the merchandise trade balance by 4.5 percent. As a consequence of higher growth of export than import, it came to an increase in the degree of coverage of import of goods by exports in the period from January to August 2014 compared to the same period of 2013 (Chart 2).

Chart 2 Degree of coverage of import of goods by exports in the periods from January to August from 2011 to 2014.



Source: Calculated by the author based on Table 2.

The degree of coverage of import of goods by exports in the periods from January to August was continuously falling from 2011 when it was 58 percent to 55 percent in 2013. With Croatia's accession to the EU the coverage sharply rose to 59 percent. The degree of monthly coverage of export of goods by import oscillates during 2014. It was at its lowest in April 2014 when it stood at 53.7 percent and highest in August amounting to 61 percent.

4.2. Export and import according to the National Classification of Economic Activities (NKD) 2007

According to the National Classification of Economic Activities (NKD) 2007, there are 8 sections of the Croatian economy with international trade taking place (out of which the last two are negligible considering the absolute and relative share). Table 3 shows the Croatian economy's export and import according to the National Classification of Economic Activities (NKD) 2007 in billion HRK.

Table 3 Export and import according to the National Classification of Economic Activities (NKD) 2007 in billion HRK

Sec. and Div.	Economic activity	Export		Import		Export		Import	
		I - VII		I - VII		I - XII		I - XII	
		2013	2014	2013	2014	2012	2013	2012	2013
	Total	40,068	44,900	72,926	76,759	72,381	72,595	121,899	125,052
A	Agriculture, forestry and fishing	0,636	0,719	10,186	7,159	0,890	1,259	16,204	16,445
B	Mining and quarrying	35,639	39,225	58,628	64,644	64,853	63,634	97,841	100,672
C	Processing industry	2,763	3,278	6,220	6,951	5,344	5,167	10,501	11,235
10	Manufacture of food products	0,513	0,541	0,517	0,652	0,940	0,868	0,760	0,873
11	Manufacture of beverages	0,256	0,168	0,198	0,268	0,448	0,376	0,375	0,368
12	Manufacture of tobacco products	0,410	0,586	1,449	1,810	0,620	0,747	2,285	2,450
13	Manufacture of textiles	1,678	2,557	1,844	3,230	2,966	2,871	3,504	3,460
14	Manufacture of clothes	1,207	1,344	1,548	2,201	1,893	2,025	1,885	2,969
15	Manufacture of leather and related products	1,762	2,373	0,777	0,954	2,757	3,249	1,223	1,250
16	Processing of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	0,628	0,778	1,856	1,976	1,140	1,164	3,004	3,107
17	Manufacture of paper and paper products	0,005	0,006	0,015	0,015	0,009	0,009	0,026	0,026
18	Printing and reproduction of recorded media	4,582	4,432	3,485	5,265	8,496	7,591	8,683	7,469
19	Manufacture of coke and refined petroleum products	2,297	2,712	6,303	6,360	4,409	4,552	10,095	10,451
20	Manufacture of chemicals and chemical products	1,974	1,738	3,142	2,997	3,293	3,193	5,027	5,054
21	Manufacture of basic pharmaceutical products and pharmaceuticals	0,848	1,147	2,789	3,030	1,258	1,555	4,660	4,872
22	Manufacture of rubber and plastic products	1,615	1,759	1,252	1,360	2,583	2,860	2,105	2,097
23	Manufacture of other non-metallic mineral products	1,624	1,892	4,228	4,258	3,161	2,661	7,189	7,082
24	Manufacture of basic metals	2,601	2,714	2,351	2,487	3,934	4,966	3,894	4,298
25	Manufacture of fabricated metal products, except machinery and equipment	1,115	1,262	4,816	4,220	1,969	2,545	6,500	7,855
26	Manufacture of computer, electronic and optical products	2,865	2,933	2,946	3,204	5,409	5,180	4,922	5,247
27	Manufacture of electrical machinery and equipment, n.e.s.	3,091	3,701	5,984	5,388	5,044	5,490	9,071	9,484
28	Manufacture of motor vehicles, trailers and semi-trailers	0,729	0,953	3,601	4,317	1,288	1,310	4,972	5,707
29	Manufacture of other means of transport	1,631	0,575	1,136	1,357	5,706	2,772	3,415	1,528
30	Manufacture of furniture	1,102	1,414	0,921	0,972	1,798	2,022	1,640	1,551
31	Other processing industries	0,251	0,362	1,252	1,370	0,389	0,462	2,107	2,237
32	Electricity, gas, steam and air conditioning supply	0,687	1,427	1,570	2,170	0,536	1,351	3,768	3,555
D	Water supply; sewerage, waste management and remediation activities	1,270	1,108	0,139	0,279	2,538	2,308	0,176	0,276
E	Information and communication	0,249	0,298	0,298	0,286	0,431	0,392	0,563	0,530
J	Professional, scientific and technical activities	0,000	0,013	0,001	0,001	0,001	0,005	0,001	0,001
M	Arts, entertainment and recreation	0,003	0,002	0,003	0,002	0,006	0,004	0,004	0,004
R	Not classified	0,063	0,290	0,004	0,016	-	0,409	-	0,018

Source: Analyzed by the author based on the First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)

The structure is dominated by the Processing industry, whose share in exports in 2013 accounted for about 88 percent of total exports (2012 nearly 90 percent) and in import the share was around 80 percent, as in 2012. In exports, the second place is occupied by Agriculture, forestry and fishing with a share of 4.5 percent while the import is expectedly dominated by Mining and quarrying with a share of over 13 percent due to the import of fossil fuels (primarily petroleum, but then also the natural gas). The structure of the Processing industry is in export dominated by 5 or 6 divisions, the most significant one being the Manufacture of coke and refined petroleum products, as a consequence of import of petroleum products. At the same time, the import structure of the Processing industry is dominated by the Manufacture of food products and the Manufacture of chemicals and chemical products. In the first seven months of 2014 there have been visible changes in the structure of foreign trade balance (Table 4).

Table 4 Changes in exports and imports according to the National Classification of Economic Activities (NKD) 2007 in the first seven months of 2014 compared to the same period in 2013

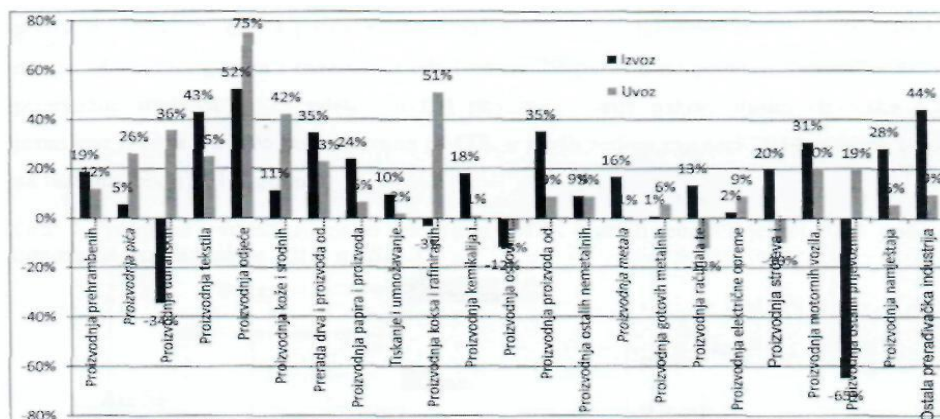
Section	Economic activity	Export	Import
		I. - VII	
		2014/2013	
	Total	12%	5%
A	Agriculture, forestry and fishing	19%	5%
B	Mining and quarrying	13%	-30%
C	Processing industry	10%	10%
D	Electricity, gas, steam and air conditioning supply	108%	38%
E	Water supply; sewerage, waste management and remediation activities	-13%	100%
J	Information and communication	20%	-4%

Source: Calculated by the author based on Table 3.

Exports of goods increased by 12 percent and imports by 5 percent. In terms of sections, the highest increase of export was in Electricity, gas, steam and air conditioning supply, while the largest drop of import was in the section of Mining and quarrying. The growth of import and export of the Processing industry, as the most significant section, amounted to 10 percent.

Chart 3 shows changes in the Processing industry's export and import according to the National Classification of Economic Activities (NKD) 2007 in the first seven months of 2014 compared to the same period in 2013. In the structure of the Processing industry the largest drop of export occurred in the division of Manufacture of tobacco products, by 34 percent, and in the division of Manufacture of other means of transport by 65 percent. However, in 14 divisions there was a greater increase in exports than imports which can certainly be linked to Croatia's accession to the EU and increased exports to the EU market. On the other hand, 8 divisions had greater import than export. With regard to the shares of particular divisions, the overall result is higher growth of exports than imports by 7 percent.

Chart 3 Changes in exports and imports of the Processing industry according to the National Classification of Economic Activities (NKD) 2007 in the first seven months of 2014 compared to the same period in 2013



Source: Calculated by the author based on Table 3.

4.3. Export and import by sectors of the Standard International Trade Classification

The following analysis applies to exports and imports by sectors of the Standard International Trade Classification (SITC). Table 5 shows exports and imports by SITC sectors in billion HRK from 2012 to July 2014.

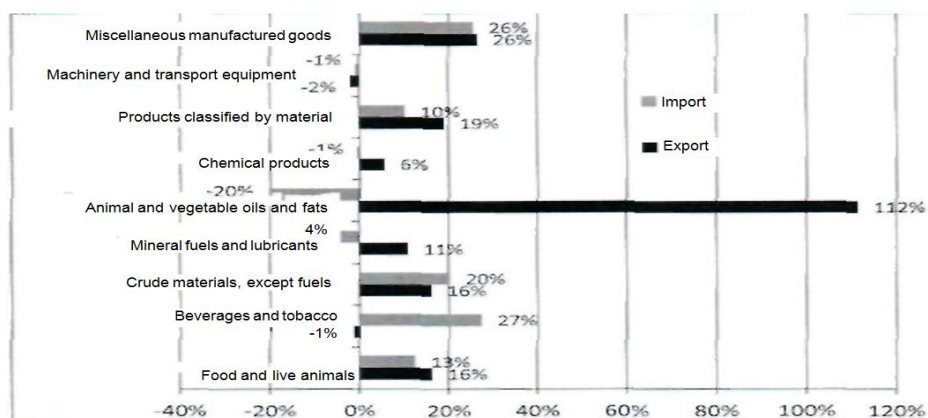
Table 5 Export and import by SITC sections in billion HRK

No.	Section	Export		Import		Export		Import	
		I-VII		I-VII		I-XII		I-XII	
		2013	2014	2013	2014	2012	2013	2012	2013
0	Food and live animals	3,641	4,236	7,337	8,260	7,209	6,844	12,166	13,177
1	Beverages and tobacco	0,775	0,764	0,730	0,930	1,371	1,285	1,178	1,256
2	Crude materials, except fuels	3,152	3,661	1,112	1,338	5,690	5,966	1,760	1,919
3	Mineral fuels and lubricants	5,865	6,508	15,046	14,430	9,923	10,161	28,304	27,123
4	Animal and vegetable oils and fats	0,054	0,115	0,508	0,405	0,153	0,141	0,913	0,822
5	Chemical products	4,415	4,663	10,245	10,193	7,893	8,044	16,508	16,879
6	Products classified by material	6,429	7,655	12,602	13,901	10,319	11,408	20,279	21,785
7	Machinery and transport equipment	9,407	9,218	17,630	17,478	19,411	17,470	27,103	28,361
8	Miscellaneous manufactured goods	5,765	7,291	7,708	9,684	9,061	10,060	13,682	13,707
9	Commodities and transactions n.c.e.	0,501	0,498	0,005	0,124	1,351	0,807	0,005	0,006
	Not classified	0,063	0,290	0,004	0,016	-	0,409	-	0,018
	Total	40,068	44,900	72,926	76,759	72,381	72,595	121,899	125,052

Source: Analyzed by the author based on the First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)

The structure of exports is dominated by the sector Machinery and transport equipment with a share of 24 percent, followed by Products classified by material with 16 percent and Mineral fuels and lubricants as well as Miscellaneous manufactured goods with 14 percent each. The ranking in import is similar, only that second place is occupied by Mineral fuels and lubricants with a share of 22 percent, while Machinery and transport equipment is first with a share of 23 percent. Graph 4 shows the situation after Croatia's accession to the EU and changes in exports and imports by SITC sectors in the first seven months of 2014 compared to the same period in 2013.

Chart 4 Changes in exports and imports by SITC sectors in the first seven months of 2014 compared to the same period in 2013



Source: Calculated by the author based on Table 5.

The growth of export is higher than import in five sectors, in one sector it is the same and in others it is smaller. One could notice a high growth of the sector Animal and vegetable oils and fats by 112 percent while at the same time import decreased by 20 percent.

3.4. Export and import by economic classifications of countries

An important indicator for foreign trade exchange is export and import by economic classification of countries. Table 6 shows Croatia's export and import by economic classification of countries in billion HRK. There is a total of eight groups of countries. Like export, also import is dominated by the European Union countries, with a share of 62 percent in exports and 74 percent in imports in 2013. Another very important group of countries for Croatia are the countries of CEFTA (Central European Free Trade Agreement). Their share in exports is 20 percent and in imports it is 6 percent. These two groups account for about 80 percent in both the export and import of goods.

Also, around 5 percent of the export structure is accounted for by Other European countries, while for import are also significant Other Asian countries with a share of 7.9 percent and Other European countries with 6.8 percent.

Table 6 Export and import by economic classification of countries in billion HRK

Group of countries	Export		Import		Export		Import	
	1.-VII.		1.-VII.		1.-XII.		1.-XII.	
	2013	2014	2013	2014	2012	2013	2012	2013
Total	40,068	44,900	72,926	76,759	72,381	72,595	121,899	125,052
European Union countries	25,088	29,015	54,064	57,583	42,106	44,816	88,483	92,440
EFTA ⁹ countries	0,631	0,777	1,261	0,760	0,950	1,202	3,257	1,929
CEFTA countries	7,826	8,931	4,415	4,084	15,170	14,286	7,796	7,419
OPEC countries	0,689	0,830	0,916	1,370	1,324	1,428	0,774	1,120
Other European countries	1,734	1,649	5,130	5,379	3,943	3,607	12,991	8,532
Other Asian countries	1,307	1,284	5,218	5,147	2,347	2,281	5,279	9,939
Other African countries	0,677	0,774	0,145	0,138	2,178	1,364	0,240	0,242
Other American countries	1,628	1,496	1,703	1,305	4,035	2,577	3,037	2,852
Countries of Oceania	0,425	0,066	0,026	0,027	0,327	0,634	0,041	0,033
Not classified	0,062	0,078	0,047	0,967	-	0,401	-	0,546

Source: Analyzed by the author based on the First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)

With accession to the EU the rates of changes of export and import fluctuate significantly. Thus, exports to the EU increased in seven months of 2014 by 15.6 percent and imports by about 6.5 percent. Exports to the EFTA countries grew by 23 percent, while imports decreased by as much as 40 percent. At the same time, exports to the CEFTA countries increased by 14 percent while imports decreased 7.5 percent. Regardless of accession to the EU, exports to the OPEC countries grew by more than 20 percent and imports by about 50 percent, while both exports and imports to Other American countries dropped by 8 i.e. 23 percent. It is visible that the most significant changes, with regard to their relative share, occurred in Croatia's foreign trade exchange with European countries - those in the EU as well as those outside of it.

Table 7 shows the movement of exports and imports to the EU countries in the period from 2012 to July 2014. Four countries - Italy, Germany, Slovenia and Austria - account for about 70 percent of the Croatian merchandise exports and 64 percent of the merchandise imports. In the first seven months of 2014, exports to Italy and Germany grew at a lower rate than imports. Thus, exports to Italy grew 14 and imports 25 percent, while at the same time exports to Germany grew 7 and imports

19 percent. In the other two most important foreign trade countries exports grew 24 (Slovenia), i.e. 6 percent (Austria) while at the same time imports fell by about 10 percent in both countries. Exports grew in 17 countries and fell in 10 EU countries.

Table 7 Export and import to the EU countries in billion HRK

	Export			Import			Export		Import	
	1-VII			1-VII			1-XII		1-XII	
	2013	2014	2014/2013	2013	2014	2014/2013	2012	2013	2012	2013
EU countries	5,890	6,727	1,14	8,678	10,824	1,25	11,068	10,551	17,086	16,392
Italy	4,801	5,136	1,07	9,832	11,704	1,19	7,377	8,535	16,262	17,536
Germany	4,137	5,126	1,24	9,144	8,223	0,90	6,225	7,557	11,615	14,353
Slovenia	2,665	2,813	1,06	7,122	6,333	0,89	4,724	4,548	11,945	11,256
Austria	0,908	1,523	1,68	4,571	4,788	1,05	1,827	1,745	7,264	7,821
Hungary	0,759	0,661	0,87	0,666	1,037	1,56	1,139	1,557	1,310	1,174
United Kingdom	0,625	1,030	1,65	1,648	1,837	1,11	1,071	1,248	2,646	2,673
France	0,601	0,526	0,88	2,281	2,505	1,10	1,218	1,049	4,186	4,053
Netherlands	0,588	0,029	0,05	0,078	0,054	0,70	0,635	0,604	0,027	0,105
Luxembourg	0,556	0,586	1,05	0,327	0,488	1,49	0,552	0,677	0,387	0,504
Greece	0,514	0,366	0,71	0,103	0,016	0,15	0,931	0,786	0,559	0,128
Malta	0,459	0,617	1,35	1,571	1,809	1,15	0,740	0,820	2,316	2,760
Poland	0,439	0,673	1,53	1,589	1,696	1,07	0,790	1,001	2,430	2,985
Czech Republic	0,392	0,646	1,65	1,031	1,255	1,22	0,721	0,975	1,531	1,881
Slovakia	0,365	0,587	1,61	1,156	1,200	1,04	0,799	0,659	2,357	2,031
Belgium	0,328	0,400	1,22	0,502	0,618	1,23	0,659	0,627	0,940	0,896
Romania	0,242	0,230	0,95	0,522	0,534	1,02	0,350	0,439	1,251	0,888
Sweden	0,226	0,562	2,49	1,032	1,295	1,25	0,313	0,420	1,816	1,739
Spain	0,160	0,196	1,22	0,222	0,351	1,58	0,228	0,286	0,567	0,406
Bulgaria	0,149	0,147	0,98	1,146	0,425	0,37	0,243	0,232	0,706	1,527
Denmark	0,079	0,078	0,99	0,194	0,112	0,58	0,176	0,135	0,505	0,285
Finland	0,046	0,056	1,21	0,038	0,043	1,14	0,062	0,071	0,171	0,083
Lithuania	0,042	0,029	0,68	0,022	0,055	2,45	0,082	0,060	0,102	0,058
Cyprus	0,042	0,150	3,62	0,056	0,077	1,38	0,042	0,080	0,061	0,103
Portugal	0,040	0,062	1,56	0,265	0,180	0,68	0,059	0,075	0,385	0,395
Ireland	0,018	0,036	2,02	0,017	0,017	0,99	0,037	0,038	0,029	0,033
Latvia	0,017	0,021	1,28	0,078	0,013	0,16	0,039	0,035	0,027	0,087
Estonia	0,001	0,002	1,45	0,171	0,093	0,54	-	0,006	-	0,284
Not classified										

Source: Analyzed by the author based on the First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)

Apart from the EU countries, very important for Croatia's foreign trade exchange are the CEFTA countries, most of whom are the neighboring countries. Table 8 shows exports and imports to the CEFTA countries in the period from 2012 to July 2014. Certainly, Croatia's most significant foreign trade partner among the CEFTA countries is Bosnia and

Herzegovina, which accounts for 62 percent in exports and 60 percent in imports of goods. The second important partner is Serbia with a share of 20 percent in exports and 33 percent in imports. The share of other countries in exports is between 3 and 6 percent and in imports it is only Macedonia that is also significant, with a share of 8 percent.

Table 8 Export and import to the CEFTA countries in billion HRK

CEFTA country	Export		Import		Export		Import	
	I-VII		I-VII		I-XII		I-XII	
	2013	2014	2013	2014	2012	2013	2012	2013
Bosnia and Herzegovina	4,917	5,273	2,706	2,107	9,239	8,892	4,435	4,410
Serbia	1,463	2,061	1,270	1,555	3,144	2,891	2,303	2,307
Montenegro	0,430	0,558	0,017	0,048	1,095	0,806	0,349	0,034
Macedonia	0,418	0,456	0,392	0,345	0,730	0,723	0,652	0,617
Kosovo	0,310	0,282	0,013	0,010	0,513	0,523	0,021	0,020
Albania	0,282	0,294	0,012	0,010	0,438	0,436	0,025	0,020
Moldova	0,008	0,006	0,005	0,009	0,010	0,015	0,012	0,011

Source: Analyzed by the author based on the First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014) and 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)

With Croatia's accession to the EU exports grew at most to Serbia (41 percent) and to Montenegro (30 percent) followed by Macedonia with 9 and Bosnia and Herzegovina with 7 percent. Exports to Kosovo and Moldova decreased. On the other hand, imports increased from Montenegro (180 percent), Serbia (22 percent) and Moldova (79 percent) which has a small absolute share. At the same time, after Croatia's accession to the EU, imports decreased from Bosnia and Herzegovina by 22 percent, Macedonia by 12 percent and Kosovo and Albania by 18 percent each.

4. CONCLUSION

Foreign trade exchange is an important determinant of gross domestic product. It is influenced by many factors, the competitiveness being among the most important ones. According to the Global Competitiveness Index published in the last Report 2013 - 2014, Croatia

is in the 75th place out of 148 countries, which indicates its unfavorable position in the global market. The consequence of this is the unfavorable ratio of exports and imports as a measure of Croatia's ability to compete in the world market, which in 2013 was 59 percent. Since 2000, this indicator was at its lowest in 2003, 44 percent, and highest in 2012, 62 percent. Exports stand at the level of 72 billion HRK and imports at 121 billion HRK. Analysis of the first eight months of 2014 compared to the eight months of 2013 shows positive trends in foreign trade exchange. Exports, thus, increased by 10 percent and imports 3.6 percent, resulting in the reduction of trade exchange balance by 4.5 percent. The growth of total exports would have been even higher had the value of exports of ships, petroleum products and waste materials not continued to decline and had a significant drop in the value of exports of pharmaceutical products not been recorded. The structure is dominated by the Processing industry, whose share in exports in 2013 accounted for about 88 percent of total exports (2012 nearly 90 percent) and in import the share was around 80 percent, as in 2012.

Like export, also import is dominated by the European Union countries, with a share of 62 percent in exports and 74 percent in imports in 2013. The second very important groups of countries for Croatia are the CEFTA countries. Their share in exports was 20 and in imports 6 percent. These two groups account for about 80 percent in both the export and import of goods. Four countries - Italy, Germany, Slovenia and Austria - account for about 70 percent of the Croatian merchandise exports and 64 percent of the imports. Outside of the EU, the most significant foreign trade partner are the CEFTA countries, among which Bosnia and Herzegovina accounts for as much as 62 percent in exports and 60 percent in imports of goods.

All conducted analyses show that Croatia's accession to the EU positively influenced the foreign trade exchange. Increased exports can to the greatest extent be linked to the full opening of the EU market, especially when it comes to export sectors which have already previously been oriented towards that market, such as food and timber industry. However, due to short time series of seven (eight) months which show changes in exports and imports, it is necessary to observe at the level of the entire year (calendar year 2014) the final one-year effects of joining the EU. It is also questionable whether higher growth rates of exports than imports are going to be maintained also in the coming

years. Croatia is among the countries with the lowest coverage of exports by imports in comparison with other EU member states. Its average in 2013 was 103.2 percent and only Greece, Cyprus and Malta had lower levels than the current one in Croatia.

To increase exports it is certainly necessary to carry out deeper economic reforms which are to improve competitiveness of products in the European and world markets.

REFERENCES

Babić.M: Makroekonomija, trinaesto i dopunjeno izdanje (Macroeconomics, thirteenth and revised edition), Mate d.o.o., Zagreb, 2002

Bezić, H., Tehnološka politika i konkurentnost, Ekonomski fakultet Sveučilišta u Rijeci (Technological Policy and Competitiveness, Faculty of Economics, University of Rijeka), 2008

DZS, Priopćenje broj 12.1.1/4. (Procjena tromjesečnog obračuna bruto domaćeg proizvoda za četvrto tromjesečje 2013.) (Croatian Bureau of Statistics, First Release number 12.1.1/4. (Quarterly gross domestic product estimate for fourth quarter of 2013)), www.dzs.hr

DZS, Priopćenje broj 4.2.1/7. (Robna razmjena RH s inozemstvom za razdoblje od siječnja do srpnja 2014., 2014) (Croatian Bureau of Statistics, First Release number 4.2.1/7. (Commodity exchange between the Republic of Croatia and foreign countries for the period from January to July 2014, 2014)), www.dzs.hr

DZS, Priopćenje broj 4.2.3. (Robna razmjena RH s inozemstvom u 2012., konačni podaci, 2013) (Croatian Bureau of Statistics, First Release number 4.2.3. (Commodity exchange between the Republic of Croatia and foreign countries in 2012, final data, 2013)), www.dzs.hr

DZS, Robna razmjena RH s inozemstvom za razdoblje od siječnja do kolovoza 2014 (Croatian Bureau of Statistics, Commodity exchange between the Republic of Croatia and foreign countries for the period from January to August 2014) www.dzs.hr

Global Competitiveness Report 2013-2014, (ed. Klaus Schwab), World Economic Forum, 2014.

Godišnje izvješće o konkurentnosti Hrvatske 2008, Nacionalno vijeće za konkurentnost, 2009. (Annual Report on Croatia's Competitiveness 2008, National Competitiveness Council, 2009)

Kovač, I. (2012), Trendovi i karakteristike međunarodne robne razmjene Republike Hrvatske. // Ekonomski vjesnik : časopis Ekonomskog fakulteta u Osijeku (Trends and characteristics of international trade exchange of the Republic of Croatia. // Ekonomski vjesnik : journal of the Faculty of Economics in Osijek.) 1,1; 43-61.

Porter E. M, Konkurentna prednost: Postizanje i održavanje vrhunskog poslovanja, prijevod: Ivana Logar, Andrea Obraz (The Competitive Advantage: Creating and Sustaining Superior Performance, translation: Ivana Logar, Andrea Obraz), Masmedia, 2008

Strateški plan Agencije za investicije i konkurentnost za razdoblje 2014. - 2016. Agencija za investicije i konkurentnost (Strategic Plan of the Agency for Investments and Competitiveness for the period 2014 - 2016, Agency for Investments and Competitiveness)

Smith, A., An inquiry into the nature and causes of wealth of nations, London, 1776

Internet sources:

<http://www.aik-invest.hr>:

<http://www.aik-invest.hr/konkurentnost/mierenje-konkurentnosti/indeks-Globalne-konkurentnosti/>

<http://www.aik-invest.hr/konkurentnost/konkurentski-izazovi/>

<http://www.minpo.hr/default.aspx?id=423>

www.hgk.hr

CHAPTER 44

Marino Golob

Colegium Fluminense Polytechnic of Rijeka, Rijeka, Croatia

Martin Golob

Mara Mara Ltd., Pazin, Croatia

Tomislav Kandžija

Primorje-Gorski kotar County, Rijeka, Croatia

CROATIAN INSURANCE MARKET OVERVIEW AFTER EU ACCESSION

ABSTRACT

The aim of this paper is to examine Croatian insurance market after The Republic of Croatia EU accession in July of 2013. Insurance has evolved as a process of safeguarding the interest of people from uncertainty and can be described as a social device to reduce or eliminate risk of loss to life and property. Insurance industry contributes to the general economic growth of the society, provides safety and security that reduces uncertainties in business and human life, generates financial resources, encourages savings, etc. Thus far, it is safe to say that the insurance industry is vital to any economy. In the past, the insurance market in The Republic of Croatia was characterized with state-owned monopoly that only slightly changed during the last decades and after the EU accession and the market liberalization, market conditions are changing rapidly every day. The aim of this paper is to give an overview of the main key indicators on the Croatian insurance market, including the amount of premiums, the scale of investment and the essential social and economic role the insurance market operators play on personal and business risk coverage on the Croatian market; but more importantly to give an overview of the market liberalization effects in the past year and a half after The Republic of Croatia EU accession and a perspective for the future.

Keywords: liberalization, insurance market, Croatia, effects, EU accession

JEL classification: G22

1. INTRODUCTION

Insurance companies are important participants of the financial markets and represent an important factor of economic development of each country. The primary function of insurance is to provide security to individuals from the dangers of an uncertain future. In economic terms, insurance is an instrument which an individual uses to pay a relatively small amount of insurance premium to gain an "upper hand" in case of a relatively large and uncertain financial loss that would be possible if there were no insurance present to protect this individual from his loss. Insurance industry has its own characteristics; Insurance is based on the Law of Probability, the Law of Large Numbers and the Dispersion of risks. Insurance business process begins with sales and the conclusion of insurance contracts. Competitive advantages in the Insurance industry are achieved through greater specialization of offers, in creating new and improving existing insurance services, in providing wider choice in the selection of coverage, in the use of new sales channels, in managing a consistent business policy as well as creating a positive self-image with the use of wide spectrum of promotional activities (The Geneva Association, 2012). It is a known fact that European insurance law advocates a free market competition in all areas. All European Union Member States must adapt their legislation in this area and strongly comply with all relevant laws of The European Union. This adjustment is done during the process of negotiations and the process of adjusting the regulations of each state with EU regulations. The Republic of Croatia has gone through some of those adjustments in the years prior to EU accession and the Financial and Insurance services sector is now still under the influence of the global financial crisis. Combination of unstable economic conditions and rapid changes in the competitive environment due to EU accession are forcing some companies to face a very challenging future. The main aim of this paper is to give an overview of the Croatian Insurance Market in the past year and a half after EU accession and a perspective for the future.

2. MARKET OVERVIEW

The Croatian insurance industry in comparison with other countries of the European Union shows visible signs of an industry still in development. This is firstly visible in the basic division of insurance on Life and Non-life in The Republic of Croatia, whereas in the developed European markets, Life insurance has an approximate share of 60%. The most dominant countries in the case of Life insurance are the Scandinavian countries, as well as countries that are carriers of the European industry, firstly United Kingdom, France and Italy, with the exception of Germany where the relationship is much more balanced. In the lower part, the share of Life insurance around 30 percent, are developing countries such as Romania, Bulgaria, Croatia, Slovenia and the Baltic countries. Croatian insurance industry can be described as small and emerging with a high potential for further growth and development in the future (Filipović, 2014).

The Republic of Croatia, as an EU member, has a harmonized national insurance regulation according with the EU insurance directives and its industry shareholders strongly adhere to the international insurance standards and core principles. Foreign ownership of insurance companies in The Republic of Croatia is still dominant and a year and a half after Croatia's EU accession insurance companies are more than forced to constantly innovate and design new insurance products in a market that is clearly getting more competitive with every passing year. The importance of insurance industry in The Republic of Croatia can be drawn from the share of total assets of financial institutions. The share was 6.49% in 2013. Commercial banks occupied a high share of 73.95% in the same year and mandatory pension funds took up 10.68%. The structure of financial institutions hasn't changed largely regarding previous years. The insurance industry's share rose from 5.92% in 2008. to 6.41% in 2012 HUO, 2014.

Table 1 Number of insurance and reinsurance companies

Type of Insurance	2008	2009	2010	2011	2012	2013	2014
Life insurance	8	8	6	7	7	7	7
Non - Life insurance	9	10	10	10	10	10	10
Composite	10	10	10	10	10	9	8
Reinsurance	2	2	1	1	1	1	1
Total	29	30	27	28	28	27	26

Source: HANFA, 2015; HANFA, 2014

There were 26 insurance companies operating in The Republic of Croatia in 2014. There was only 1 company providing reinsurance services while 10 companies engaged in Non-Life insurance services. Number of companies providing only Life insurance declined by 1 and in 2014. there were 7 Life insurance companies. Composite insurance companies provided Life and Non-Life services and there were 8 of them operating the Croatian market in 2014. The overall number of business entities declined in the observed period from 29 to 26. Croatian insurance industry in the past two years has undergone a significant restructuring in the market. The largest company in the industry went from state owned to private ownership and there were several acquisitions of smaller companies.

Table 2 Gross Written Premium in 000 HRK

Year	Life Insurance	% of Total	Non-Life Insurance	% of Total	Total	Index
2003	1.349.981	22,25	4.717.061	77,75	6.067.042	108,8
2004	1.569.421	23,68	5.057.446	76,32	6.626.867	109,2
2005	1.895.769	25,79	5.454.305	74,21	7.350.074	110,9
2006	2.165.061	26,47	6.015.094	73,53	8.180.156	111,3
2007	2.482.743	27,39	6.582.189	72,61	9.064.932	110,8
2008	2.545.775	26,28	7.140.327	73,72	9.686.102	106,9
2009	2.488.675	26,44	6.922.661	73,56	9.411.336	97,2
2010	2.457.683	26,58	6.787.860	73,42	9.245.543	98,2
2011	2.431.268	26,59	6.713.977	73,41	9.145.245	98,9
2012	2.461.154	27,23	6.577.321	72,77	9.038.475	98,8
2013	2.538.414	27,97	6.538.186	72,03	9.076.600	100,4

Source: HUU, 2014

Gross written premium was showing strong and consistent growth starting from 2003. and up to 2008. when premium started to decline due to the current global economic developments. In 2013. after four years of negative growth rates, total premium recorded a mild positive growth compared to 2012. Total premium in 2013 amounted to 9,08 billion HRK. This stopped the decline in insurance premiums, which from 2009 to 2012 ranged between -2,8% and -1,1%. As previously stated, share of Life insurance premium in total written premium in the observed period was ranging from 22% to 28%. The share has been showing positive trends throughout the period which indicates a slow but consistent direction of Croatian life insurance segment to life insurance segments existing in more developed insurance markets. Non-life insurance has dominated the Croatian insurance market from its beginnings and it remains so to this day. Still, the share of Non-life insurance premium has been showing a reverse trend from Life insurance premium and from 2003, when the share was 77,75%, it decreased to 72,03% in 2013. On 1st of July 2013. The Republic of Croatia accessed the EU and further liberalization of the insurance market could not be stopped. It took some time for insurance companies to adapt and prepare for a now truly free market. By the end of 2013. two insurance companies applied their own commercial tariffs and soon every insurance market operator had to

follow. The next table compares Life, Non-life and total premiums in 2013. and 2014 (Svijet osiguranja, 3/2015).

Table 3 Grow Written Premium in 2014 in 000 HRK

INSURANCE	Gross Written Premium in kn	%	Gross Written Premium in kn	%	Change 14/13	
	I.-XII./2013	2013	I.-XII./2014	2014	Aps.(HRK)	Relat. (%)
NON-LIFE INSURANCE	6.538.186.057	72,03	5.923.573.258	69,19	-614.612.799	-9,4
LIFE INSURANCE	2.538.414.004	27,97	2.637.784.389	30,81	99.370.385	3,91
TOTAL	9.076.600.061	100	8.561.357.647	100	-515.242.414	-5,68

Source: HUO, 2014

As evidenced in the table, Non-life premium declined from 6,53 billion HRK in 2013. to 5,93 billion HRK in 2014. which makes a staggering decline of 614 million HRK or 9,4%. This certainly was a significant impact for the insurance industry and is a direct result of lowering the compulsory motor liability premiums during the last year and a half. This negative impact was somewhat mitigated with the rise of Life insurance premium for 99 million HRK or 3,91%. The overall written premium a year and a half after the start of the real liberalization in July of 2013. is characterised with a decline of 5,68% or 515 million HRK. The share of Non-life insurance is further declining in 2014, from 72,03% to 69,19% thus marking the point of the lowest market share for Non-life insurance premium in the observed period. On the other hand, Life insurance premium is rising to a highest share recorded of 30,81% in 2014. Insurance companies continue to take measures to stabilize the total portfolio of Life insurance through regular activities concerning the collection of due premium, reducing the number of buy-outs along with the possibility of changes (the amount of premium and life insurance duration) or giving loans to clients with favourable interest rates. Gross amount of settled claims in 2013. amounted to 4.68 billion HRK with a growth rate of 1% compared to 2012. The rate of growth was affected by the high growth rate of Life insurance settled claims of 10.1%, while

Non-life insurance settled claims growth rate had decreased by -3.1%. The growth rate of Life insurance settled claims was always higher than Non-life claims in all of the observed years except for the 2008. This growth rates can be attributed to the expiration of Life policies made in large numbers during 1995. after the stabilization of Croatian currency when a faster growth of Life insurance premium had started (HUO, 2014).

Table 4 Settled Claims Gross Amount in 000 HRK

Year	Life Insurance	Non-Life Insurance	Total	Index
2003	173.422	2.791.330	2.964.752	108,1
2004	259.748	2.951.202	3.210.950	108,3
2005	315.131	3.139.855	3.454.986	107,6
2006	421.048	3.510.062	3.931.110	113,8
2007	636.639	3.634.697	4.271.336	108,7
2008	682.594	3.909.271	4.591.865	107,5
2009	931.253	3.849.595	4.780.848	104,1
2010	1.038.460	3.357.310	4.395.770	91,9
2011	1.298.669	3.269.099	4.567.768	103,9
2012	1.420.631	3.214.206	4.634.837	101,5
2013	1.564.285	3.115.561	4.679.846	101,0

Source: HUO, 2014

The trend evidenced in premium data can be observed as well in gross amount of settled claims. Non-life claims declined 7,49% regarding the previous year (233 million HRK) and Life insurance premium declined 2,28% (35 million HRK) which totals of 5,75% of overall decline in settled claims (268 million HRK).

Table 5 Settled Claims Gross Amount in 2014 In 000 HRK

INSURANCE	Gross Claims Paid in HRK	%	Gross Claims Paid in HRK	%	Change 14/13	
	I.-XII./2013	2013	I.-XII./2014	2014	Aps.(kn)	Relat.(%)
NON-LIFE INSUR.	3.115.890.824	66,58	2.882.571.493	65,35	- 233.319.331	-7,49
LIFE INSURANCE	1.564.284.852	33,42	1.528.664.126	34,65	- 35.620.726	-2,28
TOTAL	4.680.175.676	100	4.411.235.620	100	- 268.940.057	-5,75

Source: HUO, 2014

Throughout the observed period, share of Life insurance premium in GDP was averaging from 0,60% to 0,78%. Share of Non-life premium in GDP shows a higher range of percentage, but a declining trend from 2,06% in 2003. to 1,97% in 2011. and 2,00% in 2013. From Table 6. can be observed that in the years of GDP growth the share of insurance premiums in GDP followed that growth, in the years of the global economic crisis the share of premium was showing a declining trend alongside with the declining GDP.

Although the crisis was mostly a banking crisis, insurance companies in The Republic of Croatia were not directly threatened and remained fairly solvent. The overall decline can be attributed directly to the reduced investment portfolio, reduced economic activity and reduced purchasing power as a consequence of the crisis (HUO, 2014).

Table 6 Share of Gross written premium in GDP (%)

Year	Life Insurance % of GDP	Non-Life Insurance % of GDP	Total
2003	0.59	2.06	2.65
2004	0.63	2.04	2.67
2005	0.71	2.05	2.76
2006	0.74	2.07	2.81
2007	0.78	2.07	2.85
2008	0.74	2.07	2.81
2009	0.74	2.07	2.81
2010	0.73	2.03	2.76
2011	0.71	1.97	2.68
2012	0.75	1.99	2.74
2013	0.78	2.00	2.78

Source: HUO, 2014

Total premium per capita in 2013. amounted to 2.127 HRK, 1.532 HRK for Non-life insurance and only 595 HRK for Life insurance. Compared to the previous year there was a slight increase recorded but regarding this indicator, The Republic of Croatia is far behind the average of developed countries. In 2012 an average of 1 843 EUR per capita was spent on insurance in European union`s full member countries. Of this insurance amount, 1 083 EUR was spent on life insurance and the remaining 760 EUR on non-life insurance, of which 190 EUR was on

health insurance. These figures were broadly stable compared to the previous year of 2011 (Insurance Europe, 2014).

Even when comparing The Republic of Croatia with neighbouring Slovenia, which has a smaller insurance market, Croatia is still lagging. For reference, The Republic of Slovenia has an average insurance premium per capita of 960 EUR in 2013. (268 EUR for Life insurance and 691 EUR for Non-life insurance) whereas Croatia has an average of 279 EUR (Ivanušić, 2014).

Table 7 Premium per capita in HRK

	Life Insurance	Non- Life Insurance	Total
2003	304.00	1062.00	1366.00
2004	354.00	1139.00	1493.00
2005	427.00	1228.00	1655.00
2006	488.00	1335.00	1823.00
2007	560.00	1484.00	2044.00
2008	574.00	1610.00	2184.00
2009	562.00	1563.00	2125.00
2010	556.00	1534.00	2090.00
2011	552.00	1525.00	2077.00
2012	574.00	1535.00	2109.00
2013	595.00	1532.00	2127.00

Source: HUO, 2014

Premiums per employee grew from 2003. to 2005., in the period between 2006. and 2013. premiums per employee were shaped by a constant rate of decline. The decline is caused by the rapid employment of employees in insurance companies. At the moment there are 11,500 employees working in the insurance industry. This declining trend also showcases the fact that recent use of different distribution channels, especially internet, does not necessarily mean downsizing of employees in the industry. In The Republic of Croatia, insurance is still mainly distributed internally, followed by agency and broker distribution channels (HUO, 2014).

Table 8 Premium per employee in HRK

Year	Insurance Industry Employees	Total Premium per Employee
2003	6059,00	1001,00
2004	6485,00	1022,00
2005	6970,00	1055,00
2006	7984,00	1025,00
2007	9360,00	968,00
2008	10544,00	919,00
2009	11184,00	841,00
2010	11145,00	830,00
2011	11288,00	810,00
2012	11616,00	778,00
2013	11533,00	787,00

Source: HUU, 2014

In the analysis of business performance of insurance companies, indicators specific to this industry were used, such as: claims ratio, costs ratio and combined ratio (HUU, 2014). Claims ratio, which is calculated as the ratio of the sum of claims paid, changes in claims reserves and changes in other technical reserves and earned premium (multiplied by 100), in 2013 amounted to 61.1%. Costs ratio is calculated as the ratio of the sum of operating expenses (reserves and administrative costs), other technical expenses and gross written premium reduced by premium ceded to reinsurance (multiplied by 100) in 2013 amounted to a high 47.6%. Normal range for the indicator within the insurance industry ranges between 20% to 30%. Combined ratio is calculated as the sum of the claims ratio and costs ratio, and it shows operating results before inclusion of income from investments, in 2013 is as high as 108,7%.

Table 9 Basic insurance indicators

Year	Claims Ratio	Costs Ratio	Combined Ratio
2003	69.60	34.10	103.70
2004	71.00	36.10	107.10
2005	70.50	37.80	108.30
2006	70.80	39.40	110.30
2007	73.90	40.20	114.10
2008	68.40	39.40	107.80
2009	69.80	44.50	114.30
2010	67.60	44.30	111.90
2011	64.40	45.70	110.10
2012	63.00	46.40	109.40
2013	61.10	47.60	108.70

Source: HUI, 2014

Combined ratio is calculated as the sum of the claims ratio and costs ratio, and it shows operating results before inclusion of income from investments, in 2013 is as high as 108,7%.

3. COMPULSORY MOTOR LIABILITY INSURANCE MARKET

Croatian compulsory motor liability insurance market has been chosen for a detailed analysis due to the importance of this insurance segment in The Republic of Croatia and because the effects of the liberalization, upon accessing the European Union, have been very visible from the start, given the short amount of time (only year and a half) in which the effects could be observed.

Croatian compulsory motor liability market can historically be divided into several periods. The first period lasted until the 1st of January 2008. when regarding the compulsory insurance segment there was, on a regulatory level regulated by HANFA (Croatian Agency for Supervision of Financial services), an administrative determination of the insurance conditions and tariff systems for all insurance companies operating the market. Companies were required to obtain authorization from HANFA prior to the application of insurance conditions and tariff system. The conditions and tariff system approved by HANFA were common and were used by all companies on the market. HANFA had legal power to independently adopt binding common conditions and tariff systems with

unique functional bases of premiums, if such was necessary based on the technical results of the insurance companies. HANFA determined, after the given permission, even the day from which the conditions and the tariff system was applicable. So, it can easily be concluded that the State owned agency used the system of prior control of conditions and tariff systems, and the procedural approval of conditions and tariffs was only a formality. The insurance market in The Republic of Croatia was administratively controlled up to 2008 (Ćurković, 2014).

Along with the legislative change, after 1st of January 2008, the market should have been fully liberalized. The objective of reporting to supervisory body was not, like it was up to 2008., getting an approval for the change of conditions and tariff systems, but only to enable the supervisory authority to check whether the conditions and premiums were according to regulations, actuarial principles and other rules of the profession. Lack of conditions and tariff systems transparency was still evident. All the companies operating the market actually continued to use the same insurance conditions and tariff systems (HANFA approved) that were already used on the market. There was no real competitiveness on the market and competition was reduced to a slightly decreased expenses loading with (secretly, and this necessarily meant unlawful) offer of benefits to clients such as free technical inspections, free gift certificates, gas vouchers and other. The role of the supervisory authorities was thereon reduced to a relatively strict control of application of the bonus-malus system. Few insurance companies (foreign owned) tried to apply their own new insurance conditions and tariff systems, but these efforts ended unsuccessful as the supervisory body objected the aforementioned conditions and systems as being inadequate due to being based on a insufficiently broad statistics base. The period from 2008. up until the accession of The Republic of Croatia to the European Union could truly be called a quasi-liberalised market (Ćurković, 2014).

Gross written premium of compulsory motor liability insurance during the observed period was always maintaining a relatively steady share in Total gross written premium. The share ranged from 32,26% in 2003. to its lowest share of 29,96% in 2006. The same share of compulsory motor liability insurance was 32,81% in 2013. Given the fact that Non-life insurance segment dominated the Croatian insurance market from its beginnings, Compulsory motor liability insurance has and it still is an

important segment of it as evidenced from the Table 10. below. Share of compulsory motor liability insurance had a dominant and steady market share of 40% to 42% of Non-life insurance premium up to 2008. After 2008, a steady rise can be observed in the Table 10. Reaching up to 45,55% in 2013. Gross written premium amounted to 2.978.147.000 HRK in 2013. Reaching its higher number so far.

Table 10 Gross Written Premium of Compulsory Liability Insurance for Motor Vehicles in 000 HRK

Year	Gross Written Premium	Index	% of Non Life Insurance	% of Total Gross Written Premium
2003	1.957.116	110,00	41,49	32,26
2004	2.111.470	107,90	41,75	31,86
2005	2.246.038	106,40	41,18	30,56
2006	2.450.936	109,10	40,75	29,96
2007	2.721.082	111,00	41,34	30,02
2008	2.922.728	107,40	40,93	30,17
2009	2.922.648	100,00	42,22	31,05
2010	2.890.062	98,90	42,58	31,26
2011	2.935.198	101,60	43,72	32,10
2012	2.939.904	100,20	44,70	32,53
2013	2.978.147	101,30	45,55	32,81

Source: HUU, 2014

Settled claims of Compulsory liability insurance reached its lowest share of 23,19% in 2013. thus trending a steady decline in the years after 2008. as evidenced in Table 11.

Table 11 Settled Claims of Compulsory Liability Insurance for Motor Vehicles in 000 HRK

Year	Settled Claims	Index	% of Non Life Insurance Claims	% of Total Settled Claims
2003	1.286.947	109,80	46,11	43,41
2004	1.327.199	103,10	44,97	41,33
2005	1.385.872	104,40	44,14	40,11
2006	1.590.194	114,70	45,30	40,45
2007	1.581.392	99,40	43,51	37,02
2008	1.634.874	103,40	41,82	35,60
2009	1.422.808	87,00	36,96	29,76
2010	1.202.030	84,50	35,80	27,35
2011	1.195.476	99,50	36,57	26,17
2012	1.112.080	93,00	34,60	23,99
2013	1.085.247	97,60	34,83	23,19

Source: HUU, 2014

After 1st of July 2013., real liberalization and deregulation of the market could finally start. HANFA can now only ask for a premium tariff system, technical and other elements of it, while prior it was an automatic obligation of insurance company to deliver the conditions and tariff system for approval. Insurance companies could now sell insurance based on their own insurance terms & conditions and tariff systems. Two insurers started applying their own and new conditions and tariffs at the end of 2013. and every other insurance company had to follow. New compulsory motor insurance premiums are now based on an „individualised” tariff. This tariff is based on periods without damages/accidents, age of the insured, other family vehicles insured, the existence of other types of insurance with the same insurer, vehicle mileage, bonus points given in conjunction with banks and other enterprises. Along with new conditions & terms and an individualized tariff system came a significant lowering of the compulsory motor liability insurance premium. The effect of it can be observed in the following tables.

Table 12 Gross Written Premium of Compulsory Liability Insurance for Motor Vehicles in HRK

RISK	Gross Written Premium in HRK I.-XII./2013	% 2013	Gross Written Premium in HRK I.-XII./2014	% 2014	Change 14/13 Relat.(%)
Third Party	2949920371	99,38	2357112780	99,22	-20,1
Public Transportation	4814775	0,16	4853072	0,2	0,8
Air Vessels	1582928	0,05	1471100	0,06	-7,1
Marine	12125030	0,41	12396938	0,52	2,2
Total	2968443104	100	2375833889	100	-20

Source: HUU, 2015

As evidenced in the table above, third party liability insurance comprises more than 99% of gross written premium of compulsory motor liability insurance, which makes this segment of insurance market in the Republic of Croatia very important for insurance companies. There has been only a slight change in market share of this type of insurance, going from 99,38% in 2013. to 99,22% in 2014. Other types of compulsory insurance like public transportation liability, air vessels liability and marine vehicles liability comprise only a smaller share, and compared to 2013. these types show a slight rise in percentages regarding market share. Apart from marine vehicles and public transportation liability which recorded a relative positive change, +2,2% and +0,8% respectively; air vessels liability recorded a negative relative change of -7,1%. Main focus is on third party liability insurance that recorded truly staggering -20,1% in 2014. regarding to 2013. This is directly connected with transfer from administrative (common) to commercial (“individualised”) tariffs and the liberalization of the insurance market. Average compulsory motor liability premium went from 1500 HRK in 2013. to 1196 HRK in 2014 (HUU, 2015). An overall decline of 20% is evidenced in this type of insurance.

Table 13 Settled Claims of Compulsory Liability Insurance for Motor Vehicles in HRK

RISK	Gross Claims Settled in kn I.-XII./2013	Gross Claims Settled in kn I.- XII./2014	Change 14/13 Relat.(%)
Third Party	1065888100	984631420	-7,6
Public Transportation	436825	328962	-24,7
Air Vessels	65729	1000	-98,5
Marine	1075190	264010	-75,4
Total	1067465844	985225393	-7,7

Source: HUU, 2015

Settled claims for the same type of insurance shows an overall decline of 7,7%. Public transportation liability claims are declined for 24,7%, while air vessels show a big drop of 98,5%, marine vehicles liability recorded a decline of 75,4%.

After 1st of July 2013. insurance companies had to increase the minimum of principal sum insured regarding compulsory motor liability insurance. Minimum formerly in force was 3.500.000 HRK for persons (460.000 €) and 1.500.000 HRK for property (200.000 €) (HUU, 2014). Current minimum amounts to 5.600.000 € for persons and 1.120.000 € for property. It is an enormous one-time increase which was positive news for consumers, but there is a possibility that some smaller insurance companies will bear some consequences in the long run. New minimum of sum insured means increased outflow of domestic capital accumulation for reinsurance mainly to foreign reinsurers. Another result of the liberalization are certainly new coverages and commercial insurance products (riders) with compulsory insurance and certain other novelties:

- long-term period contracts/policies are now permitted,
- coverage of legal protection is included in the compulsory insurance,
- compulsory casualty insurance now covers 24hrs,
- new benefits for drivers regarding coverage,
- benefits for combined motor insurance (compulsory + motor hull),

- free road assistance is attached with the compulsory insurance,
- replacement vehicle coverage (is now cheap or free),
- loyalty bonus is given to consumers, as well as,
- family bonus (if more family members are insured with the same company),
- discounts for cash payments (enterprises are now included),
- lower premiums for certain kinds of vehicles (leasing, taxi, dangerous cargo transport)
- Bonus protection options (are now cheap or free).

All the above mentioned changes on the compulsory insurance market, along with the lower average compulsory premium, introduction of new terms & conditions and tariff systems that differ from insurer to insurer, are a direct effect of the liberalization. Combined with constantly rising competitiveness levels among insurance companies and number of insurance companies that operate on the compulsory motor liability insurance market make little room left for any new company to enter the market given that there are 15 insurance companies providing such services for 1.884.000 motor vehicles in the Republic of Croatia (HANFA, 2014).

4. LEGISLATIVE AND REGULATORY OVERVIEW

The biggest possible obstacles for Croatian insurance companies definitively represent the possibilities of difficulties in business operations regarding implementation of "Solvency II" framework. In May 2012. a working group was formed among HANFA (Croatian Financial services Regulatory Agency), HUO (Croatian Insurance Bureau) and HAD (Croatian Actuarial Association) to conduct a QIS Study (Qualitative Impact Study) to gather market operators insight regarding implementation of "Solvency II" framework. Majority of participants of the QIS study reported that they are not fully prepared for the implementation of the "Solvency II" framework. According to data from the questionnaire, participants in majority felt that they don't have all the available resources and the implementation plan of the "Solvency II" framework has not yet been completed in their companies. "Solvency II" implementation in the Republic of Croatia starts with 1st of January 2016 (HANFA, 2014).

New insurance law is currently being in development and will enter into force on 1st of January 2016. This new legislative should improve the existing one and fully adjust it with the European insurance law. New insurance law (NN 30/15) will enable insurance companies to sell investment fund shares and offer different retirement programs to their clients. In addition, insurance companies will be able to represent business interest and sell insurance products and services for other insurance industry companies. Adjustments will also include some new prospects for insurance agencies. After 1st of January 2016, insurance agencies will be able to provide different kinds of intellectual and technical services to their clients regarding insurance. Also, insurance agencies will be able to sell investment fund shares and retirement programs (Gajski, 2014). Insurance agents will no longer have to have 300 ECTS accompanied with a 3-year working experience, but 180 ECTS and a 3-year working experience to provide intermediary services on their own (Gajski, 2015). New category of insurance agent Assistant is being introduced with the implementation of the new law and assistants will be able to conduct a part of insurance agents` operations without the required license issued by HANFA (Gajski, 2014).

5. CONCLUSIONS

Before EU accession, despite legally declared and regulated liberalization and deregulation of the Insurance Market (especially in the Compulsory Motor Liability Insurance), the expected liberalization was not achieved. The real liberalisation of the insurance market started from 1st of July 2013. The role of HANFA is now, after the accession to the European Union, reduced to sufficiency control of capital coverage regarding obligations of each Insurer and insistence on transparency for additional benefits that are given to policyholders. Each insurer can now operate the market with its own terms and conditions and tariff system. Resulted freedom of insurance companies in designing their own tariffs and with no further obstacles regarding the implementation of commercial tariffs directly led to create a significant overall decline in gross written premium (Total) as well as Non-life written premium (mostly due to liberalisation of the compulsory motor liability insurance market). Along with the commercialized tariffs, insurance companies started to discount compulsory motor liability premium for 10%, 20, even 30% thus accumulating a bigger client base. Bigger client portfolio also means bigger payments of claims, which could, in the long run,

confront some smaller or capitally insufficient insurers with serious operating difficulties (possible bankruptcy). Significant decline in premium for an insured individual followed the before mentioned development (from average 1500 HRK in 2013. to 1196 HRK in 2014.). The accession also obliged insurers to increase Insured Sums (in Compulsory Motor Liability insurance) and to provide equal premium for men and women in all types of insurance services and products. Final adjustments are being prepared for law implementation to fully adjust Croatian insurance laws with the European insurance laws and certain new provisions are being introduced that will largely advance and benefit insurance companies and insurance intermediaries.

Further decline of Compulsory motor liability premiums can be expected, as well as an overall decline in premium, at least for the foreseeable future. Possible disappearance of insurers that are less capitally secured is to be expected to some extent, but eventual bankruptcy of certain insurers still cannot jeopardize the insurance market due to the Guaranty fund. Mergers & Acquisitions of smaller insurers had already occurred on the market and similar development can be expected in the future. Some difficulties are expected for insurers regarding the implementation of “Solvency II” framework. Further increase of competitiveness is eminent, which will lead to further development of new and innovative insurance products, especially in health and life insurance segment which is considered as a market for further progress within the insurance industry. Re-designing of existing insurance services and products is currently an on-going process on the Croatian insurance market. In the long period, new technology risks will inevitably produce new insurance coverage that will be offered on the market. All the above mentioned development will certainly force greater segmentation of insurance products.

Croatian economy is still feeling the effects of the financial crisis and it will take more time to recover to the level of economy which will have a significant impact on the further growth of written premiums. Because of the overall decline in premiums, insurers will try to improve their business results by lowering claims handling costs, they will try to enhance detecting and preventing of frauds, rationalize internal costs, which will in the long run have a positive effect on most of the Non-life insurance sector.

Greater use of information technologies and internet by insurance companies is to be expected. Social networks and internet distribution will certainly be an important asset in improving insurance companies' business results. Financial literacy and education is an important issue in the European Union. The European insurance sector recognizes the importance of financial education of consumers and strives toward awareness by supplying simple and user-friendly access to information that will equip them with basic knowledge about finance. Croatian insurance regulatory body, as well as other stakeholders on the market are hosting public events, issuing publications and brochures, conducting and publishing research and other studies and surveys, consulting consumer services, media activities & campaigns and similar activities, but further efforts will be necessary to successfully educate wider Croatian public on matters of insurance.

REFERENCES

- Ćurković, M., (2014), *Liberalizacija tržišta obveznog osiguranja od automobilske odgovornosti – hrvatsko iskustvo*, 25. Susret osiguravača i reosiguravača 2014., Sarajevo
- Filipović, H., (2014), *Dohodovna elastičnost tržišne penetracije odabranih kategorija osiguranja*, Zbornik radova: Dani hrvatskog osiguranja 2014., Opatija
- Gajski, Z., (2014), *Kako zaboraviti 2014. godinu*, Svijet osiguranja, 12/2014, Zagreb, p. 13, 14
- Gajski, Z., (2014), *Milijarda manje nego 2008.*, Svijet osiguranja, 12/2014, Zagreb, p. 28, 29
- Gajski, Z., (2015), *Prilagodba novom Zakonu već od 1. travnja*, Svijet osiguranja, 3/2015, Zagreb, p. 7
- HANFA (2014), *Statistika osiguranja u Republici Hrvatskoj za 2014. godinu*, Zagreb
- HANFA (2015), *Statistika osiguranja u Republici Hrvatskoj za 2013. godinu*, Zagreb

Hrvatski ured za osiguranje (2014), *Tržište osiguranja u Hrvatskoj*, Hrvatski ured za osiguranje, Zagreb

Insurance Europe, (2014), „Statistics: European Insurance in Figures“, Brussels

Ivanušić, Z., (2014), *Slovenija – pregled tržišta osiguranja u 2013. godini*, 25. Susret osiguravača i reosiguravača 2014., Sarajevo

Letica, G., (2014), *Tržište osiguranja u Republici Hrvatskoj godinu nakon ulaska u Europsku uniju*, presentation, Dani hrvatskog osiguranja 2014., Opatija

The Geneva Association, (2012), *Social and Economic Value of Insurance*, Brussels

CHAPTER 45

Stevo Pucar

The Faculty of Economics, University of Banja Luka, Banja Luka,
Bosnia and Herzegovina

Nebojša Balaban

Banja Luka, Bosnia and Herzegovina

COOPERATION OF UNIVERSITIES AND ECONOMY AS AN INSTRUMENT FOR ECONOMIC INTEGRATION OF BOSNIA AND HERZEGOVINA INTO EU

ABSTRACT

The European Commission has defined several key initiatives in its Europe 2020 Strategy. The one of the most important is the "Innovation Union", with the aim to ensure the possibility of transforming innovative ideas into products and services that will create growth and jobs. EU institutions recognized growing importance of the knowledge economy and universities received the one of the major roles. As primary producers of knowledge, universities have become key institutions to increase competitiveness. However, universities in Bosnia and Herzegovina (B&H) do not have such a role. In this paper we examine the relationship between the level of collaboration between universities and economy, on the one hand, and the innovation capacity of economy, on the other hand, using data from all 28 EU countries. Results show that there is a very strong, statistically significant relationship ($R=0.88$, $R^2=0.77$, $p<0.01$) and a significant impact of cooperation between universities and economy on innovative capacity of companies in the EU, as determined by regression analysis. This confirms the hypothesis that universities play a major roll in enhancing innovation in the EU. Also, analysis of B&H universities points to one of the key problems - weak relations between universities and economy. Our universities and our economy have to face the EU integration process, understand and accept the changes that it brings, and define strategies to deal with them and to enable themselves to actively participate in regional and European economic and social processes. Technological change, innovation, and growing global competition require a change in the

mission, vision, goals and organization of the universities. The process of creating the universities oriented towards the cooperation with economy is inevitable in further economic integration of B&H into EU. B&H universities could become active participants in events in their environment, initiate change and contribute to EU integration process.

Keywords: EU integration, innovation, university

JEL classification: F02

1. INTRODUCTION

The European Union (EU) decided in Lisbon Agenda in year 2000 to strategically support the development of its scientific research potential and greater use of information technology in all aspects of society, with the aim of becoming "the most dynamic, competitive world, knowledge-based economy". This approach is further supported by a new vision of EU 2020. Under this approach, the knowledge economy remains the most important concept in economic growth in the EU, regardless of the economic crisis. Therefore, the universities, as the primary producers of knowledge become key institutions to increase competitiveness in the EU.

The subject of this research is the link between co-operation of universities and business and innovation capacity of EU economy. In many countries that have just joined or are on the way of joining EU, such as Bosnia and Herzegovina, this cooperation is underdeveloped and this is a major problem this research is focusing. Here we aim to explore the connection between the two phenomena. Consequently, the main hypothesis of this study is as follows: Co-operation between universities and industry in the EU positively and strongly influences the capacity of the EU economy to innovate.

In the first part of this paper, after the introduction, we are showing the current strategic directions of the EU towards the knowledge economy. The second part describes the research methodology and used data, and the third part is an overview of the research results. At the end of the we have concluding remarks arising from the research results.

2. THE EU AND THE KNOWLEDGE ECONOMY

The Lisbon Strategy, launched at the meeting of the European Council in March 2000, was the main strategic framework program for economic development of the European Union. During the implementation, it gradually grew into very complex program with many objectives and unclear division of responsibilities, because which was thoroughly revised in 2010. In March 2010, this process resulted in the European Commission communication "Europe 2020: A strategy for smart, sustainable and inclusive growth" that comprehensively describes the most important elements of the new program.

Although created as a continuation of the Lisbon Strategy, Europe 2020 introduced some new elements. The number of the main objectives of the strategy increased from two to five. The first of the main objectives suggests that 75% of the population of 20 to 64 years should be employed. The following objective is that 3% of EU's GDP should be spent on the science and research. So-called 20/20/20/ climate and energy targets relate to reduction of the amount of greenhouse gases in the atmosphere by 20% compared to 1990 (or even by 30% if conditions allow), use 20% of energy from renewable sources and the increasing energy efficiency by 20%. The fourth main objective is reducing the number of students who drop out of school at 10%, and at least 40% of young people with university diploma. Finally, the fifth main objective emphasizes reducing the number of people at risk of poverty to 20 million. Europe 2020 is characterized by better financial foundations, and open the way to improved coordination with other strategic programs of the Union.

Moreover, to underpin its five targets the Commission put forward seven flagship initiatives on: innovation, youth, the digital agenda, resource efficiency, industrial policy, skills and jobs, and the fight against poverty. These flagship initiatives could prove crucial in approaching the set targets because they elaborate specific actions that need to be implemented at both the EU and the national level.

The one of most important is „Innovation Union“. The aim of this is to re-focus R&D and innovation policy on the challenges facing EU society, such as climate change, energy and resource efficiency, health and demographic change. Every link should be strengthened in the

innovation chain, from “blue sky” research to commercialization. As we can see, the knowledge economy remains the most important concept in economic growth in the EU. Therefore, the universities, as the primary producers of knowledge become key institutions to increase competitiveness in the EU.

3. METHODOLOGY AND DATA USED IN THE STUDY

Empirical research was aimed to determine the relationship between industry and university cooperation within the EU, on the one hand, and the innovative capacity of the EU economy as the most important factors of competitiveness, on the other hand.

The data, which were collected, were statistically analyzed in one of the most used software packages IBM SPSS Statistics. The methods that were used in statistical data processing are in the field of descriptive statistics (including graphical display of data), correlation and regression analysis.

From descriptive measures, which were used in the work, and that their goal was to draw attention to the situation arising in a given moment, there are:

- The arithmetic mean, which indicates the average balance of certain events.
- The standard deviation indicates the average deviation from the average data.
- Mode or the most common figure in the series.
- Median (MEDIAN), ie. mean to properly staggered series (from the smallest to the largest data or other logical order).
- Measures of asymmetry (symmetry and flattening the data).
- The proportion.

When it comes to regression analysis was used the regression equation, where we dealt with the interpretation of the slope and, as well as their statistical significance (using t - test). The representativeness of the model is established by using the coefficient of determination (R^2). Within the correlation analysis the focus of the correlation coefficient (R), which indicates the degree and direction of the correlation of

observed variables (in the interpretation of the coefficient its statistical significance was analyzed and).

The analysis includes the data of the Global Competitiveness Index, which was created by the World Economic Forum. Our sample consists of all 28 EU countries with data for 2014, in which we examined two variables:

- The collaboration between universities and industry (independent variable)
- The innovative potential of the economy (the dependent variable)

4. THE RESULTS OF EMPIRICAL RESEARCH

The structure of the following analysis follows the correlation between the above variables, with the indication of cooperation between universities and industry as independent, and innovative potential of the economy indicator as dependent variable. Statistical analysis was carried out so that we have the interpretation of the three key sizes:

- The equation (with the assessment parameters and their significance),
- The correlation coefficients and determination (and their significance) and
- Statistical significance of the model as a whole (ANOVA).

Table 1 Equation with parameter indicators and their significance Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.449	.105		9.543	.000
Saradnja sa Uni	.903	.030	.911	25.731	.000

a. Dependent Variable: Innovation

Source: Author's calculations based on GCI index data of the World Economic Forum

Table 2 Correlation coefficients and determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.880 ^a	.775	.774	.3437235

Source: Author's calculations based on GCI index data of the World Economic Forum

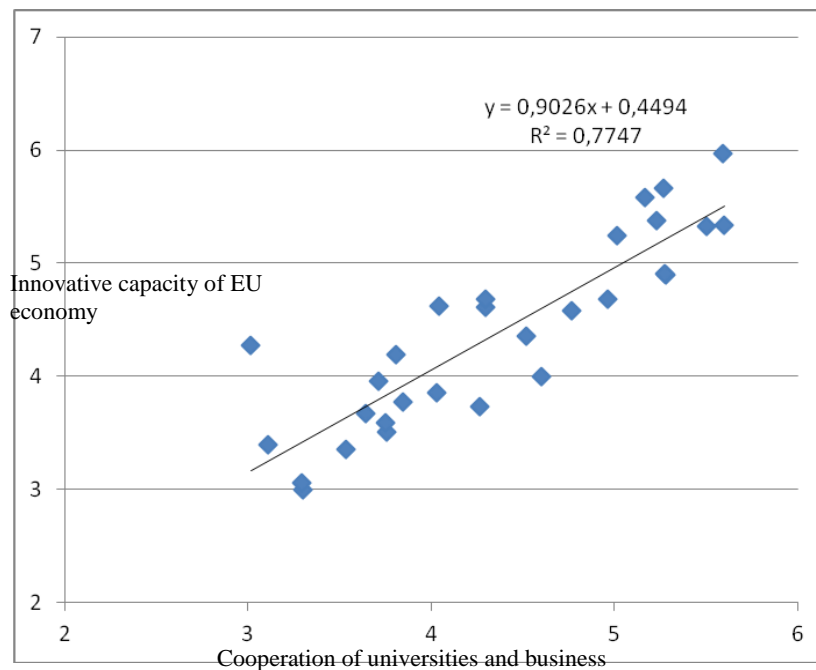
The results show that coefficients in the regression equation are statistically significant and the model is:

$$Y_i = 0,449 + 0,903x_i.$$

The model as a whole is statistically significant (ANOVA significance is considerably less than 0.01). The representativeness of the model is very high, because the coefficient of determination is 0.77. This result shows that 77% of the variability of innovation capacity of economy is determined by the cooperation between universities and industry. The degree and direction of connection, which is described by the correlation coefficient, indicates that it is a direct bond whichever is expressed ($r = 0.88$).

Graphically it looks like this:

Chart 1 Graphic representation of results of the regression analysis of the impact of cooperation between universities and industry and the innovation capacity of EUEconomy, 28 countries, 2014



Source: Author's calculations based on GCI index data of the World Economic Forum

Analysis of B&H universities points to a key problem - poor connection between universities and industry. B&H is at a relatively low 84th place among 142 countries and is in the company of Vietnam, Philippines, Honduras and Cameroon.

Therefore, B&H universities need to understand and accept the changes that EU integration process brings, and to define strategies to "cope" with it and to enable themselves to actively participate and contribute to the development of the environment in which they operate. EU integration process, technological change, innovation, and growing global competition require a change in the design of the mission, vision, goals and organization of the university. The process of creating a university oriented towards economy is inevitable if the universities want to be an active participants in EU integration process, initiate change and contribute to economic development.

5. CONCLUSION

Results of this research indicate that cooperation of universities and industry is a significant factor in improving innovative capacity of companies in EU. If B&H wants to meet its development objectives, it must undertake significant changes in the approach to science and higher education.

The way to overcome this position is to ensure the conditions for a greater number of people to be employed by or related to the production of high value added products and services based on knowledge and innovation. As we have seen in the results of the research, the crucial factor here is cooperation of economy and science and technology institutions, primarily universities. The main focus should be on ensuring that the national economy is transformed into a knowledge economy. Although from today's perspective, this attitude seems to be incomprehensible for those that are not able to understand this, and for many of those who understand, this sounds senseless, global circumstances make it unavoidable if we want to change the current status of B&H economy.

Related to this there are a number of problems. The first is to ensure that this issue becomes a priority social and national topic. It is hard to expect the achievement of social consensus around it, since different social groups, guided by their own interests, impose their partial vision and fight for them. The alternative in this regard is the creation of political consensus of socially responsible political elite. Due to the influence of various lobbies and networks, internal and external pressures and challenges, and ultimately chances for election, this alternative is also not very realistic. However, it is the only chance to impose this concept as a priority.

REFERENCES

Antonic, S. (2003): Modernization, in Vukadinovic and Krstic (pr.) *A critical anthology of civil society*, a group 484, Belgrade

Castells, M. (2000): *The rise of the network society*, Golden Marketing

Castells, M. (2003): *The end of the millennium*, Golden Marketing

Giddens, A. (1998): *The Consequences of modernity*, Filip Visnjic, Belgrade

Gligorov, V. (2004): *The economic reasons for the disintegration and reintegration - The case of Yugoslavia*, in Mundjiu et al, Nationalism after communism, BFPE, Belgrade

Heywood, A. (2004): *Politics*, Clio, Belgrade

Lazic, M. (1995): *Access to critical analysis of transition*, Luc, No. 1-2

Landis, D. (2004): *The Wealth and Poverty of Nations*, Poles Culture

Mrksic, D. (2000): *Restratisation and change of the material standard*, in Lazic, M. Ducks stroke, Filip Visnjic, Belgrade

Polanyi, K. (2003): *The Great Transformation*, Filip Visnjic, Belgrade

Porter, M. (2004): *Attitudes, values, beliefs and microeconomics of prosperity*, in Harrison and Huntington, Culture is important, Stubovi kulture, Belgrade

Putnam, R. (2003): *How to make democracy effective*, Faculty of Political Science, Zagreb

CHAPTER 46

Branka Topić-Pavković

Faculty of Economics, University of Banja Luka, Banja Luka, Bosnia and Herzegovina

FISCAL AND MONETARY ASPECTS OF ACCESSION OF BOSNIA AND HERZEGOVINA TO THE MONETARY UNION

ABSTRACT

Bosnia and Herzegovina needs to become a member of the EU and to achieve the criteria for membership, before gaining the position of candidate for EMU. Since the criteria for accessing the EMU are quantitatively more precise than a wide range of other criteria, in this paper we focus on the fiscal and monetary specificity of joining BiH the monetary union. Due to the heterogeneity of members of the monetary union, the main question remains whether the loss of monetary sovereignty and unique monetary policy can be optimal for all its members? Considering the theoretical and empirical knowledge about the benefits and disadvantages of monetary integration, the aim goal of this paper is to analyze possible fiscal and monetary implications on BiH in accession to monetary union. The results suggest that a rational solution for BiH, after joining the EU, is based on gradual process of monetary integration, with stable monetary policy, effective management of public finances and careful management of public debt. Central Bank of Bosnia and Herzegovina, which functions on the principle of the currency board succeeded in maintaining monetary and financial stability even in times of crisis. Since the institutional arrangement of the currency board does not allow budget deficit financing, the monetary system of BiH will have certain advantages in terms of the Treaty of Maastricht. On the other hand, in the next period monetary authorities should be devoted to assure the development of money market in BiH, and then adjusting the structure of euro area monetary aggregates. Analysis of fiscal convergence criteria related to the budget deficit and public debt, currently shows acceptable results for BiH, because the deviation from the reference value is minimal. However, keeping in mind that the dynamics of the public debt directly depends on the level of

increase in GDP, exports and disposable income for debt servicing, the decision on further borrowing will have to be associated with production projects or funding projects that would contribute to further economic growth. This emphasizes that in the future, BiH needs to manage fiscal policy more efficiently, especially due to negative effects of the recent debt crisis. According to the optimum currency area theory, member state must maintain a certain degree of flexibility and autonomy, and manage fiscal policy with clear rules and budgetary principles. Fiscal aspect of monetary integration is significant because fiscal policy in EU is based on coordination of single member states fiscal (budgetary) policies through Maastricht convergence criteria and the Stability and Growth Pact. The long-term goal of BiH lies in achieving real convergence through increased productivity and competitiveness. Consequently, our main purpose is to highlight the question of conducting effective economic policy and necessary reforms before entering the E(M)U, because if implemented quality as it should be, assecing the monetary union will have more benefits than costs to the economy of Bosnia and Herzegovina.

Keywords: monetary integration, fiscal policy, public debt, monetary policy, debt crisis

JEL classification: E5, H6, F02

1. INTRODUCTION

Bosnia and Herzegovina's capacity for the accession to the European Union has been determined by characteristics influencing monetary and fiscal system of BiH, from political, economic and social aspect.

For a country that is in a transition to a market economy, it is important to ensure macroeconomic stability which is a key condition for stable national currency with solid basis for the investments in economic development. If we observe the achieved level of macroeconomic stability and confidence in domestic currency, we can say that Currency Board arrangement in Bosnia and Herzegovina has achieved its main goal. However, past experience and theoretical aspects of functioning of Currency Board also show limitations in the results of growth of real investments, GDP and employment. In terms of accession to the

Monetary Union, the currency board as a form of monetary arrangement has positive implications.

In conditions of passive monetary policy, country's economic policy and real GDP growth is significantly dependant on fiscal and budgetary policy. High budget deficit from previous period and slow implementation of political and economic reforms have resulted in increase of BiH borrowing from international financial institutions and in significant increase in borrowing from commercial banks in the domestic capital market. Combined with projected slow economic growth and high budget deficit, the issue of public debt sustainability comes into the focus. Main treats to public debt management are: credit rating, reduced capacity for borrowing from international financial institutions, political (in)stability, impact of global financial and economic crisis, decrease in inflow of foreign direct investments, negative balance of payments, high unemployment rate, reduced transfers from abroad and etc. In addition to mentioned characteristics, macroeconomic environment in BiH was also largely influenced by the last economic crisis and high risk and uncertainty which challenged economic policy in maintaining financial stability and in selecting economic policy as a response to crisis.

The crisis in majority EU countries has affected financial system, and afterwards the real sector causing slow economic growth, increase in unemployment and increase of fiscal pressures. As a consequence, the slowdown of global economy indicates fall in overall consumption and investment activities which also caused significant deterioration in trade conditions in BiH. Main effects of economic stagnation in the EU (and eurozone) to domestic economy were reflected in reduction of foreign demand for our export and insufficient capital inflows. Weak domestic demand, deterioration in fiscal position of country and pressure on foreign currency reserves are the primary generators of negative economic growth in BiH.

Considering the advantages and disadvantages, it is evident that classic currency board represents appropriate tool for the fiscal stabilization but not the mechanism for a more dynamic economic growth. At the same time, tendency of growth of public debt of Bosnia and Herzegovina in conditions of current global economic crisis, stagnation of GDP and budget revenues, as well as the fact that settlement of long-term

liabilities as a priority requires higher percentage of budget funds, indicates the need for caution in future borrowing in terms of contracting new borrowings under the more favorable terms, adapting repayment schedule to expected revenues, and selection of priority projects. One of the main treats is a reduced credit rating of BiH influencing reduction in inflow of foreign direct investments, as well as the deterioration in borrowing conditions of BiH from international financial institutions, as well as limited opportunities for borrowing in the domestic market due to a limited domestic accumulation.

The analysis presented is aimed at acquiring information on the current monetary and fiscal parameters in BiH, and their aspects in the assessment of level of achieved convergence of BiH to the Maastricht criteria, that candidate countries and potential candidates must meet on their way to the accession to E(M)U.

2. THE CRITERIA FOR MONETARY UNION ACCESSION

One of the main characteristics of the European integration, in all phases through which European history has passed was heterogeneity of countries making the Union. This heterogeneity is reflected in socio-cultural characteristics, history and level of economic development. As a primary goal of integration of Europe was a need for prevention of new wars and accomplishment of deeper economic integration in order to defend its economic interests and create strong economic force that will be equally competitive in the global market. According to the theory of optimum currency area, which critically evaluates costs and benefits of Monetary Union, similarity between the Member States, especially the achieved level of economic growth, is considered as a prerequisite of successful functioning of Monetary Union.

Crucial moment in the history of European integration was the Maastricht Treaty, signed in December 1991 by the EU Member States. Accession to Monetary Union was conditioned by meeting of convergence criteria. Why did Member States have to meet convergence criteria for the creation of Monetary Union? First, we will look at the theoretical framework and definitions of convergence.

2.1. The Criteria of Nominal Convergence

The concept of economic convergence indicates an accelerated process of social development resulting in convergence of the values of economic variables among Member States, and primarily referring to the nominal and real convergence. In order to adopt common currency Member States, according to the Maastricht Treaty, are required to comply with nominal convergence (five convergence criteria). *Nominal convergence* indicates meeting quantitatively determined criteria prescribed by Maastricht Treaty on readiness of country to join eurozone. Since mentioned criteria are quantitative and more precisely defined than Copenhagen criteria, in the economic literature they have become synonym of readiness of candidate countries for joining EMU. Country may accede Monetary Union if it meets determined criteria, i.e. nominal convergence criteria (De Grauwe, 2003), such as:

1. inflation rate not more than 1,5% higher than the average inflation rates of the three Member States with the lowest inflation,
2. Long-term interest rates should be no more than 2% higher than in the three Member States with the lowest inflation rate. Applicant country must accept exchange rate mechanism (ERM II) of the European Monetary System, and must not devalue its currency during the 2 years before the accession to EU.
3. The ratio of budget deficit to GDP must not exceed 3% (or if the deficit exceeds reference value, deficit must decline until reaching the level of 3%) or, on the other hand, if the excess has a temporary nature and, is close to the reference value, i.e. 3%,
4. The ratio of Government debt to GDP must not exceed 60% (or if debt exceeds reference value, debt must be diminished and must be approaching reference value at a satisfactory pace).

2.2. Real Convergence

Concept of *real convergence* indicates decrease in differences in the levels of development of Member States. It is defined as similarity in GDP per capita, level of nominal wages, equilibrium of real exchange rate and similarity of price levels and ratio of foreign trade and local goods (Gaspar, 2005). Human capital is also quoted as crucial criteria of convergence.

Bjorksten (Björksten, 2000) defines real convergence as reduction of differences in productivity and price level between the States. Real convergence requires sustainable economic growth in potential candidate countries, and this requires appropriate micro and macro-economic policies, and effective mechanism for transition to a market economy. According to Kowalski (Kowalski, 2003), real convergence refers to similarities of real structures and business cycles in countries introducing or that have introduced common currency, in terms of productivity convergence and higher standards of living measured by reduction of differences in GDP per capita.

3. CHARACTERISTICS OF MONETARY ARRANGEMENT OF BOSNIA AND HERZEGOVINA

3.1. Scope and limitations of currency boards in terms of monetary integration

Currency Board was the only adequate form of monetary policy for the stabilization of financial sector in the political and economic environment characteristic for Bosnia and Herzegovina after the war. For a country that is in a transition to a market economy, it is important to ensure macroeconomic stability which is a key condition for stable national currency with solid basis for the investments in economic development. The primary task of currency board in countries undergoing transition and reform is to secure currency stability, i.e. to keep inflation at the lowest possible level.

For developing countries, tight fixing of exchange rate to the foreign currency of any leading monetary authority may represent good strategy for the economic stabilization. Lack of exchange rate risks makes market participants unaware of economic differences of country that pegged its currency compared to the country with anchor currency, so the borrowing conditions of these countries converge. Appearance of external shocks lead to exponential growth of dispersion of financing conditions of developed countries compared to the less developed, especially in countries which have tightly fixed its exchange rates to foreign currencies. Reason for this is a lack of flexibility of exchange rate, which in time of crisis leads to situation in which negative effects of the crisis are fully reflected to the real sector.

In terms of the achieved level of macroeconomic stability, we can say that Currency Board arrangement in Bosnia and Herzegovina has achieved its main goal. On the other hand, creating favorable investment environment and strengthening of competitive position should represent main goal of BiH economy, and accelerate the implementation of criteria of the real convergence. In other words, meeting the macroeconomic stability is a good base for successful economic development in the long run. In conditions of passive monetary policy, the essential question for BiH economy has been aimed at raising international competitiveness of country in order to reduce the current account deficit.

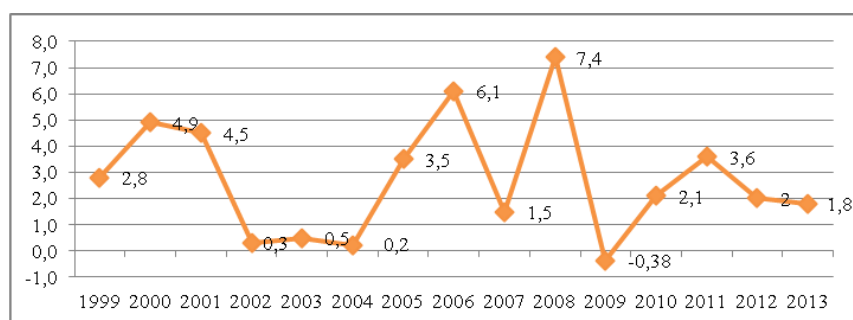
Required prerequisite for this is acceptable ratio of productivity growth and wage adjustment. If the gross wages in major sectors are growing faster than productivity in these sectors, this could increase inflationary pressures and destimulate export on the one hand, boosting consumption and import on the other hand, which could at certain point lead to unsustainable deficit of the current account and put into the question existence of currency board arrangement and parity between the EURO and Convertible Mark (Krstic, 2007).

3.2. Criteria of Inflation Convergence

The primary task of currency board in countries undergoing transition and reform is to secure currency stability, i.e. to keep inflation at the lowest possible level. One of these requirements implies convergence of inflation rate to the inflation rate of anchor currency, i.e. currency to domestic currency is pegged. If we look at the inflation in BiH (Chart 1), we can see that inflation declined in period from 2000 to 2004 and ranged below the value of the inflation in the eurozone. A slight increase in 2005 was caused by exogenous pressures caused by the increase in oil prices on the world markets. In 2006, level of inflation increased in prices due to the introduction of Value Added Tax (VAT). Prices of raw oil had significant increase in the first part of 2008 which significantly affected global inflation trends. Inflation pressures were more pronounced, and annual inflation almost reached double figures in the middle of the year. Start of inflation was caused by the increase in prices of oil and food on the world market, but inflationary spiral accelerated due to growth of local wages and utility services. In addition, inflation was also characterized by emphasized fiscal expansion, mostly through

the growth of social transfers and current spending. International position was further weakened by increased foreign trade deficit.

Chart 1 Inflation in BiH



Source: World Economic Outlook Database, interpretation of the author

Despite the increase of merchandise export, net export (foreign trade deficit) sustained deterioration and practically had negative contribution to the economic growth. Domestic spending was stimulated by the growth of wages (particularly in public sector), large amount of new loans to the population, and continuous inflow of remittances from abroad (information from *Central Bank BiH*).

We can see that inflation converges to the reference value of inflation rate in the eurozone, except in 2006 and 2008, which was a result of mentioned exogenous factors caused by the increase in oil prices on the world market. The downward trend in inflation was present since the beginning of 2011 and continued in 2013, with the deflationary pressures showing in the second part of the year. Annual inflation measured by consumption prices index (CPI) in 2013 was -0,1%. In the end of 2013, inflation rate was -1,2%. Deflation in 2013 was the result of continued downward trend in food and oil prices on the world market. The only significant divergences in primary inflation were in 2010 as a result of simultaneous increase of excise duties to alcohol and tobacco. Weak domestic demand despite deflation in addition to deferred consumption due to expectations of further price reductions indicates weak purchasing power of population.

4. FISCAL ASPECT OF INTEGRATION OF BOSNIA AND HERZEGOVINA

Fiscal aspect of integration of Bosnia and Herzegovina will be observed through the prism of fiscal criteria of convergence. Please note that with the accession of a new member to the fiscal system of EMU, Member States experience changes within their public finances, both in public revenues and also in public expenditures. Also, in conditions of passive monetary policy, country's economic policy and real GDP growth is significantly dependant on fiscal and budgetary policy.

Fiscal aspects of joining E(M)U are important due to several significant reasons: (Shaw, 1996)

1. it seems that accession regularly leads to fiscal pressures in the new Members, regardless of the principle that new Members State should not immediately contribute to the EU budget, there were even talks of possibility of fiscal crisis caused by enlargement;
2. After accession, new Member States must conduct fiscal policy in accordance with the rules of Stability and Growth Pact, which could also cause certain fiscal consequences.

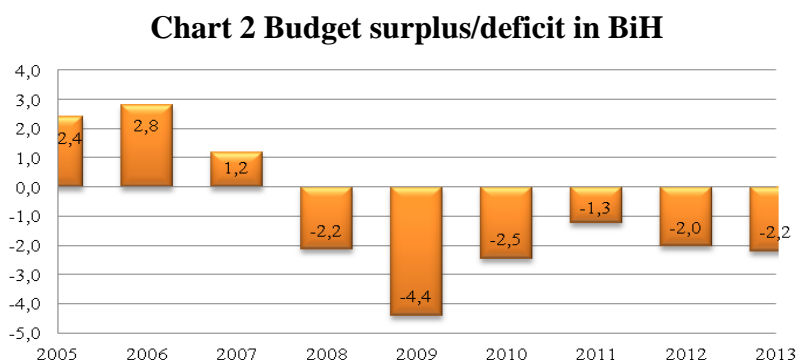
4.1. The Budget Deficit

From the analysis and studies on the importance of convergence, among the basic criteria is the criteria of budget convergence, that requires: budget deficit of member country must not exceed 3% of GDP (and in case of higher deficit, deficit must decline continuously and substantially before reaching rate of 3%), or on the other hand, if this divergence from the referent value is caused by exceptional circumstances and has a temporary nature and is close to the referent value, i.e. 3%.

The bottom line of the fiscal sustainability criteria is reflected in stabilization of debt-to-GDP ratio („stabilization of primary budget“) (Bajo and Pezer, 2011). Issue of sustainability may be formulated in following manner: budget deficit leads to the increase in government debt which will have to be serviced in the future. If interest rates on government debt exceed growth rate of the economy, debt is set dynamically, which leads to the increase in government debt in relation to the GDP. Government must ensure that primary budget has a surplus.

If there is no surplus, debt/GDP ratio will increase which will certainly lead to default in government debt (De Grauwe, 2003).

Development of budget surplus/deficit in Bosnia and Herzegovina presented in the Chart no. 2.



Source: Central Bank of Bosnia and Herzegovina, interpretation of the author

Budget of BiH had deficit over 753 million BAM or 2,5% of GDP in 2010, which is lower by 29,3% compared to the previous fiscal year. Although we see the improvement of fiscal balance of BiH in the next year, 2012 and 2013 were characterized by further growth of deficit. According to these parameters, Bosnia and Herzegovina still meets the Maastricht criteria in connection to the budget deficit.

4.2. Public debt

With the increase of country's indebtedness and expansion of its financial activities problem of defining debt limit emerges. Last debt crisis has produced growth of public debt which has increased in previous years at rate higher than growth of GDP in the majority of European States. Country with growth of public debt creates effect of negative spillover to the other countries. Size and structure of public debt influences all trends in the economy, and managing public debt is becoming more and more important segment of the overall economic policy of the country. The growth of public debt in the long run must be lower than the economic growth rate, if we want to avoid problems with liquidity. Therefore, a primary criterion for accession to the European Monetary Union sets the limit for the public debt-to-GDP ratio to 60%.

Basic indicators of public debt of Bosnia and Herzegovina according to the above criteria, classify BiH as a medium indebted country. Bosnia and Herzegovina in 2013 had debt-to-GDP ratio of 39,69%. However, analysis of situation shows constant growth of public debt, and attention should be focused on how we spend borrowed money and level of public debt sustainability in BiH.

4.2.1. Public Debt Trends in Bosnia and Herzegovina

Since 2008, increase in fiscal deficit, as well as the escalation of the economic crisis in 2009, has influenced growth of debt of Bosnia and Herzegovina. In the period from 2008-2012 Bosnian economy had real fall of 2,2% which led to the decline of public revenues, and country failed to adjust public expenditures which led to the fiscal deficit that is present throughout the observed period. These developments were the main cause of the sudden increase in public debt that has increased significantly over the period of 4 years.

Table1 Percentage increase/decrease of foreign debt of BiH compared to the previous year

Year	2004.	2005.	2006.	2007.	2008.	2009.	2010.	2011.	2012.	2013.
%	0,45	7,59	-6,15	-2,70	7,04	23,44	20,16	5,92	7,42	3,48

Source: Author

Increase of foreign debt on 31.12.2013 compared to 31.12.2012 was 249.209.054 BAM, i.e. 3,48%. Mentioned increase in 2013, was a result of use of granted loans in amount of 1.009 million BAM (EIB 247 million BAM, IMF 240 million BAM, EBRD 200 million BAM, etc.), minus the amount of paid principals (approx. 600 million BAM), with correction of part referring to the foreign exchange movements (approx. 160 million BAM) for the observed period. The main risk in projecting internal debt is: potential changes in legislation regulating the obligation of payment of internal debt in different manner from the existing legal arrangements, and thus preventing planning and control of repayment, and potentially new obligations.

Level of debt sustainability is significantly influenced by currency structure of foreign debt. In the end of 2013, foreign debt of BiH included 4 major currencies: EUR, SDR, USD and CPU¹. Since the Central Bank of BiH maintains monetary stability in accordance with the *currency board* arrangement, we can say that EUR holds a second place in currency structure of debt (two currencies have majority share, EUR and SDR with 85%). Such a high share of EUR provides high degree of predictability of future liabilities and BiH is exposed to a lower currency risk.

When it comes to the currency structure of foreign debt servicing in the period 01.01.- 31.12.2013, share of paid debt to the IMF created currency structure of payments dominated by the SDR. SDR² is exposed to currency risk, although effective payments are realized in EUR. Taking into account already said, if all payments realized in EUR were presented, share of this currency in total currency structure would be 84,01%. Focus should be on the loans in USD because rise of USD could affect increase of foreign debt, which would at the same time require more domestic currency for the servicing of foreign debt. Having in mind aforementioned, we can conclude that future *loans should be in EUR*.

Servicing of debt refers to payment of funds each fiscal year for the principal, interest, discounts, other obligations originating from debt, including all other associated costs. Since majority of loans granted to Bosnia and Herzegovina have due, i.e. grace period has expired, share of paid principals in the structure of totally serviced liabilities, i.e. compared to the collected interest, servicing and other costs, and has an growth tendency.

¹ CPU- Current pool unit of World Bank for the liabilities under the consolidation loan - IBRD no. 40390, which were in 2012 serviced in USD and EUR, and in 2013 in JPY and USD and are included in currency structure of serviced debt.

² SDR - Special Drawing Rights are supplementary foreign exchange reserve assets defined and maintained by IMF, World Bank and some other international financial institutions. The value is based on the basket of key international currencies (USD 41,9%, EUR 37,4%, Japanese yen 9,4% and British pound 11,3%). In total currency structure of serviced liabilities for the period 01.01.-31.12.2013, settled liabilities to IMF were presented separately, while other liabilities were in SDR (to World Bank and IFAD-u) and paid in EUR and USD, and these were included in currency structure of serviced debt in these currencies.

5. FINAL CONCLUSIONS

Results of research have shown that indicators determining the economic variable of criteria for the accession to the Monetary Union from the monetary and fiscal aspect have been at a satisfactory level in Bosnia and Herzegovina. Owing to the currency board as a monetary arrangement present in Bosnia and Herzegovina, monetary criteria would be met relatively fast in the process of the accession to the ERM 2. Inability of monetarisation of budget deficit, elimination of the exchange rate risk and low inflation have provided strong basis for the required macroeconomic stability of Country.

Analysis of fiscal convergence criteria have shown that Bosnia and Herzegovina is currently classified as a medium indebted country. Criteria relating to the budget deficit and public debt to GDP ratio, currently show acceptable results for BiH, because divergence from referent values is minimal. However, considering that development of public debt and servicing of the same is directly dependent on the degree of increase/decrease of GDP, export and available income for servicing of debt, decisions on future borrowing will have to be associated with production projects, or financing of projects which would help future economy growth. Characteristics related to the public debt in BiH are reflected through inability to pursue active monetary policy and exchange rate policy. Having in mind aforesaid, dominant segment of public debt management belongs to the fiscal policy and expenditure control policy.

It should be underlined that BiH will have to manage efficiently fiscal policy in the future, and particularly when BiH accedes E(M)U, because then monetary policy will be under the European Central Bank whose member will also become Central Bank BiH. In accordance with the OCA Theory, it is recommended that BiH, i.e. institutions managing its fiscal policy, must keep certain level of flexibility and autonomy and manage fiscal policy (with clear rules and principle of budget equilibrium in terms of managing budget debt to GDP ratio). Namely, this will be mandatory because we will have to meet the requirements defined under the Stability and Growth Pact.

Within the passive monetary policy, significant efforts for the economy of BiH are aimed at boosting international competitiveness of country in order to reduce deficit of current account. Creation of favorable investment environment and strengthening of competitive position

should represent main goal of BiH economy and accelerate meeting of criteria of real convergence. The purpose of the entire process of convergence is achievement of real convergence, gradual move towards equalizing the level of per capita income of regional countries to the average income of EU Member States.

REFERENCES

Bajo, A. and Pezer, I. (2011): *Strategije i ciljevi upravljanja javnim dugom*, Ekonomski fakultet Zagreb

Björkstén, N. (2000). *Real convergence in the enlarged euro area: a coming challenge for monetary policy*, Bank of Finland, Economics department, Working papers. 1/2000.

URL:

http://www.researchgate.net/publication/5059202_Real_Convergence_in_the_Enlarged_Euro_Area_a_Coming_Challenge_for_Monetary_Policy

Central Bank of Bosnia and Herzegovina, URL: www.cbbh.ba

De Grauwe, P. (2012). *Economics of Monetary Union*, Ninth Edition, Oxford University Press.

Gaspar, P. (2005). *Real and Nominal Convergence of Pre-Accession Economies and the Choice of Exchange Rate Regime*, International Centre for Economic Growth (ICEG) and Budapest University of Economics (BUE), Paper presented on the conference Alternatives for Exchange Rate Regime in Pre-Accession Economies. Vienna: September 20-21, 2005.

<http://www.ecb.int/pub/pdf/other/neweumemberstatesen2005en.pdf>

Kowalski, P. (2003). *Nominal and Real Convergence in Alternative Exchange Rate Regimes in Transition Countries: Implications for the EMU Accession*, Center for Social and Economic Research, Warsaw.
http://www.case-research.eu/upload/publikacja_plik/1708281_270.pdf

Kristić, I. (2007). *Održivost aranžmana valutnog odbora u BiH*, Direkcija za ekonomsko planiranje Savjeta ministara BiH – DEP

http://www.dep.gov.ba/dep_publikacije/doc/?id=102

Shaw, J. (1996). Law of the European Union, Macmillan, London

CHAPTER 47

Valerija Botrić

The Institute of Economics, Zagreb, Zagreb, Croatia

INDUSTRY WAGE PREMIUM AND EU TRADE EFFECTS IN CROATIAN MANUFACTURING SECTOR

ABSTRACT

Public debates and previous studies in Croatia emphasize different adjustment mechanisms in private and public sector in terms of wage corrections during the recent economic downturn. The general conclusion is that the public sector, mostly due to the collective bargaining procedures, enabled the employees to enjoy both relatively more secure and better paid jobs. The aim of this paper is to investigate the parallel processes within manufacturing sector, in particular the segment expected to compete on the international market. The initial hypothesis is that two aspects have shaped the wage dynamics of manufacturing during the recent period – crisis and EU integration. By relying on the Labour Force Survey (LFS) data, and restricting the analysis to the manufacturing sector, we explore the development of the industry wage premium in the analysed segment of the Croatian economy. Furthermore, the identified industry wage premiums are analysed with respect to the international trade pressures indicators. Specifically we investigate whether the intra-industry trade with European Union had impact on wages in Croatia's tradable sector. In order to empirically investigate this relationship, we match the Eurostat COMEXT with LFS data.

Keywords: intra-industry trade, industry wage premium, Croatia

JEL classification: F14, F15, F16

1. INTRODUCTION

Croatia is a small open economy, recently under the dominance of two powerful external factors – global economic crisis and EU accession process. The latter process entails complete liberalization of trade with EU countries and expected successful integration of the domestic producers on the wider common market. The process could also incur costs, which could manifest themselves on the labour market. As Brühlhart and Elliot (2002) explain, the size of the costs are assumed to be in line with smooth adjustment hypothesis, which states that they will be lower if trade is mostly intra-industry in nature. So the trade with European Union and specific pattern of trade play important role in the success of the integration process, but could also be significant for the local labour market developments.

Public debates and previous studies in Croatia emphasize the different adjustment mechanisms in private and public sector in terms of wage (and employment) corrections during the recent economic crisis. The general conclusion is that the public sector, mostly due to the collective bargaining procedures, enabled the employees to enjoy both relatively more secure and better paid jobs. The aim of this paper is to investigate the parallel processes in manufacturing sector, in particular the segment expected to compete on the international market. The initial hypothesis is that two aspects have shaped the wage dynamics of manufacturing during the recent period – crisis and EU integration.

The integration process and its effects are dynamic in nature. To assess the overall impact of the integration process on labour market adjustment would consequently require building and estimating a model in a dynamic framework. Due to the fact that there are no prior estimates for Croatia, we focus on the relatively simple estimation strategy in order to provide first insights. Naturally, the wages and their dynamics do not depend only on trade patterns. In addition to personal characteristics of workers, labour market factors – including wage bargaining process, tax policy, strength of the unions, skills demand and supply, etc. – are the most important determinants of final wage determination. However, in order to fill in the gap in the existing

literature, we want to focus on specific industry features and trade patterns and abstain from other possible determinants.

Structure of the paper is following. The next section briefly summarizes the main findings from the literature in order to provide theoretical framework for the empirical analysis. Section 3 discusses data sources and provides preliminary insights on the subject. Section 4 presents empirical strategy, while results are laid out in Section 5. The last section offers conclusions.

2. THEORETICAL FRAMEWORK

The idea that labour markets (wages) are under the influence of trade patterns, and that different segments of the labour force (skilled vs. unskilled) are expected to have different consequences accordingly, is standard textbook case of trade economics. The traditional models of Heckscher-Ohlin and famous Stolper-Samuelson theorem are frequently used to analyse the effects of trade liberalization. One of the issues is that in the long run, when factors of production are mobile across industries, standard Heckscher-Ohlin's theory predicts that factor prices will be equalised across industries and any differences in wages for similar types of work will eventually disappear. The empirical studies have usually not been able to find this long-run relationship. Another point can be attributed to Krugman (2008) who states that the nature of trade has significantly changed during the past decades and this is not frequently taken into account in the empirical studies.

Relying on theoretical models, we can foresee benefits from increased integration-related trade related to product variety. This love for variety increases consumers' utility, but on the other hand produces new competitiveness pressures for the domestic firms. One assumption is that, as a result, domestic firms will adopt more efficient behaviour (Helpman and Krugman, 1985). If the trade is more intra-industry (defined as intensive trade of similar products within the same industry) than inter-industry (when the division of trade products is more clear, implying trade of products with different quality) it is assumed that the consequence will be relatively low adjustment costs of production factors reallocation through smooth adjustment process. Such success stories are more likely in case of developed economies integration.

Whether integration induces low adjustment costs in case of transition economies is a question that deserves empirical verification.

In general we can assume several adjustment mechanisms of labour markets to trade. The first one is related to the increased variety gains as previously described (Krugman, 1981). It could be foreseen that the internal restructuring due to increased competition on the domestic market will result in closing down of low competitive firms (Melitz, 2003). We can also assume the case when the effect will be entirely shifted to the reduction of labour costs, without closing down of enterprises (Davis and Harrigan, 2011). Both adjustment mechanisms have been documented in Croatia on a case-level basis.

The focus of this paper is on the trade patterns at the level of economic activity, and in particular the links to labour market indicators. Revealing the trade patterns on the level of economic activities is important in order to enhance the discussion of competitiveness. The attention to the latter issue has been frequently drawn within the analysis of EU accession process of transition economies, related to the smooth adjustment hypothesis. The hypothesis states that if intra-industry trade (IIT) has higher share in the overall trade between the countries, the integration associated adjustment costs will be less severe than in cases when the share of inter-industry trade is relatively higher. Azhar and Elliot (2008) offer following explanation for this argument. The increases in trade will result in changes in imports and export on a sector/product level. If the trade patterns are for the most part inter-industry in nature, than these sector changes will be reflected in transferring production resources between industries, from contracting to expanding industries. If there are large differences in relative production factor endowments of the two trading countries, the costs of adjustments from one industry to another will be higher.

Smooth adjustment hypothesis has been frequently assessed and confirmed or refuted in empirical studies. Part of the differences in results could certainly be attributed to the different measures of intra-industry trade and labour cost changes. However, the precise measurement issues related to the appropriate intra-industry trade dynamics and/or those related to the adequate labour market changes remain unresolved. Brühlhart, Elliott and Lindley (2006) suggest individual employees sectoral and occupational distance indicator within

the manufacturing sector. Earlier studies have used industry employment change as an indicator of adjustment cost (Brühlhart and Elliott, 1998; Greenaway et.al, 1999), while others made use of job turnover indicator (Brühlhart, 2000; Andersson et.al, 2000). Over the years more consensual tone has been achieved for the measurement of intra-industry trade, where researchers mostly agree that marginal intra-industry trade is more appropriate for dynamic analysis of the changes in the labour market. Another frequently used indicator of intra-industry trade - Grubel-Lloyd index has been challenged in the literature (Brühlhart and Elliot, 1998) for its ability to disentangle trade patterns especially in the cases of transition countries, which usually have large trade disbalances as well as structural changes.

3. DATA SOURCES AND PRELIMINARY ANALYSIS

The nature of the analysis is empirical, making clear presentation of the data used in the estimates provided below important. For the labour market data, we rely on the most frequently used data source for this type of analysis – Labour Force Survey (LFS) data. Individual LFS data without identifier has been used in empirical estimation. Since 2007, LFS methodology includes panel component. However, the data used was not actually anonymised, so the panel component could not be utilised for the research purposes. In order to avoid double-counting the same respondent, the individual data have been used only when they appeared first time in the analysis (Drinkwater and Robinson, 2011).

In order to provide industry perspective, some indicators had to be aggregated to relevant NACE classification. This has been done both in the case of labour market and trade data. The LFS data prior and including 2008 relied on an earlier NACE classification version (in Croatia referred to NKD2002) in comparison to more recent data (NKD 2007). Fortunately, the data for 2009 included information on both classifications, so matching could have been performed to ensure the comparability for longer time period.

To produce IIT indicators, Eurostat COMEXT data has been used. Estimates were made on the most detailed level of aggregation (CN8), which enables correspondence between CN-PRODCOM-NACE classifications. Using the available Eurostat correspondence procedures,

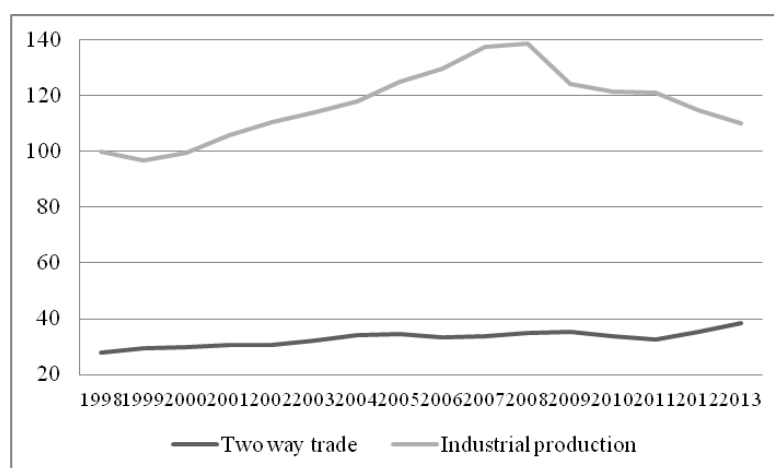
the data were aggregated to the most recent NACE 2-level classification (NKD2007) throughout the analysed period.

After presenting the data sources, we provide some initial trade indicators. Trade with EU countries presents a large part of overall Croatian trade, which is one of the arguments behind integration process. However, the question is whether this trade resembles more North-South pattern or the pattern which develops between similarly developed economies. To provide some insights, we present the intra-industry trade indicators. The methodology applied has been previously frequently used in the literature (Abd-el-Rahman, 1991; Fontagné and Freudenberg, 1997; Freudenberg and Lemoine, 1999). IIT can be estimated following the concept of trade overlap:

$$\text{Trade overlap} = \frac{\text{Min}(\text{exports}, \text{imports})}{\text{Max}(\text{exports}, \text{imports})}$$

The expression is evaluated at the disaggregated level of product classification. If it is above certain threshold, then it is assumed that significant trade overlap exists and the trade is considered to be two-way (or IIT). Threshold of 10 percent, frequently used in the literature, is applied in order to avoid the possible sensitivity of the results to this parameter.

Figure 1 IIT with EU-15 and industrial production (1998=100) in Croatia



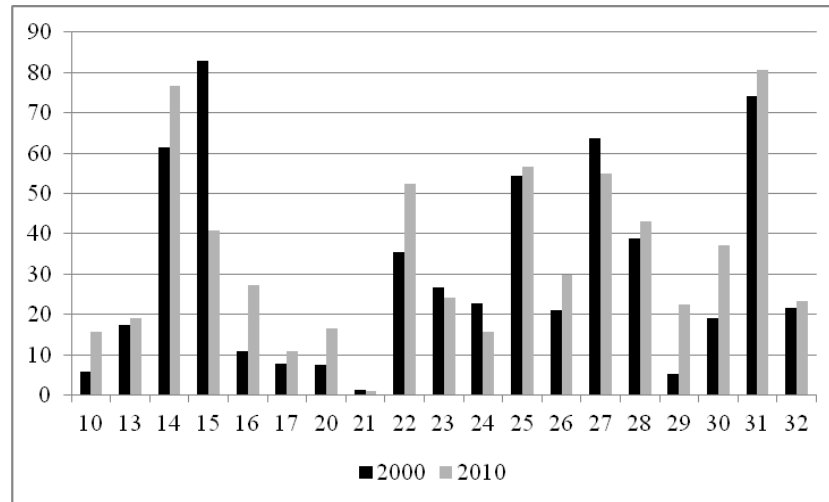
Source: Central Bureau of Statistics and author's estimates based on COMEXT.

The previous data shows that the share of two-way trade (IIT) between Croatia and EU-15 is relatively low, but it seems to be increasing in the last few years. The industrial production pattern, on the other hand, reveals the severe impact the crisis had on Croatian economy. Since we are analysing labour market effects, we cannot assume that all of the changes in specific industries could be attributed to trade effects. Clearly, specific industries have followed the defensive restructuring through shedding labour (Botrić, 2012). It does not necessarily imply that retained workers have suffered from wage cuts or were able to gain additional wage increases. Thus, the overall effect on the industry level cannot be assumed in advance.

The intra-industry trade varies significantly among specific industries. Also, trade patterns might be quite different across time. To illustrate this, we present the shares of intra-industry trade in Croatian trade with EU-15 in two specific years – 2000 and 2010. The results are presented in Figure 2.

The data clearly shows that intra-industry trade shares in the overall trade are not the same through time. It might be suspected that integration process in general increases the share of IIT, however there are examples where the trend is reversed. In Croatian case, there is a sharp decline in IIT in leather industries, but some other industries have also recorded decline. On the other side of the spectrum seem to be wearing apparel and rubber manufacturing, which have recorded increase in IIT. One of the arguments behind these data could be attributed to restructuring of specific enterprises. However, we might also argue that these data are year-specific, since it has been frequently argued in the public debates that Croatian exports and imports dynamics is erratic due to the lack of consistent economic policies.

Figure 2 IIT shares in total trade across industries



Source: author's estimates based on COMEXT data.

NACE codes refer to the manufacture of: 10 - food products; 13 – textiles; 14 – wearing apparel; 15 – leather and related products; 16 – wood and products of wood and cork, except furniture; 17 – paper and paper products; 20 – chemicals and chemical products; 21 – basic pharmaceutical products; 22 – rubber and plastic products; 23 – other non-metallic mineral products; 24 – basic metals; 25 – fabricated metal products, except machinery and equipment; 26 – computer, electronic and optical products; 27 – electrical equipment; 28 – machinery and equipment n.e.c.; 29 – motor vehicles, trailers and semi-trailers; 30 – other transport equipment; 31 – furniture; 32 – other manufacturing.

The dynamics of the intra-industry trade in time is more appropriately explored with marginal intra-industry trade (MIIT) indicators, which capture the relative changes in trade between two periods. Similar to IIT, the literature proposes various indicators. We follow the methodology proposed by Brülhart (1994) and calculate MIIT based on following expression:

$$MIIT = 1 - \frac{|\Delta X - \Delta M|}{|\Delta X| + |\Delta M|}$$

Where X refers to exports and M refers to imports, both of which are on a detailed level of aggregation. This index varies between 0 and 1, where 0 indicates marginal trade in the particular industry to be completely of the inter-industry type, and 1 represents marginal trade to be entirely of the intra-industry type. Specifically this index has been used in the empirical estimates further discussed in subsequent sections.

4. EMPIRICAL STRATEGY

Our basic empirical strategy is to estimate the wage equation, which includes following traditional labour market variables:

Age and age-squared. The persons can expect relatively different wages with respect to their age. It could be argued that older persons have important experience, which cannot be measured directly with other observable variables. However, there are arguments that diminishing returns are associated with age, so in order to capture this effect all the specifications include age-squared.

Gender. It has been frequently addressed in the literature, even in case of Croatia (Nestić, 2010) that women obtain on average lower wages than men. Consequently, we include dummy variable - which takes value 1 if a person is male - into our specification.

Living in urban areas. It is frequently argued that urban areas offer wider variability in jobs, and consequently also that important business centres are frequently located in such areas. Wage patterns are related to the urbanisation degree. To capture this effect, we include a dummy variable which has value 1 if a person lives in urban or semi-urban area.

Education is measured by the qualifications obtained and aggregated to the three levels – lower secondary, upper secondary and tertiary. Due to the fact that the classification has changed during the analysed period, the categories within each segment are not the same. Prior and including the year 2009, as lower secondary education, categories »No school«, »1-3 basic school grades«, »4-7 basic school grades« and »Basic school« are considered. As upper secondary education, categories »School for skilled and highly skilled workers«, »Vocational secondary schools« and »Grammar school« are included. As tertiary education, categories from »Non-university college« to »Doctorate« are considered. From the

year 2010, the classification is as following. Lower secondary includes three categories up to basic school. Upper secondary includes all the varieties of high school education in Croatia, including short specialised after high school courses that enable students for certain activities (like craftsmanship certificates). Tertiary starts with short university programmes (2 or 2.5 years) and finish with doctorate. In order to avoid multicollinearity, upper secondary has been excluded from estimation.

Occupation in the analysis is defined as the occupation of the main job listed by the employed person. Following occupation-dummies have been included in the specifications: Armed forces occupations; Managers; Professionals; Technicians and associate professionals; Clerical support workers; Service and sales workers; Skilled agricultural, forestry and fishery workers; Craft and related trades workers; Plant and machine operators, and assemblers; Elementary occupation.

There are two sets of estimates. The first one is concentrated on the issue of industry wage premium. To that end, previous list of variables is augmented with dummy variables for each NACE2 industry. Since we are interested only in manufacturing sector, workers from other economic activities are not included in the sample. In order to avoid multicollinearity, we have excluded activity NACE 19 – manufacture of coke and refined petroleum products because the total trade with European Union in this segment was negligible throughout the analysed period.

The first specification, consequently, has the following form:

$$\ln wage = \alpha + \beta_1 age + \beta_2 age^2 + \beta_3 male + \beta_4 urban + \beta_5 lower + \beta_6 upper + \sum_{i=7}^{14} \beta_i occupation_i + \sum_{j=10}^{32} \delta_j activity_j + \epsilon$$

Where all the variables have been previously explained and the estimates have been repeated for each year in the period 2004-2012. In this case we are interested in the delta-coefficients and in order to save space, only these are presented in Table 1.

In case of alternative specification, most of the variables are the same, but instead of the dummy variables for economic activity, MIIT indicator has been used for the NACE-2 level activity a worker is

employed in. In that case we have specific coefficient related to that variable, and these results are presented in Table 2. Both results are presented and discussed in following section.

5. RESULTS

The results of the estimation in Table 1 reveal that there is an industry wage premium within Croatian manufacturing sector. Relative to the sector that had the lowest share of trade with the EU countries throughout analysed period, some industries had consistently lower wages. This implies that the openness to competition of those industries and orientation towards the foreign markets results in relatively lower wages (after controlling for education, age, sex, occupation and living area of their workers). Important fact is that we were not able to find any positive significant coefficient in the analysed period. Thus, those industries that are competing on the international market are not able to compensate their workers in a same way that those oriented towards the local market were. Not only that we can see negative wage premium for the manufacturing sector vs. for example, public sector and other non-tradables, we have also detected tradable-non tradable pattern within the manufacturing sector.

It is interesting to notice that traditional labour-intensive industries - such as food, textiles, wearing apparel, leather – have consistently significant negative wage premium, even after controlling for worker-specific characteristics. This suggests that labour intensive industries continue to compete on the international market with relatively lower labour costs, even though the competition from Asian markets has significantly increased during the last decades.

Another interesting point is that, even during this relatively short timeframe, we can notice that changes occur. The relative wage premiums are not the same through time.

Table 1 Estimated industry wage premium coefficients

NACE activity	Estimated coefficients (standard errors) across years								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
10	-	-	-	-	-0,13*	-	-	-	-
	0,20*	0,27*	0,24*	0,23*	(0,07)	0,23*	0,24*	0,18*	0,20**
	**	**	**	**		*	*	*	*
11	(0,05)	(0,06)	(0,06)	(0,09)		(0,10)	(0,11)	(0,08)	(0,07)
	-	-	-	-0,15	-0,03	-0,17	-0,20	-0,17*	-
	0,30*	0,13*	0,26*	(0,10)	(0,08)	(0,11)	(0,13)	(0,10)	0,21**
12	**	*	**						(0,10)
	(0,06)	(0,07)	(0,07)						
	-0,20*	-0,15	-0,22*	-0,20	0,41*	0,01	-0,14	-0,03	0,11
13					**	(0,15)	(0,17)	(0,13)	(0,14)
					(0,13)				
	-	-	-	-	-0,15*	-	-	-	-
14	0,56*	0,44*	0,65*	0,43*	(0,08)	0,40*	0,58*	0,33*	0,39**
	**	**	**	**		**	**	**	*
	(0,06)	(0,07)	(0,07)	(0,10)		(0,11)	(0,13)	(0,10)	(0,10)
15	-	-	-	-	-	-	-	-	-
	0,58*	0,50*	0,68*	0,50*	0,40*	0,46*	0,45*	0,42*	0,46**
	**	**	**	**	**	**	**	**	*
16	(0,05)	(0,06)	(0,07)	(0,09)	(0,07)	(0,10)	(0,11)	(0,08)	(0,08)
	-	-	-	-	-	-	-	-	-
	0,62*	0,45*	0,60*	0,30*	0,23*	0,40*	0,42*	0,34*	0,34**
17	**	**	**	**	**	**	**	**	*
	(0,05)	(0,07)	(0,07)	(0,10)	(0,08)	(0,11)	(0,12)	(0,09)	(0,08)
	-	-	-	-	-	-	-	-	-
18	0,49*	0,42*	0,56*	0,40*	0,22*	0,36*	0,40*	0,28*	0,38**
	**	**	**	**	**	**	**	**	*
	(0,05)	(0,06)	(0,07)	(0,09)	(0,07)	(0,10)	(0,12)	(0,08)	(0,08)
19	-	-	-	-	-	-0,15	-0,22*	-	-
	0,35*	0,40*	0,28*	0,25*	0,18*	(0,11)	(0,12)	0,26*	0,27**
	**	**	**	**	*			**	*
20	(0,06)	(0,07)	(0,07)	(0,10)	(0,08)			(0,09)	(0,09)
	-	-	-	0,02	-	-	-	-	-
	0,33*	0,25*	0,32*	(0,10)	0,28*	0,31*	0,35*	0,33*	0,32**
21	**	**	**		**	**	**	**	*
	(0,06)	(0,07)	(0,07)		(0,08)	(0,11)	(0,13)	(0,10)	(0,10)
	-	-	-	-	-0,13*	-0,18	-	-	-
22	0,29*	0,21*	0,24*	0,33*	(0,08)	(0,11)	0,25*	0,26*	0,21**
	**	**	**	**			*	**	(0,09)
	(0,05)	(0,07)	(0,07)	(0,10)			(0,12)	(0,09)	
23	0,05	0,19*	-	0,12	-0,15*	-0,00	0,11	0,09	0,11
	(0,07)	*	0,48*	(0,10)	(0,09)	(0,14)	(0,14)	(0,10)	(0,11)
		(0,08)	**						
24	-	-	-	-	-	-0,17	-	-	-
	0,24*	0,24*	0,31*	0,21*	0,28*	(0,11)	0,40*	0,29*	0,20**
	**	**	**	*	**		**	**	(0,09)
25	(0,05)	(0,07)	(0,07)	(0,10)	(0,08)		(0,12)	(0,09)	
	-	-	-	-	-0,00	-0,17*	-	-0,13	-0,13

		0,27* ** (0,05)	0,17* ** (0,06)	0,23* ** (0,07)	0,39* ** (0,09)	(0,07)	(0,10)	0,25* * (0,12)	(0,08)	(0,08)
24		- 0,49* ** (0,06)	- 0,44* ** (0,07)	- 0,51* ** (0,07)	- 0,44* ** (0,09)	- 0,30* ** (0,08)	- 0,26* * (0,11)	- 0,45* ** (0,12)	- 0,33* ** (0,09)	- 0,28** * (0,09)
25		- 0,29* ** (0,05)	- 0,22* ** (0,06)	- 0,35* ** (0,07)	- 0,25* ** (0,09)	-0,11 (0,07)	-0,15 (0,10)	-0,21* (0,11)	- 0,24* ** (0,08)	- 0,25** * (0,08)
26		-0,09 (0,06)	-0,12 (0,07)	- 0,28* ** (0,08)	-0,09 (0,11)	-0,08 (0,09)	-0,16 (0,13)	-0,15 (0,13)	-0,20* (0,11)	- 0,22** (0,10)
27		- 0,20* ** (0,05)	- 0,17* * (0,07)	- 0,32* ** (0,07)	- 0,23* * (0,09)	- 0,15* * (0,08)	-0,17 (0,11)	-0,11 (0,12)	-0,12 (0,09)	- 0,18** (0,09)
28		- 0,31* ** (0,05)	- 0,26* ** (0,07)	- 0,47* ** (0,07)	- 0,23* * (0,10)	- 0,16* * (0,08)	- 0,27* * (0,11)	- 0,25* * (0,12)	- 0,30* ** (0,09)	- 0,20** (0,08)
29		-0,07 (0,06)	0,04 (0,07)	- 0,30* ** (0,08)	- 0,34* ** (0,10)	-0,10 (0,08)	-0,17 (0,11)	-0,17 (0,13)	- 0,32* ** (0,11)	-0,19* (0,11)
30		- 0,16* ** (0,05)	-0,09 (0,06)	- 0,19* ** (0,07)	-0,12 (0,09)	-0,03 (0,08)	-0,10 (0,10)	-0,15 (0,12)	-0,12 (0,08)	-0,07 (0,08)
31		- 0,30* ** (0,05)	- 0,48* ** (0,06)	- 0,56* ** (0,07)	- 0,86* ** (0,09)	- 0,41* ** (0,07)	- 0,47* ** (0,10)	- 0,46* ** (0,11)	- 0,51* ** (0,08)	- 0,55** * (0,08)
32		- 0,51* ** (0,07)	- 0,31* ** (0,07)	- 0,34* ** (0,08)	- 0,45* ** (0,10)	- 0,23* * (0,09)	-0,10 (0,12)	- 0,30* * (0,14)	- 0,49* ** (0,10)	- 0,42** * (0,09)
N		3371	3134	3182	2986	2798	1434	1327	1045	1009
Adjusted R ² (%)		44,85	46,88	44,42	56,95	51,90	47,70	44,94	48,83	50,63

Source: author's estimates based on LFS and COMEXT data.

Notes: *** denotes significance at 1 level, ** at 5 and * at 10 percent.
NACE codes refer to the manufacture of: 10 - food products; 11 – beverages; 12 – tobacco products; 13 – textiles; 14 – wearing apparel; 15 – leather and related products; 16 – wood and products of wood and cork, except furniture; 17 – paper and paper products; 18 – printing and

reproduction of recorded media; 20 – chemicals and chemical products; 21 – basic pharmaceutical products; 22 – rubber and plastic products; 23 – other non-metallic mineral products; 24 – basic metals; 25 – fabricated metal products, except machinery and equipment; 26 – computer, electronic and optical products; 27 – electrical equipment; 28 – machinery and equipment n.e.c.; 29 – motor vehicles, trailers and semi-trailers; 30 – other transport equipment; 31 – furniture; 32 – other manufacturing.

To further elaborate the issue of trade pressures on the wages, we have explicitly included marginal intra-industry trade estimated on the level of NACE2 activity into the equation. Controlling for individual labour market indicators (education, age, gender, occupation and living area), we focus on the relationship between intra-industry trade and wages. Specifically, we analyse whether the industries in which the intra-industry trade with European Union have on average higher or lower wages. The results for the analysed period are presented in following Table 2. All of the estimated coefficients from the wage equations are not presented in order to save space, but could be available from the author upon request.

Table 2 Estimated MIIT coefficients in wage equations

Year	Estimated coefficient(standard error)	N	Adjusted R ² (%)
2004	-0,19*** (0,06)	3371	34,57
2005	-0,35*** (0,07)	3134	37,73
2006	-0,80*** (0,06)	3182	36,08
2007	-0,81*** (0,09)	2986	45,84
2008	-0,41*** (0,07)	2798	45,35
2009	-0,29*** (0,09)	1434	41,48
2010	-0,14* (0,07)	1327	38,91
2011	-0,81*** (0,12)	1045	43,41
2012	0,08 (0,10)	1009	40,79

Source: author's estimates based on LFS and COMEXT data.

As the results of the estimation show, until 2011 the higher marginal intra-industry trade in the activity was associated with significantly lower wages. This means that the more industry actively tried to integrate into the European market by trading products of similar value, the lower average wage it was able to offer to its workers. The accession

period in Croatian industry was consequently associated with increased pressures on its workforce in tradable sector.

6. CONCLUSIONS

The paper has addressed the issue of industry wage premium and trade pressures on wages in Croatian manufacturing sector. The estimates have revealed that within manufacturing sector there is an industry wage premium, which remains for some industries active throughout the period. Specifically, relative to the economic activity that virtually had no trade with EU-15 during the 2004-2012 period, all other activities had negative wage premiums. In case of labour intensive activities, those negative wage premiums were consistently significant.

To further investigate the issue, wage equation has been re-specified in order to explicitly include the marginal intra-industry trade with EU-15. The analysis has confirmed that the higher the marginal intra-industry trade in specific economic activity, the lower the relative wage of the workers in that industry. This implies that the more specific industry is integrated in the common EU market, the more it tries to compete with relatively cheaper labour force.

The analysis presented in the paper points to the conclusion that there is an additional tradable vs. non-tradable wage policy issue within the manufacturing sector itself. It has been frequently emphasized that this Dutch disease has important consequences for the overall Croatian competitiveness position. However, previous analysis in the literature did not go beyond the public-private gap or the manufacturing-services gap. The analysis in this paper implies that the effects are possibly even deeper.

The notion that there are industry wage premiums is of particular importance for Croatian labour market policy. It has been frequently emphasized that the labour market in Croatia is rather rigid and suffering from low occupational and any sort of mobility. This implies that workers “stuck” in low-wage industry are most likely to have less prospects to move to other industries. Without increased mobility, however, there are even less chances for decreasing wage premiums in the future.

REFERENCES

- Abd-el-Rahman, K. (1991), *Firms' competitive and national comparative advantages as joint determinants of trade composition*, Weltwirtschaftliches Archiv, Vol. 127, No. 1, 83–97.
- Andersson, L., Gustafsson, O. and Lundberg, L. (2000) *Structural Change, Competition and Job turnover in the Swedish Manufacturing Industry 1964-96*, Review of International Economics, Vol. 8, 566-582.
- Azhar, A.K.M. and Elliott, R.J.R. (2008), *On the Measurement of Changes in Product Quality in Marginal Intra-Industry Trade*, Weltwirtschaftliches Archiv, Vol. 144, No. 2, 225-247.
- Brühlhart, M. (1994), *Marginal intra-industry trade: measurement and relevance for the pattern of industrial adjustment*, Weltwirtschaftliches Archiv, 130(3): 600–613.
- Brühlhart, M. (2000), *Dynamics of Intra-Industry Trade and Labour-Market Adjustment*, Review of International Economics, Vol. 8, 420-435.
- Brühlhart, M. and Elliott, R.J.R. (1998), *Adjustment to European single market: inferences from intra-industry trade patterns*, Journal of Economic Studies, Vol. 25, 225-247.
- Brühlhart, M. and Elliott, R.J.R. (2002), *Labour-Market Effects of Intra-Industry Trade: Evidence for the United Kingdom*, Weltwirtschaftliches Archiv, Vol. 138, No. 2, 207-228.
- Brühlhart, M., Elliott, R.J.R. and Lindley, J. (2006), *Intra-Industry Trade and Labour-Market Adjustment: A Reassessment Using Data on Individual Workers*, Review of World Economics, Vol. 142, No. 3, 521-545.
- Botrić, V. (2012), *Mehanizmi prilagodbe hrvatske prerađivačke industrije: analiza s aspekta tržišta rada*, Ekonomski vjesnik, Vol. 25, No.1, 121-132.

Davis, D. R. and Harrigan, J. (2011), *Good Jobs, Bad Jobs, and Trade Liberalisation*, Journal of International Economics, Vol. 84, 26 – 36.

Drinkwater, S. and Robinson, C. (2011), *Welfare Participation by Immigrants in the UK*, IZA Discussion Paper Series No. 6144.

Fontagné, L. and Freudenberg, M. (1997), *Intra-industry trade: methodological issues reconsidered*, CEPII Working Paper, No. 97-01, January, Paris: CEPII.

Freudenberg, M. and Lemoine, F. (1999), *Central and Eastern European Countries in the International Division of Labour in Europe*, CEPII Working Paper, No. 99-05, April, Paris: CEPII.

Greenaway, D., Hine, R., Milner, C. And Wright P. (1999), *An Empirical Assessment on the Impact of Trade on Employment in the United Kingdom*, European Journal of Political Economy, Vol. 15, 485-500.

Helpman, E. and Krugman, P.R. (1985) *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition, and the International Economy*, Cambridge MA: MIT Press.

Krugman, P. R. (1981), *Intra-industry Specialization and the Gains from Trade*, Journal of Political Economy, Vol. 89, No. 5, 959 – 973.

Krugman, P. (2008), *Trade and wages, reconsidered*, Brookings Papers on Economic Activity, No.1, 103-154.

Melitz, M. J. (2003), *The Impact of Trade on Intra-industry Reallocations and Aggregate Industry Productivity*, Econometrica, Vol.71, No. 6, 1695 – 1725.

Nestić, D. (2010), *The Gender Wage Gap in Croatia – Estimating the Impact of Differing Rewards by Means of Counterfactual Distribution*, Croatian economic survey, Vol. 12, No.1, 83-119.

CHAPTER 48

Darja Peljhan

University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia

Katja Zajc Kejžar

University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia

Nina Ponikvar

University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia

EFA BASED MEASURE OF CREDIT CONSTRAINTS

ABSTRACT

We propose a more general measure of financial constraints compared to single indices of financial constraints that can be found in the literature. Accordingly we release the limitation of the number of aspects considered and by employing the exploratory factor analysis. Originally we consider 38 measures of firm financial and economic performance as variables and with the application of EFA derive the following three factors forming our financial constraint measure: (1) (operational) efficiency factor, consisting of revenue to cost ratio, sales revenue to COGS ratio, and cash flow to cost ratio (2) liquidity factor, consisting of the current ratio, quick ratio, debt to assets ratio, and debt to equity ratio;; and (3) profitability factor consisting of ROA and cash flow to assets ratio. The empirical analysis is based on the population of Slovenian firms in the 2006-2012 period.

Keywords: financial constraints, EFA, liquidity, efficiency, profitability

JEL classification: C38, L25, C30

1. INTRODUCTION

The recent economic crisis and the related credit crunch in financial markets have brought back the studying financial constraints of firms and the consequences of the deteriorated availability of financial means to firms, induced by the economic crisis. Although the theoretical definition of financial constraints of firms is quite straightforward, the

financial constraints are difficult to observe in practise. Namely, financial constraints cannot be directly observable from the firm data and are mostly considered as a perception some latent characteristic.

Accordingly, in the past empirical research the approach in the definition and measuring the financial constraints has been dual. On the one hand, to avoid the need for definition of financial constraints, several empirical studies are based on surveys and measure the perception of financial constraints of the representatives of firms (e.g. Artola and Genre, 2011; Kumar and Francisco, 2005; overview in Musso and Schiavo, 2008). On the other hand, the majority of empirical analysis of financial constraints define the financial constraints according to one or more segmenting variables and form groups of firms based on the value of this segmenting variable. The applied segmenting variables in empirical studies are firm's dividend policy, size, age, conglomerate membership, concentration of ownership etc. (see Musso and Schiavo, 2008 for a comprehensive overview). The main deficiency of such studies is that they do not allow a time variability component in the definition of financial constraints. Further, in some cases (e.g. firm dividend policy) even the population of firms that can be studied is restricted. To release these weaknesses, Musso and Schiavo (2008) and Bellone et al. (2010) modify the definition of financial constraints by using a measure in a form of a synthetic index. This index is constituted of different measures of firm's financial condition, such as firm's size, profitability, cash flow generating ability, firm's solvency, share of trade credit, and ability of repaying debt. By using multiple features of financial constraints this measure of firm's financial acknowledges and captures different degrees of financial constraints (Silva, 2011).

Still, the described definition of financial constraints of firms limits the aspects covered by the index. Namely, the measures of firm's financial health are selected arbitrarily and all linked into a single index, although the concept of financial constraints might have different dimensions. The aim of this paper is thus to propose a more general measure of financial constraints by freeing the limitation of the number of aspects considered. To do that, we employ the exploratory factor analysis (EFA, Fabrigar and Wegener, 2012), which allows for less arbitrariness in the selection of the economic and financial characteristics that enter the analysis as a building bricks of the financial constraints measure. Simultaneously, EFA permits the examination of correlations between observed

variables, present due to the relationship of observations to underlying latent variables termed the common factors (Everitt, 2002). As such, there are fewer significant factors than variables.

The structure of our paper is as follows. In the next section we review the theoretical aspects of the existence of financial constraints. In section 3 we first provide a short overview of the existing empirical approaches in measuring financial constraints, followed by the description of dataset on which our analysis is based, the process of EFA and finally the results. In section 4 we discuss the results and emphasise new features of financial constraints that can be obtained by using EFA.

2. THEORETICAL LITERATURE REVIEW

Theoretically, the neoclassical school of economics suggest that a firm's ability to obtain financial funds to conduct business and grow is autonomous of its current financial condition such as internal liquidity, indebtedness or dividend payments (Hall and Jorgenson, 1967; Modigliani and Miller, 1958). This is due to the assumption of perfect information, available to all capital market participants. Consequently, the access to capital markets is equally possible for all firms and all chosen investment project can find financial sources. Firms' responses to changes in the cost of capital or tax-based investment incentives differ only due to differences in investment demand.

Yet, in practise, where economic subjects do not behave according to some theoretical presumptions, the conditions of access to financial funds in capital markets is not general and the same for all firms. There is a large variety of theories and empiricism behind it that investigates the factors that determine the accessibility of finance for firms. They are based either on the notion of the asymmetry of information, the agency problem, transaction costs, the cost of financial distress, the pecking order theory or the tax effects. But they mostly agree that the availability of internal funds to the firm is related to an advantage in accessibility of external funds. This idea is usually called a financing hierarchy (Fazzari et.al, 1988).

Most commonly, the asymmetry of information, i.e. the "lemon problem" between the firm's managers and outside suppliers of finance about the quality of the firm's investment project and the behaviour of

its managers is supposed to be behind the financially constrained firms observed in practise (e.g. Fazzari et.al, 1988, see also review in Coad, 2010), while another, the most old dated and very obvious financial hierarchy reason is the notion of the transaction costs, related to issuing debt and/or equity, including compensation for the dealer placing the issue, registration fees, legal, accounting printing costs, taxes. Due to asymmetric information, the firm's owners or managers as their representatives, have some room to follow their own interests at the cost of the firm's other stakeholders, especially debt holders, which is usually referred to as the agency problems (Jensen and Meckling, 1976). The agency problem becomes more severe in more leveraged firms. Accordingly, creditors protect themselves by imposing restrictions and monitoring of the actions of the firms' management, which is usually called the agency costs of debt. Keynes (1936) called a similar occurrence the 'lender's risk'. Further, lenders require higher interest rates for lending to more leveraged firms due to the increasing risk of default (Fazzari, Hubbard and Petersen, 1988). Empirical studies give strong evidence of information asymmetries being an important source of the financing hierarchy (e.g. Athey and Reeser, 2000; Levine, 1997; Van Ees et.al. 1997; Oliner and Rudebusch, 1992 and Bond and Meghir, 1994) while it has been show that most narrowly defined transaction costs in terms of dealer provisions, fees, physical costs and taxes do not explain the hierarchy of finance well (Oliner and Rudebusch, 1992).

Myers and Majluf (1984) established another explanation of the financial hierarchy by integrating the transaction costs theory and the asymmetry of information model. They have shown that firms' capital structure follows the so called pecking order theory if they rather use internal than external financing and – in case they use external financing – they rather use debt than equity financing. Moreover, Petersen and Schulman (1987, in Hussain et.al, 2006) claim in the case of small firms, their owners who are at the same time also firm's managers, rather choose not to invest than to release the control of the firm.

More heterodox economic schools provide alternative explanation of the same phenomenon based in the firms' unstoppable pursuit for growth until financial conditions prevents them from growing further and the survival of the fittest (Coad, 2010).

3. MEASURING FINANCIAL CONSTRAINTS BY EFA

We have shown that although the theory of financial constraints is quite upfront, the mere practical definition of financial constraint is difficult because the financial constraints as a latent variable cannot be directly observed in practise. Accordingly, several attempts of applications of proxies can be found in the literature.

On the one hand, several microeconomic studies use survey data, where firms and individuals provide their perception on financial constraints (e.g. Artola and Genre, 2011; Kumar and Francisco, 2005; overview in Musso and Schiavo, 2008) and are thus based on self-assessment together with all its disadvantages. The other empirical approach to detect financial constraints is based on segmentation of firms into groups based on one or more different criteria, such as dividend policy, size, age, and membership in a group of conglomerate, existence of bond rating or concentration of ownership (e.g. Fazzari et.al, 1988; see Musso and Schiavo, 2008, for a comprehensive overview of these studies). One of the main weaknesses of these studies is first its time invariance, second the usage of a single indicator of financial constraints and third, when dividend policy is concerned, the analysis is restricted to quoted firms, which are usually also larger and more mature and by default less financially constrained firms. A substantial improvement of the financial constraints measurement was proposed by Kaplan and Zingales (1997), who used a multivariate index based on five variables, whereby these five variables are weighted using regression coefficients and collapsed into a single indicator. Similar methodology of financial constraints measurement was offered also by Musso and Schiavo (2008) and extended by Bellone et.al (2010), who constructed a synthetic index from seven dimensions of financial status of the firm, i.e. firm size, its profitability, liquidity, cash flow generating ability, firm's solvency, share of trade credit, and ability of repaying debt to measure the firm's financial health based multiple features of financial constraints and to capture different degrees of financial constraints (Silva, 2011).

As we explained, our methodological approach releases restriction of the number of aspects considered and employ the exploratory factor analysis (EFA, Fabrigar and Wegener, 2012) for less arbitrariness in the selection of the economic and financial characteristics that enter the analysis. At

the same time this methodological approach enables us to reduce the number of the considered dimensions of the latent variable, i.e. financial constraints.

3.1. Data

The data source for the EFA is the data from financial statements of Slovenian firms, collected by the Slovenian Agency for Public Legal Records and Related Services (APLR). Because for Slovenian firms the reporting the data from financial statements is mandatory, the database covers the whole population of firms registered in Slovenia. Our analysis is based on the financial statements of Slovenian firms in the 2006-2012 period and includes 347,676 observations for 71,771 different firms.

3.2. EFA procedure

In our factor analysis, we do not impose any constraints to models. We also do not hypothesise any models for confirmation. That is why EFA model is used instead of the confirmatory factor analysis. Because our aim is to form a measure of financial constraints, we use EFA to unveil this financial constraint measure without restrictions to the list of possible items and the number of factors, i.e. dimensions. As said, we do not hypothesise a model; hence we do not specify the factors to be uncorrelated and given the fact that we are examining financial constraints factors, they are likely to have some correlation.

For a start we formed a list of 38 different aspects of firm's financial or economic status, represented in Table 1. These aspects were defined in a form of various financial ratio, covering different firm's economic and financial characteristics.

Table 1 List of 38 items entering the EFA

No.	Performance indicator	Financial or economic characteristics of the firm
1.	ROA – Net Income to Assets ratio	Profitability
2.	ROE – Net Income to Equity ratio	
3.	ROS – Net Income to Total Revenues Ratio	
4.	EBIT	

5.	ROA1 – EBIT to Assets ratio	
6.	ROE1 – EBIT to Equity ratio	
7.	ROS1 – EBIT to Sales Revenues ratio	
8.	ROA2 – (Net Income plus Interest Expense) to Assets ratio	
9.	ROE2 – (Net Income plus Interest Expense) to Equity ratio	
10.	ROS2 – (Net Income plus Interest Expense) to Total Revenues ratio	
11.	ROA3 – (Net Income plus Depreciation) to Assets ratio	
12.	ROE3 – (Net Income plus Depreciation) to Equity ratio	
13.	ROS3 – (Net Income plus Depreciation) to Total Revenues ratio=Net Cash Flow to Total Revenues	
14.	ROA4 – (Net Income plus Depreciation plus Interest Expense) to Assets ratio	
15.	ROE4 – (Net Income plus Depreciation plus Interest Expense) to Equity ratio	
16.	ROS4 – (Net Income plus Depreciation plus Interest Expense) to Total Revenues ratio	
17.	Current ratio – Current Assets to Current Liabilities ratio	
18.	Quick ratio – (Current Assets minus Inventories) to Current Liabilities ratio	
19.	Cash ratio – Total Cash and Cash Equivalents to Current Liabilities ratio	
20.	Working capital turnover – Sales Revenues to Working capital ratio	Liquidity
21.	Net Cash Flow - Net Income plus Depreciation	
22.	Net Cash Flow to Cost ratio	
23.	Operating Cash flow (EBIT plus Depreciation) to Sales Revenues ratio	
24.	Debt to Assets ratio	
25.	Long-term liabilities to Long-term assets ratio	
26.	Own funds to Assets ratio	Solvency
27.	Financial leverage – Debt to Equity ratio	
28.	Asset turnover ratio (Revenues to Assets ratio)	
29.	Current assets turnover (Sales Revenues to Current Assets ratio)	
30.	Accounts Receivables turnover (Net Credit Sales to Accounts Receivables ratio)	Turnover ratios
31.	Inventories turnover (Sales Revenues to Inventories ratio)	
32.	Accounts Payables turnover ratio (COGS to Accounts Payables ratio)	
33.	Financial debt to Net cash flow ratio	
34.	Times Interest Earned (TIE) – EBIT to Interest expense ratio	Repaying ability
35.	Sales Revenues per employee	
36.	Total Revenues to Total Cost ratio	
37.	Sales Revenues to COGS ratio	Efficiency
38.	Financial Revenues to Financial Expenses ratio	

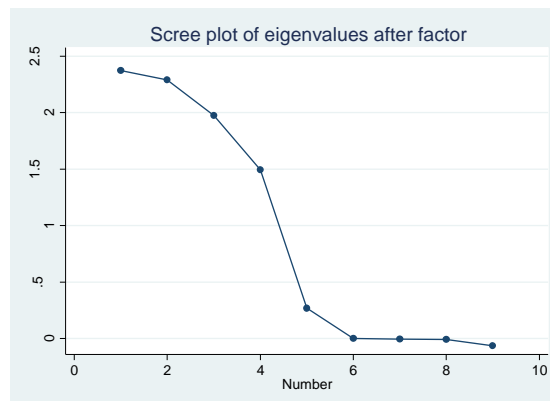
A factor analysis with oblique promax rotation was performed on 41 items from Table 1 based on data from 347,676 observed firms in the

2006-2012 period. In this case, the oblique rotation represents EFA more precisely than orthogonal rotation methods as it demonstrates greater flexibility in searching out patterns regardless of their correlation (Rummel, 1970). The data met Kaiser-Meyer-Olkin measure of sampling adequacy ($KMO = 0.5$; see Delen et al. 2013 and Kaiser, 1974). The chi-square value of Bartlett's test indicated 7.59×10^6 , which was statistically significant at $p = 0.000$ level. Both these results show that the sample can be subjected to factor analysis to identify the underlying patterns of financial constraints.

To determine the number of factors and their items, we used the following criteria. First, a factor had to have an eigenvalue equal to or greater than 1.0, meaning that a factor is not extracted unless it explains significantly the variance of at least one variable (Kaiser, 1960, 1974). Second, an item had to have a factor loading equal to or greater than 0.40 in absolute terms (Nunnally and Bernstein, 1994). And third, an identified factor and retained items had to be interpretable in the theoretical context.

Additionally, we use the scree plot test (Cattell, 1966), presented in Figure 1, to make a determination on the number of the extracted factors easier. According to Figure, 4 factor model is appropriate for estimating the latent variable of financial constraint.

Figure 1 The scree plot of eigenvalues



3.3. EFA results

As mentioned above, the applied tests of our EFA model recommended a four factor model to be used, with each factor representing one dimension of financial constraints. This four factor model suggested the following dimensions of financial constraints.

Factor 1, which we named the *Operational Efficiency*, is most significant among all four factors, explaining 28.51% of the total variance. It includes the following items: Total revenue to total cost ratio, Net cash flow to cost ratio, and Sales revenues to COGS. The loaded variables are all positive, having factor loadings values of 0.9748, 0.9936, and 0.6594, respectively. All these three ratios are linked to the ability of a firm to perform its operations efficiently while generating revenues. Consequently, these three ratios are related to the risk of economic distress.

Factor 2 is called *Solvency* includes two ratios: Debt to assets ratio (inverted) and Debt to equity ratio (inverted). This factor explains 25.49% of the total variance. Both ratios are loaded positively, having high factor loadings values of 0.9995 and 0.9995, respectively. This factor is related to the ability of a company to meet its long-term financial obligations, and, eventually, the risk of financial distress.

Profitability represents Factor 3, explaining 23.74% of the total variance. It had a high positive loading of ROA (0.9938) and a high positive loading of Net Cash flow to assets ratio (0.9938). These ratios provided information regarding the firm profitability. Low profitability is the sign of economic distress.

Factor 4 is related to firm's *Liquidity* as it includes two measures of liquidity, i.e. Current ratio and Quick ratio, together explaining 21.27% of the total variance. The Current ratio has got a high positive factor loading with a 0.8953 value. The Quick ratio has got a high positive factor loading with a 0.9486 value. This factor predicts the ability of a firm to pay a short-term debt and is therefore an indicator of the risk of financial distress.

Because we aimed at parsimonious model without substantial cross loadings amongst factors. However, in the four factor model, the

liquidity items, i.e. Current ratio and Quick ratio from Factor 4 exhibit cross-loadings with the ‘Solvency’ Factor 2. (0.2131 and -0.1286 respectively). Accordingly, we decided to test a three factor model. The results of the rotated pattern matrix from promax rotation of the model, where the number of factors was restricted to only three, are shown in Table 2.

Our analysis revealed the following three factors without cross-loadings. Factor 1, called *Operational efficiency*, is based on three items: Revenue to cost ratio, Net cash flow to cost ratio, and Sales revenues to COGS ratio, Factor 2, named *Liquidity* (short term and long term), is defined in terms of four ratios: Debt to assets ratio, Debt to equity ratio, Current ratio, and Quick ratio; and Factor 3, which we call *Profitability*, is established based on two different measures, i.e. ROA and Net Cash flow to assets ratio.

Because both the liquidity and the solvency (Factors 4 and 2) from the four factor model represent an indicators of a similar dimension of financial constraints, we decided to restrict our model to three factors and thus linking these two aspects of financial health under one factor in EFA, representing short and long term liquidity view. In total, nine items remained from the original 38 items, and eight remaining items had factor loadings of greater than 0.66, only one item (Quick ratio) had factor loading of 0.45 (see Table 3).

Table 2 Three factor model EFA for financial constraints (n = 347,676)

Items (9)	Factor loadings		
	1	2	3
Factor 1. Operational efficiency			
Total revenue to total cost ratio	0.9936		
Net cash flow to cost ratio	0.9748		
Sales revenues to COGS ratio	0.6594		
Factor 2. Liquidity			
Debt to assets ratio (inverted)		0.8893	
Debt to equity ratio (inverted)		0.8893	
Current ratio		0.7163	
Quick ratio		0.4450	
Factor 3. Profitability			
ROA			0.9938
Net Cash flow to assets ratio			0.9938
Variance explained (%)	28.51	27.56	23.74
Reliability coefficient	0.8828	0.7539	0.9958

KMO = 0.50 ($\chi^2 = 7.59 \times 10^6$, $p < 0.001$), Total variance explained = 80%.

Note: COGS = cost of goods sold

The three factors derived from the EFA accounted for 80% of the variance in scores. The derived factors are consistent with the theoretical dimensions suggested by previous researchers (see Musso and Schiavo, 2008 and Bellone et.al, 2010), adding the operational efficiency as the important indicator of financial constraints.

4. DISCUSSION

Based on our three factor EFA model we can argue that financial constraints, which are in practise unobservable and methodologically thus a so called latent variable, are composed of three different dimensions of firms performance. The dimensions that affect firm's ability to acquire finance are firm's operational efficiency, its liquidity and its profitability. These three dimensions are however related to different aspects of firm's performance.

Namely, operational efficiency is related to the ability of a firm to perform its operations efficiently while generating revenues and is thus

an indicator of the risk of the debt holders that is related to the possibility of the firm's economic distress. Liquidity is related to the ability of a company to meet its long-term financial obligations, and is this connected to the risk of firm's financial distress. And finally, profitability is the overall sign of economic condition and the value of the firm. Accordingly, the potential creditors may link it to the risk of firm's economics distress.

As the literature suggest, economically distressed firm are not necessarily financially distressed as well, and vice versa. Firms in financial distress may have positive operating performance and be economically viable, but high leverage levels may lead to difficulties in repaying debts (Balcaen et.al, 2012; Lemmon et.al, 2009). On the other hand, firms facing economic distress have questionable going concern value due to low or negative current operating profitability and little opportunity to recover (Balcaen et.al, 2012; Lemmon et.al, 2009). Further, economically distressed firm may have zero debt, while a highly profitable firm (e.g. fast-growing firms) may fall into financial distress if it stretches itself too much (Jiang and Wang, 2009). Firms in financial distress may survive after restructuring their balance sheet, while recovery of economically distressed firms needs a restructuring of their operations and strategy as well (Balcaen et.al, 2012; Lemmon et.al, 2009; Platt and Platt, 2006). That means that by not including both facets of the forms of firm distress we cannot comprehensively define financial constraints of the firm.

We trust that the contributions of the presented analysis is twofold. First, we introduce a new EFA based measure of financial constraints, which is relaxed in the numbers of aspects considered in the number dimensions, which form the financial constraints measure. Second, we show that using a single index measurement of financial constraints leaves out crucial information related to the nature of constraints. Namely, it does not allow to differentiate between financially and economically distressed firms. Consequently, it does not describe sufficiently the risks faced by debt holders or potential creditors. That is why we argue our measure to be superior to single index measures.

The next step in our research is to apply the presented EFA measure in a model of firm performance (e.g. growth or survival) to test its

appropriateness for studying the impact of financial constraints on firm and industry dynamics.

REFERENCES

Artola, C. and Genre V. (2011), *Euro Area SMEs under Financial Constraints: Belief or Reality?*, CESifo Working Paper no. 3650.

Athey, M. J. and Reeser, W. D. (2000), *Asymmetric Information, Industrial Policy and Corporate Investment in India*, Oxford Bulletin of Economics and Statistics, Vol. 62 (2), 267-292.

Balcaen, S., Manigart, S., Buyze, J., and Oghe, H. (2012), *Firm Exit after Distress: Differentiating between Bankruptcy, Voluntary Liquidation and M andA*, Small Business Economics, 39, 949–975.

Bellone, F., Musso, P., Nesta, L., and Schiavo, S. (2010), *Financial Constraints and Firm Export Behaviour*. The World Economy, Vol. 33 (3), 347–373.

Bond, S. and Meghir C. (1994), *Dynamic Investment Models and the Firm's Financial Policy*, Review of Economic Studies, Vol. 61 (2), 197-222.

Cattell, R. B. (1966), *The scree test for the number of factors*, Multivariate Behavioral Research, Vol. 1, 245-276.

Coad, A. (2010), *Neoclassical vs. Evolutionary Theories of Financial constraints: Critique and Prospectus*, Structural Change and Economic Dynamics, Vol. 21, p. 206-218

Delen, D., et al. (2013), *Measuring firm performance using financial ratios: A decision tree approach*. Expert Systems with Applications, <http://dx.doi.org/10.1016/j.eswa.2013.01.012>.

Everitt, B. S.(2002), *The Cambridge Dictionary of Statistics*, 2nd ed. Cambridge: Cambridge University Press.

Fabrigar, L.R., and Wegener, D.T. (2012), *Exploratory Factor Analysis*. New York: Oxford University Press.

Fazzari, S. M., Hubbard, G. R. and Petersen, B. C. (1988), *Financing Constraints and Corporate Investment*, Brooking Papers on Economic Activity, Vol. 1, 141-206.

Hall, R. E. and Jorgenson, D. W. (1967). *Tax Policy and Investment Behaviour*, American Economic Review, Vol. 57 (3), 391-414.

Hussain, J., Millman, C. and Matlay, H. (2006), *SME Financing in the UK and China: A Comparative Perspective*”, Journal of Small Business and Enterprise Development, Vol. 13 (4), 584-599.

Jensen, M. C. and Meckling, W. H. (1976). *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, Journal of Financial Economics, Vol. 3 (4), 305-360.

Jiang, K., and Wang, S. (2009), Firms in Economic Distress: Survival Strategies and Economic Factors. Available at SSRN: <http://ssrn.com/abstract=1465181> or <http://dx.doi.org/10.2139/ssrn.1465181>

Kaiser, H. F. (1960), *The application of electronic computers to factor analysis*, Educational and psychological measurement, 20, 141–151.

Kaplan S. N. and Zingales L. (1997), *Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints?*, Quarterly Journal of Economics, Vol. 112 (1), 169-215.

Keynes, J. M. (1936), *The General Theory of Employment, Interest and Money*, Macmillan, London.

Kumar, A. and Francisco M. (2005), *Enterprise Size, Financing Patterns, and Credit Constraints in Brazil: Analysis of Data from the Investment Climate Assessment Survey*, World Bank Working Paper no. 49.

Lemmon, M., Ma, Y. Y., and Tashjian, E. (2009), *Survival of the fittest? Financial and economic distress and restructuring decisions in Chapter 11*. Paper presented at the Third Singapore Conference on Finance, Singapore.

Levine, R. (1997). *Financial Development and Economic Growth: Views and Agenda*, Journal of Economic Literature, Vol. 35 (2), 688-726.

Modigliani, F. and Miller, M. H. (1985), *The Cost of Capital, Corporate Finance and the Theory of Investment*, American Economic Review, Vol. 48 (3), 261-297.

Musso, P., and Schiavo, S. (2008), *The Impact of Financial Constraints on Firm Survival and Growth*, Journal of Evolutionary Economics, Vol. 18, 135-149.

Myers, S. C. and Majluf N. S. (1984), *Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have*, Journal of Financial Economics, Vol. 13, 187-221.

Nunnally, J. C., and Bernstein, I. H. (1994), *Psychometric theory* (3rd ed.). New York: McGraw-Hill.

Oliner, S. D. and Rudebusch, G. D. (1992), *Sources of the Financing Hierarchy for Business Investment*, Review of Economics and Statistics, Vol. 74 (4), 643-654.

Petersen, R. and Schulman, J. (1987), *Entrepreneur and banking in Canada*", Journal of Small Business and Entrepreneurship, Vol. 4 (2), 68-74.

Platt, H. D., and Platt, M. B. (2006). *Comparing financial distress and bankruptcy*. Working paper, Northeastern University.

Rummel, R. J. (1970), *Applied factor analysis*. Evanston: Northwestern University Press.

Silva, A. (2011), *Financial Constraints and Exports: Evidence from Portuguese Manufacturing Firms*, International Journal of Economics Sciences and Applied Research, Vol.3, 7-19.

Van Ees, H., Kuper, G. H. and Sterken, E. (1997), *Investment, Finance and the Business Cycle: Evidence from the Dutch Manufacturing Sector*, Cambridge Journal of Economics, Vol. 21 (3), 395-407.

PART VIII
WORKSHOP
for Doctoral Students of Central and
South-East European PhD Network
(CESEENET)

CHAPTER 49

Bogdan Copcea

West University of Timisoara, Faculty of Economics and Business
Administration, Timisoara, Romania

INTEGRATION AND INEQUALITIES IN THE EASTERN EUROPEAN COUNTRIES

ABSTRACT

Within the European Union, regional economic performance and economic development respect the principles of the core-periphery model, with core-countries in Northern and Western Europe and periphery-countries as the Southern and Eastern European states. Thus, although treaties and cohesion policies promote balanced development throughout the European Union, it continues to be a divided entity. Despite the efforts of both public institutions at both the national and EU level, and the private sector, inequality still persists and in some cases is increasing. In analyzing the causes of these perpetuating disparities and especially in shaping solutions to ensure balanced development throughout Europe, one should take into account that when joining the European Union, its Member States should be treated as regions of a supranational organization. Hence, it follows that development and growth programs, as well as the allocation of cohesion funds must consider the dissimilar socio-economic and cultural backgrounds encountered in the Member States, the 'one size fits all' approach threatening to intensify Europe's North-South division. Using panel data, this paper provides an empirical study of the inequality determinants, aiming to identify convergence or divergence trends across countries and regions of Eastern Europe. Our findings partially confirm the theory, indicating that, in the long run, the new EU Member States recorded a process of convergence, reducing the gap between rich and poor regions, even if in the short-term, and especially in times of economic crisis, the economic disparities may widen. Moreover, the results highlight that there is potential for boosting GDP per capita in all territorial units analyzed.

Keywords: inequalities, convergence, economic geography

JEL classification: O19, R11, R58

1. INTRODUCTION

Regional economic development within the European Union respects the core-periphery distribution (Krugman, 1991), with *core* areas, like Northern Italy, Benelux, North-Western Germany, Southern and Central UK etc., and *periphery* areas, like Southern and Eastern European regions. Since the beginning of the "modern" EU, but especially in the last 20-30 years, it has continued to be an entity divided between the developed countries in the North and West and the significantly less developed countries in the South and East. Regarding the causes of these disparities, one explanation offered considers historical antecedents of the Member States, and regions, which could set the premises for a slower or faster development process. By the same vein, Cornia (2009) found, based on empirical data, that the emergence and evolution of disparities can be explained by the unequal distribution of income among employees, equity holders and rentiers. Another reason for the unequal development are the more or less rational expectations of economic agents (Krugman, History versus Expectations, 1991), which, by their actions, have the ability to influence the degree of advancement in a geographical area.

More recent studies (Piketty, 2014) show that differences in yield between capital and labor generate, in turn, inequalities, which, perpetuating in the long term, can undermine the core values of a modern society. The same research estimates that mechanisms are not "naturally" created to prevent or mitigate disparities, hence the need for a stakeholder's intervention, in order to create the conditions for sustainable and balanced development and to offset, in an equitable manner, the losses of those who are unable to cope with economic competition. It is also important to note that the process of economic growth, although it has a positive impact on the overall level of welfare, it itself generates winners and losers (Acemoglu, 2009).

A phenomenon that contributes to increased interregional differences is the concentration of economic activities, in particular the non-financial economic activities. Thus, while some activities - such as retail – are

spread relatively evenly in most regions, many others show considerable variation in their level of concentration. This leads to the creation of regions with a high degree of specialization and the formation of industrial clusters that contain a small number of regions, but sums up much of the production in a particular area.

Economists appreciate, however, that regardless of the causes that led to inequality, disparities both within a state and the interstate will be reduced until they reach a level considered to be acceptable (Kuznets, 1955). The divergences in the short-term and long-term convergence coexist (Petrakos et.al, 2003) and are, in fact, two sides of the same coin. However, it appears that the less developed countries have a growth rate higher than developed countries (Barro & Sala-i-Martin, 1991), which in the long-run contributes to reducing disparities as well. The convergence process is influenced by international trade liberalization and facilitation of FDI (Albu, 2013) and, in the European Union, by the policies and freedoms that are generated by the single market. Another important factor in reducing inequalities, generated by the integration process, (e.g. the Single market) is the transfer of technology and knowledge among the Member States, and the investment in education and human capital (Son et.al, 2012; Cornia, 2011), which can generate an increase in the number of qualified staff and hence an increase in the competitiveness and the pace of economic development.

2. THE ECONOMIC GEOGRAPHY OF EUROPE

The process described in the previous section led to the formation of clusters of interconnected companies (industrial clusters or economic agglomerations). They have specialized in a particular field or in several related areas, and their appearance is due to the productivity growth of the companies within the industrial agglomeration (for example London area produces over 20% of UK GDP; Stuttgart, Wolfsburg or Torino have a GDP of almost 70 billion EUR), following the interrelationships established among the system components. Hence, development and modernization of clusters has become an important strategic program for both national governments and regional administrations, but the achievement of the goal requires a very important contribution from the private sector. Initiatives in those programs outline a new direction in economic development, based on both previous efforts of macroeconomic stabilization and stimulation of the educational

(learning) process and research, as well as market and trade liberalization.

To highlight the differences between the more developed regions and the poorer one, a group of French geographers, led by Roger Brunet in 1989 developed the concept of *Blue Banana* or the European Megalopolis also known as the backbone of Europe, which refers to a geographical corridor, with a population of about 110 million, which includes the most developed regions of Europe and is one of the largest industrial agglomerations worldwide. The corridor starts in North West England and ends in Northern Italy, having, as the name suggests, a banana shape (Brunet, 1989) and includes cities such as Leeds, Liverpool, Manchester, London, Lille, Amsterdam, The Hague, Rotterdam, Brussels, Antwerp, Eindhoven, Düsseldorf, Bonn, Frankfurt, Luxembourg, Strasbourg, Stuttgart, Munich, Basel, Zurich, Turin, Milan, Venice and Genoa. This corridor is one of the EU's development models, the new Member States seeking to implement policies aiming to create similarities between them and the aforementioned cluster.

Factors contributing to regional specialization are diverse and include availability of natural resources (e.g. mining industry, wood industry, etc.), availability of qualified personnel (for scientific research and development), costs (salaries, raw materials etc.), infrastructure (transport networks or telecommunications), legal framework, topographic and climatic conditions (especially in terms of tourism related activities) and proximity to important markets or the size of the economy (European Commission - Eurostat, 2013). It thus appears that physical distances and transport costs play an important role in trade flows and intelligent use of interregional networks (elements of logistics and transport network connections) could alleviate the traditional barriers imposed by physical distances (Nijkamp, 2013). In this regard, Anderson and Wincoop (2004) found that a doubling of the distance between two places leads to reducing their trade by about 50%, this percentage may be even higher when transport costs are high or when there are trade barriers.

Estimates based on econometric analysis can identify key factors in the economic growth of regions, among the most important being: the initial GDP / capita, public infrastructure (measured, for example, via density highways) innovation activity (rate of registration of patents) and agglomeration economies (such as industrial specialization and

diversity) and the market potential (for example in terms of GDP, density of population and the number of connections with other areas) of a region (Hanson, 2005). In order to have an accurate model of growth and convergence, one should add to these determinants human capital and markets' functioning variables (overall economy indicators, trade opening rate, foreign direct investment, demographic and socioeconomic factors etc.). These estimates suggest that, in general, a high degree of accessibility of a region confers an advantage in its growth prospects, especially with the better use of the highly qualified labor force, in conjunction with other positive externalities. The evidences also underline the importance and the statistical significance of sectorial diversity with a good access to markets for richer regions at the expense of the poorest.

Generally, these determinants that stand out so strongly emphasize their relevance in regional growth, requiring policies not only at national level but also regionally, aiming to mobilize labor resources, development of local facilities and exploitation of comparative advantages. The relationship between market size and growth rates show a positive correlation between the various economies of agglomeration, local characteristics and spatial economic development. Large gaps between the economic performance of regions and micro-regions reveals heterogeneity of Eastern European states, suggesting that there are potential determinants of growth in all spatial cut-outs.

3. REGIONAL POLICY OF THE EUROPEAN UNION

Despite the efforts of public institutions and private sector, development inequalities persist and in some cases deepen. In analyzing the causes of inequalities and especially in shaping solutions to ensure balanced development throughout Europe, one should bear in mind that when a country joins the European Union, as a member state, it becomes a region of this politico-economic organization. Hence, it follows that development and growth programs must take into account the more or less homogeneous characteristics encountered in the states, as one-size-fits-all policy applied in all countries is not always the best solution.

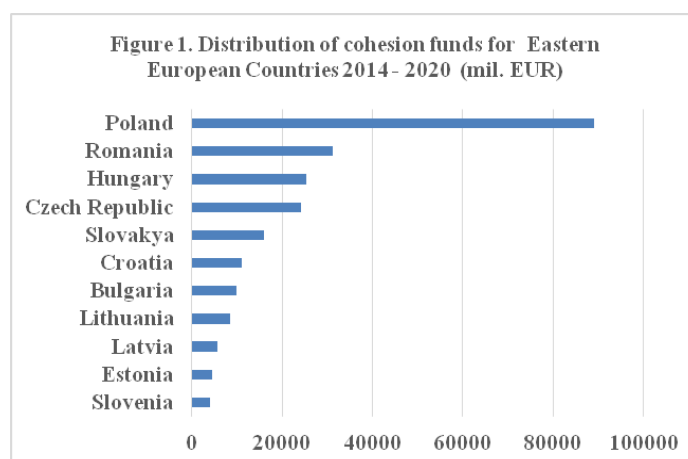
In terms of regional development, one of the main objectives set out in the European Union's founding treaties is to reduce disparities among regions through programs aimed at the social cohesion and convergence in terms of income distribution. To achieve this goal one of the most

important tools is improving the productivity and competitiveness of each and every geographic area. Regional policy is therefore an expression of the principle of solidarity existing within the European Union and involves allocating funds for the development of poorer regions and economic sectors in difficulty. Nowadays, the European Union consists of 28 states, after the admission of Croatia on 1st July 2013, the 272 NUTS (Nomenclature of Territorial Units for Statistics, where level 2 is the main framework for implementation of European policies, the so-called "development regions") 2 regions.

An important aspect of EU Cohesion Policy, which is specifically intended to reduce disparities, is the ranking of regions in terms of their level of prosperity in relation to the EU average. This ranking largely determines whether and how much a region will be financed from the EU budget in order to increase competitiveness and reduce disparities compared to the more developed regions or countries. The level of regional development and the ranking depend largely on how the disparities and economic development are measured (Villaverde and Maza, 2011). The lack of clear definitions of the concepts and differences in statistical methodologies used at national level make such an approach difficult to put in practice, both scientifically and in political and administrative terms.

In 2014, 28 of the 272 EU regions analyzed, 76 had a GDP / capita less than 75% of the European average, the lowest value (28.68% of the EU-28) was recorded in the North-East region of Romania, and the highest (320.79%) in the Inner London region, United Kingdom. Regarding the Eastern European countries, in 56 regions analyzed, 49 had a GDP of less than 75% of the EU average, only 6 regions managed to reach or exceed this value. It is important to note that all these regions comprise the capital of the state: Praha – Prague, Közép-Magyarország – Budapest, Mazowieckie – Warsaw, București – Ilfov – Bucharest, Zahodna Slovenija – Ljubljana, Bratislavský kraj – Bratislava. The most developed region Bratislavský kraj, in Slovakia, which has a GDP/capita equal to 186.08% of the European average.

Figure 1 Distribution of cohesion funds for Eastern European Countries 2014-2020 (mil.EUR)



Source: own preparation based on Eurostat data.

In March 2013, there were 75 NUTS 2 regions with an average GDP per capita of more than 25% below the EU27 average. 26 regions were concentrated in six of the EU-15 countries: Greece (eight regions), Italy (five southern regions), UK (five regions), Portugal (four regions), France and Spain (two regions each). The other 49 regions were in Member States that joined the EU in 2004, 2007 or 2013 (Croatia): all these Member States (except Cyprus and Malta) had at least one region with a GDP/capita below 75% of the EU average. Among these geographical areas there were 22 regions where average GDP per capita was less than 50% of the EU-27, which are located in Bulgaria, Hungary, Poland, Romania and Slovakia. Around 38.4 million people were living in the 22 regions whose GDP per capita was less than 50% of the EU-27 average, equivalent to 7.7% of the EU-27 population.

In 2007-2013, the European Commission allocated 347 billion Euro for regional policies, having the following the objectives: improving communication and transport networks, development of small and medium enterprises (especially in disadvantaged areas), increasing the quality of education, increasing innovation, increasing energy efficiency and combat the negative effects of climate change.

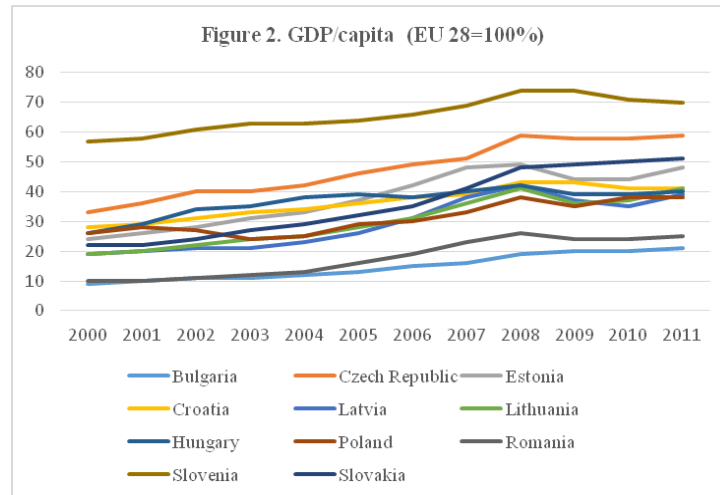
In the period 2014-2020 351.8 billion Euro will be allocated for regional policies aimed at creating jobs, combating climate change, reducing

energy dependence and the reduction of poverty and social exclusion. The most important strategy in this area is Europe 2020, which envisages achieving specific objectives for each Member State. In addition to these funds, Member States have allocated themselves about the same amount of funds for developing regions (European Commission, 2010).

According to the latest European Commission report (2011) on the convergence and disparities within the European Union, GDP / capita in the least developed regions has increased significantly since 2000. Predominantly rural regions were less affected by the economic crisis than the areas where exports, tourism and financial services have a significant weight. Nevertheless, regional disparities within Member States apparently continue to grow (European Commission, 2011) and Europe remains a continent divided between North and West (richer), on the one hand, and South and East (poorer), on the other hand. The political, economic and social significance of this situation are considerable: the territorial organization which aims to streamline economic activity measures is required to support all regions and countries, but in particular the least developed ones. Strategies adopted at European and national level, but also the subnational/regional level should evaluate the existing conditions and growth determinants together with their size and their potential effects, in order to make the results to be optimal.

Economic studies (Esteban, 2004) conducted before the 2004 enlargement wave show that European integration has always been beneficial for the new Member States and contributes to varying degrees, to reduce the gap between them and the states that were already part of the union. Integration also contributed to increasing disparities between Member States and non-Member States, and in some countries, such as Romania, there was a reduction of interregional disparities, but also an increase in intraregional disparities, respectively at the counties' level (Copcea et.al, 2014).

Figure 2 GDP/capita (EU28=100%)



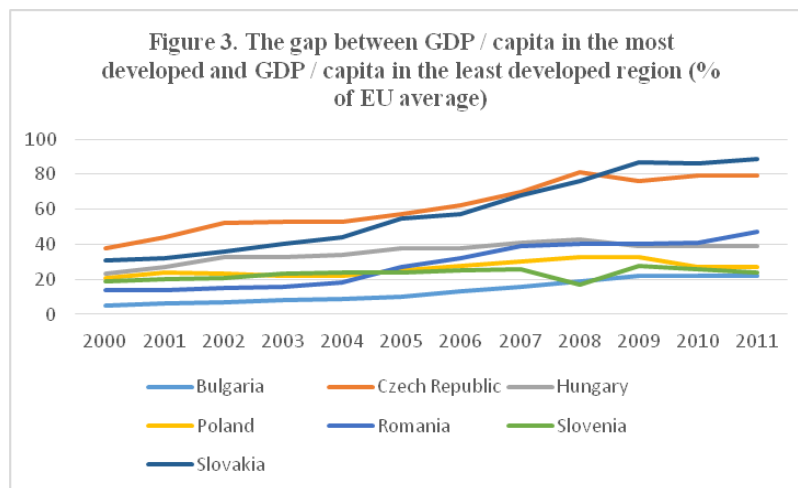
Source: own preparation based on Eurostat data.

At the state level, from the Eastern European states that joined the EU in 2004, Slovakia has benefited most from the accession, GDP per capita here evolving from 29% of the EU average at the time of accession, to 51% of the EU average in 2011. The second largest convergence was registered by the Czech Republic, which recorded an increase in GDP per capita from 42% of the EU average in 2002 to 59% of the EU average in 2011. Similar progress has been made in Poland, which approached the EU average, growing in the same period from 25% to 38% of the EU's GDP per capita average, respectively in the Baltic States, which recorded significant appreciation in the value of GDP / capita compared to the European average. As regards the countries that joined the EU in 2007, they also had a positive trend, Bulgaria evolving from a GDP equal to 16% of the EU average GDP to one equal to 21% of this average, and Romania of from 23 to 25%. It is therefore apparent that the best results were obtained from the less developed countries, which confirms the theoretical assumptions and indicate that there is potential for growth that can be exploited.

With regard to the disparities among the regions of the same state, empirical data show increased inequalities both in the pre-accession and post-accession time, the largest gaps occurring in Slovakia, Czech Republic and Romania, and the lowest in Poland. It is also remarkable

that throughout the period analyzed (2000 - 2011), the most developed and least developed region maintained, with few exceptions, their status.

Figure 3 The gap between GDP/capita in the most developed and GDP/capita in the least developed region (% of EU average)



Source: own preparation based on Eurostat data.

4. CONCLUSION

The reduction or elimination of trade barriers and the promotion of free movement of production factors contributes to the spatial concentration of economic activities. Also, even if we consider spatial dispersion forces as determinants of economic activities, the theoretical framework projects a positive correlation between increased concentration and faster development. This phenomenon can be observed easily in areas with a high degree of economic integration, in which trade is liberalized, and the mobility of production factors is at a level high enough to allow the formation of industrial clusters, features that are met by the European Union.

Economic integration, however, requires not only the elimination of tariff and non-tariff barriers, but also comprises a significant number of non-economic factors, including: linguistic and cultural differences, socio-demographic characteristics, education level etc. Another

important determinant of growth and convergence is the psychological factor, especially in terms of individuals' expectations about the future of a particular economic sector or a particular geographical area. These expectations, along with the importance attached to each individual's present actions in determining future results are also elements that influence growth and population density in certain areas and reduce these indicators values in others. The most obvious example in this matter is the continued growth of urban population, especially in big cities, and decreasing density in rural areas.

It is also important to note that, both in the theoretical literature and empirical data analysis, one of the determinants of industrial clusters and the accelerated development of a geographical area is the historical past. It can promote or place in an unfavorable position certain geographical areas and their economic development. Hence, even if some regions are not altogether influenced by the past, historical antecedents may set the foundation of development. Starting from this point, economic integration and enlargement of the European Union should consider the mitigation of historical and geographical differences among Member States.

Eastern European states accession, mostly of them being former communist, was an important step towards achieving a united Europe, but was at the same time, a new challenge in terms of ensuring the same level of development for all Member States. Cohesion, convergence and increasing competitiveness are therefore the main purposes of European and national policies, and the value of funds allocated to support programs aimed at the attainment of these objectives reflect this aspect altogether.

One solution easily put into practice is the use of EU structural funds which are just meant to direct financial resources from the rich towards the poor, in order to increase the competitiveness of the latter and to reduce the gaps between them. Examples demonstrate, however, that in order to really reduce interregional disparities, money need to be used for the development of suitable investments and sustainable projects and especially in disadvantaged areas. Policies should therefore take into account both the geographical features (presence of natural resources, positioning, infrastructure etc.) and socio-economic characteristics of the human capital.

In conclusion, one of the most important aspects of reducing inequalities among countries in Eastern Europe and, later, to reduce the disparities between them and Western Europe is the awareness of the fact that industrial concentration, the EU single market and human capital could determine the development of a region. Consequently, state bodies, enterprises and citizens should create and implement strategies that involve the collaboration of all stakeholders in order to increase the competitiveness, the quality of human capital of each region, and thus the cohesion of all of the European Union.

ACKNOWLEDGEMENT

This work was supported from the European Social Fund through Sectorial Operational Programme Human Resources Development 2007 – 2013, project number POSDRU/159/1.5/S/142115, project title “Performance and Excellence in Postdoctoral Research in Romanian Economics Science Domain”.

REFERENCES

- Acemoglu, D. (2009). *Introduction to Modern Economic Growth*. New Jersey: Princeton University Press.
- Albu, L.-L. (2013). Foreign Trade and FDI as main factors of growth in the EU. *Romanian Economic Forecasting* No.2, 7-17.
- Barro, R., & Sala-i-Martin, X. (1991). Convergence across states and regions. *Brooking Papers on Economic Activity*, 107-182.
- Brunet, R. (1989). *Les villes europeennes*. Paris: DATAR.
- Copcea, G.-B., Trifu, S., & Vilceanu, D. (2014). Regional Disparities and Economic Trends in Romania: A Spatial Econometric Analysis. *Annals. Economic Science Series*, 65-72.
- Cornia, G. A. (2011). Economic Integration, Inequality and Growth: Latin America vs. the European economies in transition. *DESA Working Paper* No. 101, 1-37.

Esteban, J. (2004). Economic Integration and Cross-Country Inequality: the European Experience. International Policy Workshop “World Development Report 2006-Development and Equity”, (pg. 1-12). Berlin.

European Commission - Eurostat. (2013). Structural business statistics at regional level.

European Commission. (2010). *EUROPE 2020: A strategy for smart, sustainable and inclusive growth*. Publications Office of the European Union: Bruxelles.

European Commission. (2011). Convergence and disparities in regional Gross Domestic Product. Bruxelles: Eurostat.

Hanson, G. H. (2005). Market Potential, Increasing Returns, and Geographic Concentration. *Journal of International Economics*, 1-24.

Krugman, P. (1991). *Geography and trade*. Leuven, London: Leuven University Press & The MIT Press.

Krugman, P. (1991). History versus Expectations. *The Quarterly Journal of Economics*, Vol. 106, No. 2. 651-667.

Kuznets, S. (1955). Economic Growth and Income Inequality. *The American Economic Review*, 1-28.

Nijkamp, P. (2013). The universal law of gravitation and the death of distance. *Romanian Journal of Regional Science*, 50-61.

Petrakos, G., Rodríguez-Pose, A., & Rovolis, A. (2003). *Growth, integration and regional inequality in Europe. 43rd Congress of the European Regional Science Association* (pg. 1-36). Jyväskylä: European Regional Science Association.

Piketty, T. (2014). *Capital in the Twenty-First Century*. Cambridge: The Belknap Press of Harvard University Press.

Son, L., Noja, G. G., Ritivoiu, M., & Tolteanu, R. (2012). Education and Economic Growth: An Empirical Analysis of Interdependencies and

Impacts Based on Panel Data. Timisoara Journal of Economics and Business, 39-54.

Villaverde, J., & Maza, A. (2011). Regional Disparities in the EU. Are They Robust to the Use of Different Measures and Indicators? Stockholm: Swedish Institute for European Policy Studies.

CHAPTER 50

Helena Bešter

University of Ljubljana, Faculty of Economics, Ljubljana, Slovenia

THEORETICAL AND EMPIRICAL CHALLENGES OF RISK MANAGEMENT WITHIN THE SOLVENCY II REGIME

ABSTRACT

The project of Solvency II was launched 14 years ago and is currently coming into its final phase. Despite the fact that risk management is at the heart of the new solvency regime, many theoretical and empirical questions have been raised in the professional, regulatory and also political fields. To study the theoretical and empirical challenges of risk management within the adaptation to the Solvency II regime we have been conducting an exploratory case study on the Slovenian insurance market (i.e. two phase exploratory sequential design, based on the qualitative method). The in-depth semi-structured interviews with the key people from the Slovenian insurance companies and supervisory body represent, together with the comprehensive critical literature review, the qualitative data-base. In the paper we present the main findings of the first, qualitative part of the survey. To start with, it seems that our interviewees from the industry and the supervisory body perceive the new regime both as an opportunity and as a threat. On the positive side, they point out the huge importance of qualitative requirements, especially potential positive effects of integrated risk management implementation, better corporate governance, improved business processes and the necessity of a higher level collaboration among departments.

Keywords: Solvency II, risk, enterprise risk management, insurance, regulation

JEL Classification Codes: G22, G32, K2

1. INTRODUCTION

While 1 January 2016 is the current application date, the new solvency regime is actually the hot and the most challenging topic in the insurance industry not only in Slovenia but also on the whole European insurance market. Not only the Slovenian, but also the European insurers face the two cross-sectional, demanding and expensive projects: the Solvency II transformation and the risk management implementation within it. In the study we seek for answers to the following questions: 1) What are the key theoretical postulates of Solvency II? 2) What are the main theoretical backgrounds of the modern risk management concepts? 3) How are both concepts - Solvency II and risk management interconnected in the new regulatory regime? 4) How does the process of implementation of the Solvency II directive influence the risk management systems in insurance companies? 5) What are the key empirical challenges of the Solvency II application process?

In order to investigate how the process of implementation of the Solvency II directive influences the risk management systems in insurance companies, we have conducted the qualitative exploratory case study on the Slovenian insurance market, based on the semi-structured interviews.

The paper is structured as follows: firstly, in the literature review we cover the Solvency II and the enterprise risk management concepts, as they emerged in both academic and practitioner literature. The subsequent section outlines the research design. After presenting the results we assess their practical implications and identify challenges for future research.

2. CRITICAL LITERATURE REVIEW

2.1. Theoretical framework of Solvency II

The Solvency II regime is primarily a regulatory story as described by Altrén and Lyth (2007), Elderfield (2009) and Monkiewicz (2013). Eling, Schmeiser, and Schmit (2007) pointed out that regulation is appropriate because “insurance is vested in the public interest.” Therefore, even if markets are competitive, the public needs government protection. Consequently for the insurance industry the “public interest theory” is relevant. According to the public interest theory, the

(insurance) market is imperfect and the role of regulation is to address those imperfections. The imperfections generally arise from agency problems and costly information. According to this theory, the need for solvency regulation is based on the classic agency problem of differing incentives between firm owners and debtholders. Insureds are, in essence, firm debtholders and, under certain conditions, are subjected to excessive risk taking by the owners. Information could alleviate agency problems but its acquisition is costly, particularly when debtholders attempt to assess the insurer's product quality, including willingness and ability to pay claims. Furthermore, an insurer can alter its financial strength after a policyholder has paid premiums but before the coverage period ends (Munch and Smallwood, 1981). Such situations can be used to justify solvency regulation. Regulation can improve market efficiency, but it also can yield distortions that ultimately harm the consumer by shrinking supply and/or raising prices (Klein et.al, 2002).

In addition to the public interest theory Lorson, Schmeiser, and Wagner (2012) depicted two further categories: the economic theory and the ideological theory. The economic theory argues that self-interested insurance regulators will not always act in the best possible way to maximize efficiency. On the contrary, they may favour a regulatory environment that maximizes political support. Consequently, as stated by Peltzman (1981) the regulators' goals relate more to their personal or political interests rather than what might be most beneficial for the consumer. On the other hand the ideological theory argues that the view of regulation depends on the size of the insurer. According to Meier (1991) the regulation model includes additional variables such as the court, regulators' norms, resources, etc. Therefore, the regulation is influenced by different groups who have specific interests—e.g., industry, consumers, politics, and regulators.

Some of the authors dispute the theoretical soundness of the Solvency II regime. Huerta de Soto (2009) argues that Solvency II and Basel II, as well as International Accounting Standards -IAS- are based on the neoclassical financial theory which has now fallen, due to the financial crisis, into discredit: “‘Market efficiency hypothesis’ which serves as the rationale for the assumption of constancy, and for the belief that information from the past can be extrapolated into the future in the form of predictable, constant probability scenarios and distributions which can and must guide the action of economic agents are erroneous and not

scientifically grounded.” Some of the practitioners, like Fulcher (2013) agree: “Solvency II is ultimately about political objectives rather than being an exact science...however, manipulating the true picture by theoretical fudges is not an answer.”

2.2. Theoretical framework of risk and risk management

Although the risk management concept is very popular, even fashionable, it is rather ambiguous and complicated from theoretical as well as practical point of view. Before starting with the attempt of its multifaceted definition, we would like to depict the concept of risk. According to ISO 31000 (ISO, 2009), risk is the “effect of uncertainty on objectives and an effect is a positive or negative deviation from what is expected... In the context of risk management, uncertainty exists whenever the knowledge or understanding of an event, consequence, or likelihood is inadequate or incomplete”. Aabo, Fraser, and Simkins (2005) specified that risk is a strategic combination of vulnerability and opportunity. Epstein and Rejc (2005) stated that risk can be viewed as uncertainty, hazard, or opportunity.

In classical decision theory, risk is most commonly conceived as reflecting variation in the distribution of possible outcomes, their likelihoods, and their subjective values (March and Shapira, 1987). The same authors also revealed that “the managers see risk in ways that are both less precise and different from risk as it appears in the decision theory. In particular, there is little inclination to equate the risk of an alternative with the variance of the probability distribution of possible outcomes that might follow the choice of the alternative.” Upon the findings of several behavioural studies of organizational decision making, behavioural decision research and the behavioural assessment of risk perception, they concluded: “Not only that managers fail to follow the canons of the decision theory, but also that the ways they think about risk are not easily fit into classical theoretical conceptions of risk”(March and Shapira, 1987).

Kloman (1992) argued that the management of "future uncertainty" is everyone's responsibility and that the constituent disciplines of risk management include the probability theory, economics, operations research, the systems theory, the decision theory, psychology and behavioural science”. Therefore, risk management itself is a fusion of

different skills and specialities, such as “the general management theory, insurance management, the actuarial and risk funding theory and practice, macro risk assessment and the decision risk theory, loss prevention, system safety, and security engineering, crisis or contingency planning and financial risk manoeuvres, including hedging and swaps” as stated by Kloman (1992).

Despite different views on risk, “there is now doubt that risk talk and idea of risk management have become more prominent in recent years,” argued Power (2004). Managing risk is a fundamental concern in today’s dynamic global environment (Gordon et.al, 2009).

2.3. The role of risk management in the Solvency II regime

The current Solvency I regime is not complicated, based on plain calculations and given rules. However, the Solvency II regime is principle and risk based oriented. An insurance company will have much more freedom in everyday business decisions, but risky decisions will be penalized with higher capital requirements. Therefore, Solvency II directive demands from insurers that “the risk-management system shall be effective and well integrated into the organizational structure and in the decision making process of the insurance company...Insurers should have in place an effective risk-management system comprising strategies, processes and reporting procedures necessary to identify, measure, monitor, manage and report, on a continuous bases the risks, at an individual and at an aggregated level, to which they are or could be exposed, and their interdependencies”(EU, 2009). Risk management philosophy is strongly incorporated into the Solvency II concept: “The Solvency II project is to build the robust framework that captures the economic reality of the asset-liability position of insurers and that brings capital much closer to the insurers risk profile... Furthermore, the implementation of Solvency II needs to be used as an opportunity to embed a strong risk culture in the day-to day operations of undertaking, providing for an appropriate balance with the natural sales-driven culture,” affirmed the chair of the EIOPA (Bernardino, 2014).

The prevailing themes in the existing literature of the Solvency II regime are: the 1st pillar and its quantitative capital requirements, the lessons of the financial crisis (Eling and Schmeiser, 2010) and critical analysis of the Solvency II concept (Doff, 2008). Many articles deal with the

calculation of the solvency capital requirements – SCR – either with the “standard formula” or “internal models” (Vesa, Lasse, & Raoul, 2007), and the consequences of the new regime for the financial market, investments and insurance competition (Butt, 2007; Korbasova, 2014; Schuckmann, 2007). The Solvency II concept has its roots in the banking regulations, therefore the comparison with Basel II and Basel III in banking is also very topical (Gatzert and Wesker, 2012; Laas and Siegel, 2013), along with the comparison among different insurance regulatory regimes (Holzmüller, 2009). The mainstream Solvency II literature has been relatively silent on the “second pillar” challenges. Moreover, qualitative requirements of the new regime have not been investigated thoroughly, neither from theoretical nor practical aspects. In spite of the fact that Solvency II is “risk-based oriented”, articles that deal with both constructs (Solvency II and risk management) are quite rare. However, (Ashby, 2011) investigates the roots of the banking crisis, which was caused by poor risk management and lessons that need to be learned for the insurance regulation.

3. METHODOLOGICAL APPROACH AND METHODS USED

To investigate the adaptation of the Solvency II regime and the role of the risk management within it, we have conducted the qualitative exploratory case study on the Slovene insurance market. If we reinterpret Kaae, Søndergaard, Haugbølle, and Traulsen (2010) the research method is considered exploratory because the aim of the study is to induce new understanding of relationships between structural and process elements in the Solvency II regime and the risk management implementation within, rather than to interpret data according to one adequate theory. With the aim to deeply scrutinize theoretical and practical views of the above stated constructs (Solvency II, risk management and their relations), we have investigated not only scientific articles and books but also professional literature, annual reports of insurance companies, official documents and working papers, technical standards, web sites, blogs etc.

Based on the literature review, the main themes of the semi-structured interviews were determined. The interviews focused on the opinions of the respondents in relation to: a) the comparison between Solvency I and Solvency II, especially from the risk management point of view, b) the role of risk management within Solvency II, c) the practical and

empirical challenges of Solvency II and effective risk management implementation in the Slovenian insurance companies.

In total, there were 13 interviews conducted across the Slovenian insurance industry: nine interviewees work for (re)insurance companies (risk managers, Solvency II project managers, chief risk officers and one president of the board), three work for the Insurance Supervision Agency - ISA (the director of the Agency and both of his deputies), one is an independent consultant and director of the Slovenian ISACA department. According to the insurance premium, over 84% of the Slovenian insurance market and more than 56% of the Slovenian reinsurance market was covered within the research.

All interviewees have extensive experience in financial services, especially in (re) insurance industry and (except one) they are deeply involved in the Solvency II implementation and adaptation. The practitioners, mainly risk managers and/or project managers for the Solvency II implementation, work for insurance companies which are very different regarding the size (market share), ownership (Slovenian, foreign) and the role in the corporate structure (mother or daughter company within the (re) insurance group). Despite this fact, some similarities among their answers exist.

Transcribing all of the interviews allowed us very detailed analysis of the respondents' opinions. It allowed us to compare the statements by the interviewees with the findings from the literature. Such a comparison enabled us the deepest insight into the topic. The data was collected from July 2013 to March 2014.

4. RESULTS AND DISCUSSION

4.1. Solvency II versus Solvency I

All the participants find the new solvency regime much more demanding and expensive than the current one. Regardless the size, ownership and the role in the corporate structure, they consider Solvency II as "incomparable" to Solvency I and very challenging for the

implementation. The chief risk officer in one of “the biggest four” Slovenian insurance companies pointed out:

“It is very complex and demanding. It is also a problem that the previous preparations, especially due to QIS 1-5, were focused more or less on the quantitative requirements, on the SCR and MCR calculus.”

The answer of one of the smallest Slovenian insurers was the following:

“Solvency II is like a nightmare; demanding and exhausting. In addition, everything is still so unclear. The concept is completely different from the current regime and so complex... You need a lot of time only to establish the essence.”

A concern about complexity of Solvency II is quite common among professionals; the president of the German Federal Financial Supervisory Authority (Ba-Fin) was critical of Solvency II for being too complex:

“Having debated something for such a long time and having had the brightest minds of the industry and of regulators in it, means that you have created a massively complex system which is probably only fully understandable for those that have created it” (König, 2012).

Her statement supports the opinion of the ISA employee:

“Everything is so complicated, over complicated. The crisis has revealed the weaknesses of the Solvency II basics. Low interest rates, high volatility on the financial markets – there are many challenges. The standard formula is a measure, which does not fit all of the varieties of the European insurance products.“

4.2. The long path to the Solvency II regime

With the exception of one insurance company, all interviews were conducted before directive Omnibus II was passed. One interviewee from ISA even expressed real concerns regarding the implementation date and possible changes of the rules. It was due to a difficult and long process of the Omnibus II negotiation. As the European Commissioner M. Barnier stated:

“Unexpectedly severe crisis required a reconsideration of the Solvency II framework through Omnibus II Directive to preserve the financial stability of the insurance sector and not discourage insurers from launching long-term products, which are of a considerable social importance” (Barnier, 2014). Consequently, the adoption of Omnibus II in early 2014 was a big and important breakthrough for the Solvency II project.

4.3. The role of risk management within Solvency II implementation – challenges and advantages

Regarding Solvency II, there are many pro and contra views in the scientific and professional literature. The huge and expensive project which tackles all of the European insurance industry also generates many warnings, such as: “In 2007 and 2008 (banking) systemic risk was created by models... We did a pretty good job to minimise the concerns of all stakeholders about systemic risk in our industry through the last crisis. We have to watch that Solvency II does not influence us into more of a herd mentality in the way we manage our investments” (Amaral, 2011).

Our interviewees from industry and supervisory saw the new regime as an opportunity and as a threat. Six out of thirteen are actuaries and consequently expressed a high level of “quantitative enthusiasm”, as it is defined by Mikes (2011). However, all of them also pointed out the huge importance of qualitative requirements, especially potential positive effects of integrated risk management implementation, better corporate governance, improving business processes and necessity of the higher level of the departments’ collaboration. Instead of the current “silos” mentality in the Slovenian insurance companies, the higher level of the corporate governance and risk management culture should be set up, as pointed out by the CRO in the one of the bigger Slovenian insurance companies:

“Due to the Solvency II adaptation we have started to establish the holistic risk management system. We have an ideal chance to refurbish all the business processes, inspect our internal controls and introduce the holistic risk management philosophy into organizational culture.”

As (Brooks, 2010) in (Fraser and Simkins, 2010) pointed out, “the key to culture, in the context of the risk management, is the impact it has on business decisions”. This was also the topic of the above-mentioned CRO:

“Nevertheless, we have to bring the risk question into every important business decision: 'If I do this, what kind of risk is connected with it?' We will have to change our thinking.”

According to the ISA representative's opinion, the key functions and better corporate governance are crucial:

“I see Solvency II regime as a holistic risk management approach. It means the risk management through all the key functions – actuarial, compliance, internal audit and risk management. We have to have the whole picture – not only for today, but also for the future. Not only on the surface, but also in depth. The deep understanding of the business model through the four key functions is crucial.”

Regarding the problems, most of the interviewees expressed quite similar internal difficulties, essential for all of the companies, included in our research: “non-linked” business processes, “silos” mentality among departments, boards unfamiliarity of the Solvency II and risk management, lack of appropriate data and knowledge, the unsuitable information system, the unclear statement of the local supervisor etc. From the big and small (re)insurers we heard quite a similar story about data and information system issues:

“Speaking personally, the Solvency II is primarily an IT project. We would need a robust and historically consistent IT system for assessing risks. The precondition for the Solvency II and for the integrated risk management is reliable data. We need a time series of good data to assess the prospective movements of the business as well as future risks. This is a huge challenge for our company. The following quote express similar opinions:

“Our data are too weak and the time series are too short for the internal model building. Our IT system is not adjusted for neither the internal model building nor the higher reporting requirements.”

Despite the fact that almost all of the companies, included in the research, have already established some kind of “risk management system”, the Solvency II adaptation process is just the beginning of the long and demanding path towards the enterprise risk management. As one of the professionals illustratively articulated:

“The second pillar is much more important than the first, this is definite. All insurance companies should have established the risk management regardless the Solvency II. Now we are forced to do something.”

This is not only a Slovenian problem, as it is clearly found in one of the European researches: “Solvency II is a catalyst to speed up the implementation of improvements in risk management developments in the organisations” (ATOS, 2011).

5. CONCLUSION

Our study reveals that in recent years, within the Solvency II adaptation, the importance of enterprise risk management has increased substantially. Despite the fact that the integrated risk management in the Slovenian insurance companies is still in the initial phase, the insurers are becoming strongly aware of the holistic risk management and its potential positive effects for the better corporate governance of the insurance companies.

The regulatory pressure is actually a very strong driver for the risk management implementation in the Slovenian insurance companies. With the semi- structured interviews, conducted with the Slovenian risk managers and Solvency II project managers, we identified high expectations of the professionals that Solvency II would lead to a higher risk culture in companies, better cooperation among departments and higher risk awareness among employees. Risky decisions will be penalized with the higher capital requirements, due to which boards will be more cautious and decision making process will have to be risk oriented. Solvency II represents a good opportunity for better corporate governance with the enterprise risk management implementation. Nonetheless, there are also many negative side-effects of the Solvency II regime, such as bureaucracy, additional capital needs, complicated calculus, models and procedures, over-demanding reporting etc. The

new system is expensive and could lead to the hostile takeovers. The Slovenian insurers face the lack of knowledge as well as IT obstacles and relevant data shortage. The data problem was strongly emphasized by the majority of the Slovenian interviewees, although there is every indication that the relevant data present a general, not only a Slovenian challenge. “The problem is that getting the 'real data' has proved to be much more difficult than anyone anticipated before... Solvency II requires data consistency across all three pillars... There should be only “one truth “when it comes to the numbers” (Benari, 2014).

Our research encompassed the Solvency II and risk management professionals, who are responsible for the adaptation of the new regime. They represent the most capable employees with the broad knowledge of the new regime and with high risk management motivation. All of them are, owed to their position, “positively biased” regarding the risk management. Therefore, it would be very interesting to explore other insurance professionals’ view, such as finance, accounting and IT staff, internal auditors, compliance officers, marketing and sales officers as well as claim officers. We have to take into consideration that “the job of identifying risks and helping business lines manage them falls not only to risk specialists”(Mikes & Kaplan, 2013). In the context-specific Solvency II adaptation, the research questions would be: 1) what does risk appetite mean to the above-mentioned professionals? 2) are their perceptions of risk appetite and risk culture consistent with the formal policies, prescribed by the new regime?

With the further research, we can fill in the gap between the evolving theory and practice of risk management and also contribute to its better application within the Solvency II regime.

REFERENCES

- Aabo, T., Fraser, J. R. S., & Simkins, B. J. (2005). The Rise and Evolution of the Chief Risk Officer: Enterprise Risk Management at Hydro One. *Journal of Applied Corporate Finance*, 17(3), 62-75. doi: 10.1111/j.1745- 6622.2005.00045.x
- Altrén, J., & Lyth, M. (2007). Solvency II-A compliance burden or an opportunity for the Swedish non-life insurance industry? Retrieved September 9, 2014 from

<http://www.divaportal.org/smash/get/diva2:23167/FULLTEXT01.pdf>

Amaral, R. (2011). Solvency II Could Increase Systemic Risk and Stifle Innovation Warns Panel.

Retrieved: September 12, 2013

<http://www.commercialriskeurope.com/cre/982/70/Solvency-II-could-increasesystemic-risk-and-stifle-innovation-warns-panel/>

Ashby, S. (2011). Risk Management and the Global Banking Crisis: Lessons for Insurance Solvency Regulation. *Geneva Papers on Risk & Insurance*, 36(3), 330-347.

ATOS. (2011). Atos Origin Uncovers Insurance Industry Concerns Over Solvency II EU Directive.

Retrieved April 15, 2014

http://atos.net/en-us/home/we-are/news/press-release/2011/pr2011_04_18_05.html

Barnier, M. (2014). Barnier on Omnibus II. Retrieved May 16, 2014, <http://www.solvencyiiwire.com/barnier-omnibus-ii/153840>

Benari, G. (2014). Solvency II Assumptions and Realities. Retrieved September 9, 2014

<http://www.solvencyiiwire.com/solvency-ii-assumptions-realities/1581861>

Bernardino, G. (2014). The Future of Life Insurance, Solvency II and Investment Strategies

Retrieved September 9, 2014

from https://eiopa.europa.eu/fileadmin/tx_dam/files/Press-Room/speeches/2014-0715_Handelsblatt_Conference_01.pdf

Brooks, D. W. (2010). Creating a Risk-Aware Culture. In J. Fraser & B. J. Simkins (Eds.), *Enterprise Risk Management: Today's Leading Research and Best Practices for Tomorrow Executives* (pp. 577). New Jersey: John Wiley & Sons, Inc.

Butt, M. (2007). Insurance, Finance, Solvency II and Financial Market Interaction. *Geneva Papers on Risk & Insurance*, 32(1), 42.

Doff, R. (2008). A critical analysis of the Solvency II proposal. *Geneva Papers on Risk and Insurance: Issues and Practice*, 33, 193-206.

Elderfield, M. (2009). Solvency II: Setting the Pace for Regulatory Change. *Geneva Papers on Risk & Insurance - Issues & Practice*, 34(1), 35-41.

Eling, M., & Schmeiser, H. (2010). Insurance and the Credit Crisis: Impact and Ten Consequences for Risk Management and Supervision. *Geneva Papers on Risk & Insurance*, 35(1), 9-34.

Eling, M., Schmeiser, H., & Schmit, J. T. (2007). The Solvency II process: Overview and critical analysis. *Risk Management and Insurance Review*, 10(1), 69-85.

Epstein, M. J., & Rejc, A. (2005). Identifying, Measuring, and Managing Organizational Risks for Improved Performance. Retrieved July 27, 2014
<http://www.ef.unilj.si/docs/osebnestrani/IdentifyingMeasuring&ManagingOrganizationalRisks.pdf>

EU. (2009). Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (Text with EEA relevance) 335/1. Retrieved December 15, 2009
<http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:335:0001:0155:SL:PDF>

Fraser, J., & Simkins, B. (2010). *Enterprise Risk Management: Today's Leading Research and Best Practices for Tomorrow's Executives* (Vol. 3): John Wiley & Sons.

Fulcher, P. (2013). Conflicting Objectives Led to Solvency II LTG 'Mess'. Retrieved September 10, 2014
<http://www.solvencyiiwire.com/conflicting-objectives-led-to-solvencyii-ltg-mess/77967>

Gatzert, N., & Wesker, H. (2012). A Comparative Assessment of Basel II/III and Solvency II. *Geneva Papers on Risk & Insurance*, 37(3), 539-570.

Gordon, L. A., Loeb, M. P., & Tseng, C.-Y. (2009). Enterprise risk management and firm performance: A contingency perspective. *Journal of Accounting and Public Policy*, 28(4), 301-327. doi: <http://dx.doi.org/10.1016/j.jaccpubpol.2009.06.006>

Holzmüller, I. (2009). The United States RBC Standards, Solvency II and the Swiss Solvency Test: A Comparative Assessment. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 34(1), 56-77.

Huerta de Soto, J. (2009). The Fatal Error Of Solvency II. *Economic Affairs*, 29(2), 74-77. doi: 10.1111/j.1468-0270.2009.01900.x

ISO. (2009). *International Standard ISO 3100 - Risk Management — Principles and Guidelines*. Geneva: International Organization for Standardization.

Kaae, S., Søndergaard, B., Haugbølle, L., & Traulsen, J. (2010). Development of a qualitative exploratory case study research method to explore sustained delivery of cognitive services. *Pharmacy World & Science*, 32(1), 36-42. doi: 10.1007/s11096-009-9337-5

Klein, R. W., Phillips, R. D., & Shiu, W. (2002). The capital structure of firms subject to price regulation: evidence from the insurance industry. *Journal of Financial Services Research*, 21(1-2), 79-100.

Kloman, H. F. (1992). Rethinking Risk Management*. *Geneva Papers on Risk & Insurance*, 17(3), 299-313. doi: <http://dx.doi.org/10.1057/gpp.1992.19>

König, E. (2012). Solvency II News: Bafin Considers Solvency 1.5. Retrieved May 19, 2015, from <http://www.solvencyiiwire.com/bafin-considers-solvency-1-5/60576>

Korbasova, P. (2014). Implementation of Solvency II and its potential impact on market of insurance companies. *International Journal of Management Excellence*, 3(2), 436-439.

Laas, D., & Siegel, C. (2013). Basel Accords versus Solvency II-Regulatory Adequacy and Consistency Under the Postcrisis Capital Standards. Retrieved April 2, 2014
http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2248049

Lorson, J., Schmeiser, H., & Wagner, J. (2012). Evaluation of Benefits and Costs of Insurance Regulation - A Conceptual Model for Solvency II. *Journal of Insurance Regulation*, 31, 125-156.

March, J. G., & Shapira, Z. (1987). Managerial Perspectives on Risk and Risk Taking. *Management science*, 33(11), 1404-1418. doi: 10.2307/2631920

Meier, K. J. (1991). The Politics of Insurance Regulation. *Journal of Risk and Insurance*, 700-713.

Mikes, A. (2011). From counting risk to making risk count: Boundary-work in risk management. *Accounting, Organizations and Society*, 36(4-5), 226-245.

Mikes, A., & Kaplan, R. S. (2013, October 17, 2013). Towards a contingency theory of enterprise risk management. AAA 2014 Management Accounting Section (MAS) Meeting Paper. Retrieved June 23, 2014
<http://ssrn.com/abstract=2311293>

Monkiewicz, J. (2013). Dialectics of the Current Regulatory and Supervisory Developments in Insurance. *Geneva Papers on Risk & Insurance*, 38(2), 183-188. doi: <http://dx.doi.org/10.1057/gpp.2013.8>

Munch, P., & Smallwood, D. (1981). Theory of solvency regulation in the property and casualty insurance industry *Studies in Public Regulation* (pp. 119-180): The MIT Press.

Peltzman, S. (1981). Current Developments in the Economics of Regulation. *Studies in Public regulation*.

Retrieved March 15, 2015 from
<http://www.nber.org/chapters/c11436.pdf>

Power, M. (2004). The nature of risk: The risk management of everything. *Balance Sheet*, 12(5), 19-28.

Schuckmann, S. (2007). The Impact of Solvency II on Insurance Market Competition-An Economic Assessment.
Retrieved March 2, 2014 from
http://www.econbiz.de/archiv1/2008/55451_impact_of_solvencyII.pdf

Vesa, R., Lasse, K., & Raoul, B. (2007). Topical modelling issues in Solvency II. *Scandinavian Actuarial Journal*, 2007(2), 135-146. doi: 10.1080/03461230701257098

CHAPTER 51

Alexandru Dronca

West University of Timisoara, Faculty of Economics and Business
Administration, Timisoara, Romania

Ana – Maria Droncu

West University of Timisoara, Faculty of Economics and Business
Administration, Timisoara, Romania

THE IMPACT OF FISCAL AND BUDGETARY POLICIES ON THE ECONOMIC GROWTH IN THE EU MEMBER STATES

ABSTRACT

The tax system is one of the main tools by which a State exercises sovereignty through the collection, allocation and redistribution of revenues, in a given territory. This paper aims to highlight how the characteristics of tax systems in the Member States of the European Union affect the economic environment and hence taxpayers behavior of individuals and corporates. To achieve this goal, indicators for the 28 Member States of the European Union for the period 2004-2012 were used in the study. Starting with an analysis of panel data models, developed using a range of indicators specific for tax systems (budget revenues, budget expenditures, public investment, direct taxes, indirect taxes and social contributions), as exogenous variables and GDP per capita, as the endogenous variable. The results show a positive and significant impact of the fiscal policy on the economy, focused on increasing public investment and a negative impact of social contributions. In terms of direct and indirect taxes, the budgetary expenditures and revenues can also have a positive role, provided that their application and use meet certain standards and performance criteria and do not harm business environment.

As regards to the effectiveness of fiscal policy it was intended to assess the impact of direct taxes, indirect taxes and social contributions on the growth rate of GDP / capita by introducing principles specific for the econometric analysis and models for econometric growth. The results show a positive and significant impact of the fiscal policy, on the

economy focused on increasing public investment and a negative impact of social contributions.

The budgetary policy, evaluated within the econometric models by reporting to the budgetary revenues, by the budgetary expenditures and by the public investments, highlights the positive impact the latter have on increasing the level of economic development. This is reflected to a large extent in the EU budgetary policy that directs much of its income for investments (especially by investing in research and development and infrastructure). On the Member State level, however, there are large differences both in terms of the share of these investments in GDP and in terms of absolute value. Therefore, states should allocate larger sums to areas that can generate both economic growth and increasing the employment rate of the labor force and not only to focus on the current expenditures of the administration and on the payment of social benefits.

Keywords: fiscal policy, economic growth, budget expenditures, budget revenues, direct taxes, indirect taxes.

JEL classification: H30, H71

1. INTRODUCTION

Creating and developing the EU tax system is not only an economic process of great importance, but is equally a political process in which sovereignty, exercised by the Member States, plays a decisive role. In general, the tax system is based on institutions and instruments necessary for the implementation of fiscal policy in a given territory. The creation of a supranational fiscal infrastructure in the EU is a complex process, favored by globalization trends manifested in the fiscal area, but also some reforms are hampered by existing differences between Member States, which are used to take independent decisions in this area.

The public financial system has always been on the borderline between political and economic aspects in the regional integration process. The tax system, in the European Union, is a reflection of the level of separation between economic integration emphasized by the existence of the single market and creation of a stronger political union (Simovic, 2007) [8]. The coordination of tax systems has a very important role in ensuring the finality of the integration process and it is absolutely

necessary for the development of the Member States and society. In addition to the rules mentioned above, the tax system aims to create similar conditions in terms of tax competition between Member States and to redistribute budgetary funds to reduce interstate disparities (Talpoş I., 2001) [9.].

There are significant differences between national tax systems and tax system of the European Union. However, there are significant differences in terms of a domestic fiscal policy of the different Member States, which appeal to both local factors, and the willingness of states to take advantage of each other, including in this area. Based on these issues, fiscal harmonization within the European Union, still remains a goal, although in recent times there are significant advances.

Evaluation of different factors that contribute to economic growth has been and continues to be one of the most important concerns of economists everywhere. The role of fiscal policy in providing frameworks for economic development is also highly debated and the states are trying to find a balance between generating public revenues and stimulating growth, whereas the increase of tax rates has a negative effect on the profitability of investments. However, economists such as John Maynard Keynes, in the first half of the last century, or Paul Krugman, today, found out that public investments play an indisputable role in assuring economic growth.

In economics, supply and demand of public goods provided through government investment have the capacity to ensure growth, at least on the short term and also to reduce the unemployment rate. Moreover, public investments have the ability to create a virtuous circle, through the effects produced in the economy, with benefits, that can be felt including on the long term. However, implementation of investment projects and the observation of their results requires relatively long periods of time, and governments often chooses, especially in times of crisis, to obtain immediate results by increasing other expenditures (e.g. staff expenditures) and reducing or delaying investment programs (Poilon, 2008)[7.].

The essential role, that public investments plays for the economic development, is recognized and formally agreed by the Member States of the European Union since 2000, when "Lisbon Agenda" was signed

(Poilon, 2008)[7.]. With beginning of the financial crisis, that became then an economic crisis, the role of the state in the economy, both in terms of regulating markets as in terms of its position as an active economic agent, was revived. EU Member States have established clear objectives for the policies that would be applied in order to stimulate economic recovery and increase competitiveness. To achieve these objectives, management institutions at European level as well as national authorities, have undertaken to promote sustainable economic growth through public investment in infrastructure, research and development.

The impact of fiscal policy on economic growth is evident in the study conducted by William Easterly and Sergio Rebelo in 1993. They assessed the impact of fiscal policies in 125 countries and made the following findings (Easterly and Rebelo, 1993)[1.] :

- there is a strong relationship between the structure of the fiscal system and the development level of a country, poor countries focusing particularly on international trade taxation, while rich countries focus more on income taxation;
- the effects of the fiscal policies are influenced by economic scale at which they that applies (e.g. number of inhabitants);
- investments in transport and communication networks are associated with economic growth, while the net effect of taxation is more difficult to estimate.

One year earlier, in 1992, Engen and Skinner revealed that both public expenditure and taxation levels adversely affect long-term economic growth, using an analysis of existing data in 107 countries in the period 1970-1985. Thus, according to the study (Engen and Skinner, 1992)[2.] an increase in public spending and hence in the level of taxation with 10% generated a reduction of economic growth, on long-term, with 1.4%.

At EU level, the efficient use of public capital and fiscal policies has, according to the study of Poilon (2008)[7.], a positive effect, but only a limited number of Member States could use taxation, in addition to budgetary expenditures control, to consolidate public finances and to make them more durable. Approximately one third of the Member States could consider a tax shift from labor taxation less harmful for the economic growth. In these cases, a high tax burden on labor (either in general or applied to particular groups) coexist with the possibility of increasing the taxes deemed to be less harmful for growth, for example,

taxes on consumption, property taxes and environmental taxes. However, an analysis of the need and scope of this tax change must be robust and must use different references and approaches to achieve the desired objectives (European Commission, Directorate General for Taxation and Customs Union, Directorate General for Economic and Financial Affairs, 2013)[3.].

The impact of budget policies on the real economy is multiple and complex, since it is considered that the budget can increase economic growth and the employment rate. The state contributes directly for the economic development through efficient accumulation of production factors, investing both in physical capital (infrastructure, communication networks, technologies) and human capital (providing services for education, training, health). Also, through budgetary policies, the state has the duty to contribute to the fairness between the population through social spending.

Public expenditure can have a positive effect on the growth potential performance on long-term. However, if public investments are financed by excessive raised taxes, there can be generated distortions that adversely affect competition between domestic operators and international operators. Also, if increased public investments generate increased budget deficits and consequently public debt, the effect could be the foreclosing of private investment from the market.

2. ECONOMETRIC MODELS

The economic field studies processes and phenomena, based on the idea that they are not carried out randomly, but based on their own laws, relatively stable and relatively repeatable, seeking to identify and, where possible, to influence. Starting from the basic idea that economic phenomena are most often measured (although there are situations where a quantitative analysis of a qualitative phenomenon can affect the results), the economy resorts to mathematics, statistics and econometrics (Iacob and Tănăsioiu, 2005) [4.], to show how certain factors influence the economic situation of a company, a region, a country or group of countries.

The study uses an econometric model with random effects. One of the main advantages of using random effects models is that they use for

estimation variables that do not vary over time (varies only between different entities), variables which include models with fixed effects in the model constant. It is also important to note that random effect models presume that the standard error is not correlated with the regressors, and this allows to use even constant values as explanatory variables.

The general equation models with random effects is as follows:

$$Y_{it} = \beta X_{it} + \alpha_i + (\mu_{it} + \varepsilon_{it}), \quad (1)$$

Where: μ_{it} = Error between variables

ε_{it} = Error within the same variables.

With use of the Stata program, version 12, for the data analysis, the error $u_{it} = \alpha_i + \varepsilon_{it}$, consider α_i as a component of the error specific for the variable, corresponding to the element i and ε_{it} as random component of the error.

The introduction of time gaps (lags) considers that there is a possibility that qualitative factors exist among the explanatory variables of type X_i , whose modification is difficult to quantify. Therefore, we introduce a time delay, which aims to precisely consider the fact that the variation of X may influence the variation of Y over several time periods, subsequent to the moment when this variation occurred.

For reaching an optimum model it is necessary to perform a *Hausman-test* or a m-statistical to verify the hypothesis in terms of bias or inconsistency for some estimators. The test proposed by Jerry Hausman in 1978 aims to examine the hypotheses, that involve the use of estimators, specific for the models with fixed effects or with variable effects (if the value of p is less than 0.05, then it is not recommended to use a model with variable effects, but one with fixed effects; if the value of p is greater than 0.05, it is recommended to use estimators for variable effects). Thus, according to the test, the specific estimator of the model with fixed effects, can be used also for the model with random effects, but it is effective only in the first one. Instead, the estimator specific for the model with random effects cannot be used in the model with fixed effects (Kunst, 2013)[6.].

In addition to the *Hausman-test*, there should be tested also the assumptions for the normal distribution of the residual series and also the autocorrelation and *heteroscedasticity* conditions of the errors. If these conditions are not met, simple estimates will be performed, that address any inconsistencies.

The main hypotheses for simple regression models are based on general assumptions of regression models, and are expressed as follows:

- (1) Defining (enunciation) the correct model;
- (2) Examining the accuracy of the data (data series are not affected by measurement errors);
- (3) Certifying that the residuals are zero mean random variables: for every i , the property shows that other unregistered factors, except the exogenous feature, have not a systematic influence on the average of the endogenous feature;
- (4) The variance of the residual variables is invariant in time or constant while defining property of homoscedasticity. The homoscedasticity assumption is restrictive in the developed model because the statistical panel data are obtained for a group of countries;
- (5) No autocorrelation of the residuals: $\text{cov}(e_i, e_j) = 0, i \neq j$.

By validating these assumptions, a high level of accuracy for developed models is ensured and thus the robustness of the estimated parameters.

The testing of the statistical significance of the model coefficients and the validation of the assumption was done by:

- differentiation between the results and the estimated coefficients using the two categories of models with fixed and random effects performed using the *Hausman-test* (if the value of p is less than 0.05 then it is not recommended to use a model with variable effects, but one with fixed effects, if the value of p is greater than 0.05, it is recommended to use estimators with variable effects);
- validation of the hypothesis of absence of serial correlation for the residual variables examined with help of the *Wooldridge-Lagrange Multiplier*, proposed by Jeffrey M. Wooldridge in 2002;
- the homoscedasticity hypothesis was validated with help of the *Breusch-Pagan Lagrangian Multiplier-test* (developed by the Australian economists Trevor Breusch and Adrian Pagan in 1980) for

models with random effects, and with help of the *Wald-test*, modified for group heteroskedasticity for models with fixed effects;

- assumption of the absence of multicollinearity, validated by the decorelation matrix of exogenous variables, and also by performing the auxiliar regressions and validation of the individual and joint influence of explanatory variables on the endogenous variable achieved by using the *Wald-test* (developed by the romanian-born, hungarian mathematician, Abraham Wald, during the of World War II), *Fisher-test* (named after its author, english statistician Ronald Aylmer Fisher) and *t-statistic* (Son & Noja, 2012).

3. SELECTION OF VARIABLES AND DATA PROCESSING

The econometric model proposed takes into account the data analysis from the 28 EU Member States, for the period 2004 - 2012. The endogenous variable is the economic growth. Exogenous variables are: the ratio of direct and indirect taxes in GDP, the ratio of social security contributions in GDP, the ratio of budget revenues and expenditures in GDP and the ratio of public investment to GDP. In accordance with the European System of Accounts (Eurostat, 2013) [3.]. These variables are defined as follows:

GDP / capita = indicator of production, but used as an estimator of the standard of living. This reflects the total value of all goods and services produced less the value of goods and services used for intermediate consumption in the production process. Expressing GDP in PPS (purchasing power parity standard) eliminates differences in price levels between countries. The calculation of this indicator per capita allows the comparison of economies and regions that are significantly different in absolute size.

Direct taxes are current taxes on income, wealth, etc., and involve all mandatory, unrequited payments from taxpayers, in cash or in kind, levied periodically by central government and/or having as an income tax base the income and the patrimony of entities. Also, direct taxes include some periodic taxes, for which the taxable matter is not an income or personal patrimony.

Indirect taxes are taxes on goods and services. These are amounts due per unit or quantity of a particular good or service produced or transacted. A tax can be a fixed amount of money or can be calculated as a percentage of the unit price or value of goods and services produced or traded.

Social contributions are actual or imputed contributions made by individuals or corporate contributors to social insurance schemes, in order to create provisions for social benefits to be paid.

Budgetary revenues are the proceeds of taxes, social contributions, income from economic activities undertaken by companies in which the state is a shareholder, revenues from concessions and royalties, and the revenue generated by current transfers and capital transfers.

Budgetary expenditures are the costs for: intermediate consumption, gross capital formation, compensation of employees, other taxes on production, subsidies, rents, current taxes on income, wealth, social benefits, some social transfers, other current transfers, some adjustments, capital transfers and transactions on non-produced assets etc.

Public investments are summarizing expenditures made by central and local government bodies (or regional) for gross fixed capital formation.

4. RESULTS

Table 1 Impact of the fiscal and budgetary policy on the economic growth

Table 1. The impact of fiscal and budgetary policy on the economic growth

	Model 1			Model 2		
	b/se	p	t	b/se	p	t
ChBug	-0.006*** (0.00)	0.000	-7.350			
VBug	0.003*** (0.00)	0.000	4.088			
InvPub	0.001 (0.00)	0.614	0.505			
ImpDir				0.004 (0.00)	0.317	1.003
ImpInd				0.005* (0.00)	0.027	2.229
ConSo				-0.024*** (0.01)	0.000	-4.476
Const	0.147*** (0.03)	0.000	4.843	0.169* (0.08)	0.041	2.061
R-squared		0.171	0.110			
F					9.142	
N observations		252.000			252.000	
Wald		65.361				

* p<0.05, ** p<0.01, *** p<0.001
 GLS Regression
 OLS Regression
 Note: The standard errors are in parentheses.
 Source: Preparation in Stata 12.0.

MODEL NO. 1: THE INFLUENCE OF BUDGETARY SPENDING,
BUDGETARY REVENUES AND PUBLIC INVESTMENT IN THE
ECONOMIC GROWTH

Equation model: $\ln PibCap = \alpha + \beta * ChBug + \gamma * VBug + \delta InvPub + \varepsilon$

As it can be seen in the Table. no. 1, the main results from the development of the Model 1 were the following:

- With a probability of nearly 100%, a 1% increase in the share of public spending in GDP will lead to a contraction in the growth rate of the GDP/capita of 0.006%;
- With a probability of nearly 100%, a 1% increase in the share of budgetary revenues in GDP will generate an acceleration in the growth rate of the GDP/capita of 0.003%;

- With a probability of 40%, a 1% increase in the share of public investment to GDP will generate an augmentation of growth of GDP/capita of 0.001%;

It can be seen that an increase in public spending is not always beneficial for the economic development of a country, although not significant, the impact of such increase is negative, at least in the medium term.

Increased budget revenues, however, have a positive impact on the growth rate of the GDP/capita, one of the possible explanations for this correlation is that increasing budgetary revenues can reduce the deficit, high levels of which can adversely affect the economy. Another explanation of this correlation could be that an increase of the budgetary revenues can be interpreted as an indicator of increasing the efficiency of the tax system and hence economic growth in general.

As expected, public investments have a positive role in increasing the pace of economic development, an increase of this type of investments entails an increase in GDP/capita.

MODEL NO. 2: THE INFLUENCE OF DIRECT TAXES, INDIRECT TAXES AND SOCIAL CONTRIBUTIONS ON THE ECONOMIC GROWTH

Equation model:

$$\ln PibCap = \alpha + \beta * ImpDir + \gamma * ImpInd + \delta * ConSoc + \varepsilon$$

After processing the data for model no. 2, which analyzes the influence of taxes and social contributions to the growth rate of GDP/capita, the main results obtained were as follows:

- With a probability of 70%, a 1% increase in the share of direct taxes in GDP will have a positive impact on economic growth, raising it with 0.004%;
- With a probability of 97%, a 1% increase in the share of indirect taxes in GDP will also have a positive impact on the growth rate of GDP/capita, raising it to 0.005%;
- With a probability of about 100%, a 1% increase in the share of social contributions to GDP will have a negative impact on

growth in the level of economic development, causing a reduction in the rate of growth of GDP/capita of 0.024%.

The results presented above shows that a tax policy focused on an efficient settlement of the direct and indirect taxes can have beneficial effects on economic growth. Regarding social contributions, their role seems to be negative, this phenomenon can be explained by the fact that, at some level, increasing social contributions and hence the states social benefits can increase the number of people who prefer state assistance at the expense of salary income.

5. CONCLUSION

The fiscal policy of a state has a particularly important role in defining the characteristics of the economic environment and, consequently, to provide a certain level of development for their citizens. Therefore, fiscal sovereignty continues to be, even in a complex system such as the European Union, one of the defining characteristics of the nation-state and supranational bodies only serve to coordinate certain policies and ensure that there are no major imbalances in terms of macroeconomic stability. Efforts are made for effective distribution of powers in tax matters between supranational, national and subnational institutions and it shows that the problem of harmonization and coordination of tax legislation in the European Union is topical, the solutions envisaged so far still awaits their effects, while other reforms are being developed or implemented in all Member States.

As regards to the effectiveness of fiscal policy by introducing specific principles and econometric analysis it was intended to assess the impact of direct taxes, indirect taxes and social contributions on the unemployment rate. The results show that there is a significant potential to increase the efficiency of taxation in all Member States of the European Union, since there are differences between national tax policies, but also the result for the groups of states or for the entire Union. The results indicates that the way in which taxes and social contributions are laid and levied should be rethought with regard to new economic realities and intergovernmental fiscal relations.

The fiscal policy, evaluated in econometric models in relation to the income levels of budget spending and public investment, particularly

highlights the important impact they have on the level of unemployment. This is reflected to a large extent in EU budgetary policy that directs much of its income for investments (especially by investing in research and development and infrastructure). States should allocate larger sums to areas that can generate increasing of the employment and not only focus on covering the actual expenses of the public administration and payment of social benefits.

Therefore, starting with the tax system, the most important implication that the comparative approach and econometric bases of economic processes and phenomenon is becoming aware of the influence the tax system has on the development of a state and/or a group of states, that are interconnected. Consequently, strategies that involve the collaboration of all stakeholders should be adopted by both national and supranational bodies and by companies or citizens in order to increase the efficiency of fiscal and budgetary policies, the degree of cohesion and last but not least, the degree of development of each country and, especially, of each individual.

REFERENCES

Easterly, W., & Rebelo, S. (1993). *Fiscal policy and economic growth: an empirical investigation*. NBER Working Paper Series. Working Paper No. 4499, 1-57.

Engen, E. M., & Skinner, J. (1992). *Fiscal policy and economic growth*. NBER Working Paper Series. Working Paper No. 4223, 1-50.

Eurostat. *European system of accounts ESA 2010*. Luxembourg: Publications Office of the European Union. 2013

Iacob, A. I., & Tănăsioiu, O. *Modele econometrice: Vol. I*. Bucureşti: Editura ASE. 2005;

Krugman, P. *Geography and trade*. Leuven, London: Leuven University Press & The MIT Press. 1991;

Kunst, R. M. (2013). *Data, Econometric Methods for Panel*. Vienna: University of Vienna and Institute for Advanced Studies Vienna.

Poilon, G. Public Capital and Economic Growth: a Spurious Empirical Link. In J.

Ferreiro, G. Fontana, & F. Serrano, *Fiscal Policy in the European Union* (pp. 109-128). PALGRAVE MACMILLAN. 2008;

Šimović, H. *Fiscal system and fiscal relations in the European Union: political restraints and alternative approach to public finance*. Faculty of Economics and Business, University of Zagreb, *WORKING PAPER SERIES*, 1-11.. 2007;

Talpo, I., & Enache, C. *Fiscalitate aplicată*. Timiș oara: Editura Orizonturi Universitare. 2001;

Son, L., & Noja, G. G. (2012). Migrația internațională și impactul asupra pieței muncii - analiză pe date de tip panel. *Revista română de statistică*.

CHAPTER 52

Boris Vujčić

Faculty of Economics and Business, Zagreb, Croatia

Sanja Gongeta

College of Applied Sciences Lavoslav Ružička in Vukovar, Vukovar,
Croatia

BANK RECOVERY AND RESOLUTION DIRECTIVE – KEY COMPONENT OF BANKING UNION

ABSTRACT

Union financial markets are highly integrated and interconnected with many institutions focused on cross-border activity. The collapse of cross-border institutions affects the stability of financial markets in different Member States in which it operates, and the inability of Member States to control and repair decaying institutions negatively affect the stability of the financial markets - the basis of the functioning of the internal market.

Existing national regulations to prevent the insolvency of credit institutions have proven to be insufficient in times of financial crisis, and a single regulatory framework at European level was more than needed. The paper analyses the regulatory framework for the recovery and resolution of credit institutions and certain investment firms throughout the European Union as a third pillar of Bank Union.

Harmonised instruments for the resolution of banking institutions, significantly widens the range of policy options available to national resolution authorities in accordance with international best practice.

The adoption of the Bank Recovery and Resolution Directive (BRRD) and its entry into force brings a clear and comprehensive bank recovery and resolution regime – that covers both national and cross-border bank failures – which is crucial for ensuring long term financial and economic stability.

Also, shifting the cost of bank failure from taxpayers to shareholders and creditors of the institutions themselves Bank Recovery and Resolution

Directive reduces the potential public cost of possible future financial crises.

The new rules provide authorities with the means to intervene decisively both before problems occur and early on in the process if they do.

Bank Recovery and Resolution Directive applies to all 28 Member States and presents an essential piece of the financial regulatory framework for all banks of the European Union.

Analysing the objectives, area of application and basic principles of BRRD, authors will also point out the main differences between the EU regime and the US approach in this area.

Keywords: Banking Union, Bank Recovery and Resolution Directive, EU legal framework, insolvency

JEL classification: G21, G28, G33, K23

1. INTRODUCTION

Recent financial crisis revealed that the effects of bank failure in Europe and United States can reach far beyond the immediate threat to depositors and shareholders. Also, dealing with failed banking groups which are global, large and complex has become a difficult and cost task. According to the International Monetary Fund losses related to the financial crisis in European Union¹ incurred between 2007 and 2010 reached €1 trillion, which equated to 8% of EU GDP. (Phillips and Morrison 2014)

In United States financial crises resulted in the failure of key businesses, declines in financial wealth estimated in the trillions of U.S. dollars and numerous large financial institutions needed bailout from national governments. (Chang, 2010:1)

Member States tried to address the systemic fragility of their banking systems through national policy tools, but weaknesses in the financial regulatory systems have made regulatory reforms an urgent priority.

The United States and the United Kingdom² (as the forerunners), but also a number of jurisdictions in Continental Europe³ have adopted

¹ EU GDP contraction in 2009 due to the economic recession induced by the financial crisis: 6% (Eurostat). Approved state aid measures through recapitalisations and asset relief measures between October 2008 and December 2012 amounted to €591.9 billion, or 4.6% of EU 2012 GDP, according to the European Commission. This figure rises to €1.6 trillion of EU 2012 GDP if state guarantees are added.

² Financial Services (Banking Reform) Act 2013 (ch. 33).

legislative steps towards a comprehensive structural reform of banking, but the development of harmonised concepts for the reorganisation and resolution⁴ for large, complex, internationally active banks and banking institutions has been one of the most important aspects. (Binder 2014)

On July 21, 2010 United States Congress enacted into law The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) , and in June 2012, at the Euro area summit, European Council decided to create a Banking Union that would allow for centralised supervision and resolution for banks in the euro area.⁵

The Banking Union can be defined as a streamlined and highly centralized regime for the supervision and resolution of all banks in the euro area and beyond, based on a novel, complex institutional set-up. (Hadjjemmanuil, 2015:14)

Legal bases for a Banking Union where Articles 114 and 127(6) of Treaty on the Functioning of the European Union.

The aim of Banking Union is to ensure that banks are stronger and better supervised and, should problems arise in the financial sector, they can be resolved more easily and without using taxpayers' money.

Banking Union rests on three pillars: (1) the Single Supervisory Mechanism (SSM), (2) the Single Resolution Mechanism (SRM) and (3) related funding arrangements, including a Single Resolution Fund (SRF), deposit guarantee schemes (DGS) and a common backstop (credit line).

The Single Supervisory Mechanism (SSM)⁶ and the Single Resolution Mechanism (SRM),⁷ are mandatory for all euro area Member States and

³ Belgium: Loi relative au statut et au contrôle des établissements de crédit, 25 April 2014, Moniteur Belge Ed. 2, 7 June 2014, p. 36794, articles 117-33.; France: Loi no. 2013-672 du 26 juillet 2013 de séparation et de régulation des activités bancaires, Journal Officiel de la République Française no. 0173 du 27 juillet 2013, p. 12530. ; Germany: Gesetz zur Absicherung von Risiken und zur Planung der Sanierung und Abwicklung von Kreditinstituten und Finanzgruppen, 7 August 2013, Bundesgesetzblatt Part I, p. 3090.

⁴ 'Resolution' means the restructuring of an institution in order to ensure the continuity of its essential functions, preserve financial stability and restore the viability of all or part of that institution.

⁵http://ec.europa.eu/information_society/newsroom/cf/fisma/itemdetail.cfm?item_id=20758&newsletter_id=166&lang=en (12.02.2015.)

⁶ The SSM entails the creation of an integrated organizational framework for prudential supervision (but not of conduct-of-business and/or consumer-related regulation). SSM became operational in November 2014 and places the European Central Bank (ECB) as the central prudential supervisor of financial institutions in the euro area (including approximately 6000 banks) and in those non-euro EU countries that

open to all other countries in the EU. Unlike the SSM, the SRM is not yet operational. It should be noted that the SRM Regulation will take effect from January 2016.⁸ Both the supervisory and resolution mechanisms are underpinned by a set of common rules known as the ‘single rulebook’. The single rulebook is the foundation of the banking union that all financial institutions in all 28 Member States, must comply with.

These rules are designed to prevent bank crises from happening in the first place, for example by increasing the amount of capital that banks are required to have (Capital requirements Regulation and directive - CRR/CRD IV),⁹ and when they do happen, providing a common framework to manage the process of winding the banks down (Directive on Bank Recovery and Resolution).

Failures of large banks are not only costly, but also destabilising and cross-border insolvencies involve multiple authorities and differing legal frameworks.

As mentioned before, special insolvency regimes for banks could be found in a number of jurisdictions long before the global financial crisis of 2007-10, but consensus as to their rationale and objectives did not, and established “best practice” with regard to technical solutions could be found only to a very limited extent. (Binder, 2014:3)

A key challenge was to develop a consistent solution that relies on a variety of legal regimes and overcomes all reluctance among the authorities involved. (de Lis et.al 2014:4)

choose to join the SSM. The ECB directly supervises the largest banks, while the national supervisors continue to monitor the remaining banks. The main task of the ECB and the national supervisors, working closely together within an integrated system, is to check that banks comply with the EU banking rules and to tackle problems early on.

⁷ The Single Resolution Mechanism (SRM) applies to banks covered by the SSM. In the cases when banks fail despite stronger supervision, the mechanism will allow bank resolution to be managed effectively through a Single Resolution Board and a Single Resolution Fund, financed by the banking sector. Its purpose is to ensure an orderly resolution of failing banks with minimal costs for taxpayers and to the real economy.

⁸ Certain provisions of the SRM Regulation are already effective, so as to enable the formation of the SRB and the commencement of the SRM’s preparatory work (that is, resolution planning in relation to individual banks and banking groups); but the actual power to resolve banks will only pass to the SRM on 1 January 2016 but assuming that the IGA on the SRF will have entered into force by then.

⁹ The original Capital Requirements Directives (2006/48 and 2006/49) have been replaced by a new legislative package known as “CRD IV”. The package, which applies from 1 January 2014, includes a regulation (CRR) and a directive (CRD IV). This is the third set of amendments to the original directives, following two earlier sets of revisions adopted by the Commission in 2008 (CRD II) and 2009 (CRD III).

In European Union it was Directive on Bank Recovery and Resolution, and American response to a call for a new regulatory framework was The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.¹⁰ (Skeel, 2010)

The aim of this paper is to point out the structure and key elements of European and US approach for the twenty-first century financial regulation.

Chapter two describes BRRD under the Banking Union context, chapter three explains structure of a European legal solution, and chapter four analyses American regulatory framework for ensuring long term financial and economic stability as response to the financial crisis .

Chapter five compares US and European resolution frameworks pointing out advances of different regulatory paths for same goal.

Through these chapters, paper allows overview of background and progress on financial regulatory frameworks in European Union and United States.

2. BANKING UNION CONTEXT

Banking Union has twofold purpose: breaking the link between banking and sovereign risk, with the ultimate goal of achieving full protection of EU savers in the event of a crisis and ensuring uniformity of credit conditions within the European banking market, to ensure greater EU integration of the financial system. (Cavallo, 2014:1)

As mentioned before, the three pillars of banking union are based upon two horizontal sets of rules that apply to all Member States: capital requirements for banks (CRD IV package) and provisions of the Bank Recovery and Resolution Directive (BRRD).

The adoption of the Bank Recovery and Resolution Directive and its entry into force¹¹ brings a clear and comprehensive bank recovery and resolution regime that covers both national and cross-border bank

¹⁰ Pub. L. No. 111-203, 124 Stat. 1376 (2010)

¹¹ The BRRD entered into force on 2 July 2014 (20 days after its publication in the Official Journal of the EU, on 12 June 2014). Member States transposed the BRRD to national law by 31 December 2014 and apply its provisions as of 1 January 2015, save for the bail-in tool, which shall apply as of 1 January 2016.

failures, which is crucial for ensuring long term financial and economic stability.¹²

Before the Bank Recovery and Resolution Directive there was no harmonisation of the procedures for resolving institutions at Union level, and there were considerable substantial and procedural differences between the laws, regulations and administrative provisions which govern the insolvency of institutions in the Member States.¹³

Continued uncertainty surrounding the stability of the banking sector has made it difficult to attract the fresh capital required by many of Europe's banks. The BRRD, together with the Capital Requirements Regulation/Directive IV ("CRD"), seeks to address issues of stability. (Phillips and Morrison, 2014:2)

A clear and comprehensive bank resolution regime is crucial for ensuring long term financial stability and for reducing the potential public cost of possible future financial crises (MEMO/12/416:1) and the EU crisis management framework provides both: more comprehensive and effective arrangements to deal with failing banks at national level, as well as complete arrangements to tackle cross-border banking failures. (Santander 2014)

As insolvency procedures may take years, with the objective of maximising the value of assets of the failed firm in the interest of creditors, normal insolvency proceedings are unsuitable for banks. (MEMO/12/416:2) So, the primary objective of bank resolution is to maintain financial stability and minimise losses for society, and in particular taxpayers, while ensuring similar results to those of normal insolvency proceedings in terms of allocation of losses to shareholders and creditors. (MEMO/12/416:2)

The functionality and reliability of the new regime will be crucial for the assessment of the entire Directive, its impact on long-term incentives for

¹² As set in Art. 1. BRRD lays down rules and procedures relating to the recovery and resolution of the: institutions that are established in the Union; financial institutions that are established in the Union when the financial institution is a subsidiary of a credit institution or investment firm, or of a financial holding companies, mixed financial holding companies and mixed-activity holding companies that are established in the Union, parent financial holding companies in a Member State, Union parent financial holding companies, parent mixed financial holding companies in a Member State, Union parent mixed financial holding companies; and is covered by the supervision of the parent undertaking on a consolidated basis in accordance with Articles 6 to 17 of Regulation (EU) No 5 /2013 and branches of institutions that are established outside the Union in accordance with the specific conditions.

¹³ Preamble of BRRD (4)

bank owners, managers, creditors and, financial stability as a whole. (Binder, 2014:1)

3. STRUCTURE AND KEY ELEMENTS OF BANK RECOVERY AND RESOLUTION DIRECTIVE (BRRD)

The main guidelines for the basic elements that must be included in any effective resolution framework, are: (1) an experienced resolution authority; (2) adequate resources and statutory powers; (3) adequate and varied resolution tools (certainly including bail-in mechanisms); (4) legal enforcement of cross-border coordination during resolution processes, and (5) mechanisms to ensure that any losses are ultimately borne by shareholders and unsecured creditors. (de Lis et.al, 2014:5)

The document that provides the main guidelines for the basic elements that must be included in any effective resolution framework named Key Attributes of Effective Resolution Regimes for Financial Institutions, were endorsed by the G20 leaders at the Cannes Summit in November 2011.¹⁴

The Bank Recovery and Resolution Directive contains provisions relating to recovery and resolution planning, intragroup financial support, early intervention, resolution tools and powers, cross-border group resolution, relations with third countries and financing arrangements. (CP13/14:5)

The BRRD is based on three main pillars, reflecting the different stages of the recovery and resolution planning and execution: Preparation and prevention (Art. 4-26 BRRD); Early intervention (Art. 27- 36 BRRD) and 3) Resolution tools (Art 37-62 BRRD) and powers (Art. 63-93 BRRD).

¹⁴ When the FSB adopted the Key Attributes in 2011 it was agreed to develop further guidance on their implementation, taking into account the need for implementation to accommodate different national legal systems and market environments and sector-specific to promote effective and consistent implementation across jurisdictions. On 15 October 2014, the FSB adopted additional guidance that elaborates on specific Key Attributes relating to information sharing for resolution purposes and sector-specific guidance that sets out how the Key Attributes should be applied for insurers, financial market infrastructures (FMIs) and the protection of client assets in resolution; updated version available at: http://www.financialstabilityboard.org/wp-content/uploads/r_141015.pdf

3.1. Preparation and prevention

There are some points of view that the key to whether the BRRD will be a success lies with the requirement of preparation for distressed scenarios and the early intervention tools introduced as first pillar, and whether such early intervention tools can be used appropriately and decisively by relevant authorities. (Phillips and Morrison, 2014:3)

Under this section, banks and resolution authorities¹⁵ are required to draw up recovery and resolution plans on how to deal with financial stress or failure at group level but also for the individual entities in the group.

Full recovery plan sets out the measures that each institution (at entity and group level) will take in different scenarios where it is at risk.¹⁶ Recovery plans shall not assume any access to or receipt of extraordinary public financial support. (Art. 5(3) BRRD)

The resolution authority prepares a resolution plan for an institution (at an entity and group level) setting out options for resolving the institution in different scenarios including systemic instability. The resolution plan includes details of how to apply the resolution tools and how to make sure the institution continues to provide critical functions. (Freshfield et.al, 2013:1)

If authorities identify obstacles to resolvability in the course of this planning process, they can require a bank to take appropriate measures including changes to corporate and legal structures to ensure that it can be resolved with the available tools in a way that does not threaten financial stability and does not involve costs to taxpayers. (MEMO/12/416:5)

Recovery and resolution plans can help both banks and their supervisors in a number of ways. E.g., they are likely to enhance the mutual understanding of business structures, which in turn can be useful in that it could alert both sides as to potential impediments to resolution. (Binder, 2014:7)

¹⁵ E.g. in accordance with its role in the Banking Act, the Bank of England is the UK resolution authority; in Republic of Croatia resolution authority is Croatian National Bank.

¹⁶ The annex to the Directive contains information requirements for the recovery plan. This gives the resolution authority information to help plan how the essential functions of the institution or group may be isolated and continued.

3.2. Early intervention

The BRRD provides authorities with a wide range of powers that enable them to intervene with the management of the institution to obviate the need for a bail out by the state. (Phillips and Morrison 2014:3)

Early intervention means that the supervisor may activate the early intervention process (before the problems become critical and its financial situation deteriorates irreparably) if a bank does not meet regulatory capital requirements or is likely to breach them. The institution must restore its financial situation by implementing recovery measures, and/or adopting key reforms or restructuring its debt with creditors, among others.

These powers include the possibility of dismissing the management and appointing a special manager even before a bank is failing, as well as convening a meeting of shareholders to adopt urgent reforms, and requiring the bank to draw up a plan for the restructuring of debt with its creditors. (Art. 28 BRRD)

A special manager has all the powers given to management by the company's constitutional documents and by national law and his actions may include an increase of capital, a corporate reorganisation or a takeover of the institution by another viable institution. (Freshfield et.al, 2013)

3.3. Resolution tools and powers

These tools include the power to sell or merge the business,¹⁷ to set up a temporary bridge bank to operate critical functions,¹⁸ an asset separation tool to separate good assets from bad ones and to convert to shares or write down the debt of failing banks - the so called bail-in. (Art. 37(3) BRRD)

The resolution tools¹⁹ ensure that essential functions are preserved without the need to bail out the institution, and that shareholders and

¹⁷ This enables authorities to sell part of the business without shareholder consent

¹⁸ This allows authorities to transfer all or part of the business to an entity owned by the authorities, which continue to provide essential financial services pending onward sale or entity wind down

¹⁹ The resolution tools are the following: (a) the sale of business tool; (b) the bridge institution tool; (c) the asset separation tool; (d) the bail-in tool.

creditors bear an appropriate part of the losses, and as the third pillar of BRRD, resolution powers and tools are activated only if the two previous stages fail. (de Lis et.al, 2014)

Although the BRRD aims to minimise losses for society, in particular to avoid as far as possible the use of taxpayers' money, the framework does not prohibit the use of public funds to finance bank resolution.²⁰ (MEMO/12/416:13)

Besides the already mentioned, the Bank Recovery and Resolution Directive (BRRD) includes a requirement to ensure that 8% of a bank's liabilities are used to absorb losses and recapitalise a failing bank before public funds can be used to absorb losses; co-operation between the authorities in different Member States in order to effectively plan for and manage the failure of firms which operate across borders, protection for depositors; a framework for cooperating with third countries on resolution planning and the establishment of resolution financing arrangements which will help ensure that the resolution tools can be used effectively.²¹

It should be noticed that the BRRD is a minimum harmonising directive. This means that, while the BRRD sets a threshold which national legislation must meet, Member States are permitted to adopt or maintain rules that are additional to those laid down in the Directive or in the technical standards adopted under the BRRD. This is provided that these rules are of general application and do not conflict with the BRRD or the technical standards adopted. (CP13/14:5)

²⁰ The granting of rescue aid in systemic crises is governed by the EU framework for State Aid; The State aid rules established in response to the financial crisis are available at

http://ec.europa.eu/competition/state_aid/legislation/temporary.html

²¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335755/PU1678_final1_.pdf

4. THE US REFORM RESOLUTION FRAMEWORK – THE DODD-FRANK ACT

The 2007-2009 financial crisis²² threatened the stability of the U.S. financial system and the health of the U.S. economy.

Studies estimating the losses of financial crises based on lost output suggest losses associated with the recent crisis could range from a few trillion dollars to over \$10 trillion. (Sanders, 2013:2)

As mentioned before, American response to a “worst financial crises since the Great Depression” (Wilmarth 2011; Skeel 2010; Chang 2010; Fein 2010) which inflicted tremendous damage on financial markets and economies around the world, was new financial regulation named Dodd-Frank Act of 2010.²³ The Dodd Frank Act made wide-ranging and significant changes to the financial regulatory architecture in the United States.²⁴ (Cluchey 2010; Fein 2010)

The Dodd-Frank Act seeks to: 1) address risks to the stability of the U.S. financial system, in part through the creation of the Financial Stability Oversight Council (FSOC); 2) end too-big-to-fail bailouts of large, complex financial institutions; 3) increase transparency and regulation for certain complex financial instruments, and 4) strengthen protections for consumers and investors. (Sanders, 2013:5)

Although there’s no clear consensus on the extent to which, if at all, the Dodd-Frank Act will help reduce the probability or severity of a future financial crisis, many expect that some provisions in the act that could enhance financial stability, and help reduce the probability or severity of a future crisis include the following:

1) Creation of FSOC and OFR;²⁵ 2) Heightened prudential standards for systemically important financial institutions (SIFI);²⁶ 3) Orderly

²² Some studies identify three major types of financial crises: banking crises, public debt crises, and currency crises. The most recent financial crisis in the United States is widely considered to have been a banking crisis.

²³ <http://www.gpo.gov/fdsys/pkg/BILLS-111hr4173enr/pdf/BILLS-111hr4173enr.pdf>

²⁴ While the financial services industry, academics, and others generally have supported the Dodd-Frank Act’s goal of enhancing the stability of the U.S. financial system, the act’s implementation has not been free of controversy or debate. There’s no doubt that The Dodd-Frank Act contains provisions that may benefit the financial system and the broader economy, but the realization of such benefits depends on a number of factors.

²⁵ The act created FSOC and OFR to monitor and address threats to financial stability.

Liquidation Authority;²⁷ 4) Regulation of swaps;²⁸ 5) Mortgage-related and other reforms.²⁹ (Sanders 2013:31)

As potentially one of the biggest change in the regulatory framework affecting bank holding company regulation may be the creation of Financial Stability Oversight Council with principal function to designate nonbank financial companies for supervision by the Federal Reserve Board and to make recommendations for enhanced prudential standards applicable to such companies as well as large, interconnected bank holding companies. (Fein 2010:3)

An important reform included in the Dodd-Frank Act was also the creation of the Orderly Liquidation Authority (OLA). The OLA section of the Dodd-Frank Act and the consultation paper of the Federal Deposit Insurance Corporation (FDIC)³⁰ provide a detailed and comprehensive framework to resolve financial companies deemed to be “systemically significant”, and whose failure would pose a “significant risk to the financial stability of the US”. (BBVA, 2014:4)

In general, under this authority, FDIC may be appointed receiver for a financial firm if the Treasury Secretary determines that the firm’s failure would have a serious adverse effect on U.S. financial stability. (Sanders 2013:39; de Lis et. al 2014:4)

Under OLA, the FDIC can resolve a systemic financial firm by imposing losses on the shareholders and creditors of the firm and replacing its management, while preserving the operations of the sound, functioning parts of the firm. (Tarullo, 2013:4)

²⁶ The act requires that all SIFIs be subjected to Federal Reserve supervision and enhanced capital and other prudential standards. SIFIs include bank holding companies with \$50 billion or more in total consolidated assets and nonbank financial companies designated by FSOC for such supervision.

²⁷ The act provides regulators with new authorities and tools to manage the failure of a large financial company in a way designed to avoid taxpayer-funded bailouts and mitigate the potential for such failures to threaten the stability of the financial system.

²⁸ The act establishes a comprehensive regulatory framework for swaps.

²⁹ The act includes provisions to modify certain mortgage lending practices, increase regulation of asset-backed securitizations, and restrict proprietary trading by large depository institutions

³⁰ Supervises FDIC-insured state-chartered banks that are not members of the Federal Reserve System, as well as federally insured state savings banks and thrifts; insures the deposits of all banks and thrifts that are approved for federal deposit insurance; and resolves all failed insured banks and thrifts and has been given the authority to resolve large bank holding companies and nonbank financial companies that are subject to supervision by the Board of Governors of the Federal Reserve System. In other words, as independent deposit insurance agency for member banks and savings association, the FIDS has three primary responsibilities: to act as insurer, a receiver, and as supervisor and seeks to maintain stability and public confidence in the nations’ banking system.

This authority gives the government a real alternative to the Hobson's choice of bailout or disorderly bankruptcy that authorities faced in 2008. (Tarullo, 2013:4)

Also, under OLA, FDIC must maximize the value of the firm's assets, minimize losses, mitigate systemic risk, and minimize moral hazard. OLA establishes additional authorities for FDIC as receiver, such as the ability to set up a bridge financial company and to borrow funds from the Treasury to carry out the liquidation. (Sanders, 2013:39)

It is important to note that the FDIC is developing the SPE resolution strategy, which essentially executes a bail-in via the bridge financial company tool. (de Lis et.al, 2014:5)

With time distance of its adoption, and most regulations already finalized and already in effect, it can be said that the Dodd-Frank Act reforms have paved the way for the United States to be a leader in shaping the development of international policy on effective resolution regimes for systemic financial firms.

5. A COMPARATIVE ANALYSIS BETWEEN THE US AND EU RESOLUTION FRAMEWORKS

The financial crisis had an unprecedented impact on the financial system and highlighted the impact of the perceived implicit state guarantee of firms that were considered to be 'too big to fail'. What followed was a series of global, European and national initiatives to develop the best measures to reduce future threats to financial stability. (CP14-15:6)

As mentioned before, within the EU, a harmonised framework for the resolution of banks has been adopted in Bank Recovery and Resolution Directive (BRRD)³¹

In the US, the Dodd-Frank Act has established a resolution framework for systemic financial institutions.

Both frameworks enable authorities to resolve failing financial institutions quickly, ensuring the stability of the financial system and preserving the main banking operations. In addition, both regulatory

³¹ Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council, OJ L 173 of 12 June 2014

initiatives try to minimize taxpayer contributions to resolution episodes. (de Lis et.al, 2014:51)

Resolution frameworks should always seek that resolving banks should be a quick process without negative spill over effects to the rest of the financial system and that resolution regimes are designed to protect taxpayers' money. (de Lis, 2014:50)

Besides common principles, countries use different resolution regimes to achieve those two goals.

The US approach addresses systemic banks by taking failing institutions into receivership by the Federal Deposit Insurance Corporation (FDIC), under which their business will be transferred to a new entity or wound down. (MEMO/12/416:4)

With clear objectives to limit the risk of contemporary finance and to limit the damage caused by the failure of a large financial institution, the Dodd-Frank Act's main strategy for managing these riskiness is to require that derivatives be cleared and traded on exchanges, and for the second objective, the legislation introduced a new insolvency framework under the Dodd-Frank resolution rules. (Skeel, 2010)

The EU framework allows authorities to put banks into an orderly resolution in which their essential services could be preserved, while the failed institution itself would ultimately be wound down. (MEMO/12/416:4) In cases where an institution could be restored to financial viability and this would better serve the maintenance of critical functions and the public interest, the BRRD is equipping authorities with the power to write down some of its liabilities (bail-in) and allow the bank to remain in business. (MEMO/12/416:4)

In the US, the bankruptcy code is the common resolution framework. Nevertheless, large and complex financial companies³² must be resolved under Title II of Dodd Frank Act called "Orderly Liquidation Authority" (OLA). On the contrary, the BRRD covers all credit institutions and investment firms established in the European Union. (de Lis et.al, 2014:51)

³² Entities with consolidated assets of USD50bn or more.

United States and European Union share some similar key conditions to start a resolution process. These conditions are: 1) an institution has reached a point of distress such that there is no realistic prospect of recovery within an appropriate time frame, 2) to wind up the bank under normal insolvency procedures could cause financial instability or prolonged market uncertainty and 3) to protect public interest and financial stability; and 3) there are no private alternatives to prevent the default of the institution. (Fitzgerald, 2014)

Besides these mutual conditions, the US has one additional condition to start a resolution process, so called Debt Conversion, when a regulatory agency has ordered the institution to convert all of its convertible debt instruments. (Fitzgerald, 2014)

There are some differences in the Recovery and Resolution Plans' requirements. While the Dodd-Frank Act requires that bank holding companies with total consolidated assets of USD50bn or more periodically submit resolution plans to the Federal Reserve (Fed) and the Federal Deposit Insurance Corporation (FDIC),³³ the BRRD requires all entities to submit recovery plans to the resolution authority on an annual basis. (de Lis et. al 2014:53)

The key differences between US and EU regarding the resolution framework are in the way in which the resolution fund is used and the discretionality that is applied in its use by the resolution tools.

The US resolution framework seems to be more flexible than the EU's resolution scheme. The European institutional framework makes the resolution process more cumbersome than the American procedure. In fact, there are so many players involved that it makes the decision-making process extremely complicated. (BBVA, 2014:4)

Nevertheless, the EU framework is broader-covers all institutions with no limits on size, as is the case of the SIFIs in the US - and involve authorities in third countries, with an effort to encompass both home and host perspectives, which is absent in the US.

³³ In the US there is no framework for elaborating recovery plans.

6. CONCLUSION

Financial institutions are the foundation of every developed economy, and it is hard to imagine economic development without a stable financial system.

Recent financial crisis revealed that failure of the financial system can have profound negative consequences for the wider economy.

Existing national regulations to prevent the insolvency of credit institutions varied greatly between Member States, and a single regulatory framework at European level was more than needed.

The crisis highlighted the fact that there were no harmonised instruments in place to deal with failing cross-border banks and that greater EU financial integration and interconnection between institutions needs to be matched by a common framework of intervention powers and rules.

In response to the financial crisis, the EU established a common framework for the recovery and resolution of credit institutions and certain investment firms through the Bank Recovery and Resolution Directive (BRRD). American response to a call for a new regulatory framework was The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

Analysing the objectives, area of application and basic principles of BRRD and Dodd-Frank Act, this paper pointed out the main differences between the EU regime and the US approach in resolution framework.

There is no doubt that well-developed and fully functioning Banking Union will ensure the overall stability and transparency of the financial system in the euro area, with a positive impact on the entire EU just like there's no doubt that the Dodd-Frank Act's provisions may benefit the financial system and the broader economy, but the full impact of the financial reform agenda can in principle only be assessed in the years to come.

Still the question remains would that be sufficient to help rebuild confidence in banks and support the growth of the EU economy?!

REFERENCES

Anand, S. (2011) *ESSENTIALS of the Dodd-Frank Act*, New Jersey

Balasubramanian, B., Cyree, K.B. (2014) *Has market discipline on banks improved after the Dodd–Frank Act?*, *Journal of Banking & Finance*, p. 155-166.

Binder, J.H. (2014) *Resolution: Concepts, Requirements and Tools*, (conference paper) ; available at: <http://ssrn.com/abstract=2499613>

Binder, J.H. (2014) *Resolution Planning and Structural Bank Reform within the Banking Union*, SAFE Working Paper No. 81, p. 1.-31.

Binder, J.H. (2014) *Resolution Planning and Structural Bank Reform within the Banking Union*, “*European Banking Union: Prospects and Challenges*” (conference paper)

Cavallo, G. R. M. (2014) *European Banking Union: An Immediate Tool for Euro Crisis Management and a Long-Term Project for the Single Market* *AI WorkIng PAPers* 14;

Cluchy, D. P. (2010) *The Financial Crisis And The Response Of The United States: Will Dodd Frank Protect Us From The Next Crisis?*

de Lis, S. F. et al. (2014) *Regulation Outlook: Compendium on bank resolution regimes: from the FSB to the EU and US frameworks*, Madrid

Fein, M. (2010) *Dodd-Frank Consumer Protection and Wall Street Reform Act* ; available at: <http://ssrn.com/abstract=1357452>

Freshfield et. al (2013) *Key points from the EU Recovery and Resolution Directive* ;
Available at:
http://www.freshfields.com/uploadedFiles/SiteWide/News_Room/Insight/RRP/EU%20Directive%20key%20points.pdf

Hadjiemmanuil, C. (2015) *Bank Resolution Financing in the Banking Union*, LSE Law, Society and Economy Working Papers 6, London

Hester, D. D. (2008) *Policy and Banking in the US The Evolution of Monetary Policy and Banking in the US*, Berlin

Joosen, B.P.M. (2014) *Bail in Mechanisms in the Bank Recovery and Resolution*, Amsterdam

McCan, Fitzgerald, (2014) *European Banking Union: The Bank Recovery and Resolution Directive*, London,
available at :
http://www.mccannfitzgerald.ie/McfgFiles/knowledge/5667European%20Banking%20Union%20-%20The%20Bank%20Recovery%20and%20Resolution%20Directive_0.pdf

Pejić, A. (2013) *Proposal for a Directive establishing a framework for the recovery and resolution of credit institutions and investments firms*, Bankarstvo 5, 119-133

Phillips, Morrison (2014, *Legacy of Lehman Series*, Ar. 1. ; available at:
<https://www.orrick.com/Events-and-Publications/Documents/The-Legacy-of-Lehman-Series.htm>

Posner, E. A. and Weyl, E. G.(2012) *An FDA for Financial Innovation: Applying the Insurable Interest Doctrine to 21st-Century Financial Markets*, available at: <http://ssrn.com/abstract=2010606>

Sanders, B. C. (2013) *Financial Regulatory Reform, Benefits, Costs and Challenges of the Dodd-Frank Act*, New York

Santander, B. (2014) *BRRD: paving the way towards the end of 'too-big-to-fail' in the EU*; Harvad Law School ;
available at :
<http://www.law.harvard.edu/programs/about/pifs/symposia/europe/2014-europe/banco-santander.pdf>

Skeel, Jr. D. A. (2010) *The New Financial Deal: Understanding the Dodd-Frank Act And its (Unintended) Consequences*, ILE – Research Paper No 10– 21., Pennsylvania

Tarullo, D. K. (2013) *Dodd-Frank implementation*; Testimony by Mr Daniel K Tarullo, Member of the Board of Governors of the Federal Reserve System, before the Committee on Banking, Housing, and Urban Affairs, US Senate, Washington, DC, 11 July 2013.; available at: <http://www.bis.org/review/r130715g.pdf>

Wiggins, R. Z., Wedow, M., Metrick, A. (2014) *European Banking Union B: The Single Mechanism Resolution*, Yale Programm on Financial stability Case study 2014-5B-V1,

Wilmarth, A. E. JR. (2011) *The Dodd-Frank Act: A Flawed and Inadequate Response to the Too-Big-to-Fail Problem*, p. 953-1052 ; available at: <http://ssrn.com/abstract=1719126>

Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council

Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council, OJ L 173 of 12 June 2014

Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC Text with EEA relevance, OJ L 176 of 27 June 2013, p. 338–436

Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Pub. L. No. 111-203, 124 Stat. 1376 (2010) available at: <https://www.sec.gov/about/laws/wallstreetreform-cpa.pdf>

EU Commission, Proposal for a Regulation of the European Parliament and the Council on structural measures improving the resilience of EU credit institutions, COM(2014) 43 final.

European Commission; Banking and finance; Newsletter (2015)
available at:
http://ec.europa.eu/information_society/newsroom/cf/fisma/itemdetail.cfm?item_id=20758&newsletter_id=166&lang=en

EURO Area Summit Statement, Brussels, 29 June 2012 ; available at:
https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/131359.pdf

Federal Deposit Insurance Corporation - FDIC (2011) : Managing the Crisis: The FDIC and RTC Experience Washington, available at:
<https://www.fdic.gov/bank/historical/managing/contents.pdf>

Financial Services (Banking Reform) Act 2013
Financial Stability Board, 'Structural Banking Reforms. Cross-border consistencies and global financial stability implications. Report to G20 Leaders for the November 2014 Summit', 27 October 2014, available at
www.financialstabilityboard.org/publications/r_141027.pdf.

Implementing the Bank Recovery and Resolution Directive (2014) Bank of England, London ;
available at:
<http://www.bankofengland.co.uk/pr/Documents/publications/cp/2014/cp1314.pdf>

Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010, OJ L 225 of 30 July 2014

Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 Text with EEA relevance OJ L 176, of 27 June 2013, p. 1–337

COMMISSION STAFF WORKING DOCUMENT Economic Review of the Financial Regulation Agenda

Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN

PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS A reformed financial sector for Europe {COM(2014) 279 final}

http://ec.europa.eu/internal_market/finances/docs/general/20140515-erfra-working-document_en.pdf

Consultation Paper- CP13/14; Implementing the Bank Recovery and Resolution Directive, July 2014,

https://www.bbvaresearch.com/wp-content/uploads/2014/06/050614_RO_S1-1.pdf

PART IX
THÉORIE DEL'INTÉGRATION
ÉCONOMIQUE / LA
COOPÉRATION
ÉCONOMIQUE ENTRE LES
PAYS DU MAGHREB ET I'UE

CHAPTER 53

Arezki Souak

Ecole des Hautes Etudes Commerciales, Alger, Algérie

Fatma Zohra Souak

Ecole Nationale Supérieure de Statistique et d'Economie Appliquée,
Alger, Algérie

L'ACCORD D'ASSOCIATION ALGERO-EUROPÉEN: ANALYSE RETROSPECTIVE ET BILAN

RÉSUMÉ

L'accord d'association algéro-européen entré en vigueur en 2005, a 10 ans d'existence. Une analyse rétrospective de sa mise en œuvre s'avère nécessaire. Si la structure des échanges entre les 2 parties constitue le point de départ de notre réflexion, l'objet de nos préoccupations concerne les conditions politiques, économiques et institutionnelles de sa mise en œuvre. En effet, le bilan fait apparaître une polarisation des échanges de biens et de services, autour de l'Union européenne ainsi qu'une asymétrie, entre les 2 parties aussi bien au niveau de la richesse qu'à celui des échanges. Ces résultats qui traduisent des déséquilibres entre les 2 parties, sont en deçà des objectifs ⁽¹⁾ de CET accord qui sont la diversification économique indispensable au développement soutenu ET équilibré de l'Algérie ET une diminution de SA dépendance vis-à-vis des hydrocarbures ainsi qu'un développement équilibré des échanges. Nous pensons que les conditions, politiques, économiques et institutionnelles de mise en œuvre de cet accord n'ont pas permis à l'Algérie d'en tirer profit, que ce soit du point de vue de l'intégration industrielle que commerciale. En 2015 c'est-à-dire 10 ans après l'entrée en vigueur de l'accord d'association, pour un dollar exporté hors hydrocarbures, on importe pour 25 \$ presque 25 fois plus.

¹ Un rapport établi en 2015 par l'UE, relève que parmi les priorités déjà identifiées par les 2 parties figurent aussi le renforcement de la gouvernance et le soutien au développement de la société civile, chantiers que l'UE se propose de mettre en route entre 2015 et 2020.

Mots-clés: échanges commerciaux, intégration, Algérie, Europe, partenariat, polarisation, asymétrie, diversification

JEL classification: F02- F15- F18- F41

1. INTRODUCTION

Cette communication a pour objet l'analyse de l'impact de l'Accord d'Association signé entre l'Algérie ⁽²⁾ et l'Union européenne et mis en œuvre en 2005. Faut-il rappeler que l'Algérie a été le premier pays à avoir signé un accord de partenariat avec l'UE couvrant au-delà du simple domaine commercial, le domaine politique et celui des affaires intérieures et de la justice. Espérant voir s'ouvrir de nouvelles perspectives stratégiques avec son insertion dans la mondialisation, l'Algérie a signé un certain nombre d'accords : une convention de coopération commerciale algéro-jordanienne en vigueur depuis le 31 janvier 1999, l'accord d'association, algéro-européen, en vigueur depuis le 1 septembre 2005, la Grande Zone arabe de libre échange depuis le 1 janvier 2009 et l'accord préférentiel algéro-tunisien depuis mars 2014.

Si l'accord d'association retient toute notre attention c'est principalement que pour des raisons historiques, culturelles et géographiques, l'Algérie a beaucoup misé sur cet accord. Nos interrogations porteront sur les conditions objectives de mise en œuvre de cet accord et surtout sur les limites institutionnelles et économiques à l'origine des faibles résultats enregistrés au regard des objectifs fixés et des enjeux , qui, pour l'Europe sont la pénétration et le contrôle du marché algérien et pour l'Algérie la réduction de sa dépendance vis-à-vis des hydrocarbures et la diversification de son économie sensées être obtenues par un volume adéquat d'IDE et un transfert de technologie.

Après un rappel du contexte économique et politique du partenariat algéro-européen, nous analyserons les répercussions sur l'économie algérienne du point de vue de l'intégration industrielle et commerciale puis les conditions de mise en œuvre de l'accord.

Il faut rappeler, que la question du partenariat euro-méditerranéen a été analysée ⁽³⁾ principalement sous l'angle européen en tentant d'évaluer

² La Tunisie et le Maroc qui avaient signé bien avant l'Algérie un simple accord commercial respectivement en 1993 et 1995, ont demandé la révision de leurs accords après 2002.

³) - Chaffour Jean Pierre et Stemitsiotis Loukas " *L'impact de l'Euro sur les pays méditerranéens*" Cahiers de l'euro n°24. 1998

les avantages économiques que procurerait l'Euro à l'Europe et en négligeant ses répercussions économiques régionales. Différentes études d'impact ont été réalisées et les évaluations ont été faites aussi bien dans le cadre d'études quantitatives que qualitatives. Elles ont porté soit sur des indicateurs économiques réellement observés (évolution comparée du PIB/tête des pays de l'Union Européenne et celui des pays partenaires Est Européens et méditerranéens, leur taux d'ouverture ainsi que l'évolution probable des échanges extérieurs, leur taux d'investissement et ratio investissement/PIB) soit elles ont consisté en des études ex-ante.

Examiner les effets du partenariat euro-méditerranéen sur l'économie algérienne nous conduit à nous interroger:

- sur le processus de libéralisation commerciale (exportations et importations et l'accès au marché européen des produits algériens) et sur le système d'interdépendance économique d'ensemble et sa cohérence par rapport aux objectifs fixés dans le cadre de ce partenariat.
- Le partenariat euro-méditerranéen a-t-il permis un développement équilibré des échanges avec l'Union Européenne ?
- A-t'il favorisé une diversification de l'économie algérienne afin de réduire sa dépendance vis-à-vis des Hydrocarbures ?
- Les conditions économiques et institutionnelles de mise en œuvre de ce partenariat étaient - elles réunies en Algérie (transition économique ,processus de privatisation du secteur public en Algérie , flux d'IDE, environnement des affaires ⁽⁴⁾ ,régulation économique, statut ⁽⁵⁾ d'exportateur agréé ? .

- Bénassy-Quéré Agnès et Mojon Benoît " L'UEM et la stabilité du taux de change euro/dollar ", Janvier 1998

- Degauvie P « Economie de l'intégration monétaire » traduit par Marie Donnay Ed De Boeck 1998
Le partenariat euro-méditerranéen en l'an 2000. Forum méditerranéen des instituts Économiques (femise network) juillet 2000

- Seconde conférence du Femise : "l'Euro et la Méditerranée. Les politiques de change des PSEM: bilan et perspective d'ancrage à l'euro". C . Berthomieu et Alii. Marseille du 8 au 30 mars 2001.

- Leveau Remi, "Le partenariat euro-méditerranéen, la dynamique de l'intégration régionale" rapport de groupe ,éd 2000

⁴) - Le Doing Business, qui classe l'Algérie à la 154^{ème} place sur 189 économies évaluées, pointe les insuffisances en matière de régulation administrative (administration inefficace, qualité du management des entreprises, lourdeurs bureaucratiques, contraintes bancaires, et foncières etc...

⁵) - Le statut d'exportateur n'existe pas encore en 2015 selon le DG des douanes

La réponse à toutes ces questions nécessite une analyse au double plan macroéconomique et mésoéconomie (sectorielle) ; étant donné que l'accord est basé sur la spécialisation et que les échanges sont des échanges interbranches portant sur plusieurs biens .Elle sera structurée ainsi : - un chapitre préliminaire, rappellera la dimension historique des relations économiques et financières entre l'Union Européenne et l'Algérie et le cadre institutionnel des accords ,afin d'évaluer ces relations et dégager les tendances de leur évolution. Dans un second chapitre, nous mettrons en évidence les caractéristiques de ces relations à savoir, une très forte polarisation (A) et une asymétrie (B) par rapport à l'Europe et dans un dernier, nous analyserons les conditions de mise en œuvre de cet accord.

2. LE CONTEXTE ECONOMIQUE ET INSTITUTIONNEL DES RELATIONS ENTRE L'UE ET L'ALGÉRIE

Contexte économique

Il nous semble opportun de resituer ces relations dans leur contexte économique et social, en rappelant brièvement, la politique économique et sociale qui a été mise en œuvre depuis la décennie 1970, car c'est elle nous semble-t-il, qui a structuré, le système productif national actuel et son insertion dans l'économie mondiale et particulièrement ses relations économiques et financières avec l'Europe.

L'économie algérienne a été transformée assez rapidement grâce à une politique d'investissements massifs durant la décennie 1970, réalisée essentiellement par l'État et mise en œuvre grâce à une rente pétrolière importante et assez pérenne. Du fait du poids très important des recettes pétrolières dans les exportations et les recettes budgétaires, toute variation dans un sens ou dans l'autre, du prix du pétrole brut a un fort impact sur l'activité économique du pays. Ainsi, une hausse du prix du pétrole conduit à une amélioration de l'activité économique par le biais de deux (2) canaux :

- celui des importations de biens et de services (dont l'augmentation améliore l'activité productive et l'activité des services.
- celui des recettes budgétaires qui permet aux pouvoirs publics d'augmenter les dépenses qui se répercutent, par l'amélioration de l'activité liée au développement des infrastructures de base.

Le prix du pétrole est donc la variable d'ajustement qui imprime son sens à l'activité économique en général et au commerce extérieur de l'Algérie, en particulier.

2.1. Le cadre institutionnel des accords entre l'Algérie et l'Union Européenne

Il ne serait pas inutile de rappeler le cadre institutionnel des échanges, c'est-à-dire les différents accords qui ont organisé et consolidé le processus d'intégration économique entre l'UE et l'Algérie.

LES ACCORDS DE COOPÉRATION

Il faut rappeler que les premiers accords conclus entre l'Union Européenne et les pays méditerranéens remontent à 1976, lors de l'adoption d'une politique méditerranéenne globale (PMG). L'Union Européenne avait choisi de mener une politique d'intégration régionale appelée « approche globale méditerranéenne ». Celle-ci se distingue des accords bilatéraux, par sa dimension plus « régionale » et dont l'objectif principal était de garantir le libre accès des produits industriels des pays tiers méditerranéens sur le marché européen.

Mais, les relations entre l'Algérie et l'UE n'ont réellement commencé à se renforcer qu'à partir de 1986. L'Algérie affectée par la chute du prix du pétrole, recherche un soutien et une aide pour financer et mettre en œuvre ses réformes économiques.

En 1992, la communauté économique européenne procède à la mise en place d'une politique méditerranéenne rénovée (PMR) qui souligne l'importance de l'action européenne dont l'objectif était d'approfondir la coopération financière et technique avec les pays concernés.

En 1995, le partenariat euro-méditerranéen établi lors du processus de Barcelone avait trois objectifs constituant les trois volets des accords conclus entre l'UE et les pays du sud et de l'Est de la méditerranée à savoir : Le volet politique, le volet économique et financier et le volet social culturel et humain. Même si c'est le volet économique qui nous intéresse dans le cadre de cet article, il faut noter que le volet politique est important, car cette référence au politique est primordiale puisque reposant sur la conviction, qu'il ne peut y avoir de développement économique durable sans une bonne gouvernance.

L'ACCORD D'ASSOCIATION ENTRE L'ALGÉRIE ET L'UE

Dans la continuité des objectifs visés par la conférence de Barcelone en 1995, l'U E a signé un accord d'association avec l'Algérie établissant une zone de libre échange (ZLE) entre les 2 parties. Il s'agissait dans le cadre de cet accord de :

- développer les échanges, assurer l'essor des relations économiques et sociales équilibrées entre les parties et fixer les conditions de la libéralisation progressive des échanges de biens, de services et de capitaux.
- encourager l'intégration maghrébine en favorisant les échanges et la coopération au sein de l'ensemble maghrébin et entre celui-ci et la communauté européenne et ses états membres.
- promouvoir la coopération dans les domaines économique social, culturel et financier.

La polarisation de l'activité économique sur l'Europe

Il faut noter que l'évolution des échanges commerciaux , est passée par 3 phases : la 1^{ère} qui va de la fin des années 1960 au milieu des années 1970, caractérisée par un faible volume des échanges qui s'explique par le fait que l'Algérie était plus préoccupée par la question de la nationalisation des hydrocarbures et par la construction du secteur public. La 2^{ème} période qui va de la fin de la décennie 70 aux années 2000, après une augmentation enregistrée au début, marque le pas à partir du retournement du marché pétrolier en 1986. Durant la 3^{ème} période qui débute avec la décennie 2000 jusqu'à 2013, on enregistre une progression particulièrement remarquable surtout à partir de 2005 avec l'augmentation des prix pétroliers en 2004.

La polarisation au niveau des échanges commerciaux

L'activité économique demeure polarisée sur l'Europe et particulièrement sur les partenaires traditionnels. Cette polarisation se retrouve surtout au niveau des échanges commerciaux.

Le commerce extérieur de l'Algérie est fortement polarisé sur l'Union Européenne puisque l'Europe a effectué en moyenne sur la période 1990-2013, 60% des échanges commerciaux environ, soit 62% des exportations et plus de 63% des importations. Les pays de l'Union

Européenne restent comme l'attestent les statistiques, toujours les principaux partenaires. Les autres pays d'Europe fournissent en moyenne, entre 1 et 2 % du volume exporté par l'Union Européenne.

LES ÉCHANGES DE MARCHANDISES

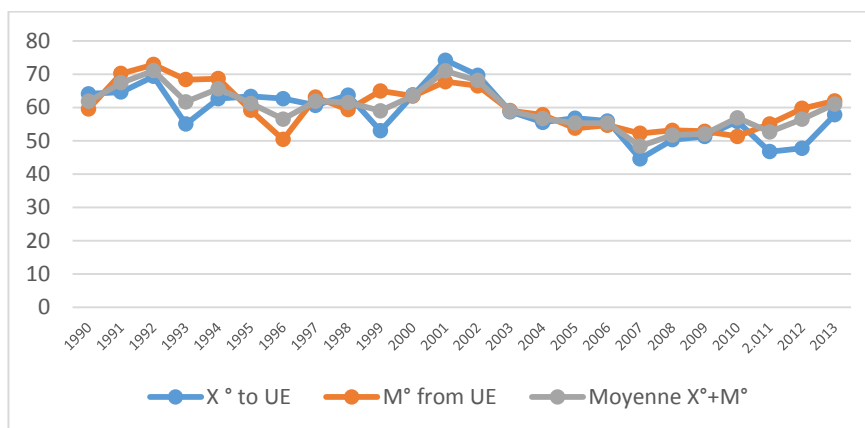
Concernant les marchandises, l'Algérie possède une structure de commerce extérieur de marchandises fortement polarisée en réalité sur quelques pays de l'Union Européenne. En effet de 2005 à 2013, la plupart de nos exportations soit près de 60% se dirigent vers l'UE et plus précisément vers quatre (4) pays. En 2013, l'Espagne est le premier client de l'Algérie et absorbe 7,47 milliards de \$ soit 15,67% des exportations ; elle est suivie de l'Italie avec 6,94 mds \$(13,66%), la France avec 5,21 mds 10,23% et la Grande Bretagne, 10,91%. Ces chiffres révèlent que sur un montant global des échanges réalisés avec le monde durant les 9 mois de 2013 de 90,82 mds \$; 64 mds sont effectués avec l'UE soit 59,48% du total.

Tableau 1 Part de l'Union Européenne dans les échanges de marchandises de l'Algérie de 1990 à 2013

En %	1990	1991	1992	1993	1994	1995	1996	1997
X ° to UE	64,11	64,62	69,31	55,03	62,63	63,31	62,63	60,64
M° from UE	59,58	70,20	72,86	68,38	68,67	59,13	50,41	63,08
Moyenne X°+M°	61,84	67,41	71,08	61,70	65,65	61,22	56,52	61,86
En %	1998	1999	2000	2001	2002	2003	2004	2005
X ° to UE	63,71	53,01	63,74	74,19	69,67	58,73	55,55	56,81
M° from UE	59,33	64,95	63,41	67,75	66,47	59,06	57,78	53,75
Moyenne X°+M°	61,52	58,98	63,57	70,97	68,07	58,90	56,67	55,28
En %	2006	2007	2008	2009	2010	2 011	2012	2013
X ° to UE	55,9	44,60	50,31	51,30	55,83	46,77	47,77	57,78
M° from UE	54,66	52,21	53,15	52,86	51,3	55,06	59,7	62
Moyenne X°+M°	55,28	48,40	51,72	52,08	56,9	52,67	56,5	61

Source: CNIS et EUROSTAT

Figure 1 Part de l'Union Européenne dans les échanges de marchandises de l'Algérie de 1990 à 2013



Les pays de l'Union européenne qui sont les principaux clients de l'Algérie, sont en même temps ses principaux fournisseurs et assurent comme le révèlent le tableau n° 6, depuis 1985 plus de 60% des échanges. En 2001, l'Europe a même assuré plus de 74% des exportations et 68% environ des importations algériennes. Nos importations n'ont cessé d'augmenter passant de 5903 millions de \$ US en 2001 à 54852 millions de \$ en 2013. Mais depuis 2001, la part de l'Europe s'est réduite (57% environ des exportations et 55% des importations) ; au profit des USA sont devenus depuis 2001, des clients importants devançant la France (18% contre 11%) en ce qui concerne les achats d'hydrocarbures. Les importations algériennes en provenance des USA sont assez cycliques puisqu'ils couvrent généralement les céréales et l'aéronautique. Mais la progression la plus spectaculaire est celle de la Chine qui occupe la 6ème place comme fournisseur. En réalité, cette polarisation est davantage centrée sur trois ou quatre pays. En effet, si 3 pays assurent, pour les 9 premiers mois de 2013, 37% des exportations (l'Italie 14%, Espagne 13%, la France 10%), ils sont aussi 3 pays à fournir 36% des importations algériennes : la France avec 22,4%, l'Italie (7,2%) et l'Allemagne (6%) environ

Cependant, la part du volume des échanges hors hydrocarbures entre l'Algérie et l'UE ne représente comme le montre le tableau n°2 que des parts infimes. Il faut souligner que même hors hydrocarbures la structure géographique des exportations algériennes montre une nette

prépondérance de la zone UE puisque depuis 2005 elles représentent une moyenne de 70% du total. Le taux est de 75% en 2013 .Par ailleurs, les déséquilibres des échanges hors hydrocarbures sont faibles par rapport aux excédents résultant des exportations hors-hydrocarbures. Par rapport à 2013, les échanges de l'Algérie avec cette zone ont enregistré une hausse de 30% des importations et de 20% pour les exportations. Si les exportations de l'UE vers l'Algérie concernent un large éventail de produits manufacturés comme le montre le tableau ci-dessous, les exportations algériennes sont constituées essentiellement de biens primaires: des hydrocarbures.

ECXANGES DE SERVICES

La polarisation au niveau des échanges de marchandises, se retrouve au niveau des échanges des services. Le solde du commerce des services est comme le montre le tableau suivant, structurellement défavorable à l'Algérie. L'Algérie dépense en moyenne, environ 2,3 milliards de dollars pour les voyages, le transport, le fret et pour les autres services commerciaux et ne reçoit pour les mêmes services que 770 millions de dollars.

Tableau 2 Évolution des échanges de services

En Milliards de \$	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Exportations	0,51	0,42	0,62	0,60	0,69	0,68	0,75	1,07	0,74	0,72	0,91
Importations	-1,71	-1,77	-1,76	-1,61	-1,93	-2,01	-2,15	-2,15	-2,22	-2,56	-2,36
Solde	-1,20	-1,35	-1,14	-1,01	-1,24	-1,33	-1,40	-1,08	-1,48	-1,84	-1,45
En Milliards de \$	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Exportations	0,91	0,90	1,00	1,10	2,51	2,58	2,84	3,49	2,99	3,57	3,77
Importations	-2,44	-2,60	-3,00	-4,20	-4,78	-4,18	-6,93	-11,08	-11,68	-11,91	-12,56
Solde	-1,20	-1,70	-2,10	-3,10	-2,27	-2,20	-4,09	-7,59	-8,70	-8,34	-8,79

Source : Banque d'Algérie. Bulletin statistiques : rétrospective 1999-2011- hors-série : juin 2012

L'ASYMÉTRIE DES RELATIONS ENTRE L'UE ET L'ALGÉRIE.

Les relations algéro-européennes sont caractérisées en plus de leur polarisation, par une asymétrie affectant aussi bien les échanges commerciaux, que la richesse et la diversification économique.

Tableau 3 Evolution de la structure des échanges extérieurs algéro-européens

En %	1993	1995	2003	2005	2006	2007	2008	2009	2010	2011	2012
Part de DZ dans les M° de l'UE	1,5	0,9	1,3	1,8	1,8	1,4	1,2	1,3	1,3	1,2	1,3
Part de DZ dans les X° de l'UE	1,0	0,9	0,7	1	0,9	0,9	1,2	1,3	1,2	1,1	0,7
Part de DZ dans (X°+M°) UE	1,25	0,9	1,0	1,4	1,35	1,15	1,2	1,3	1,25	1,15	1,0
Part de l'UE dans les M° DZ	68,3 8	59,1 3	58,7 0	55,7 8	54,6 6	52,2 1	53,1 5	52,8 6	54,6	59,5	52,9
Part de l'UE dans les X° DZ	55,0 3	63,3 1	58,9 4	55,6 5	52,6 4	50,3	51,3	55,8 3	43,3 4	54,4 9	57,7 8
Part de l'U.E dans les (X°+M°) DZ	61,7 1	61,2 2	58,8 6	55,5 2	53,2 1	46,9 9	52,3 9	52,0 2	55,6	56,6	59,3

Source : calculé par nous-mêmes à partir de statistiques du CNIS et Eurostat

Figure 2 Evolution de la structure des échanges extérieurs algéro-européens

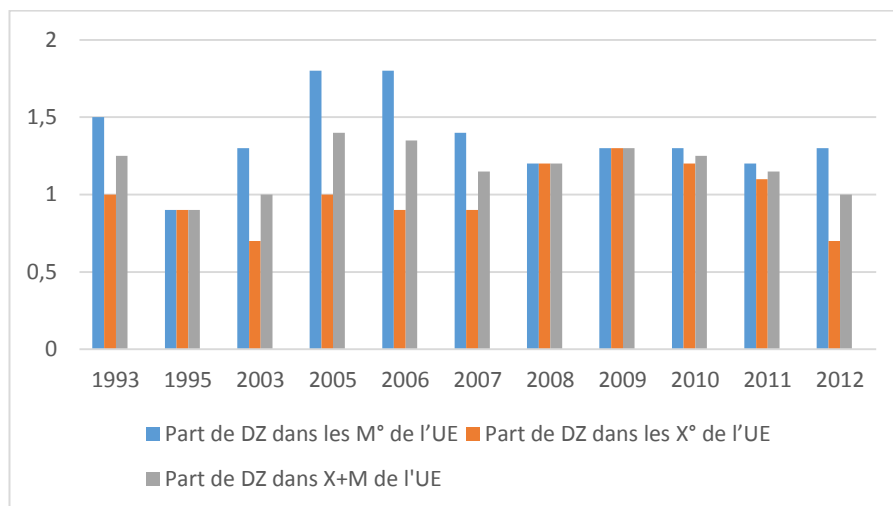
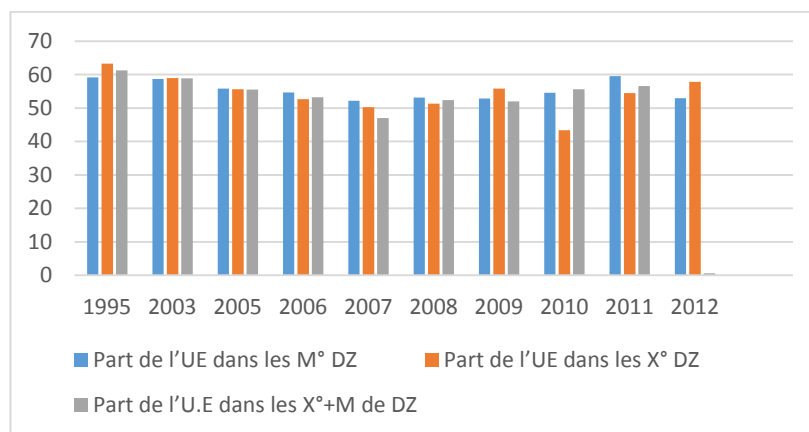


Figure 3 Evolution de la structure des échanges extérieurs européen-algérien



Le tableau ci-dessous révèle que les exportations de ces pays vers l'Algérie représentent moins de 1% (au plus 0,85%) des exportations françaises, 0,14% des exportations allemandes et 0,48% pour l'Italie ou l'Espagne.

Concernant les importations, du fait de l'existence de gazoducs reliant l'Algérie à l'Espagne et à l'Italie, ces dernières représentent entre 1,5 et 2% seulement de leurs importations.

Tableau 4 Part du commerce extérieur algérien dans celui de ses principaux pays européens partenaires en 2013

	X° vers DZ dans X° totales en %	M° de DZ dans les M° totales en %
Belgique	0,14	0,31
Allemagne	0,14	0,05
Espagne	0,47	1,55
<u>France</u>	<u>0,85</u>	<u>1,02</u>
Italie	0,48	2,01
Pays-Bas	0,14	0,71
Royaume-Uni	0,11	0,11
Total Europe	0,70	1,30

Source: Elaboré par nous-mêmes à partir de données d'Eurostat

L'asymétrie au niveau de la richesse

L'asymétrie constatée au niveau des échanges extérieurs, se retrouve dans la richesse. Le PIB réel durant la période 2005-2014 de l'Algérie ne représente à peine 1% en moyenne celui de l'Europe et entre 4 et 10% de celui de la France.

Tableau 5 Evolution du rapport PIB algérien/ PIB UE et du PIB algérien/ PIB France

(en %)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
PIBDZ/UE	0,71	0,77	0,80	0,87	0,80	0,98	1,08	1,22	1,65	1,62
PIBDZ/FR	4,74	5,07	4,61	5,63	7,02	6,27	6,89	7,43	10,47	10,23

Source: Calculé par nous même à partir de données d'Eurostat et de l'ONS

Ce que révèle le tableau ci-dessus est édifiant en ce sens où la richesse de l'Algérie représente à peine 1% de celle de l'Europe et 8 % en moyenne celle de la France.

3. LES CONDITIONS DE MISE EN ŒUVRE DE L'ACCORD

Les développements précédents mettent en évidence les déséquilibres caractérisant les échanges entre les parties signataires de l'accord. Ils révèlent surtout la forte polarisation des échanges autour de l'Europe, mais aussi l'asymétrie observée au niveau de la richesse et des échanges entre les 2 parties.

Même si selon les théories et la pratique, les accords de libre-échange, profitent surtout aux pays développés, cet état de fait trouve nous semble-t-il son explication, en partie dans les conditions de mise en œuvre aussi bien institutionnelles que politiques et économiques de l'accord.

Au plan politique, il faut noter que :

Primo : cet accord qui est avant tout politique n'engage pas les entreprises européennes largement mondialisées et surtout découragées par le mauvais climat des affaires souligné par le classement de l'Algérie par les différentes agences de notation et même par le Doing Business de la Banque Mondiale et donc peu enclin à investir dans le pays .

Secundo : la signature de cet accord vient après la « décennie noire » (1990) où les questions sécuritaires ont prévalu sur les problèmes économiques et après la mise en œuvre du Programme d'Ajustement structurel, sous la houlette du FMI qui prônait entre autres, la libéralisation économique, c'est à dire la privatisation des entreprises publiques et l'ouverture Commerciale. Enfin, rares sont les analystes politiques qui incluent dans leurs approches les bouleversements politiques qui ont lieu en Méditerranée et même ailleurs et qui portent un coup à la politique de voisinage élaborée en 2007 par l'Europe : la Lybie en ruine, la Tunisie en transition politique depuis 2011, la crise financière et sociale dans le sud de l'Europe (Grèce, Espagne, Italie, Portugal, Egypte). Certains accusent allègrement l'Europe d'en vouloir à l'Algérie à cause de son orientation passée anti impérialiste, tandis que d'autres traitent les responsables politiques algériens d'incompétents et d'autoritaristes.

Un rapport établi par l'UE sur l'accord d'association, note les domaines de blocage auxquels se heurte la concrétisation des objectifs consignés dans l'accord .La plupart d'entre eux renvoient à la lisibilité de l'action du gouvernement algérien et à la visibilité à moyen et long terme de ses choix économiques stratégiques qui restent difficiles à identifier du fait

de la persistance de contradictions importantes. La dernière conférence sur la relance industrielle ⁽⁶⁾ et la loi de finances 2015 en sont deux parfaites illustrations. Le rapport note des avancées sectorielles en matière de mise à niveau de la législation dans les domaines de l'environnement, de l'eau et des transports, mais le nœud gordien reste lié aux contraintes d'investissement ⁽⁷⁾, à une gouvernance plus transparente et une gestion publique plus démocratique. C'est à la partie algérienne de faire les choix qui s'imposent et qui supposent, un cap et une volonté politique.

Malgré les velléités affichées de réduire la dépendance envers les hydrocarbures, les pouvoirs publics algériens, ne parviennent pas à diversifier l'économie. Cette absence de volonté politique, apparaît dans les insuffisances au plan institutionnel, d'avancer dans le processus des réformes économiques (privatisation du secteur public soumis à d'incessantes restructurations dont la dernière date de 2014).

En matière d'intégration commerciale, les résultats enregistrés au regard de l'objectif du développement équilibré des échanges, n'ont pas été remarquables. L'analyse des échanges commerciaux et leur évolution révèle leur polarisation par l'UE (+ de 60%) et surtout une asymétrie au niveau des échanges et de la richesse

En matière d'intégration industrielle, les faibles volumes d'IDE se sont malheureusement orientés vers les secteurs des hydrocarbures et des télécommunications, marginalisant encore plus le secteur industriel, périlissant depuis 3 décennies et défavorisé par les différents programmes d'investissement de la décennie 2000 (PSRE, PCSC, PPI) ⁽⁸⁾ qui ont consacré l'essentiel des investissements à l'agriculture, aux infrastructures et aux services. Les investissements industriels réalisés entre 2002 et 2013 s'élèvent à 1570 milliards de DA, soit une moyenne annuelle de 143 milliards de DA ; représentant moins de 1% du PIB ⁽⁹⁾. Alors que les dépôts auprès des banques ⁽¹⁰⁾ primaires dépassant les 6600 milliards de DA sont gelés, et qu'une demande nationale en biens

⁶ . Lors de cette conférence, on a créé un Conseil National d'Investissement cad ,un organe administratif supplémentaire qui se superpose à la lourde machine bureaucratique existante .

⁷ Contraintes évoquées par les entreprises allant du foncier, aux procédures bancaires et aux lourdeurs bureaucratiques

⁸ Programme de soutien à la relance économique (2001/2005) de 7 Mds de \$ US destiné à la mise place des infrastructures de base. Le Plan de Consolidation et de Soutien à la Croissance (2005 /2009) de 155 Mds \$ us destiné au rééquilibrage territorial et le Programme Public d'Investissement (2010 /2014) de 286 Mds \$ us destiné aux infrastructures routières et ferroviaires dans un souci d'intégration .

⁹ A comparer avec les investissements au titre du budget d'équipement évalués à une moyenne annuelle dépassant les 25% du PIB.

¹⁰ Selon les responsables des banques, ce gel s'explique par l'absence de projets viables, alors que les entreprises évoquent des contraintes bureaucratiques concernant le foncier et les prêts bancaires.

industriels explose ; force est de constater que faute d'industries en mesure d'y répondre, les pouvoirs publics préfèrent recourir à l'importation. Le secteur public industriel qui réalisait 80% de la valeur ajoutée durant les années 1980 voit sa part sans cesse se réduire pour atteindre aujourd'hui moins de 5%.

L'économie algérienne est très peu diversifiée. La diversification est encore plus accentuée si l'on considère les exportations totales et la part des hydrocarbures dans ces exportations. La polarisation sur les hydrocarbures est une spécificité de l'économie algérienne qui est considérée comme faisant partie des pays les plus concentrés au monde. Si, durant la décennie 1970, la part des hydrocarbures a oscillé autour de 88,5%, celle-ci est allée en s'accroissant en passant à 97,3%, puis 95,7% et enfin à 97,4% respectivement au cours des décennies 1980,1990 et 2000. Cette concentration moyenne (97,4%) pour la décennie 2000 est supérieure à celle de pays pétroliers tels que : le sultanat de Brunei (94,1%) l'Iran (79,7%), le Koweït (94,5%) Le Nigéria (94,7%) l'Arabie Saoudite (89,6%) ou le Venezuela (87,9%).

Tableau 6 Mesure de la concentration des exportations *

Pays Années	ALGERIE	MAROC	TUNISIE	EGYPTE	ASIE	UE**	Pays Méditerranéens**
1980	0.82	0.319	0.48	0.188	0.241		
1985	0.541	0.250	0.38	0.545	0.185		
1990	0.566	0.162	0.2	0.244	0.111		
1995	0.551	0.173	0.21	0.244	0.122	0,356	0,512
2000	0.576	0.173	0.19	0.456	0.182	0,366	0,567

* Selon l'indice de Hirshman normalisé.

** Source : Comtrade, calculs de l'institut de la Méditerranée

L'indice de Hirschman Normalisé évalué à 0,8 pour la décennie 2000 et exprimant la concentration des exportations algériennes confirme la faible diversification. Même en se basant sur le nombre des produits exportés, selon les données de la Banque Mondiale, l'Algérie se situe parmi les plus faibles avec 184 produits exportés, contre 336 pour l'Arabie saoudite, 1120 pour le Maroc, 3266 pour le Mexique et 2849 pour l'Indonésie.

Les schémas de spécialisation par filière de l'Algérie avec le seul avantage obtenu dans la filière énergétique et les désavantages importants dans les filières agro-alimentaire, mécanique et chimique

montrent le chemin de facilité emprunté par l'économie rentière ⁽¹¹⁾. Les exportations hors hydrocarbures n'excèdent pas 3% des exportations totales. Représentant en 2013, 3,9% soit 1,4 mds \$, elles sont pour 70% destinées à l'UE.

Dans un article collectif ⁽¹²⁾ des auteurs avaient mis en évidence, la faible diversification de l'économie algérienne par rapport à celle de ses voisins du Maghreb et d'Europe du Sud, ou au noyau dur de l'Europe (Allemagne, France, Italie, Angleterre). Le tableau ci-dessous présente l'indice de spécialisation (indices de KRUGMAN 1991) qui renseigne sur l'écart entre la structure de production du pays comparé à la moyenne des structures de production de l'ensemble des pays de l'Europe et ceux du Maghreb. Ainsi, sur une période de 12 ans) l'Algérie a très peu diversifié son économie, et reste fortement dépendante des hydrocarbures.

Tableau 7 Indice de specialisation

	1987-89	1990-92	1993-95	1996-99
Espagne	0,509	0,515	0,521	0,524
Portugal	0,952	0,922	0,913	0,831
Grèce	1,183	0,151	1,066	1,024
<u>Algérie</u>	<u>1,832</u>	<u>1,862</u>	<u>1,862</u>	<u>1,826</u>
Maroc	1,446	1,454	1,436	1,448
Tunisie	1,344	1,305	1,312	1,375
Turquie	1,096	1,171	1,126	1,043

Source : CEPII Base de données Chelem calculs S. Dupuch, E. Mouhoud, F. Talahite

Même au sein du Maghreb, les statistiques montrent que l'Algérie est aujourd'hui, le pays le moins diversifié ⁽¹³⁾ et celui qui fournit le moins d'efforts pour le devenir, comme le montre le tableau n°8 relatif à la part du secteur manufacturier dans les exportations de biens des pays maghrébins qui met en évidence le caractère rentier de l'économie algérienne et l'aggravation de celui-ci depuis 1988. De plus, ni le nombre ni le rythme des privatisations n'ont facilité la mise en œuvre de l'accord.

¹¹) Chemin est celui emprunté par tous les pays pétroliers d'Amérique Latine, du Golfe, d'Afrique et même par la Russie.

¹²) S.Dupuch, E. Mouhoud, F. Talahite " l'Union Européenne élargie et ses voisins méditerranéens : les perspectives d'intégration" Revue Économie Internationale n°97 Paris.2004.

¹³) La mesure de la diversification se calcule par rapport aux variétés de familles de produits exportés. Plus on est éloigné de 1 et plus on est diversifié. Selon G Thureau, commissaire de l'association Méditerranée Economie sociale et solidaire (MEDESS), l'ESS peut s'avérer une grande opportunité pour l'Algérie afin de diversifier son économie. Le cas de l'Agriculture est intéressant avec les coopératives.

Tableau 8 Part du secteur manufacturier dans les exportations de biens (%).

	1978	1988	1998	1999	2012
Algérie	1,0	5,3	2,7	2,8	3,2
Tunisie	40,2	68,4	68,4	78,0	66,2
Maroc	20,8	53,3	64,4	68,4	68,8

Source: CEPII-CHELEM

Les théories de la croissance endogène ⁽¹⁴⁾ et celle du développement économique, éclairent la question de la diversification des pays en développement. Considérée comme une voie de rattrapage économique des PED et ayant toute sa place dans la théorie classique du commerce international, la diversification a un impact positif sur la croissance à travers l'amélioration de la productivité des facteurs et la réduction des risques liés au retournement de la conjoncture économique mais aussi par le biais du commerce international. Le processus de diversification renvoie d'une part au développement industriel et notamment au secteur de l'industrie manufacturière et d'autre part aux exportations dont la concentration en hydrocarbures fragilise l'économie algérienne. Elle est dans ce sens un facteur incontournable pour réduire la fragilité d'une économie (qu'elle soit celle d'un pays développé ou en de développement) dans un contexte de bouleversements technologiques ou d'émergence de nouveaux concurrents sur ses marchés ⁽¹⁵⁾.

4. CONCLUSION

L'objectif de cette communication était rappelés le , de partir du bilan de 10 ans de mise en oeuvre de l'accord d'association algéro européen , pour analyser les conditions politiques et institutionnelles de sa mise en oeuvre et montrer que l'absence d'une réelle volonté politique des pouvoirs publics algériens d'avancer dans le processus des réformes et leur incapacité à négocier avec l'Europe et à diversifier une économie liée à la maladie des ressources naturelles sont à l'origine des déséquilibres des échanges .

Après avoir rappelé le contexte économique et politique dans lequel se sont établies les relations algéro européennes, nous avons mis évidence

¹⁴ La diversification est considérée comme un processus endogène, selon les théories de la croissance

¹⁵ Berthelémy JC , « Commerce international et diversification économique », Revue d'Economie Politique, 2005, Vol 115, p 593

les caractéristiques de la structure de leurs échanges commerciaux. L'analyse menée a surtout permis de montrer la polarisation et l'asymétrie qui caractérisent ces relations et qui apparaissent aussi bien au niveau des échanges de biens et services, qu'au niveau de la richesse produite. Partant de ce constat et au lieu d'incriminer l'Europe pour les mauvaises performances algériennes (raccourci facile) nous avons plutôt mis en cause, les conditions politiques et institutionnelles de mise en œuvre de cet accord liées en dernière instance aux effets de la rente pétrolière. En effet, dans un contexte marqué par des bouleversements géopolitiques mondiaux et ceux que vit particulièrement la région euro-méditerranéenne, l'Algérie n'a pas engagé les réformes indispensables à son développement économique et à son intégration, ni s'y adapter. N'ayant pas apprécié à leur juste valeur, ses contraintes objectives et ses capacités réelles à négocier avec l'Europe, elle a été incapable de relever le défi de la diversification économique, base de son développement. Alors que l'Europe utilise tous les moyens pour obliger les pays du sud Méditerranéen (et l'Afrique) à lever totalement leurs barrières douanières et lui livrer leurs marchés, l'Algérie n'a pas su défendre ses intérêts alors qu'il lui reste peu de temps ¹⁶ pour se diversifier et améliorer sa compétitivité. Selon, un rapport établi par l'UE en 2015, la transition économique, la gestion publique et la bonne gouvernance constituent encore des chantiers pour les 5 années à venir. En résumé, on peut dire qu'en dépit de quelques efforts pour diversifier l'économie à travers des partenariats, en vue de sortir de la mono exportation et de sa dépendance vis-à-vis de la volatilité des prix du pétrole, les recettes pétrolières continuent à représenter plus de 98% des recettes globales d'exportations et 2/3 des recettes budgétaires. La diversification des exportations hors hydrocarbures constitue encore un objectif fondamental et un défi. L'accord d'association qui inscrivait dans ses objectifs l'établissement de relations économiques équilibrées et mutuellement avantageuses et la libéralisation progressive des échanges s'est fait essentiellement à l'avantage de l'Europe même s'il a permis une avancée du processus de libéralisation des échanges commerciaux. En 2014, les statistiques révèlent que pour 1\$ exporté hors hydrocarbures vers l'Europe, on importe pour environ 20 \$ c.-à-d., un rapport de 1 à 25.

¹⁶ L'Algérie a pu reporter son démantèlement tarifaire à l'échéance 2020 (prévu en 2017), pour une gamme de produits industriels importés d'Europe.

BIBLIOGRAPHIE

Ardouin Caroline "l'économie algérienne : quelles perspectives". Monde Arabe, Maghreb-Machrek n°149 Juillet septembre 1995

Bebassy-Quere Agnès et Mojon Benoît "L'UEM et la stabilité du taux de change euro/dollar". Janvier 1998

Beckouche Pierre, L'Euro Méditerranée est- elle ou peut-elle être une région économique intégrée ? Professeur à Paris 1 Panthéon Nanterre.

Bekenniche Othmane, le partenariat euro-méditerranéen, les enjeux OPU Alger 2011

Berthomieu Claude et A. Marseille du 8 au 30 mars 2001.

Le partenariat euro-méditerranéen en l'an 2000. Forum méditerranéen des instituts Économiques (Femise network) juillet 2000.

Chaffour Jean Pierre et Stemitsiotis Loukas *"l'impact de l'Euro sur les pays méditerranéens"*. Cahiers de l'euro n°24. 1998

Dupuch, S. Mouhoub, E. Talahite F. *"l'Union Européenne élargie et ses voisins méditerranéens : les perspectives d'intégration"* Revue Économie Internationale ". N°97 Paris.2004

Fitoussi. Jean Paul *"la question du taux de change de l'euro"* Lettre de OFCE n°247 Paris. Avril 2004

Hugon Philipe, *"Les accords de libre-échange avec les pays ACP et les pays du sud et de l'est de la Méditerranée au regard du nouveau régionalisme"*. Paris 10 Nanterre

Kerdoun Azzouz *"Perceptions sur les implications sur la zone de libre-échange : le cas de l'Algérie"*. Elites and change in the Mediterranean. Ed. Marquina – FMIS- UMC

Mouhoud, F. Talahite et Dupuch, Les perspectives d'intégration entre l'Union Européenne et les PECO et les pays sud méditerranéens :

incidence sur les tendances de la spécialisation des activités en Europe
CEPN-CNRS Université Paris 13

Seconde conférence du Femise : *"l'Euro et la Méditerranée. Les politiques de change des PSEM: bilan et perspective d'ancrage à l'euro"*.

ZwahlenJean “ *l'euro nouvelle monnaie internationale* ” (*Réflexions sur divers aspects de la question*). Genève, Novembre 2003.

Rapports du FMI 2005, 2007, 2009, 2011,2013

Ministère du commerce : statistiques - Direction Générale des Douanes
CNIS Rapports de la Commission Européenne

CHAPTER 54

Hana Horak

Université Zagreb, Faculté d'Economie et Business, Zagreb, Croatie

Kosjenka Dumančić

Université Zagreb, Faculté d'Economie et Business, Zagreb Croatie

L'INFLUENCE DU CADRE REGLEMENTAIRE SUR L'IDENTITE D'ORGANISATION DE L'ENTREPRISE

RÉSUMÉ

Le cadre réglementaire a un impact fort sur l'identité d'organisation de l'entreprise. Au sein des 28 États membres les cadres réglementaires varient et cela a un impact fort sur la liberté d'établissement et de la concurrence réglementaire dans le marché intérieur de l'Union européenne. Quand on analyse le cadre réglementaire, il faut savoir qu'il existe aussi une question importante des formes supranationales comme la société européenne (Societas Europaea) où des possibilités pour le changement d'identité juridique ont une forte influence sur l'identité d'organisation. Il existe un éventail de possibilités de gouvernement d'entreprise au sein des États membres de l'UE. Lors du changement de l'identité de l'entreprise, il ne faut pas oublier qu'il y a une forte relation entre les questions juridiques et organisationnelles et que l'analyse économique et juridique est le meilleur instrument pour décider quelle option convient le mieux. Parce qu' "une taille" ne convient pas à tous et les questions de réglementation devraient être mises en œuvre de manière à attirer les investisseurs et aussi à assurer la protection d'intérêt pour tous les actionnaires et pour les autres parties ayant un intérêt dans les sociétés.

Mots-clés: cadre réglementaire, le marché intérieur de l'UE, entreprises supranationales, gouvernement d'entreprise, liberté d'établissement pour les sociétés.

JEL classification: K2

1. INTRODUCTION

Il y a de nombreuses raisons qui influencent l'identité organisationnelle d'une entreprise. Parmi eux l'un des facteurs pertinents est l'identité juridique. En particulier, cette influence se dégage en ce qui concerne l'application de droit d'entreprise nationale des États membres. Considérant les 28 systèmes juridiques nationaux, chacun d'eux a ses particularités et sa propre réglementation des formes d'entreprises potentielles. Les cadres réglementaires sont différents au sein des 28 États membres et cela a un impact fort sur la liberté d'établissement et de la concurrence réglementaire dans le marché intérieur de l'Union européenne. Néanmoins, l'analyse des efforts de l'UE pour accroître la convergence des systèmes juridiques nationaux, par exemple grâce à la possibilité de créer des entreprises supranationales comme la société européenne - Societas Europaea (ci-après: SE) montre que chaque entreprise, quelle que soit sa forme juridique, est une création pour elle-même et que le cadre juridique national, ainsi que le statut des entreprises lui-même, a de l'impact sur l'identité et donne un effet individuel.

La SE a été introduite dans la législation de l'UE en 2001 visant à la création de la forme supranationale de la société anonyme qui va faciliter l'activité économique transfrontalière dans le marché intérieur de l'UE. Considérant la SE, l'attention particulière devrait être accordée sur le cadre législatif de l'État membre dans lequel la SE a son siège statutaire et où la SE est enregistrée. La création de la SE dans un État membre ne peut pas être atteinte sans réalisation préalable de condition sur la participation des travailleurs en conformité avec la législation de cet État membre. Sauf la législation nationale, il est d'une importance particulière d'appliquer le Règlement 2157/2001 relatif au statut de la société européenne (Règlement (CE) n ° 2157/2001 du 8 Octobre 2001 relatif au statut de la société européenne (SE), JO L 294, 10.11.2001.), la Directive 2001/86/CE complétant le statut de la société européenne pour ce qui concerne l'implication des travailleurs (Directive 2001/86/CE du 8 Octobre 2001 complétant le statut de la société européenne en ce qui concerne l'implication des travailleurs, JO L 294), l'acte fondamental de la société, ainsi que le code de gouvernance d'entreprise qui s'appliquent à l'entreprise en particulier. Le règlement sur le statut de la société européenne offre une occasion à ses fondateurs de choisir la structure des organes de gestion parmi un seul niveau et la structure à deux niveaux selon les conditions prévues par les statuts de la société. Les

analyses de sociétés établies montrent que les fondateurs suivent principalement la structure qui a déjà été connue dans le droit national d'État membre en période précédente (Braendle et Noll, 2005).

2. LA JUSTIFICATION POUR L'INTRODUCTION DE SOCIETAS EUROPEA DANS LA LEGISLATION EUROPEENNE

Avec le développement du droit des sociétés dans l'Union européenne, il y avait la nécessité de développer cette forme d'entreprise qui peut exercer une activité économique sans aucune restriction au niveau de l'ensemble de l'UE. En d'autres mots, qui peut se déplacer sans restrictions au-delà des frontières nationales des États membres. L'analyse comparative du droit des sociétés et la gouvernance d'entreprise dans les États membres de l'UE indique que le nombre varie dans les législations nationales (Horak, Dumančić, 2011) et que le besoin d'unification des règles en droit d'entreprises et de la gouvernance d'entreprise est en plus haut niveau possible. Les différences entre les réglementations juridiques dans le cadre des lois de la société découlent principalement des différences fondamentales entre les systèmes juridiques de droit civil et de droit anglo-saxon, mais ce n'est pas la seule raison (Horak, Dumančić, 2011). Afin de permettre une plus grande disponibilité de cette forme de société et afin de permettre son adaptation aux différents systèmes juridiques, le Règlement sur le statut de la société européenne prévoit la possibilité pour les fondateurs de société de choisir la structure des organes de gestion. La possibilité de choisir entre les structures des organes de gestion de l'entreprise contribue à sa meilleure acceptation par son fondateur (Linmondin, 2003). La crise financière en 2008 et après a montré qu'en outre des activités non transparentes ainsi la faiblesse de gouvernance d'entreprise peut influencer non seulement les entreprises, mais aussi l'économie entière au niveau global (Hopt et al. (éd.), 2005).

La communication de la Commission au Parlement Européen, au Conseil, au Comité économique et social européen et au Comité des régions Plan d'action: droit européen des sociétés et gouvernance d'entreprise - un cadre juridique moderne pour une plus grande implication des actionnaires et une meilleure viabilité des entreprises /COM/2012/0740 final/ définit les conditions préalables pour la régulation de règles impératives modernes. Gardant à l'esprit que les règles de soft law (Bodiroga-Vukobrat et Horak, 2008; Wymeersch, 2005) sous forme de recommandations n'ont pas atteint les objectifs

prescrits avec succès. D'autre part, il faut garder à l'esprit que les règles obligatoires peuvent réduire l'accent de la substance de la bonne gouvernance d'entreprise et peuvent retirer la responsabilité fondamentale des organes de gestion et les actionnaires de la qualité de la gouvernance et de réduire la conformité entre la gouvernance d'entreprise et de la législation. L'approche formaliste qui est basée sur le principe «se conformer ou s'expliquer» (Horak et Bodiřoga Vukobrat 2011, Seidl et Sanderson, 2009) mène à l'entrée aux conseils de gestion sur la base de la législation sans discussion approfondie sur la gouvernance d'entreprise dans la société elle-même, mais avec les avocats et les vérificateurs qui doivent remplir les formalités nécessaires (L'étude : EcoDa "comply or explain" Préserver la souplesse de gouvernance avec des explications de qualité, Rapport, Conférence annuelle EcoDa, 2012).

3. SE - ACCROITRE LES POSSIBILITES POUR FAIRE DES AFFAIRES TRANSFRONTALIERES

La SE est constituée comme une forme de société anonyme et réglementée par le Règlement au statut de la société européenne (Règlement (CE) n ° 2157 / 2001 du 8 Octobre 2001 relatif au statut de la société européenne (SE). Le Règlement au statut de la SE prévoit la possibilité de choisir la structure des organes de gestion entre un système à une seule instance (appelée «structure moniste» ou «structure unitaire») où un système à deux niveaux («structure duale») selon les conditions prévues par les statuts de la société. Le système moniste est typique aux États-Unis, en Suède, Grande-Bretagne, Irlande, Espagne et au Luxembourg, tandis que le système à deux niveaux est typique au Danemark, en Allemagne et aux Pays-Bas. Les possibilités de choisir les structures spéciales existent au Portugal, en Finlande, Belgique, France, Italie, Grèce, Slovénie et Croatie. La possibilité de choisir entre la structure des organes de gestion facilite la conduite des affaires d'une manière avec laquelle les fondateurs /membres sont familiarisés et quelle on peut gérer plus facile (Horak et Dumancic, 2011).

Le capital nominal de la SE est divisé en actions. Il est tout au sujet supranational forme de société visant à faciliter la création d'entreprises et de faire des affaires au-delà du cadre du droit national des États membres.

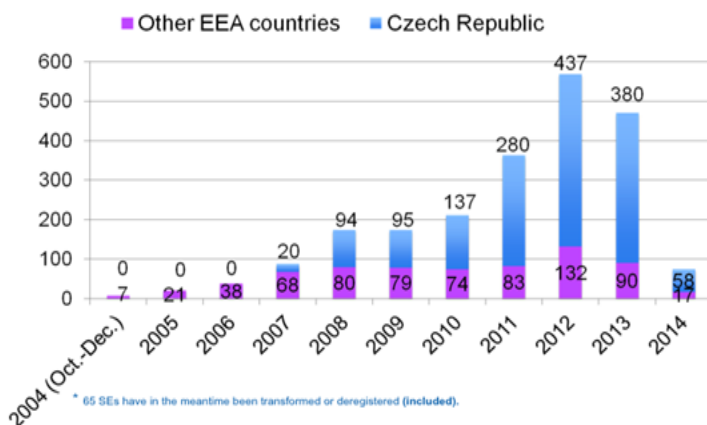
La formation de la SE fournit une bonne reconnaissance de la marque "européenne" à l'intérieur et hors de l'Union européenne en raison du fait

que seulement les entreprises établies dans l'Union européenne peuvent avoir cette forme. La marque de l'entreprise "Societas Europaea" élimine les obstacles à l'harmonisation avec les différentes marques nationales et les entreprises, par exemple les noms, comme c'est le cas avec d'autres formes de sociétés (par exemple Aktiengesellschaft en Allemagne pour la société anonyme, société anonyme par actions en Angleterre, société anonyme en France, droit belge aux Pays-Bas, etc.). Dans certains cas, la loi ou les dispositions du statut d'entreprise nationale s'appliqueront sur l'activité d'une société qui permet l'impact de la législation nationale sur la réglementation de certaines questions. De cette façon une influence du droit national sur des questions particulières de la réglementation d'une forme supranationale est assurée. Considérant les raisons de la formation de la SE, Eidenmüller, Engert et Hornuf (2009) ont mentionné de nombreux avantages qui ont été reconnus par les fondateurs. Principalement il est lié à l'atténuation de l'effet qui est causé par la participation obligatoire des salariés dans l'organe de gestion, par la formation d'une société qui est basée sur le système à un seul niveau dans les Etats qui ne prévoient que le système à deux niveaux pour les sociétés constituées au niveau national et en tenant compte l'occasion pour la mobilité transfrontalière des SE pour des raisons fiscales. Il n'est pas possible de distinguer une seule raison pour l'établissement de la SE, parce que dans la plupart des cas, il s'agit de nombreuses raisons interdépendantes.

4. ANALYSE DES SE ETABLIES POUR UNE PERIODE DE 2005 A 2014

Lorsque l'on regarde le nombre des SE nouvellement créées par année, se terminant en 2014 (données disponibles le 23 février 2015), il y a 2289 SE qui sont enregistrées en l'UE (février 2015).

Tableau 1 Enquête de SE nouvellement créées pendant des années (2004-2014)



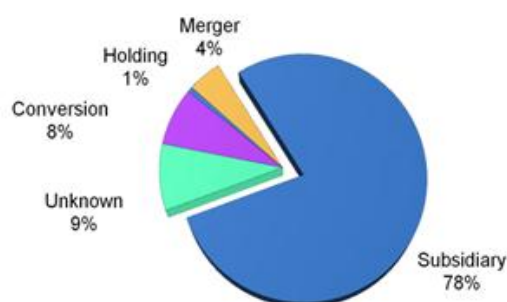
La source : <http://ecdb.worker-participation.eu>, le 23 mars 2015

On peut remarquer un nombre relativement petit des SE nouvellement créées en premières années après le Règlement au statut de la société européenne qui est entré en vigueur en octobre 2004. Selon les informations disponibles sur le site officiel de l'Institut syndical européen (www.etui.org) au début il y avait deux raisons à cela. La première raison est qu'il y avait un certain niveau d'aversion en ce qui concerne toute nouvelle forme de société et la seconde est que dans de nombreux États membres la mise en œuvre du Règlement au statut de la société européenne a été reportée. En 2008 le nombre des SE nouvellement créées a été doublé avec un total de 88 entreprises enregistrées en 2007-174 SE. Dans les deux prochaines années le nombre des SE enregistrées est retombé. En 2011 le nombre des SE nouvellement créées a augmenté à 362 nouvelles SE (par rapport à 211 nouvelles SE en 2010). Le plus grand nombre des SE nouvellement enregistrées était en 2012 avec 569 SE immatriculées.

La dynamique significative de la formation à partir de 2008 jusqu'à maintenant peut être vue en République Tchèque. Il a été créé 70% du total des SE immatriculées afin qu'en 2011 et 2014 quatre des cinq SE (78%) ont été établies en République Tchèque.

Les raisons d'un tel grand nombre d'entreprises nouvellement créées en République Tchèque ne sont pas tout à fait claires. Sur la base des informations disponibles et de l'étude sur cette question (Ernst & Young; Eidenmüller, Lasak, 2011), il est clair qu'il y a plusieurs raisons pour un tel nombre relativement important d'entreprises nouvellement créées en République Tchèque comparant aux autres États membres. Pour la plupart de ces entreprises, il n'y a aucune information sur les raisons de la formation étant donné que dans la plupart des cas, il s'agit des entreprises sans employés, et des informations sur elles ne sont pas disponibles ni à Internet ni selon l'enquête téléphonique (Eidenmüller, Lasak, 2011).

Tableau 2 Constitution d'une SE



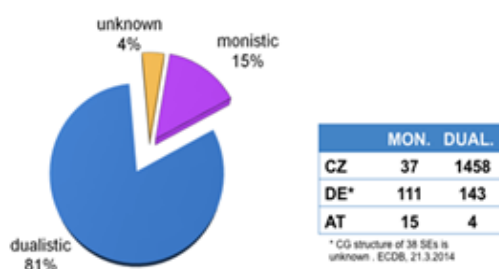
La source : <http://ecdb.worker-participation.eu>, le 20 mars 2015

En pratique on peut voir que la SE qui est une fois établie (dite «incubateur SE») sert comme un instrument pour la formation de la nouvelle SE qui est ensuite vendue comme une «entreprise achevée». Après qu'ils acquièrent la SE, les nouveaux actionnaires l'activent par transfert des travailleurs et/ou en lançant des activités d'affaires. Sur la base de l'enquête menée par Ernst & Young, on peut voir que la plupart de ces entreprises n'effectue pas toutes les activités et n'a pas de salariés. Les informations sur ces entreprises ne sont pas disponibles (Étude Ernst & Young sur le fonctionnement et l'impact du Statut de la société européenne, 2009). L'analyse des méthodes de formation montre

que 78% de SE sont formés comme la filiale principalement d'une autre SE, 8% sont formés par conversion, 4% en fusion et seulement 1% par la formation d'une nouvelle SE. Pour 9% de SE la forme d'incorporation est inconnue. En République Tchèque, toutes les SE sont constituées comme les filiales.

La prédominance d'établissement des filiales SE est une menace potentielle pour les droits des travailleurs dans la SE. En ce sens, il convient de garder à l'esprit ce mécanisme d'indemnisation des droits des travailleurs en matière d'information, la consultation et la participation sont accordées dans le moment d'établissement de SE. Plus tard est difficile de négocier les droits des travailleurs.

Tableau 3. Modèles de structure des organes en SE



La source : <http://ecdb.worker-participation.eu>, le 20 octobre 2014

L'assemblée générale des actionnaires de SE décide sur la structure de ses organes de gestion. Sur la base du Règlement au statut de la société européenne, les SE ont la possibilité de choisir entre un seul niveau et le système à deux niveaux en ce qui concerne la structure des organes. Considérant la structure des organes de SE, les informations montrent la prédominance de la structure à deux niveaux. Dans 81% d'entreprises les organes sont structurés selon la structure de système à deux niveaux par rapport à 15% d'entreprises qui sont formées selon le système à un seul niveau, tandis que pour 4% d'entreprises il n'y a aucune information. Le fait est que 4 sur 5 SE sont constituées en Allemagne et République Tchèque, qui ont traditionnellement dans la structure des organes le système à deux niveaux. Car dans leur législation envisagée, les sociétés anonymes ont le système dual. Il doit être pris en compte que le nombre d'entreprises s'organise en accord avec la tradition. Les analyses montrent une grande influence de la structure des organes traditionnels sur les SE nouvellement créées. En ce sens, dans les États

membres dans lesquels des entreprises ont le système à deux niveaux comme le système traditionnel, donc en République Tchèque, 98% de SE sont formées selon le système à deux niveaux, mais en Autriche, toutefois, seulement quatre des 19 SE ont décidé de maintenir le système traditionnel à deux niveaux, tandis que dans 15 entreprises il y a le système moniste. En Allemagne aussi, il y a près de 50% de sociétés constituées sur la base du système moniste.

Lorsque l'on considère les avantages de cette forme de société, la possibilité du transfert de siège sans liquidation doit être soulignée comme une des idées fondamentales de la SE à travers laquelle un haut niveau de flexibilité et de mobilité est atteint dans le marché intérieur. L'information montre que le nombre des transferts de siège est en augmentation. (Les informations disponibles sur <http://ecdb.worker-participation.eu>)

5. CONCLUSION

Selon les informations disponibles, les graphiques et les tableaux, il est clair que l'établissement et l'exécution de l'activité économique en utilisant la SE en tant que cette forme de société sont devenus la forme de plus en plus attrayante pour faire des affaires dans le marché intérieur de l'Union européenne. L'analyse des informations a montré que la République Tchèque est la destination la plus populaire pour l'établissement de ces sociétés. Il existe de diverses mesures d'incitation pour la formation des SE en République Tchèque. L'analyse a montré qu'il y a deux incitations dominantes pour la formation: l'intention de simplifier la gouvernance d'entreprise et les avantages que le type de société européenne apporte ("marque européenne") (Eidenmüller et Lasak, 2011).

Dans le sens du commerce de nombreux avantages de SE sont évidents (selon les informations disponibles à l'Institut syndical européen, <http://www.etui.org/Topics/Worker-Participation/European-Company-SE>)

, ce qui peut être vu dans le cadre réglementaire favorable qui se reflète dans le fait qu'il y a une approche plus libérale de constitution des SE en République Tchèque quand on analyse la participation des travailleurs au processus de prise de décision (Eidenmüller et Lasak, 2011). Aussi une des raisons est la possibilité de mettre en œuvre la gouvernance d'entreprise de manière plus facile. Le statut de SE peut stipuler que le conseil de gestion et le conseil de surveillance ou le conseil

d'administration ne doivent pas être composés de plus d'un membre. Sinon, le nombre des membres dans les organes de la société doit être déterminé sur la base du Règlement au statut de la société européenne ou sur la base sur les lois nationales et le statut de l'entreprise.

En République Tchèque, il est également possible de constituer la SE pour les entreprises sans place centrale de l'administration dans les États membres de l'UE ou de l'Espace économique européen si ces entreprises sont formées en conformité avec le droit des États membres, si elles ont leur siège statutaire dans cet État membre et s'il y a un lien réel et permanent avec l'économie de cet État membre. Cette possibilité législative "ouvre les portes" à l'enregistrement de SE également dans les cas où la place centrale de l'administration est en dehors de l'Union européenne ou l'Espace économique européen, et cela donne l'augmentation significative du nombre de fondateurs potentiels.

Depuis l'introduction de la SE en 2004, afin d'atteindre les objectifs du marché unique européen et de faciliter la réalisation de la liberté d'établissement pour les entreprises, le nombre de SE augmente de façon continue. Le statut de la SE offre la possibilité de la mobilité transfrontalière des entreprises en permettant à la SE de former et d'appliquer l'environnement juridique, réglementaire et fiscal comme leur avantage comparatif. La répartition régionale différente de SE ainsi que le petit nombre du transfert de siège transfrontalier, les fusions et les acquisitions transfrontalières, montrent que les possibilités de choisir entre différentes options lors de la constitution de SE ne sont pas utilisées d'une manière prévue (Horak, Bodiroga- Vukobrat, 2011). La SE prévoit la possibilité d'organiser les organes de gestion à un seul niveau ou à deux niveaux. Cette flexibilité n'a pas été suivie par la prévalence d'un système sur l'autre, mais le choix des organes de la structure repose sur l'environnement des affaires spécifiques de chaque entreprise. Donc, selon les hypothèses de certains auteurs, il y a une possibilité pour les organes de gestion d'être formés dans un autre État membre qui ouvre les portes au marché européen de l'établissement d'entreprises (Horak et Bodiroga-Vukobrat, 2008).

On peut faire une conclusion que la SE permettra d'améliorer la mobilité d'entreprise et d'accroître l'analyse économique pour la formation potentielle de SE dans les différents États membres de l'Union européenne et de leur environnement pour la gouvernance d'entreprise. Ce sera suivi par une augmentation de la qualité de la performance des entreprises. Aussi les investisseurs choisiront le lieu d'enregistrement où leur investissement est bien assuré, entre autres, par la législation du

droit de sociétés. L'analyse comparative montre de nombreuses différences entre les législations des États membres sur les sociétés, mais cela stimule la création et la performance des entreprises afin d'utiliser le cadre réglementaire le plus favorable et le plus adéquat pour la meilleure identité organisationnelle d'une entreprise.

REFERENCES

Bodiroga-Vukobrat N, Horak H. 2011. Kodeksi korporativnog upravljanja-instrument socijalno odgovornog gospodarenja, Zbornik radova Socijalno odgovorno gospodarenje, Tim press i Pravni fakultet Sveučilišta u Rijeci, Zagreb

Braendle, UC, Noll J. 2005. The Societas Europaea – A step towards convergence of corporate governance systems, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=704881 [20.2.2015]

Cauchi-Chetcuti, M. 2001. The European Company Statute: The Societas Europea (European Company) as a New corporate Vehicle, www.chetcuticauchi.com/mcc/research/european-company-statute-1.htm

Classens S, Yurtoglu B. 2012. Corporate governance in emerging markets: A Survey, <http://ssrn.com/abstract=1988880> [20.2.2015]

Eidenmüller H, Lasak J. 2011. The Czech Societas Europaea Puzzle, Law working paper No. 183/2011, <http://ssrn.com/abstract=1969215> [20.2.2015]

Eidenmüller, H, Engert, A, Hornuf, L. 2009. Incorporating under European Law: The Societas Europaea as a Vehicle for Legal Arbitrage, EBOR.

Hopt, KJ, Leyens, PC. 2004. Board models in Europe. Recent developments of Internal Corporate Governance Structures in Germany, the United Kingdom, France and Italy, Law working paper No. 18/2004, p.3, <http://ssrn.com/abstract=487944> [20.2.2015]

Hopt, KJ, Wymeersch, E, Kanda, H, Baum, H. (ed.) 2005. Corporate Governance in Context: Corporations, States and Markets in Europe, Japan and the US, Oxford, Oxford University Press

Horak, H, Bodiroga-Vukobrat, N. 2011. EU Member States' Experiences with the „Comply or explain“ Principle in Corporate Governance, Croatian Yearbook of European Law and Policy, Vol. 7, Zagreb.

Horak, H, Dumančić, K. 2012. Implementacija pravne stečevine Europske unije i utjecaj na hrvatsko zakonodavstvo i praksu u području sudjelovanja radnika, Zbornik radova s okruglog stola Uloga sindikata u suvremenom društvu, Ekonomski fakultet Sveučilišta u Zagrebu, 23. studeni 2012.

Horak, H., Dumančić, K. 2011., Harmonisation of the Croatian Company Law with Aquis Communautaire of the European Union, The Business Review, Cambridge, Vol. 18, No. 2

Horak, H, Dumančić, K. 2011. Modeli korporativnog upravljanja s posebnim osvrtom na rješenja u Italiji i Francuskoj, Pravo i porezi, No.1

Horak, H, Dumančić, K. 2010. Uvod u europsko pravo društava, Školska knjiga, Zagreb

Horak, H, Dumančić, K. 2007. Europsko društvo Societas Europea kao novost u hrvatskom pravu, Zbornik Ekonomskog fakulteta u Zagrebu, godina 5, Zagreb.

Horak, H, Dumančić, K. 2009. Pravilo poslovne prosudbe u hrvatskom i američkom pravu, Zbornik pravnog fakulteta u Rijeci, Vol. 29, No.2, Rijeka

Linmondin, K. 2003. The European Company (Societas Europaea) – A Successful Harmonisation of Corporate Governance in the European Union?, Bond Law Review, Volume 15, Issue 1 Special Issue: Comparative Corporate Governance

Ringe, WG. 2007. The European Company Statute in the context of freedom of establishment, Journal of Corporate Law Studies, Hart Publishing, Vol. 7, No. 2.

Siems, MM. 2005. The impact of the European Company (SE) on legal culture, European Law Review, Vol. 30.

Schmidtman, D. 2012. The European Company (Societas Europaea – SE) Caught In Between Cross-Border Mobility and Lock-In Effect – An Empirical Analysis on the Influence of Exit Taxation upon Cross-Border Mergers and Seat Location Decisions, World Tax Journal, Volume 4, No 1

Seidl, D, Sanderson, P. 2009. Applying „Comply or explain“: conformance with codes of corporate governance in the UK and Germany, Centre for Business Research, University of Cambridge Working Paper No. 389, p.5., <http://www.cbr.cam.ac.uk/pdf/WP389.pdf> [20.2.2015]

Communication de la Commission au Parlement Européen, au Conseil, au Comité économique et social européen et au Comité des régions Plan d'action: droit européen des sociétés et gouvernance d'entreprise - un cadre juridique moderne pour une plus grande implication des actionnaires et une meilleure viabilité des entreprises /COM/2012/0740 final

Règlement (CE) n ° 2157/2001 du 8 Octobre 2001 relatif au statut de la société européenne (SE), JO L 294, 10.11.2001.

Directive 2001/86/CE du 8 Octobre 2001 complétant le statut de la société européenne en ce qui concerne l'implication des travailleurs, JO L 294, JO L 294, 10.11.2001.

Ernst&Young Study on the operation and the impact of the Statute for a European Company 2009, http://ec.europa.eu/internal_market/consultations/docs/2010/se/study_SE_9122009_en.pdf, HANFA Report, <http://www.ripe.hanfa.hr/hr/publiciranje/izvjesca/>

Study on monitoring and enforcement practices in Corporate Governance in the Member States, RiskMetrics Group (2009), www.riskmetrics.com [20.2.2015]

CHAPTER 55

Maria Negreponi-Delivanis
CEDIMES Komotini, Grèce

LA FIN DE LA MONDIALISATION?

RESUME

Le régime de la mondialisation, imposé dans les années '70, dans le monde entier, fut longuement analysé, et sévèrement critiqué par l'auteure de ce rapport, en 2002, dans son livre intitulé La Mondialisation Conspiratrice, Editions L'Harmattan, Paris. Les défauts et les dégâts du système, qui ont été prévus et soulignés dès le début par Maria Negreponi-Delivanis se trouvent probablement à la base de son renversement actuel qui, selon plusieurs indices, a commencé, permettant de plus en plus l'introduction des éléments appartenant au régime protectionniste. Dans le cadre de ce rapport, on va tout d'abord essayer d'expliquer pourquoi il y a eu des alternances entre mondialisation et protectionnisme, intervenues régulièrement dans le passé. Dans un premier paragraphe, on va présenter les raisons pour lesquelles la mondialisation commence à s'affaiblir. Le second paragraphe sera consacré aux signes qui annoncent l'arrivée du régime alternatif, soit celui du protectionnisme, tandis que le troisième paragraphe s'occupera des bases du protectionnisme et des conséquences qu'on puisse attendre surtout dans le cas de l'Europe. Enfin, le rapport se terminera par des conclusions.

Mots clés: démondialisation, protectionnisme

JEL: F6

1. INTRODUCTION

Dans les années 1980, le système économique international que l'on connaît sous le nom de « mondialisation » s'est imposé au monde entier. Ce sont les États-Unis qui l'ont choisi et lui ont donné son essor, mus par la crainte justifiée de perdre leur suprématie mondiale, et de voir le

Japon ou l'Europe leur succéder. La libéralisation des échanges, combinée avec le libéralisme économique est le système sur lequel les États-Unis comptaient tirer avantage afin de s'assurer le maintien de leur leadership international. Le nouveau système international¹ a été accepté d'un bout à l'autre de la planète avec beaucoup d'enthousiasme, car il promettait de mettre fin aux crises, il promettait aussi d'augmenter la prospérité, le profit à tous les acteurs économiques dans le cadre de la libéralisation du commerce international et la possibilité à tous les habitants de la Terre de bénéficier des nouvelles technologies. Les quelques économistes qui ont exprimé des doutes, dès le début, sur l'impact de la mondialisation² étaient considérés comme peu orthodoxes, non progressifs, etc. Or, les effets négatifs de la mondialisation et l'échec de ses promesses initiales ont donné rétrospectivement raison aux sceptiques.

Lorsque la « mondialisation » est apparue il y a environ quatre décennies, elle était considérée comme un système nouveau, même s'il ne l'était pas. Au contraire, parce que nous ne disposons que de deux cosmothéories internationales, celle de la libéralisation du commerce et celle du protectionnisme, avec bien sûr une infinité de combinaisons possibles entre elles, ces deux cosmothéories se relaient tout au long de l'histoire du capitalisme, et qui plus est à intervalles plus ou moins réguliers³. Selon François Lenglet⁴, on observe au fil du temps un cycle répétitif, d'une durée d'environ 80 ans, comprenant deux demi-cycles d'une quarantaine d'années chacun : celui du protectionnisme et celui de la libéralisation du commerce international. Leur rotation semble obéir à des événements combinés, comme les nouvelles technologies, l'insatisfaction croissante face aux effets néfastes de chacun des systèmes, le passage du capitalisme à un stade ultérieur de développement, ou encore la prévalence des intérêts des États ou de puissants groupes sociaux du devenir international. En plus de cela, une chose inquiétante est qu'historiquement la phase de la mondialisation s'achève par une crise ou une guerre, comme cela est arrivé en 1873 et 1929.

¹ Il ne s'agit pas vraiment d'un nouveau système international, mais plutôt d'un système qui se répète à longs intervalles, et auquel a été donnée une autre appellation, la « mondialisation », qui ne figurait alors même pas dans les dictionnaires.

² Maria Negreponi-Delivanis, *La mondialisation conspiratrice*, CEDIMES, éd. L'Harmattan, Paris 2002, en guise de préface.

³ François Lenglet, *La fin de la mondialisation*, Librairie Arthème Fayard/Pluriel 2014, Chapitre 5-L'éternel retour.

⁴ Ibidem.

Depuis la prévalence de la dernière mondialisation en cours, quatre décennies environ ont passé, autant que celles prévues⁵ pour son remplacement par le protectionnisme. Et au-delà de cette indication chronologique il y a toute une série de signes annonciateurs de la fatigue de la mondialisation et de l'avènement d'un autre régime international. On pourrait certes facilement faire valoir que le ralentissement de la mondialisation est dû à la deuxième grande crise économique qui a commencé en 2007 et n'est toujours pas finie, et qu'il s'agit donc d'un phénomène cyclique et non structurel. Dans le même sens, on pourrait utiliser, pour donner une autre interprétation à ce ralentissement de la mondialisation et de la crise de la dette qui sévit en Europe et nécessite d'être combattu, le problème de l'immigration, dont la solution réside dans une revalorisation des frontières nationales. L'examen des signes qui annoncent le recul de la mondialisation laisse supposer que la planète est sur le point de changer de système, c'est-à-dire de passer au protectionnisme ou du moins à une combinaison des deux systèmes, avec une part assez importante de protectionnisme. Il est encore prématuré de prévoir avec certitude une telle évolution, surtout parce que les classes sociales puissantes favorisées par la mondialisation conçoivent celle-ci comme un système permanent et réagissent face à tout changement susceptible de les mettre en danger.

Il faut bien souligner le fait que ces deux systèmes sont dotés de caractéristiques positives mais aussi négatives et qu'ils favorisent différents groupes sociaux lorsqu'ils sont en vigueur. Et c'est justement une des raisons possibles au changement de système. Plus précisément, la libéralisation du commerce coexiste avec le néolibéralisme qui frôle souvent les limites du laisser-faire, laissez-passer. Ce système est hostile au rôle interventionniste de l'État dans l'économie et à l'État-providence. Par conséquent, le libre-échange, qui coexiste avec le néolibéralisme, exprime et favorise chacun des puissants. Ces derniers semblent convaincus que les faibles et ceux qui sont incapables de rivaliser et de réussir cherchent à être protégés, expliquant ainsi que le protectionnisme nuit au progrès. En cette période de mondialisation, l'importance des frontières nationales s'amointrit, de même que la souveraineté des gouvernements nationaux, tandis que les inégalités de toutes sortes prennent de l'ampleur et que la concurrence s'intensifie. Par ailleurs, dans le cadre de la mondialisation, les préférences se tournent contre l'inflation et en faveur de la stabilité monétaire restrictive, de sorte à

⁵ Ibidem.

assurer la circulation des capitaux. Le système protectionniste, en revanche, s'accompagne de l'intervention croissante de l'État et de l'État-providence, de la réduction des inégalités et du renforcement de la position de la classe moyenne. Un certain degré de maîtrise de l'inflation, ce qui aide à payer les dettes, ou des déséquilibres dans les différentes balancesy sont tolérés. Au début de l'instauration de l'une ou de l'autre cosmothéorie, les effets positifs l'emportent sur les négatifs, alors que c'est l'inverse qui vaut vers la fin, lors de l'accélération du processus de succession.

Or, si nous sommes effectivement entrés dans une phase de démondialisation, quelle définition pourrions-nous lui donner ? Pour Frédéric Lordon⁶, les caractéristiques individuelles de la démondialisation sont diamétralement opposées à celles de la mondialisation, si l'on suppose que la démondialisation est une bonne chose. Voici donc la définition qu'il donne de la mondialisation: «La concurrence non faussée entre économies à standards salariaux abyssalement différents; la menace permanente de délocalisation ; la contrainte actionnariale exigeant des rentabilités financières sans limite ;le développement chronique des ménages». Et la définition négative de la mondialisation qui est en même temps une définition positive de la démondialisation, toujours selon Frédéric Lordon⁷: «Réduire les flux des marchandises et de capitaux, et relocaliser les systèmes productifs [...], stopper la concurrence entre travailleurs et paysans du monde, valoriser la diversité des savoirs et des pratiques sociales, nourrir les populations et assurer la souveraineté alimentaire (...) ». Une tentative différente pour définir la démondialisation vient de Walden Bello⁸. Voici: «Il s'agit de réorienter les économies, de la priorité à la production pour l'exportation à celle pour la production destinée aux marchés locaux».

Dans la première partie de cet article, j'examinerai les signes qui vont dans le sens de l'avènement d'une nouvelle ère sur la scène internationale, qui sera dominée par le protectionnisme, dans la deuxième partie je traiterai les principales causes probablement à l'origine de ce changement et enfin, dans la troisième partie, je tenterai de dessiner les caractéristiques possibles du régime de protection.

⁶ «Frédéric Lordon et la démondialisation», 22 août 2013-par franco07.

⁷ Ibidem.

⁸ Deglobalization, ideas for a New World Economy, Londres et New York 2002.

2. LES SIGNES

Des signes d'affaiblissement de la mondialisation s'observent dans de nombreux domaines. Étant donné que durant cette dernière période de la libéralisation du commerce, c'est l'économie financière qui a prévalu, je vais commencer par les rebondissements qui en ont découlé, et qui sont vraiment impressionnants, et je vais poursuivre avec d'autres signes qui témoignent également d'une tendance au ralentissement du commerce international.

2.1. Restriction des transactions financières

Les échanges de ce type, qui ont marqué de leur empreinte l'actuelle mondialisation, s'élèvent pour l'ensemble de la planète à 206 trillions⁹ de dollars, soit 355 % du PIB mondial d'avant la crise. Cette dimension incontrôlée de l'économie virtuelle, qui évolue en parallèle vers l'économie réelle, affiche dans toute son ampleur le fait que la valeur des transactions financières était avant le début de la crise presque quatre fois plus élevée par rapport à la création de richesse dans l'économie réelle. La baisse de cette forme de transactions a été extrêmement forte après la crise, puisqu'elle équivalait à environ 50 unités du PIB mondial. La chute du flux des capitaux internationaux a également été vertigineuse, étant estimée à environ 70 % depuis le début de la crise. De leur côté, les banques se sont hâtées de restreindre les prêts internationaux de 3000 milliards de dollars par rapport à avant le début de la crise. Encourager le retour des transactions à l'intérieur des frontières nationales pourrait être interprété comme une tentative, de la part des banques, visant à un plus grand degré de sécurité, tendance qui a certainement été influencée par la crise, mais pas seulement. Parallèlement, les contrôles sur le rendement du capital reviennent dans de nombreuses économies, et il semble qu'entre-temps elles aient perdu leur mauvaise réputation et soient de nouveau acceptées, sachant qu'elles ont besoin d'un certain contrôle à leurs portes, afin d'éviter les investissements étrangers indésirables¹⁰. Ainsi, le flux total des capitaux, qui en 2007 approchait les 11 milliards de dollars, ne dépassait guère un tiers de ce montant en 2012¹¹. Pour l'UE notamment, on estime qu'au milieu de 2013 son intégration financière est retournée au niveau de

⁹ "Financial Globalization: Retreat or Reset?", Mc Kinsey Global Institute, mars 2013.

¹⁰ *The Economist*, 12.10.2013-Special Report : World Economy.

¹¹ Ibidem.

1999, soit avant l'adoption de la monnaie unique européenne¹². On se demande alors avec raison si cette augmentation de l'aversion envers la prise de risques se poursuivra après la fin de la crise. On ne peut, pour l'heure, répondre de manière absolue, mais on peut voir que dans le passé, le renversement de l'ordre économique international était généralement dû à des crises économiques et, par conséquent, il est fort probable que ce phénomène demeure même après la crise. La tendance forte à la baisse des transactions boursières concerne aussi les investissements directs étrangers qui se restreignent avec la crise. Selon des estimations¹³, les investissements directs étrangers pour les entreprises ont affiché une nouvelle baisse de 15 % en 2012. Dans ce domaine, on observe que les économies nationales sont de plus en plus réticentes à vendre leur richesse publique.

2.2. La stagnation dans le commerce international

La faillite de la banque Lehman Brothers a porté un coup dur au commerce international, qui malgré l'amélioration observée en 2009-2010, n'a jusqu'à ce jour pas réussi à retrouver son niveau d'avant la crise. Plus précisément, le commerce international a cessé de croître après 2011 et affiche une stagnation depuis 2014. À prix constants, pour la première fois depuis 1950, la croissance des échanges internationaux est inférieure à celle du PIB mondial¹⁴. De toute évidence, on peut dire que cette stagnation du commerce international est en grande partie due à la conjoncture économique mondiale, ce qui commence à inquiéter et laisse craindre la fin possible de la croissance, c'est-à-dire un monde avec une croissance nulle¹⁵. Ces inquiétudes sont également renforcées par le risque de déflation auquel est déjà confrontée l'UE. En 2013, les échanges au sein de l'UE ont baissé de 5 %, tandis qu'au niveau mondial, ils ont enregistré une baisse de 17 % par rapport au rythme de croissance avant la crise. La déclaration de Pascal Lamy, ex-directeur de l'Organisation Mondiale du Commerce, faite en avril 2013 à Genève est significative : « La menace du protectionnisme est peut-être plus forte qu'elle ne l'a jamais été depuis le début de la crise ». Le ralentissement du commerce international, en pourcentage du PIB, semble plus prononcé dans les économies émergentes, et cela parce que leurs

¹² François Lenglet, *op.cit.*, p. 18.

¹³ Cabinet de consultants McKinsey.

¹⁴ *Alternatives Économiques*, no. 341, décembre 2014.

¹⁵ Patrick Artus et Marie-Paule Virard, *Croissance Zéro*, Fayard 2015.

exportations ont été affectées par la baisse de la demande des économies avancées, à cause de la crise, et que leurs importations sont plus sensibles en période de crise que celles des économies avancées. Et puis, la mondialisation semble s'être épuisée aussi parce que les taxes représentent, en moyenne au niveau mondial, moins de 5 % de la valeur des importations et peuvent difficilement être réduites davantage.

Mais plus que la stagnation du commerce international, le ralentissement de la mondialisation est confirmé par la nette tendance des économies nationales à conclure des accords régionaux. Les États-Unis surtout limitent depuis quelque temps leur activité dans les échanges mondiaux, et concluent des accords commerciaux avec leurs alliés de prédilection, autrement dit l'ALÉNA, l'UE, l'Asie, le Japon, la Corée du Sud, l'Australie et la Nouvelle-Zélande. Avec ces accords régionaux, qui portent en fin de compte un coup dur à la mondialisation, les États-Unis ont réussi à affaiblir les réactions des trois économies émergentes que sont la Chine, l'Inde et le Brésil qui cherchent à sauver leurs propres intérêts nationaux¹⁶. En effet, les économies émergentes, qui ont pris conscience de l'augmentation de leur poids spécifique dans l'arène économique mondiale, unissent leurs forces et se montrent de moins en moins disposées à accepter des accords qu'elles jugent peut-être nuisibles à la poursuite de leur croissance rapide. C'est pourquoi elles ont réagi à la volonté des pays avancés d'étendre la libéralisation du commerce international aux services, aux investissements étrangers et aux marchés du secteur public.

3. RELOCALISATION DES ENTREPRISES

La tendance au rapatriement des entreprises dans leur lieu d'origine sera très probablement reconnue, dans un proche avenir, comme le signe le plus important de la démondialisation. Au point culminant de la libéralisation du commerce, le phénomène qui dominait la planète était la délocalisation d'entreprises ou la simple menace de déplacement du lieu d'implantation d'une partie ou de la totalité d'une entreprise vers une économie émergente ou en développement. Cette pratique généralisée a entraîné un nivèlement des salaires vers le bas, et par voie de conséquence l'apparition d'inégalités incontrôlées. Déjà depuis 2013, avec en première ligne les États-Unis, on observe la tendance inverse, timidement au début, à savoir le retour des entreprises à leur lieu

¹⁶ Alternatives Économiques, op.cit.

d'origine. Le déclenchement remarquable de cette tendance au retour vient d'Apple, qui a réinstallé son usine de production d'ordinateurs au Texas. General Electric a suivi en réinstallant aux États-Unis son unité de production de réfrigérateurs, machines à laver et poêles portatifs. Plusieurs grandes multinationales telles que Caterpillar, et ET Water Systems ont quitté la Chine et sont rentrées aux États-Unis¹⁷. On estime¹⁸ que 37 % des entreprises dotées d'un chiffre d'affaires de plus d'un million de dollars disent avoir l'intention de rapatrier une partie de la production de leurs entreprises. Il ne fait aucun doute que la croissance significative de l'emploi aux États-Unis s'explique par cette tendance des entreprises américaines à rentrer chez elles. Cette même tendance au retour des entreprises s'étend à l'Europe, avec un certain retard toutefois. Les interprétations de cette évolution de la situation, dont les points communs à l'Amérique et à l'Europe sont nombreux, penchent vers la restriction de la mondialisation. À titre indicatif, on peut citer l'intérêt croissant que les consommateurs américains mais aussi européens portent sur l'origine des biens qu'ils acquièrent, semblant préférer de plus en plus leurs « propres » produits. Ce nouvel élément, l'un des plus importants de l'anti-mondialisation, s'interprète comme une prise de conscience des maux causés par la mondialisation, mais aussi par une plus grande attention accordée aujourd'hui à la qualité des produits. Ayant joué un rôle significatif aussi dans le rapatriement des entreprises, la limitation récente de l'écart du niveau des salaires entre les pays émergents et en développement et les économies avancées. En effet, en Chine, qui était la destination la plus importante de la délocalisation, les salaires ont enregistré une hausse de 19 % par rapport à 2005. Et de l'autre côté, la politique d'austérité prolongée mise en œuvre dans les économies avancées, en particulier dans l'UE, a contribué à y geler ou même à baisser les salaires réels.

L'opinion publique contre la mondialisation

Le déclenchement de la crise a révélé un changement significatif de l'opinion publique envers la libéralisation du commerce international, justifié par la prise de conscience de ses conséquences néfastes. On estime que près de 65 % des Européens sont favorables à une restriction du libre-échange, autrement dit à la démondialisation. Cependant, le pourcentage le plus élevé des mécontents à l'égard des résultats de la

¹⁷ François Lenglet, op.cit., p. 26 et suivantes.

¹⁸ Étude du Boston Consulting Group.

mondialisation se trouve aux États-Unis, où 71 % des citoyens se disent préoccupés par la destruction des emplois à cause des échanges commerciaux avec la Chine, et 78 % considèrent que la dépendance de l'Amérique vis-à-vis de la Chine¹⁹ est un problème financier très sérieux. En revanche, 15 % seulement des grands chefs d'entreprise américains déclarent être opposés à la mondialisation.

3.1. L'environnement, signe annonciateur de la fin de la mondialisation

Il y a dans les économies avancées et émergentes, le désir omniprésent de plus de sécurité et de prendre moins de risques qu'auparavant. Satisfaire ces tendances demande une restriction de la liberté absolue, et un retour de la régulation des marchés, qui avait été supprimée sous la mondialisation. Cela nécessite de s'éloigner des obsessions de la « main invisible » des classiques, qui sont censées réguler le marché et en même temps de se concilier avec le besoin d'intervention de l'État dans l'économie. Les frontières, qui avaient été en fait abolies par la mondialisation sont de nouveau souhaitées puisqu'elles garantissent une plus grande sécurité. La prise en charge irresponsable des dettes est limitée, et un certain degré d'inflation contrôlée est toléré, ce qui facilite le paiement des dettes accumulées sous la mondialisation.

3.2. Les raisons de la démondialisation : les dégâts de la mondialisation

Si la démondialisation a effectivement commencé, comme le montrent de nombreux signes tels que mentionnés dans la partie I ci-dessus, il serait intéressant de savoir quelles sont les causes spécifiques de ce retournement. S'agit-il de la théorie développée par François Lenglet sur le cycle des 80 ans environ, avec les deux demi-cycles, et selon laquelle nous sommes actuellement sur le point de changer ? Cette interprétation est fort probable, même si elle n'exclut pas d'autres plus partielles et complémentaires, comme notamment l'argument selon lequel le changement de l'ordre économique international a lieu sous la pression des effets négatifs de chacune des phases d'environ 40 ans, qui s'intensifient et se multiplient à mesure qu'elle approche de la fin. À cet argument partiel, en outre, on peut également ajouter la réaction exercée

¹⁹ Jessica Tuchman Matews, Andrew Kohut et Stapleton Roy "US Public, Experts Differ on China Policies", Pew Research Center-septembre 2012.

en faveur du renversement par chacun des groupes sociaux contre lesquels se tourne le régime international sur le point d'être renversé. C'est sur ces pensées que nous tenterons d'étudier les causes principales de la démondialisation.

Il est maintenant largement admis que la mondialisation a généré un certain nombre de conséquences négatives, et est revenue sur presque toutes les hypothèses initiales. Notamment :

4. L'APPROFONDISSEMENT DES INEGALITES

La mondialisation s'est avérée être un système qui favorise les forts et crée des inégalités abyssales dans tous les domaines.

a) En termes de répartition des revenus personnels, où le développement était exponentiel depuis que la mondialisation et le néolibéralisme ont été imposés, les habitants les plus riches de la planète qui représentent 1 % de la population contrôlent environ 45 % de la richesse mondiale... et 50 % des habitants les plus pauvres sont contraints de se partager 1 % de la richesse mondiale. On prévoit qu'après la crise le taux de contrôle de l'élite mondiale augmentera encore davantage.

b) La part du travail et du capital dans le revenu national, telles qu'exprimées dans la fonction Cobb-Douglas, était considérée comme stable et non changeante jusqu'aux années 1980, autrement dit jusqu'à l'avènement de la mondialisation, et l'évolution qui l'accompagne. Selon les estimations du FMI²⁰, la part des salaires dans les pays membres du G7 a chuté de 5,8 % dans la période 1983-2006, plus précisément de 8,8 % dans les États membres de l'UE²¹, et de 9,3 points en France. Cette chute verticale de la part du travail en faveur des profits dans le PIB des économies avancées s'est accompagnée d'une vague de réformes, qui a conduit à la restriction de la protection des travailleurs, notamment au sein de l'UE et en particulier dans les économies endettées du sud de l'Europe, de sorte que l'argument selon lequel le travail fait l'objet d'une persécution²² n'a rien d'excessif.

Il est juste d'interpréter l'exacerbation des inégalités dans la répartition personnelle et fonctionnelle durant la phase de mondialisation, comme le résultat de la libéralisation du commerce, qui comprend de nombreux aspects. Cette interprétation qui veut que la tendance au nivellement des

²⁰ Mars 2008.

²¹ Commission Européenne.

²² Maria Negreponti-Delivanis, *Réformes, la decimation des travailleurs en Europe*, Fond. Delivanis et éd. Livanis, 2007.

salaires vers le bas est une conséquence de la libéralisation du commerce international et des délocalisations d'entreprises est donc très forte, car elle met en concurrence le niveau des salaires dans les pays avancés et dans les pays en développement. Rappelons aussi le fait que la productivité tend à baisser en raison de la substitution de l'emploi non spécialisé dans l'industrie déplacé vers des pays émergents par des emplois dans le secteur des services, avec une productivité plus faible. Or, dans le même temps un petit nombre d'emplois est créé, avec une productivité très élevée et des salaires souvent astronomiques, essentiellement dus à la séparation violente des économies virtuelle et réelle. Ce sont les salaires des traders lesquels gèrent d'énormes sommes d'épargne qui circulent sans aucun contrôle d'un bout à l'autre du monde, cherchant à faire un maximum de profit, ce sont les salaires de ceux qui travaillent dans l'internet ou dans le marketing moderne. Cependant, une seconde interprétation refuse le fait que les inégalités résultent de la libéralisation du commerce, et fournit des données d'où il semble ressortir que, aux États-Unis en particulier, les transactions sont insuffisantes par rapport à la taille de l'économie, et ne peuvent donc générer des inégalités d'une telle ampleur, qu'il est plus correct d'attribuer aux nouvelles technologies²³. Notons également que la relocalisation d'entreprises a créé dans les économies émergentes une classe moyenne montante qui se tourne contre les inégalités.

c) L'écart entre le Nord et le Sud ne se limite plus, ces dernières années²⁴, aux principaux indicateurs que sont la mortalité infantile, l'espérance de vie et l'analphabétisme²⁵. Et l'écart entre l'habitant moyen des pays riches et des pays pauvres se creuse : en 1990, un Américain moyen était 38 fois plus riche qu'un habitant moyen de la Tanzanie, et en 2007, la différence était de 61 fois²⁶. Le problème de l'aggravation des disparités, en particulier entre le Nord et le Sud de l'Europe, est devenu incontrôlable et dangereux pour la l'avenir de l'UE, sous l'effet combiné de la mondialisation et des différents traités de l'UE²⁷.

²³ Daniel Cohen, *Richesse du monde, pauvreté des nations*, Flammarion 1997.

²⁴ World of Work Report - TWN Info Service on Finance and Development (oct.08/06), 23 octobre 2008, third World Network-Labour: income inequality expected to rise to financial crises, Published in SUNS#6571, 20 octobre 2008.

²⁵ PNUD.

²⁶ Ibidem.

²⁷ Maria Negreponti-Delivanis, « La fin de l'euro : le nord de l'Europe contre son sud », Cahier CEDIMES, no. 1, 2013.

5. DÉSACTIVATION DU RÔLE REDISTRIBUTIF DE L'ÉTAT

Ayant commencé aux États-Unis, les réformes fiscales se sont par la suite élargies au reste du monde avancé, réduisant considérablement le poids fiscal mais aussi le potentiel redistributif de l'État et l'État-providence. Le creusement dangereux des inégalités de distribution était inévitable²⁸. La mondialisation, combinée au libéralisme extrême, est hostile à l'imposition puisqu'elle considère comme dangereux le rôle interventionniste de l'État dans l'économie. Sous le règne de la mondialisation, les paradis fiscaux mais aussi la corruption²⁹ se sont développés dans une mesure incontrôlable. Les riches ont pu, avec une grande facilité, transférer leurs biens dans des endroits peu ou pas imposés³⁰.

La libéralisation du commerce ne profite pas à tous les acteurs économiques

Les résultats de la mondialisation et même de l'actuelle ne permettent pas de vérifier le discours tenu par la théorie dominante, à savoir que le libre-échange profite à tous. La conjugaison de la libéralisation du commerce d'un libéralisme extrême a conduit à l'obligation inconditionnelle pour les pays développés d'ouvrir leurs frontières économiques au libre-échange, menacés, en cas de refus, de ne pas recevoir d'aide. L'exemple le plus décevant nous est donné par l'Afrique subsaharienne dont les exportations représentent environ 40 % de son PIB³¹. Or, 4 % à peine du total des investissements directs étrangers, qui selon la théorie dominante devraient se diriger vers les économies en développement, sont attirés par elles. En effet, à l'exception de la Chine, les investissements directs étrangers préfèrent les économies déjà avancées.

²⁸ Paul Krugman - conférence de presse à la Revue Alternatives Economiques, octobre 2008.

²⁹ Maria Negreponi-Delivanis, La crise meurtrière, Fond. Delivanis et éd. Livanis, 2010 (en grec et en anglais en livre numérique, Amazon), p. 89 et suivantes.

³⁰ Jeffrey Sachs, "Tripped up by Globalization", Financial Times, 18 août 2012.

³¹ Organisation Mondiale du Commerce.

Les crises sont devenues plus fréquentes

La mondialisation a rendu les crises fréquentes, tant dans les pays avancés que dans les économies émergentes, même si elle avait prédit leur fin grâce au fonctionnement de la « nouvelle économie ». Ce sont pour l'essentiel des crises financières et bancaires qui évoluent cependant souvent en crises systémiques ou en crises de la dette, comme cela est arrivé avec la dernière en cours qui a commencé en 2007. En effet, dans les années 1990 les probabilités pour qu'une crise éclate étaient dix fois plus fortes que dans les années 1970³². Non seulement cela, mais on enregistre aussi un ralentissement durable de l'Occident, qui donne lieu à des craintes raisonnables au sujet de la fin de la croissance économique et de sa substitution par une stagnation à long terme³³. Les crises, avec la mondialisation, sont alimentées par le besoin de liberté des mouvements de capitaux³⁴. L'ignorance du risque est générale et pousse les acteurs économiques à des comportements extrêmes, et au surendettement des secteurs public et privé. Les déséquilibres de toutes sortes s'accumulent ainsi sous le règne de la mondialisation.

Les effets négatifs graves et nombreux de la mondialisation dont il a été question ci-dessus sont significatifs et peuvent en justifier le renversement, avec d'autres interprétations déjà mentionnées plus haut.

L'actuelle mondialisation a très vite évolué en conspiration³⁵

La mondialisation en cours a progressivement inclus dans ses objectifs et son mode de fonctionnement des éléments hétéroclites, qui ne servent pas les intérêts de la totalité, mais les intérêts particuliers de puissants groupes sociaux. Et ces données, d'ailleurs, n'avaient aucun rapport avec son contenu et avec sa définition générale qui est la libre circulation, sans aucune entrave, des biens et services.

Ces données proviennent du mariage de la mondialisation avec l'ultralibéralisme. À titre strictement indicatif, citons la déification de la *compétitivité*, qui équivaut à minimiser la rémunération du travail, et justifie donc les licenciements massifs, les privatisations hâtives et

³² World of Work Report, *op.cit.*

³³ Patrik Artus et Marie-Paule Virard, *Croissance zéro*, *op.cit.*

³⁴ Paul de Cauwe et Yuemei Ji "Panic driven austerity in the Eurozone and its implications", 21 février 2013, publié par vox.eu.org: <http://www.voxeu.org/article/panic-driven-austerity-eurozone-and-its-implications>

³⁵ Maria Negreponti-Delivanis, *Mondialisation Conspiratrice*, CEDIMES., Éd. L'Harmattan, Paris 2002, Chap. III.

l'affaiblissement de l'État-providence³⁶. Et la croyance au fait que « les marchés s'autorégulent tant au niveau national qu'international » est un mythe. Et pour ne mentionner qu'un seul des ouvrages en plusieurs tomes d'avant les années 1970 portant sur la libéralisation des marchés : « ...elle mène au chaos, accumule les inégalités et détruit la cohésion sociale, et ceci dans tous les pays et au cours de toutes les époques où on l'avait tentée »³⁷.

Le renversement d'un système international qui semble avoir atteint ses limites est inévitable. Les systèmes changent en raison des abus et des excès dans lesquels ils s'engagent vers la fin de leur règne, intensifiant le mécontentement et les réactions de ceux qui les subissent. La progression du cycle, éternel dans le temps, assure la succession ininterrompue de la mondialisation et du protectionnisme qui, bien qu'évoluant chacun toujours dans une même direction dominante, s'enrichissent de quelques aspects supplémentaires à chacun de leur passage. Et je me demande maintenant si un système économique international est en route pour éliminer la mondialisation ou du moins pour en limiter de façon significative la portée et l'intensité ? Et si c'est le cas, quel sera-t-il, quelles en seront les caractéristiques essentielles et, plus important encore, ce système sera-t-il meilleur que le précédent ? Quels en seront les avantages et les inconvénients ? Notons tout d'abord que les deux systèmes disponibles présentent des avantages et des inconvénients, et c'est la raison pour laquelle cette combinaison est toujours préférable à une application unilatérale et absolue. Au début de la prédominance de l'une ou l'autre, l'attention se porte en général seulement sur ses points forts, alors que les inconvénients sont en quelque sorte négligés. Et à la fin de son règne, c'est exactement le contraire qui se passe.

Une question qui revient souvent à propos de ces deux systèmes financiers internationaux, est lequel des deux, en fonction de leur histoire, enregistre les meilleurs résultats pour l'économie et les citoyens. Bien que le protectionnisme se montre parmi les systèmes puissants de la planète comme le plus approprié pour les faibles, pour ceux qui ne peuvent pas supporter la concurrence ou sont même presque en retard, il s'avère que son temps est plus long par rapport à celui du libre-échange, mais qu'il enregistre en plus un effet positif sur le

³⁶ Ibidem, p. 215.

³⁷ J. Gray, *Faulse Down*, Granta Publication, Londres, 1998, p.18.

développement. Toutefois, le système protectionniste provoque la peur et souvent l'hystérie et ses inconvénients sont souvent soulignés d'une manière excessive. Cette attitude peut s'expliquer par le fait que durant les 100 dernières années, la libéralisation essentiellement des échanges financiers favorise la plupart des multinationales et des banquiers, qui ne veulent pour rien au monde perdre leurs privilèges³⁸. Le point de vue de Larry Summers est particulièrement³⁹ instructif, à propos de ces « élites sans patrie qui ont fait allégeance à la mondialisation économique et à leur propre prospérité, plutôt qu'aux intérêts de la nation où elles vivent ». En général, on peut affirmer que le choix entre ces deux systèmes est, d'abord et avant tout, une question de phase de développement. Le conseil de Friedrich List, en 1840⁴⁰, à propos de la nécessité de prendre des mesures de protection dans les économies en développement jusqu'à ce qu'elles soient formées et prêtes à affronter la concurrence internationale, surtout de l'industrie, est encore valable aujourd'hui. Toujours selon List, les mesures de protection visent à préparer les jeunes économies à la concurrence internationale, et en ce sens, elles doivent avoir une portée limitée et être temporaires⁴¹. Et justement, le risque pour les économies en développement était que la dernière mondialisation n'a pas respecté leur besoin de protectionnisme qui devait les préparer à s'exposer à la concurrence internationale, et les a au contraire forcées à ouvrir leurs frontières sans conditions. Le principal moyen protectionniste est l'imposition dans le but généralement de protéger la production nationale et l'emploi local. Une mesure protectionniste est aussi la réduction délibérée de la production de certains produits, principalement agricoles, afin de ne pas en réduire le prix sur le marché mondial⁴². Certes, le fait que si les mesures de protection vont finalement bénéficier ou non à l'économie qui les adopte dépend de quantité de données, ce qui fait que chaque cas est différent. Cependant, le fait que des économies se tournent vers le protectionnisme s'explique dans une certaine mesure, et presque toujours, par la fatigue des citoyens après qu'ils ont connu la brutalité de la mondialisation. Et leur fort désir d'un plus grand degré de protection leur fait ignorer, ne serait-ce que temporairement, les inconvénients du protectionnisme. C'est justement parce que les deux systèmes internationaux disponibles

³⁸ François Lenglet, *op.cit.*, p. 212.

³⁹ Larry Summers, "America needs to make a new case for trade", *Financial Times*, 27 avril 2008.

⁴⁰ *Système national d'économie politique*, en traduction française, 2^e édition Capelle, Paris, 1957.

⁴¹ Maurice Byé, Gérard Destanne de Bernis, *Relations économiques internationales*, Dalloz, 5^{ème} édition, p. 1260.

⁴² Mesure largement appliquée par l'UE dans le secteur primaire.

présentent des inconvénients et des avantages que le degré et la combinaison qui ne peuvent être prédits et que le meilleur choix, dans ces circonstances, est de tenter de les mettre en œuvre simultanément.

6. CONCLUSION

La mondialisation semble avoir atteint ses limites, et son avenir se heurte au fait qu'il n'y a pas de force internationale apte à la coordonner. En effet, depuis le début, les États-Unis ne sont pas prêts à assumer le rôle qu'avait joué la Grande-Bretagne dans la phase précédente de la libéralisation du commerce, tandis que la Chine, qui pourrait théoriquement le faire n'est pas encore prête à jouer un rôle international aussi important.

À la question initiale maintenant, qui est de savoir si nous sommes face à une évolution spontanée ou provoquée de cette démondialisation, la réponse qui me semble la plus correcte, est qu'elle est une conséquence des deux à la fois. En outre, si nous sommes effectivement sur le point d'adopter un régime protectionniste, à un degré plus évident et officiel que celui qui est en vigueur, je pense que cela sera bénéfique pour l'humanité, dont les multiples malheurs causés par la mondialisation doivent être pris en compte et traités autant que possible.

BIBLIOGRAPHIE

Alternatives Économiques, no. 341, décembre 2014.

Artus P. et Virard M.-P., *Croissance Zéro*, Fayard 2015.

Bello W., *Deglobalization, ideas for a New World Economy*, Londres et New York 2002.

Byé M., Destanne de Bernis G., *Relations économiques internationales*, Dalloz, 5^{ième} édition.

Cabinet de consultants McKinsey.

De Cauwe P. et Ji Yuemei "Panic driven austerity in the Eurozone and its implications", 21 février 2013, publié par voxeu.org: <http://www.voxeu.org/article/panic-driven-austerity-eurozone-and-its-implications>.

Cohen D., *Richesse du monde, pauvreté des nations*, Flammarion 1997.

Commission européenne.

Étude du Boston Consulting Group.

“Financial Globalization : Retreat or Reset?”, Mc Kinsey Global Institute, mars 2013.

“Frédéric Lordon et la démondialisation”, 22 août 2013, par franco07.

Gray F., *Faulse Down*, Granta Publication, Londres, 1998.

Lenglet, F., *La fin de mondialisation*, Librairie Arthème Fayard/Pluriel 2014, Chapitre 5 - L'éternel retour.

List F., *Système national d'économie politique*, en traduction française, 2^e édition Capelle, Paris, 1957.

Krugman P., Conférence de presse à la Revue *Alternatives Économiques*, 10/2008.

Negreponi-Delivanis M., *Mondialisation Conspiratrice*, Fondation Delivanis, Éditions L'Harmattan, Paris 2002.

Negreponi-Delivanis, M ; *Réformes, la décimation des travailleurs en Europe*], Fond. Delivanis/éd. Livanis, 2007 (en grec).

Negreponi-Delivanis M., *La crise meurtrière*, Fond. Delivanis/éd. Livanis, 2010 (en grec et en anglais en livre numérique, Amazon).

Negreponi-Delivanis M., « La fin de l'euro : le nord de l'Europe contre son sud », Cahier CEDIMES no. 1, 2013.

PNUD.

Sachs J., “Tripped up by Globalization”, *Financial Times*, 18 août 2012.
Summers L., « America needs to make a new case for trade », *Financial Times*, 27 avril 2008.

The Economist, 12.10.2013 - Special Report: World Economy.

Tuchman Matews J., Kohut A. et Stapleton Roy “US Public, Experts Differ on China Policies”, Pew Research Center, septembre 2012.

World of Work Report-TWN Info Service on Finance and Development (Okt.08/06), 23 octobre 2008, third World Network – Labour: income inequality expected to rise to financial crises, Publié dans SUNS#6571, 20 octobre 2008.

*University of Rijeka - Faculty of Economics & Jean Monnet Chair in European
Economic Integration*
University of Antwerp - Jean Monnet Centre of Excellence
University of Ljubljana, Faculty of Economics
ECSA Slovenia
University of Trieste
University of Zagreb, Faculty of Economics and Business
University Nice Sophia Antipolis
University of Paris XII (Val de Marne)
University of Sorbonne Nouvelle - Paris III
University of Panthéon-Assas (Paris II)
University of Mostar – Faculty of Economics
University of Belgrade – Faculty of Economics
University of Montenegro – Faculty of Economics
University of Prishtina, Faculty of Economics
University of Durrës "Aleksandër Moisiu"
University St. Cyril & Methodius in Skopje – Faculty of Economics
New Bulgarian University Sofia
Institute CEDIMES Paris
CEDIMES Komotini
CEDIMES Rijeka
Ternopil National Economic University
Academy of Public Administration Chişinău
University of Cambridge
Valahia University of Târgovişte
Academy of Romanian scientists, Bucharest
University of Dokuz Eylül - Faculty of Economics and Administrative Sciences
Faculty of Law, Economics and Social Sciences - Marrakech

ECONOMIC INTEGRATIONS, COMPETITION AND COOPERATION

INTÉGRATIONS ÉCONOMIQUES, CONCURRENCE ET COOPERATION

Research monograph

Editors: Vinko Kandžija
Andrej Kumar



**Editors: Vinko Kandžija
Andrej Kumar**

**ECONOMIC INTEGRATIONS, COMPETITION AND
COOPERATION**

Accession of the Western Balkan Region to the European Union

**INTÉGRATIONS ÉCONOMIQUES, CONCURRENCE ET
COOPERATION**

Adhésion des régions des Balkans occidentaux à l'Union européenne

Editorial Board:

Claude Berthomieu But Dedaj	CEMAFI International, France University of Prishtina, Faculty of Economics, Kosovo
Claude Albagli Heri Bezić Srdjan Redžepagić Branislav Boričić	Institute CEDIMES, Paris, France University of Rijeka, Faculty of Economics, Croatia University Nice Sophia Antipolis, Nice, France University of Belgrade, Faculty of Economics, Serbia
Văsile Candea Bardhyl Ceku Evrard Claessens	Academy of Romanian scientists, Romania "Alexandër Moisiu" University of Durrës, Albania University of Antwerp, Europacentrum Jean Monnet, Belgium
Ioana Panagoret	University Valahia, Faculty of science and engineering Alexandria, Romania CEDIMES Komotini, Greece
Maria Negreponti- Delivanis Ljubomir Drakulevski	University "St. Cyril & Methodius" in Skopje, Faculty of Economics, Macedonia University of Zagreb, Faculty of Economics and Business, Croatia
Ivo Družić	University of Mostar, Faculty of Economics, Bosnia and Herzegovina
Mila Gadžić	Belgrade Banking Academy – Faculty of Banking, Insurance and Finance, Serbia
Zoran Grubišić	Faculty of Law, Economics and Social Sciences – Marrakech
Ahmed El Moutaouasset	Academy of Public Administration Chişinău, Moldova
Vasile Marina	Alexandër Moisiu" University of Durrës, Albania
Mit'hat Mema	

Victor M. Ostroverhov	Ternopil National Economic University, Faculty of Economics and Management, Ukraine
Christos Pitelis	University of Cambridge, UK
Mario Pines	University of Trieste, Italy
Nikola Milović	University of Podgorica, Faculty of Economics, Montenegro
Alain Redslob	University of Panthéon-Assas (Paris II), France
Margarita Shivergueva	New Bulgarian University, Bulgaria
Ion Cucui	Valahia University of Târgoviște, Romania
Metka Tekavčič	University of Ljubljana, Faculty of Economics, Slovenia
Öcal Usta	University of Dokuz Eylül, Faculty of Economics and Business Administration, Izmir, Turkey
Lajoš Žager	University of Zagreb, Faculty of Economics and Business, Croatia
Publisher and General Editor:	CEMAFI International, Nice, France
Review:	Leon Olszewski, Alain Redslob, Darko Tipurić, Milorad Jovović
Technical Editors:	Marko Tomljanović Marta Didulica Luka Matek Ivana Pajković Matea Zekić
First Edition (2016):	300 copies
Proofread by:	Marta Simoes, Marianna Siničáková
Design by:	Marko Tomljanović, Ivana Pajković

ISBN: 978-2-9544508-9-6