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# WILL THE GLOBAL ECONOMY USE THE OPPORTUNITY FOR REFORMS, AND THE WORLD FOR PEACE AND COOPERATION?

**Petar Đukić**

Editor-in-Chief of Economics, Journal for Innovation and Economic Research

## Editorial

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In the Editorial for issue 8 of Economics, wondering where the world of today is going, we noted that all key short-term challenges are on the rise: terrorism, extremism, isolationism... Unfortunately, half a year later, and right before year 2018, we cannot say that things in this respect have become any more favourable. The key word of the majority of analyses of the global economic situation remains to be “risk”. Only the list and the meaning of the risk are expanded.

## THE WORLD IN TURMOIL - RISKS ON THE RISE

In mid-November 2017, tens of thousands of well-organized extreme right-wingers marched in the streets of Warsaw (Poland), with slogans about “pure white Poland”, as well as about the “alliance of fraternal European nations”. Few people could, with certainty presume what it would really mean in practice today, but one thing is certain – nothing good for global economic and other types of cooperation as well as for the principle of tolerance. Many emerging extremist political options came into foreground through recent elections across Europe, from the Netherlands, to Germany and France. The share of extremist parties in the electorate body at the end of the 20th century amounted to between 4 and 5%, whereas today it is around 14%. Enclosure, isolationism and calling for “a firm hand” are part of a “strategy” of seeking a surreal solution to the challenges that come in continuity.

Simply put, terrorism has made itself at home throughout the World. When, in the attack on the Sinai Mosque (24 November 2017) 305 people, including 17 children, instantly lost their lives, it is as if such event no longer leaves the impression of anxiety and disgust as it was the situation with large European centres, (Paris, two years earlier), not even to mention 11 September 2001 in the United States. An extraordinary and a very positive gesture of inter-religious solidarity is the appeal of Pope Francis (26 November 2017) to Catholic believers gathered in the Vatican Square to pray for the Muslim believers who were killed in their prayer.

However, the question is whether the politically organized world, at its highest level, is becoming insensitive to the suffering of “others”, as well as for the global problems, such as “sabre rattling”, isolationism, the burden of refugee waves, and even including certain aspects of climate change? How to encourage global solidarity and cooperation that are missing in today’s world more than ever before? Does this have anything to do with the principles of the ruling global economic system?

## **GROWTH AND DEVELOPMENT AS A CHANCE AND RISK**

The growth rate of global gross domestic product in 2017, according to IMF reports, should be 3.6% instead of 3.5% with the prospect that in the next year 2018, such rate should rise to 6.7%. However, previous corrections, were, as a rule, made “downwards” so that, from the perspective of 2012, the current growth should have been as much as 4.5% per year. Long-term sustainable growth rates of global economic activity are some kind of guarantee of stability and cooperation in the divided world. In its October report, the IMF notes that After disappointing global growth over the past few years, this recent pickup provides an ideal window of opportunity for policymakers to undertake critical reforms to stave off downside risks, raise potential output, and improve living standards more broadly (World Economic Outlook , October 2017). The subtitle of the Report states that short-term recovery is at work, but that the need for a long-term and sustainable growth remains. It seems that in this discourse, which is oriented towards the benefits of broader layers of society, the key syntagm for overcoming the crisis should be sought. It is a “general well-being”, which stems from the principle of as many beneficiaries of the effects of global growth and development.

Somehow, on the completely opposite side of the value scale is the category “risk”. It is derived out of uncertainty, and by nature it represents the possibility or probability of a bad outcome. However, the risks by themselves often cause unreasonable consequences. Sometimes, they are even considered as desirable, as in the case of free entrepreneurship - for example. The market, like any other principle of free choice, contains a dose of risk.

However, things become more complicated by the fact that the risk in today’s world is increasing. Sustainability, as the most mentioned target category of today’s integral and global development contains the security principle - as a lack of risk. How to create a safer society, co-operation in peace, more effective and stable economy, better-quality culture, protected environment, with as little risk and as much freedom as possible? The life itself will continue to provide incomplete and often contradictory answers to these questions. This does not mean that better institutional solutions on the same issues should not be sought.

## **EXTREMISM - ITS FOUNDATION IN THE ECONOMY AND THE SOCIAL SYSTEM**

For something to represent a risk it first must be recognized as a threat, a factor that contributes to an unfavourable outcome. Unemployment and social stagnation seem to lead more and more helpless people against one another. This time, antagonism is felt towards the people of a different skin colour, religion or towards people with different customs. They are most frequently helpless but cause suspicion and even fear, but not only because they are different. There seems to be a much greater problem in the same or similar aspirations towards a better place to live, more resources, better jobs, salaries, welfare... Certain people, the insecure and worried ones, intimidated by the escalation of global geopolitical and other contradictions, tend to invest more trust in national liberators, extremists and populists of a new anti-globalist and isolationist orientation. After all, if Donald Tramp, right after the elections, issued an order to build a 4 metres high and a thousand miles long wall between the United States and Mexico, how could such “projects” be avoided by Hungary, Turkey or any other smaller country with higher risks?

In today’s world, there are officially over 200 million unemployed, whereas over 60% of all the workers perform their work without any work contract. Most of them are engaged in family business in developing countries. Simultaneously, among those who do have a job, far less than a half of them (42%) have a permanent employment contract (World Employment and Social Outlook: Trends 2017). What is particularly worrying is the situation in low-income countries, due to the increasing problems of inequality and falling behind in terms of the benefits of global

growth. It was shown that the so-called. part time jobs and other flexible forms of employment can foster better function of labour market and economic growth, but they often bring new issues. Working conditions and the amount of real wages are worsening. Therefore, for example, nominal wage growth in most advanced economies remains lower than it was prior to the major recession of 2008-2009. The poor situation in the labour market is spurred by low inflationary expectations as well as by labour productivity trends. Poor real wages reduce the prospects for growth in the medium term, even in developed economies, although the critical challenges of accepting the new economy still remain in low income countries.

As a result, it seems that the economic stability itself does not help directly to increase employment, and especially not to reduce social tensions, as well as global differences and contradictions. Natural, financial, and human resources in the World are not distributed in such manner so that ones are constantly living in abundance whereby the others are constantly lacking something, but it can easily look like that very often. This is just one extreme in searching for the answer of one's failure to succeed and why the tide does not "raise all vessels" equally, as the international financial institutions, in particular the World Bank, believed.

## **CLIMATE AS AN "ECONOMIC" FACTOR**

The famous astrophysicist Stephen Hawking recently provided another "apocalyptic prognosis about the world we live in". He declared that the Planet would become a "glowing fireball" in less than 600 years. He also said that people would have to "boldly go where no one has gone before", if they want humanity to survive. The Earth will be overcrowded by the year 2600, whereas the increased energy consumption will turn Earth into a "bright fireball." This implies a multitude of new findings not previously taken into serious consideration. Nowadays, people think much differently about geophysical changes, the environment, basic natural resources (water, air, available space and soil, ecosystems...) as the preconditions of every sustainable economy and society. It is therefore probably meaningless to split the factors that determine the short- or long-term future into economic and non-economic ones.

For the first time in the analysis of movements of the world economy in the October report and IMF analysis, it was stated that the global temperature is unprecedentedly rising perceived through the last 40 years, and that it will have strong and unexpected macroeconomic effects. Particularly endangered are the countries with a relatively warm climate and low income. Regardless on how much the causes of climate change were the subject of disputes, in terms of domination of the anthropogenic or natural factors to their occurrence, it should have already been made clear to economists and other social analysts and institutions that climate, water, temperature, sunshine, greenhouse gas emission ... cannot be separated from other negative factors that endanger the life and survival of people.

## **DEGLOBALISATION AND SOCIAL RISKS**

The connection of deglobalisation in advanced economies and rising social risk is a subject of warning provided by the World Economic Forum (WEF) that has been researching the list of key global risks for a decade. It is noted that the key risks for 2011 are focused on the economic differences and global failures of governments, in 2014 on the social consequences of a possible collapse of the social structure, then on the collapse of trust in the institutions, lack of quality leadership, gender inequality and treatment of women, weaknesses of the leaders and the steady rise of inequalities throughout the world, in 2015 on the vulnerability due to growing social

contradictions, etc. History shows that people reflect their own sense of impotence and control over the general flows of geopolitics, economics and social problems onto the sense of and the recognition of risks that threaten from the global scene.

In 2016, additional events in the West, such as Britain's exit from EU, election of Donald Trump as the President of the United States, Italian Electorate's rejection of Matteo Renzi's constitutional reforms demonstrate that the era of deglobalisation has started in the West. Most certainly, social structural changes are linked to the above thus reducing the share of the middle class in the world. For a decade, the World Economic Forum has been trying to assess the sequence of global risks, which include natural, socio-economic, geopolitical, environmental, technological ... Many of them overlap and are defined year after year. For example, the most prominent risk in the long term for 2016 was water supply, whereas in 2017, economic risks are again among the highest ones: unemployment and insufficient employment, but also including the spread of weapons of mass destruction.

The key challenges in the world whose resolution would lead to risk reduction are as follows:

1. Achieving greater solidarity and long-term thinking about market capitalism
2. Restoration of quality global economic growth
3. Identification of the importance of identity and inclusiveness of the health policy
4. Mitigating technological risks and exploiting the opportunities provided by the 4th technological revolution
5. Strengthening of today's global cooperation system

## **FUTURE WORLD - MONDIALISM OR DEGLOBALISATION**

Today's research of the World Economic Forum shows that, based on global changes in world public opinion, developed western countries are nowadays mostly saturated with globalisation, and that extreme and conservative (anti-globalist) political options are much more present in the West than in the early 21st century. However, despite the fact that many phenomena of globalisation are being questioned and attributed to a multitude of old changes and ancient civilizations, it is being shown that it is inseparable from modernization (technological progress), but also from the stoic philosophy and the so-called "citizen of the world" attitude. Multiculturalism, cultural diversity are mentioned as the positive effect of globalisation. Namely, it has been established that cultural interactions and cultural exchange and tolerance bring benefits to the community, society and cities. On the other hand, the social policy that promotes multiculturalism is frequently blocked by the practice of excluding minority groups from the wider cultural and social space, which turns into a tendency towards fragmentation and new divisions, already established in political theory as balkanization.

Conservatism is a feeling fuelled by the arguments of tradition, historical interest, friendship and hostility, with almost equal zeal, as it was at the time of the breakup of Yugoslavia. The analysis of domestic assumptions suggests that such conservative patterns are today far more present in Europe, as well as throughout the Balkans, than it was the case at the beginning of the 21st century, and that they are growing in power with the deepening of the economic crisis and the sharpening of global geopolitical contradictions.

The crisis of globalisation, as a value, is felt largely in the twilight of this term and practice in a number of developed countries in Europe and in the United States, particularly after the UK's decision to leave the EU, the election of Donald Trump as the US President and after the recent referendum in which the Catalans were mostly for secession from the rest of Spain. Reports on global risk movements (regular annual assessment of the World Economic Forum - WEF), based on the 2017 Report, show that situation is fairly complicated by the strengthening of extreme

and populist options throughout the world. Economist Dani Rodrick, coined the syntagm “the globalisation trilemma” that implies a settlement or equilibrium “among democracy, national sovereignty and global economic integration.” He believes that only the first two categories are simultaneously compatible today, as the EU and the US increasingly express their will to rebalance the relationship between national sovereignty and democracy” (Global risks 2017. ([http://reports.weforum.org/global-risks-2017/part-1-global-risks-2017/?doing\\_wp\\_cron=1510405069.5533540248870849609375](http://reports.weforum.org/global-risks-2017/part-1-global-risks-2017/?doing_wp_cron=1510405069.5533540248870849609375))).

This euphemistic expression speaks enough about the crisis of the concept of global cooperation based on democratic principles. Likewise, in the Balkan region, which has long been named as “barrel of gunpowder”, there is a multitude of signals for change, either as obstacles, closures and divisions (balkanization) but as a challenge as well. The increase in risk in the world in a certain way explains that balkanization (the principle of endless divisions and insisting on differences) is occasionally transmitted to the rest of the world, instead of opposite action – to have the positive rules of co-operative behaviour and cooperation extend everywhere, including the Balkans.

Based on the 10-year ranking of globally-valued risks in terms of the likelihood of their occurrence, it is notable that the first five are essentially repeated, but that their order tends to change. According to WEF, these risks can be divided into five categories:

- ecological - total 10 - from year to year, trend of increase;
- economical - total 5 - with a permanent maintenance trend, average one of the top five;
- geopolitical - total 5;
- social - total 5 - with a trend of increase following 2015;
- technological - total 2.

It is definitely that an increasing number of risks is becoming more and more worrying on a global scale. Today, new and old risks are endangering people’s lives and quality much more than before. It is a trend that will not change soon, bearing in mind that the general living and ecological capacity of the Earth is severely contradicted by the trends of population growth, economic activity and people’s demand for material goods, energy and services.

More than ever before it is necessary to have “good governance” as a method to establish good relations in a society that Galbraith once called “good society”. He has convincingly demonstrated that social inclusion (inclusion of marginal groups and individuals in the social life), social justice, environmental protection, taxation and income policy, attitude towards women and minorities, may create a good society from the economic and socio-political system. In a good society, as stated by Galbraith, the risks of deviant behaviour, crime, social conflicts are reduced, whereas the society itself continually achieves results in internal and external politics, so that it manages to cut spending on national defence, security and military interventions, and to increase spending for humanitarian, environmental and socially justified goals. (“The Good Society: The Humane Agenda, Paperback - April 30, 1997)

Market economy implies greater and increasingly more risks in comparison to planning or command economy, but it provides much more freedom and a greater chance of development. The application of the law, together with the social security system, should mitigate the effects of globalisation, competition, privatisation and restructuring of the public sector of the economy. These issues were often too sensitive to be left to the mercy of the current structure in power. They demanded a far more strategic analytical approach derived from the category of integral sustainability and risk minimization. Today’s dilemma; mondialism or deglobalisation is completely obsolete. The world needs international peace-keeping economic and technological cooperation more than ever. Deglobalisation is a poor answer to the wrong question. Instead, it is much better to search for patterns of a socially and environmentally responsible, inclusive market solution.



# ECONOMIC FREEDOM AND ENTREPRENEURIAL ACTIVITY: EVIDENCE FROM EU 11 COUNTRIES

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## SUMMARY

In this paper, we will present the results of our survey on economic freedom and entrepreneurial activity. We have conducted our analysis on EU 11 countries (Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden and United Kingdom) for the time period 2000-2014. To measure the entrepreneurial activity we have used data from the Global Entrepreneurship Monitor, and to measure economic freedom, we have used data from Fraiser Institute. Our results suggest strong positive and statistically significant, long term impact of economic freedom on entrepreneurial activity.

**Keywords:** Institutional framework, Economic freedom, the entrepreneurial activity,

## INTRODUCTION

In this paper, we will investigate the empirical relationship between the degree of economic freedom and the entrepreneurial activity. We will conduct our research on 11 EU countries (Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden and united Kingdom) for the time period 2000-2015. The main idea was to test the link between the degree of economic freedom and the entrepreneurial activity on 15 EU countries (Countries which were EU members before the great expansion in 2004). Due to objective lack of data, the sample was reduced to 11 countries. Our goal is to investigate the quality of institutional framework for the countries, which can be described as a core capitalist countries, and to test the impact of the institutional framework on the entrepreneurial activity.

Entrepreneurship is the act of exploiting an opportunity for profit. It is the exploitation of profit opportunities in the private sector that drives economic progress forward, which is why so many policy makers at the local, state, and national levels seem to be focused on spurring entrepreneurial activity. The entrepreneurs can see the situation differently than others, and they have the freedom to act on their vision. Without the freedom to act, or vision to pursue, the entrepreneurship can not exist. We will investigate this relationship very closely. We will use data from The Global Entrepreneurship Research Association in its GEM reports (Global Entrepreneurship Monitor) and the economic freedom index published by The Heritage Foundation and Fraiser Institute.

The paper is arranged as follows. The first part of the paper provides the overview of the previous research. The second part of the paper refers to the research methodology and collecting data. The third part contains the results of the econometric analysis. The final part presents the conclusions.

## **THEORETICAL BACKGROUND**

More recently, a few studies have investigated the relationship between economic freedom and entrepreneurship. Kreft and Sobel (2005) have investigated the relationship between the economic freedom and sole-proprietorship growth rates in US in a cross sectional study. Their results confirm positive correlation. In 2008, Sobel has conducted a research to empirically test the Baumols hypothesis in the US. He finds that not only the productive entrepreneurship is enhanced by economic freedom, but destructive entrepreneurship is reduced. To measure productive entrepreneurship, Sobel uses birthrates, patents, venture capital and sole-proprietorship growth rates. Hal, Pulito and VanMetre (2013) argues that economic freedom is more important than personal freedom, and that fiscal policy is more important than regulatory policy in affecting entrepreneurship. To measure economic freedom, they use a William Ruger and Jason Sorens developed a state-based measure of overall freedom for the Mercatus Center called the Freedom in the 50 States index, which includes measures of both personal and economic freedoms. The survey based on 21 OECD country has been conducted by Sobel et al. The results shows positive impact of economic freedom on private sector entrepreneurial activity. The research includes the other controlling variables as administrative burden for start-ups, and the average level of tariffs. Both of these variables have a negative impact on private sector entrepreneurial activity.

Bjørnskov and Foss (2008) analyze the relationship between economic freedom and entrepreneurship, based on 29 countries. Most of these countries are developed countries. They argue that the smaller the size of the government will result in higher entrepreneurial activity. The results shows that both opportunity based and necessity based entrepreneurship are affected in this direction, but the effect is substantially greater on opportunity based entrepreneurship. They find that access to sound money have a similarly strong positive effect on both forms of entrepreneurship. In 2008 Nyström has conducted a panel data study of 23 OECD countries for the period 1972-2002. Nyström uses an economic freedom index published by the Fraser Institute. To measure entrepreneurial activity, Nyström use self-employment rates as a proxy for entrepreneurship. The results shows that three out of the five components of the economic freedom index are found to have statistically significant coefficients. The variables with positive and statistically significant coefficients are: smaller government, better legal structure and more secure property rights, and less regulation on credit, labor and business sectors.

## **MODEL AND METHODOLOGY**

For purpose of this survey we chose the following equation:

Dependent variable is defined as logarithm of a measure called "Total early-stage entrepreneurial activity" (TEA), which is defined as country shares of population aged 18-64 that have been owners and managers of a new business between 3 to 42 months. Model consists one explanatory variable and three controlling variables. The three controlling variables are:

GDP per capita based on purchasing power parity (PPP) GDP using international dollars,

Growth rate of GDP in constant prices,

The age dependency ratio

The GDP per capita is included as a control variable to explain the impact of economic freedom on entrepreneurial activity in countries with different economic development. The GDP growth rate is

calculated as a first logarithmic difference of GDP in constant prices and it should correct fluctuations in opportunities for entrepreneurship caused by the business cycle. Verheul et al. (2002), claim that the supply side of entrepreneurship is dominated by the demographic composition of a country. Other studies have found that younger people are less likely to be self-employed (Peters et al., 1999), and that most start-ups are by individuals in their thirties and forties (Evans and Leighton, 1989; Storey, 1994; and van Gelderen, 1999). For this reasons, it appears important to control for the age structure. To control age structure, we will use the age dependency ratio from the World Bank. It is the ratio of dependents, i.e. people younger than 15 or older than 64, to the working-age population ages 15 to 64. The data is presented as the proportion of dependents per 100 working-age population.

The explanatory variable is referred to the quality of institutional framework, measured by the level of economic freedom. Economic freedom means the degree to which a market economy is in place, where the central components are voluntary exchange, free competition, and protection of persons and property (Gwartney, et al, 2004). Economic freedom is the condition in which individuals can act with maximum autonomy and minimum obstruction in the pursuit of their economic livelihood and greater prosperity (Miler, et al 2014). Economic freedom is a composite that attempts to characterize the degree to which an economy is a market economy - that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rule of law that upholds contracts and protects private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes (Berggren, 2003). To measure the level of economic freedom, we will use data from Fraiser institute. Variables description is provided in table 1.

**Table 1.** Variable description

Variables	Code	Description	Source
Total early-stage entrepreneurship	Log(TEA)	The logarithm of the share of population involved in early-stage entrepreneurship	GEM
Economic growth	dLog(GDP)	First logarithmic difference of GDP in constant prices	IMF
Economic freedom	Log(EFI)	The logarithm of Index of economic freedom	Heritage foundation
GDP per capita	Log(GDP-pc)	The logarithm of GDP per capita	IMF
The age dependency ratio	Log(age)	The logarithm of The age dependency ratio	WB

Source. Author

## DATA AND RESULTS

The first step is to test variables for stationarity. The results fo unit root test are presented in tabel 2.

**Table 2.** Results of the unit root test

Variable	I(d)
log(GDP)	I(1)
Log(tea)	I(0)
LOG(GDPPC)	I(1)
Log(TEA)	I(0)
Log(EFI)	I(0)
Log(age)	I(1)

Source. Author

Three variables possess a unit root, so a usual OLS can not be applied. In this case we will apply a PMG/ARDL model. The descriptive statistic is presented in table 3.

**Table 3.** Descriptive statistic

	GDP	GDPPC	EFI	TEA	AGE
Mean	1400.154	37036.76	7.100581	5.727613	51.14858
Median	1555.009	36297.36	7.480000	5.510000	51.55849
Maximum	4181.103	65481.78	8.410000	11.37000	59.30390
Minimum	140.9290	24315.56	0.000000	1.630000	44.40105
Std. Dev.	1022.083	6630.047	1.798068	1.784015	3.225934
Observations	155	155	155	155	155

Source. Author

The relationship between the economic freedom and entrepreneurial activity is presented in table 4.

**Table 4.** Econometric analysis

Dependent Variable:

DLOG(TEA)

Method: ARDL

Date: 08/27/17 Time: 12:58

Sample: 2002 2014

Included observations: 130

Dependent lags: 1 (Fixed)

Dynamic regressors (1 lag, fixed): LOG(EFI) LOG(GDP-PC) DLOG(GDP)

LOG(AGE)

Fixed regressors: C @TREND

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
	Long Run Equation			
LOG(EFI)	1.008124	0.591503	1.704342	0.0931
LOG(GDPPC)	2.962478	0.233842	-12.66873	0.0000
DLOG(GDP)	5.763094	1.711509	3.367258	0.0013
LOG(AGE)	4.272200	0.556821	-7.672479	0.0000
	Short Run Equation			
COINTEQ01	-1.267923	0.116859	-10.85006	0.0000
DLOG(EFI)	0.702719	1.720793	-0.408369	0.6843
DLOG(GDPPC)	0.120879	1.888610	0.064004	0.9492
DLOG(GDP,2)	4.162136	1.707697	-2.437280	0.0175
DLOG(AGE)	7.889312	10.25571	-0.769261	0.4445
C	58.85078	5.468117	10.76253	0.0000
@TREND	0.191508	0.030219	6.337376	0.0000

Source. Author

## CONCLUSION

In this paper, we have empirically analyzed the relationship between institutions of economic freedom and entrepreneurship. The relationship between economic freedom and the entrepreneurial activity has been described as the “missing link” in how economic freedom affects economic growth. All the previous work have investigated this topic on small country samples, in which most are rich countries (OECD and U.S. states). Our analysis is based on EU 11 countries, which can be described as a core capitalist countries. To test the impact of economic freedom on the entrepreneurial activity we have used data from Global Entrepreneurship Monitor to measure entrepreneurial activity. To measure the quality of institutional framework, we have used data from Fraiser Institute. Data on GDP per capita and GDP in constant prices are from IMF, and data on the age dependency ratio are from World Bank. Three variables have a unit root, so we can not use the ols method. In this case, we use a a PMG/ARDL model which enables us an insight into the long term and short term relationship. Long term equation suggests that economic freedom has a strong positive and statistically significant impact on entrepreneurial activity. All control variables, also have a positive and statistically significant impact on entrepreneurial activity. The cointegration is also statistically significant and negative, which means that long term relationship exists between the variables.

There is much scope for methodological advancements within this research field. The Economic theory starts to recognize the entrepreneurship as a key role in technological advancements and economic development. Creating the favorable rolls of the game, the rules which enhance entrepreneurial activity has become the central question for economists and governments. Future researchers of this study could include the same statistical analysis for the economic freedom index developed by The Heritage Foundation and for a new measure of opportunity based entrepreneurship, which will enable us to obtain new conclusions and at the same time contrasting the similarity or difference with those obtained in this work.

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# POSITION OF THE EUROPEAN UNION IN THE GLOBAL TRADE SYSTEM

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## SUMMARY

Only a few decades ago, the main drivers of globalization were the exchange of goods and capital flows, while the global trading system of today, fuelled by rapid technological changes increasingly bases itself on knowledge. The Key events – such as the use of the Internet and the increasingly important role of the rising countries economies - have contributed to a faster global exchange, but to a new nature as well. In order to illustrate the scope of the increase, perhaps it would be the best to mention the fact that in the 1970's the share of trade in the world GDP amounted to 20%, whereas today it makes about one half. On the other hand, modern products represent compounds of raw materials, components, technologies and services originating from different areas and different continents, which has globalized the products themselves. In such conditions of the market competition, imposed by globalization and liberalization, for the European Union to remain as a leader, it had to prepare a sound and well-founded foreign policy strategy. The aim of this paper is to analyse the current position of the European Union in the global trading system, instruments of foreign trade policy, goals, foreign trade and the main challenges placed before the Union.

**Keywords:** globalization, European Union, foreign trade, trade policy, GDP.

The International Monetary Fund defined globalization as the increasing integration of economies around the world, which enabled the increase and variety of numerous international transactions of goods and services, as well as the exchange of capital, and accelerated and generalized the technological exchange.

Pursuant to the above, we can state that the globalisation is characterized by an increasing interdependence of national economies and the world's economy, which means that the countries of the world are tied in a multidimensional network of economic, trade, social and political connections. The assumptions of global interconnection are based on the thesis imposed by the developed countries, so that rational development of economy can be perfectly accomplished on the basis of more stringent business conduct criteria, where large multinational companies are the basis and bearers of connectivity and bonding. Therefore, the basic condition for the globalization was the internationalization of the world production and trade.

The European Union, along with Chinese and American, represents the world's greatest economy,

which accounted for 16.9%<sup>1</sup> of the World's GDP (China 17,1%<sup>2</sup>, USA 15,8%). Thanks to the size of its GDP at current prices (14.62 billion EUR in 2015) and the openness of its internal market that achieves export of 2415 billion EUR and import of 2188 billion EUR<sup>3</sup>, the EU plays a central role in shaping the global trade system, primarily through its active contribution to the World Trade Organization (WTO). Economic openness has brought and will continue to bring significant benefits to the European Union, taking into account that more than 30 million jobs in the EU depend on foreign trade and that 90% of global economic growth is expected to occur outside Europe in the next 15 years<sup>4</sup>. New economic actors and technological advances have greatly changed the structure and patterns of international trade. First of all, it includes the widespread use of information technology which enabled the trade in goods and services that were untradeable up to now.

In view of the given data, it can be said without any restriction that as for the European Union and its role in today's global market, it is clear that it represents an economic superpower. Namely, the common customs rate, single market, the 19 Member States of the Eurozone, the actions of the European Committee with authorities to conduct global trade negotiations on behalf of EU member countries, rapid economic growth as well as reduction of regional differences are only some of the many indicators of the EU's significant role in the global trade scene. The significance of the EU is brought into perspective with the following information as well:

The Union, with about half a billion of its inhabitants, has about 63% more consumers in comparison to the US.

Nineteen out of thirteen member states of the European Union have one of the world's leading currencies competing with USD and JPY. In this regard, many governments and companies have recently began taking loans in EUR, about 40% of foreign exchange transactions are done in euros, central banks are increasingly keeping their reserves in euros, whereas EUR serves as a reserve currency outside the Eurozone, especially in the Balkan countries;

About one-third of the world's largest companies are European companies mainly German, French, British, Italian and Dutch;

The European Union has grown to be the world's largest market, especially in the chemical, pharmaceutical and electronic industry, and

The EU has become a generator of economic development in neighbouring countries that do not belong to the Union.

Certainly, it should be noted that globalization and long-term effects of the global financial crisis had a negative impact on the economic results of the Union. However, compared to other industrialized economies, the EU has shown higher level of resistance to a certain aspect, which is evident from the fact that its share in the global GDP has registered a less rapid drop than, for example, the shares of Japan or the United States. This means that in times of crisis, the European Union has managed to preserve its strong position in merchandise trade, which is the strongest alongside the ones of China and the United States, while simultaneously strengthening its leading role in trading services.

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1 The European Commission. (2016). Policies of the European Union - Trade. Luxembourg: Publications Office of the European Union, p.3.

2 In 2015, China overtook EU in the global GDP share.

3 European Parliament. (2017). The European Union and its Trade Partners. Downloaded from [http://www.europarl.europa.eu/ftu/pdf/hr/FTU\\_6.2.1.pdf](http://www.europarl.europa.eu/ftu/pdf/hr/FTU_6.2.1.pdf), on 04.06.2017.

4 European Parliament. (2017). The European Union and its Trade Partners. Downloaded from [http://www.europarl.europa.eu/ftu/pdf/hr/FTU\\_6.2.1.pdf](http://www.europarl.europa.eu/ftu/pdf/hr/FTU_6.2.1.pdf), on 04.06.2017,

## WORLD TRADE IN GLOBALIZATION CONDITIONS

When it comes to world trade in the conditions of globalization, it is necessary to start with the General Agreement on Tariffs and Trade - GATT and the meanings that this agreement has had onto reduction of trade customs among the signatory countries. GATT, as the first step towards globalization, among other things, contributed to strengthening the trade connections of the states that have signed the agreement. Namely, in the first decades of the previous century, the state experienced trade problems by entering into increasingly complex arrangements, which created the necessity for setting up a platform that would facilitate and regulate trade relations. Accordingly, shortly upon the end of the Second World War the representatives of 23 states in 1947 signed an international agreement in Geneva that marked the commencement of regulating trade relations between the countries in line with the principle of non-discrimination. The objective of the agreement was to aggravate the protection policy and restrictions that were most often introduced against imported goods in the past, which, in the opinion of many, significantly contributed to the outbreak of two world wars.

GATT was based on the clause on the most important benefits from which the three basic principles arose: the principle of reciprocity, the principle of liberalization and the principle of non-discrimination. The principle of reciprocity states that the trade facilitation granted by the GATT signatories provide to one each other are to be equal for both countries. Later, this principle was mitigated for the benefit of developing countries. The principle of liberalization implies gradual reduction of customs and other restrictions, whereas the principle of non-discrimination states that double customs exemptions between two of the signatories must be applied to all the members of the GATT and are not to be increased solely by one side. General Tariff and Trade Agreement has led to the establishment of the World Trade Organization (WTO) in 1995, which, as of 2016 has 164 Member States.

The basic postulates characterizing the World Trade Organization conduct are as follows<sup>5</sup>:  
 the general importance of the principle of the most favoured state,  
 the principle of non-discrimination,  
 freedom of transit:

The mentioned postulates also envisaged a large number of exceptions, embodied in free trade zones or customs in specific sectors. These exceptions have been defined and listed in the General Agreement on Trade Services (GATS), which covers: air transport services, telecommunications services, financial services and movement of labour.

The agreement by which the WTO was founded paved a path for accession of the countries that did not take part in the so-called Uruguay rounds of multilateral trade negotiations. Accordingly the new countries accessing the WTO should retroactively offer the concessions and take on the commitments specified on the date of entry into force of the Agreement.

The process of internationalization of the World's economy can be observed in three phases. In the first phase, from the founding of GATT to the beginning of the 1970s, the main role was played by global trade, while the level of internationalization was measured in the share in World export. In the second phase of internationalization, in the 1970s and the beginning of the 1980s, foreign investments had the dominant role. The role of multinational companies was significantly increased at the time, whereas the level of internationalization of an economy or a company was determined by the share of its production capacities in sales on the World market. In the second half of the 1980s occurred the third phase of the internationalization process of the World economy, called globalization, which is mainly under the influence of technology. The ability to improve, adapt and use available technologies becomes a key element of industrial competition, accompanied by new forms of investment and models of industrial organization. In order for an economy to participate in international competitions, it must rely on increasingly complex technologies, maximum flexibility, products adapted to a specific market and a wide network of suppliers. Therefore, globalization is

5 Prvulović, V. (2001). Economic Diplomacy, Belgrade: Grmeč – Economic Review, p. 31.

nowadays perceived as a world without boundaries. Everything that is created starts to be expressed globally. This brings global products, global fashion, global consumers and even global citizens.

Therefore, globalization can even be seen as one of the stages in the development of civilization. The main factors through which globalization impacts the global trade flows are the processes of international business, formation of new product markets, constant improvement of high technologies and automated business systems, shortened product lifecycles, changing organizational structures of global companies, with the main goal of profit increase and development of new methods. Such processes are conducted in a highly complex and uncertain environment, the effects of which are increased through sudden intensification of international competition in every aspect of the global business.

Until recently, the main drivers of globalization were change of goods and capital flows. The globalization of today, triggered by accelerated technological changes, is increasingly based on knowledge. Ground breaking events, e.g. the introduction and use of the Internet and the increasingly important role of the rising economies have contributed to faster global exchange, but also to changes in the production itself. Namely, most of the products today are no longer produced in one country, but across the world. Today's products represent a set of raw materials, components, technologies and services coming from different countries, and often even from different continents. For example, the so-called "smartphones" and medical devices can be designed in China or in the United States, and assembled in Africa or in Eastern Europe from parts produced at a completely different location. Such smartphone "assembled" in China retains less than 4% of the value added in China, and more than 16% of its value added in Europe. This applies to many other products as well. In spite of that, when speaking about the export products, most of the countries are heavily dependent on the domestic value added. About 87% of the export value added from the EU is generated in the EU, whereas for China such value amounts to 76%. Nevertheless, due to increasingly higher level of bonding the production between the EU and China in 2009 alone, more than 1.1 million jobs in the EU were dependent on Chinese exports, while in China the number of export-dependent jobs from the EU amounted to about 5, 5 million.<sup>6</sup>

All of the above enforced that the supply chains also became global, which eventually led to the increase of significance of the world trade. While in the early 1970s the share of trade in the world GDP was about 20%, which has increased to almost half of the share nowadays. On the other hand, while traditional merchandise is generally stable, other forms of exchange, such as data flows, continue to expand exponentially. Most of estimates indicate that the value of data exchange in the European Union, alongside with an adequate framework, should increase to 739 billion euros by 2020, which corresponds to a 4% share in total GDP in the EU, which is twice as high as today.<sup>7</sup>

Essentially, globalization is a process that represents an unconditional flow of changes both in the political, economic and trade field. The benefits of globalization are in the form of global connectivity, overcoming national closure, free flow of goods, services and ideas.

There are numerous positive aspects of globalization, which affect many economic and, consequently, trade processes:<sup>8</sup>

equalization of production and entrepreneurship conditions;

harmonization of the conditions and customs regulations, foreign trade operations and foreign investments;

greater freedom of movement of goods and capital;

globalized and modernized economy, which requires a higher level of education and qualifications of the workforce;

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6 The European Commission (2016) Policies of the European Union - Trade. Bruxelles. The European Commission, p.7.

7 The European Commission (2017) Reflection paper on harnessing globalisation, Bruxelles: The European Commission, p. 6.

8 Prvulović, V. (2001). Economic Diplomacy, Belgrade: Grmeč – Economic Review, p. 52.

increasing the prospects for employment and opening new economic capacities; stimulation and assistance in the opening of small and medium enterprises; investment in supporting services and infrastructure (road network, ports and airports, warehouses, free customs zones ...);

increased foreign investment in profitable industries;

consistent specialization of individual economies and countries, for economic sectors and activities in which they possess comparative advantages.

Certainly, there are also negative aspects of globalization, out of which we will list only the most important ones:

artificial imposition of economic development plans by key international institutions, investor countries or multinational companies that invest in the development of certain companies, branches or sectors;

abolishing the standard economic and political sovereignty of countries;

imposing conditions through membership in international economic and political organizations, accompanied by dependence on centres of power and decision-making;

abolition of non-profitable enterprises by foreign investors, which results in social issues;

reducing underdeveloped countries to the cheap labour market, without the prospect of being able to leave this position independently;

Legalization and the increasingly frequent application of economic and political sanctions in international relations, for “disobedient countries”.

As it was already pointed out, globalization is a process of deeper international economic integration, which implies the rapid expansion of international trade in goods and services between countries, as well as a significant increase in the value of transfers of financial capital across national borders, including the increase in foreign direct investment by transnational companies. In recent years, talks about further liberalization of trade have been held with the main goal of extending the benefits of liberalization to poor countries. It was shown that the main issue of these conversations was agriculture. Namely, developing countries are demanding more free access to the markets of Western countries. In order for that to occur, western countries would be forced to reduce state subsidies for their agricultural products, as the subsidies and incentives make them cheaper than products from developing countries that are insufficiently subsidized or not subsidized at all.

However, regardless of the above, primarily due to digital technologies and a relatively new type of trade, e-commerce, it is expected that cross-border opportunities will continue to increase, even for the smallest companies. Today’s trend is that many companies are set up “globally” and are turning to customers around the world via the Internet.

## **FOREIGN TRADE POLICY AND GOALS OF THE EUROPEAN UNION**

### **EU FOREIGN TRADE POLICY**

Foreign trade policy is one of the most important policies of the European Union as it determines the EU’s bilateral relations with third countries and with multilateral organizations. The main goals of foreign trade policy are also defined by the Treaty on the European Union, which include the development of world trade, gradual abolition of restrictions on international trade and the reduction of customs barriers.

The EU’s common trade policy is defined in Article 207 of the Treaty on the Functioning of the European Union and is within the exclusive jurisdiction of the EU. Pursuant to the given article, the EU’s trade policy is based on the unified principles of EU trade relations with the world, particularly with regards to common customs rates arising from signed trade agreements, commercial aspects of intellectual property rights, foreign direct investment, levelling trade liberalization measures, establishing common export policies, as well as the use of trade protection mechanisms and the removal of trade barriers.

The EU's trade policy can be perceived in the context of two current realities. The first is the importance of the Union itself as a major world trade participant. The second is how the globalization changes the international environment. Namely, the EU represents the world's largest economy, as the EU is the world's largest exporter and importer, the leading investor and recipient of foreign investment, as well as the world's major donor. Although only 7% of the world's population lives in the EU, it accounts for one-quarter of the global wealth measured on the basis of GDP.<sup>9</sup>

EU trade policy focuses on key partners such as the United States, Canada and Japan, although the importance is also given to large emerging economies such as the BRICS countries (Brazil, Russia, India, China and South Africa), as these countries are considered to be new drivers of the world economy due to its huge market.

In line with its trade policy, the EU has developed trade relations with various groups of countries including the countries of the European Economic Area, the Mediterranean countries, African, Caribbean and Pacific countries, as well as the countries of Southeast Europe. Likewise, part of the EU's trade policy is participation in the WTO negotiations, through which it seeks to strengthen its economic impact in the world. Within the EU's trade policy, the adoption of new measures is initiated by the European Commission and adopted by the EU Council either by a qualified majority or unanimously.

As we have already pointed out, the EU is a unique market. A unified market with the free movement of goods, services, people and capital within the borders of the EU is the foundation of the capability to create jobs through trading with other countries and regions. The responsibility for this market lies with the EU, not with the national governments. Namely, the Union itself is responsible for the trade policy of its member states, whereas the European Commission performs negotiation on their behalf. This means that no government of a Member State can individually consider a bilateral trade agreement with a non-EU partner. This allocation of responsibilities is based on EU treaties. The unanimous performance of the EU has much more weight in international trade negotiations than any of its members would have individually. Therefore, the EU is an active economic and political factor with growing regional and global interests and responsibilities.

Recently, the EU has based its foreign trade policy on three main areas of operation:

a more active role in multilateral negotiations within the WTO;

development of deepened bilateral trade relations with individual countries and regions, and applying unilateral measures, such as, granting preferential treatment to developing countries; implementing a strategy for identifying and removing specific barriers in key export markets.

In line with its trade policy, the EU intends to remain the world's leading power in the future, with respect to the areas of trade, investment and providing development aid. In this regard, the EU is deeply integrated into global trade chains with the aspiration of a future primacy regardless of the emergence of new economic forces, primarily China. Therefore, the most important part of the Union's foreign trade policy is the formation of global trade flows in accordance with its own values and interests.

## EU FOREIGN POLICY INSTRUMENTS

In general, foreign trade policy is managed through certain instruments (measures) affecting trade, i.e. capital and financial flows with foreign countries in order to achieve the international exchange goals. These measures constitute an essential content of foreign trade policy; they are an instrument of this policy, that is, its method of implementation and can significantly influence the commerce of business entities. They are, for the most part, an artificially caused disturbance that occurs in the development of foreign exchange.

It is well known that almost all countries in the world apply open and covert measures that hinder the free development of international foreign exchange, so that the European Union is no exception

<sup>9</sup> The European Commission. (2016). Policies of the European Union - Trade. Luxembourg: Publications Office of the European Union, p.3.

in that respect. Which foreign policy instruments in certain countries or international organizations will be applied depends on the level of development of the national economy and the foreign trade environment of the country in question.

The following items may occur as the foreign policy instruments:

Customs;

non-tariff barriers i

international agreements on free trade, etc.

More generally, the basic instruments of implementing the EU trade policy are: common external customs, trade protection mechanisms, i.e. anti-dumping, anti-subsidy policy or protective measures, as well as the Trade Barriers Regulation. Within the framework of trade policy, the EU develops instruments for accessing the third-country markets, primarily through the establishment of trade barriers and the manner of their elimination, as well as through the development of “special relations”, i.e. preferential agreements and use of allowed deviations in respect of the most favoured nation principles within the WTO.

It is hereby necessary to point out that the trade policy of the EU should be viewed in the context of two current realities. The first is the importance of the EU as a key factor at the world trade scene, with the second being globalization and its reflection onto changes in the international environment.

The main instrument of the EU foreign policy are customs. Namely, the European Union, at that time named the EEC, was founded in 1958 as a customs union. This assumed that, apart from the abolition of customs duties in the trade between Member States, the common customs tariff applicable in trade with non-member countries should be adopted, which implied the detailed harmonization of the trade interests of all Member States.

According to the World Bank data, customs duties on imports of products into the EU were about 3% at the end of the 20th century<sup>10</sup>, with the exception that customs duties on imports of agricultural products into the Union were higher (about 8%), whereas customs duties on imports of industrial products were significantly lower. It should be noted here that these data are not in compliance with the data provided by the World Trade Organization, based on which considerably higher customs rates were applied. The significant reduction in customs duties imposed by the EU has been influenced by the results of negotiations in the GATT rounds. Due to a significant reduction in customs duties, this foreign trade policy slowly lost its significance, with non-tariff barriers used for protection from external competition imposed themselves as a dominant instrument. Traditional non-tariff barriers, which generally include quantitative constraints, agreements on projected export restrictions, levies, anti-dumping measures, subsidy compensation measures, public procurements and measures of obligatory domestic content, represent the most important segment of non-tariff barriers to the Union today. The structure of these barriers is still dominated by quantitative restrictions, although price measures are a significant barrier to trade.

The application of quotas, as the most significant quantitative restriction, is particularly evident in the textiles and agriculture sectors and in EU trade with developing countries. For each developing country, the relevant directives provide for appropriate quotas for imports into the EU market.

The EU often applies agreements on a “voluntary” restriction that is made in order to regulate EU trade with developed countries regulating trade in the automobile, steel or textile industry. The most famous agreement of this type is the one „signed by the EU and Japan in 1992, regulating the trade in cars.”<sup>11</sup>

Anti-dumping measures are the most widely used instrument of the EU’s common foreign trade policy. These measures are meant to protect EU companies from dumping by foreign companies. Namely, at the request of an EU company, the EU authorities initiate an anti-dumping investigation to determine if there is any dumping and if there is any damage caused. This investigation is in

<sup>10</sup> World Bank, World Development Indicators, Washington D.C.

<sup>11</sup> Bijelić, P. (2003). Foreign Trade Policy Model of the European Union. *Journa: Economic Annals* No. 136. Belgrade: Faculty of Economics, p.128

compliance with the WTO regulations, but also with the regulations of the Union itself which foresees the so-called EU interest test<sup>12</sup> which implies that anti-dumping measures cannot be taken if they are contrary to the interests of the Union, which means that all economic factors must be taken into account. In this case, the possibility of applying the lower customs rule is also envisaged, which implies that the EU authorities can apply an anti-dumping duty lower than the dumping margin.

One of the instruments of the EU's common trade policy is the production subsidies through which the Union authorities encourage agricultural production in the Union. For years, the largest beneficiary of these premiums paid from the Union budget have been the agricultural producers in France. Subsidies are financial grants to companies that produce a particular type of goods, thus improving the competitive position.

On the contrary, the EU protects itself from subsidized products originating from other countries through the implementation of compensatory measures, which are called anti-subsidy measures in the Union.

The EU also has some specific instruments of foreign trade policy, the most common of which are the rules governing the regulation of trade barriers imposed on European companies in third markets.

In the area of technical barriers to trade, the EU is a member of the WTO who has introduced the most new standards (1300 of them, solely in the period from 1995 to 2000). These standards and technical regulations represent significant non-tariff barriers to trade.

When customs duties, as instruments of foreign trade policy, lost their significance due to a significant reduction, while traditional non-customs and technical barriers to trade became regulated by WTO rules, administrative barriers to trade emerged as a significant obstacle. They represent all obstacles that arise from the application of administrative regulations and procedures and which have a significant negative impact on the performance of foreign trade. In this regard, the EU aims to, in cooperation with third countries and through other regional economic integrations, eliminate administrative barriers in mutual trade. As for the area of regulation of administrative barriers to trade, the most important ones are the Customs Cooperation and Mutual Assistance Agreements,<sup>13</sup> signed by the EU with Canada, the Republic of Korea and the United States. Likewise, the EU Accession Agreements signed by most of the countries of Eastern and Central Europe, provided for harmonization of customs procedures of those countries with EU rules. Similar provisions are also contained in the trade cooperation agreements concluded by the EU with Russia, Morocco, Tunisia, Israel and Turkey.

## OBJECTIVES OF THE EU'S FOREIGN TRADE POLICY

The initial objectives of the foreign trade policy of the European Union have been defined by the EC Treaty and concerned the improvement of the development of world trade, gradual abolition of restrictions on international trade and the reduction of customs barriers. These objectives have been largely achieved in the past, and the globalization of the market has imposed new goals. In this regard, the basic objectives of the EU's foreign trade policy in the coming period could be reduced to the following:

opening new markets for goods and services;

Creation of a global system for fair and open trade;

Increase of protection and investment opportunities;

cheapening of trade by reducing customs duties and the accumulated bureaucracy;

Acceleration of trade through easier customs clearance procedures and setting new harmonized

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12 Community interest test

13 Customs Cooperation and Mutual Assistance Agreements

technical and sanitary standards;

raising safety through clear and regulated rules of intellectual property, market competition and public procurement;

Support to sustainable development by fostering transparency and dialogue, particularly with respect to social and environmental issues.

Finally, we should add that the EU uses its foreign trade policy to promote some other goals primarily concerning the creation of a favourable environment in the fight against climate change, the improvement of working and health conditions, and the establishment and improvement of safety standards for all products.

## FREE TRADE AGREEMENTS

EU Member States share a unified market, have one external border and conduct one trade policy, which means they can freely trade amongst one another without paying customs or fees. It further means that they act harmoniously in the global market. The concerted action has led the EU to be the world's largest exporter of industrial products and services today, but it is also the largest export market for more than a hundred countries. Accordingly, EU trade represents almost one fifth of the world's total trade. Such an international economic position enabled the EU to decisively influence the shaping of trade rules and regulations, and setting standards for goods and services.

The Union's trade policy is an integral part of its broader strategy planned up to 2020 to encourage employment and create a more modern, more successful and sustainable economy. In the given strategy, the importance of free trade is particularly stressed. Free trade is more important than before for economic development and creation of new jobs, as about two thirds of raw materials and semi-finished products are imported. Any limitation of their flows or an increase in import costs would not have the desired effect, especially as the direct consequence would be to increase costs and reduction of the competitiveness of European companies and products both on the domestic and international markets.

The international economic presence of the EU at the global trade scene is based on the removal of trade restrictions and customs barriers (liberalization of trade), in line with the goals of the Treaty of Rome. These activities served as a framework for the development of a common EU trade policy in accordance with which the Union has, over time, developed a complex network of multilateral and bilateral trade networks and agreements. Most of the agreements are based on: geographical proximity (agreements with Eastern European and Mediterranean countries), close colonial ties or the principle of convenience (agreements with the United States and Japan). It is interesting to note that free trade agreements before 2006 made less than a quarter of EU trade, only for the EU to have 28 trade agreements signed by 2012.<sup>14</sup>

Agreements signed by the EU differ depending on the level of objectives and capacities of the country or group of countries which the negotiations were held with. It is clear that there is no unique approach that would fit everyone as many partners of the EU have different interests, which is why the content of each agreement is "tailored" to each specific situation. For example, Free Trade Agreements with developed and emerging economies are focused on economics and are generally based on the reciprocal market opening. On the other hand, the Economic Partnership Agreements with African, Caribbean and Pacific countries combine trade and development goals. As an example of such a recent agreement, we may take the Association Agreement between the EU and Central America (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) signed in June 2012.

A typical free trade agreement encompasses various sectors and issues, and sets deadlines for

<sup>14</sup> As per: The European Commission (2016). Policies of the European Union - Trade. Luxembourg: Publications Office of the European Union

reducing customs duties on individual products. The modern EU trade agreements include certain non-tariff issues, ranging from intellectual property to public procurement. They contain various provisions, e.g. in terms of the rules of origin in order to determine which products are subject to reduced rates of customs duties, and to which of them such tariffs are completely abolished. Free trade agreements strengthen the EU rule-based system exceeding beyond the WTO framework, therefore embedding certain provisions of the agreement into international contractual relations for the purpose of protecting trade and investment.

Finally, we may add that the Free Trade Agreements are the backbone of numerous association agreements as well. In addition, the EU is linked with some of its neighbours in the Customs Union (Andorra, San Marino and Turkey), with the following free trade agreements in force in Europe: the Faroe Islands, Iceland, Norway and Switzerland, as well as with the countries of the Southern Mediterranean: Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, the Palestinian Authority, Syria and Tunisia. For the topic at hand, it is particularly important to emphasize that in addition to the Stabilization and Association Agreement with the Western Balkan countries, the EU applies a system of autonomous trade privileges with the Former Yugoslav Republic of Macedonia, Albania, Montenegro, Bosnia and Herzegovina, Serbia and UNMIK / Kosovo.

## **POSITION OF THE EU IN INTERNATIONAL TRADE EXCHANGE**

Ever since the World War II, the EU, alongside with the United States, has played a key role in the development of the international trading system. The very original purpose of the Union, as well as of the GATT (and later the WTO), was the abolishment of customs barriers and support to the development of trade among its member states, so that it can be said that the EU has always been one of the main advocates of a functioning international trade founded on the rule of law. The EU's common trade policy is one of the areas over which the EU has full and direct competence. In other words, when operating within the WTO, the EU acts as a single entity represented by the Commission, not by its Member States. This practically means that the Commission negotiates trade agreements on behalf of all 28 Member States and defends the interests of the EU before the WTO Dispute Settlement Committee. The EU also strives to promote the multilateral framework for trade negotiations within the WTO, which aims to complement and potentially upgrade bilateral negotiations. However, the fact that some trading partners have turned to bilateral negotiations forced the EU to partially reassess its long-standing strategy and return to regional and bilateral negotiations. Such an active approach to EU issues related to international trade is linked to the fact that the EU today represents the world's largest economy: it has the largest foreign trade, that it is the largest exporter and importer of goods and services, it is the leading investor and recipient of foreign direct investment and the main aid donor. In order to support such fact, the following table contains the GDP of the ten most important world economies in 2014.

**Table 1** GDP of ten most important world economies in 2014.<sup>15</sup>

	GDP in current prices in billions of euro	% of world GDP	Gross public debt % GDP
EU	13.496	17,1	88,1
USA	13.058	15,9	104,8
China	7.796	16,6	41,1
Japan	3.464	4,4	246,2
Brazil	1.766	3,0	65,2
India	1.544	6,8	66,1
Russia	1.401	3,3	17,8
Canada	1.344	1,7	87,9
Australia	1.086	1,0	33,9
South Korea	1.062	1,6	36,0
World, total	58.163		

The table clearly shows the EU's visible importance for the global wealth measured by GDP. In 2014, the EU was the largest trading partner for 59 countries in the world. For the sake of comparison, in that particular year, China was the largest trading partner for 37 countries, and for the United States only for 23 countries. In the same year, European foreign trade in goods and services accounted for 34% of EU GDP, which is about 4 percentage points higher than the US.

The following table shows exports, imports and total turnover of EU goods and services in the period 2010-2015 in billions of euros.

**Table 2** Export, import and trade of the EU in goods and services in the period 2010-2015.

	Export from the EU in billion euro			Import in the EU in billion euro			Total exchange of the EU in billion euro		
	Goods	Services	Total	Goods	Services	Total	Goods	Services	Total
2015	1.791,50	811,20	2.602,70	1.728,10	660,50	2.388,60	3.519,60	1.471,70	4.991,30
2014	1.702,00	764,90	2.466,90	1.688,80	602,00	2.290,80	3.390,80	1.366,90	4.757,70
2013	1.736,30	719,60	2.455,90	1.684,20	544,10	2.228,30	3.420,50	1.263,70	4.684,20
2012	1.684,30	680,70	2.365,00	1.795,10	517,80	2.312,90	3.479,40	1.198,50	4.677,90
2011	1.554,20	615,30	2.169,50	1.726,70	479,40	2.206,10	3.280,90	1.094,70	4.375,60
2010	1.353,20	569,50	1.922,70	1.529,40	461,60	1.991,00	2.882,60	1.031,10	3.913,70

Source: European Commission DG (2016) Trade Statistical guide 2016, p. 14-17.

It is evident from the table that there is a trend of growth of exports from the EU, both in goods and services turnover, while the most intensive import of goods was in 2012. When the services are concerned, there is a general trend of growth in the observed period, regardless of whether it was an export or import of services. Furthermore, it is easy to conclude from the table that total turnover from of goods and services maintains its growth on a yearly basis, as one of the goals of EU trade policy, which represents a consequence of further liberalization of the market.

If we look only at the goods turnover of the EU in relation to the total world turnover, from the following table it can be seen that the EU's turnover in the observed six years makes up about 15% of the world's turnover, making the Union a world trade leader, with the exception of 2013 when the title was handed over to the United States, that is 2015, when China took the leading role, which is visible from the following table.

<sup>15</sup> According to: The European Commission. (2016). Policies of the European Union - Trade. Luxembourg: Publications Office of the European Union, p. 3.

**Table 3** Total goods turnover of the EU in relation to the world in the period 2010 - 2015 in billion of euros

	2015	2014	2013	2012	2011	2010						
		%		%		%		%		%		%
EU	3.519,6	14,72	3.390,8	14,82	3.420,5	14,88	3.479,4	14,90	3.280,9	15,71	2.882,6	15,84
USA	3,436.6	14,37	3.035,8	13,27	3.572,3	15,54	3.021,7	12,94	2.692,9	12,89	2.449,8	13,46
CHI-NA	3,566.4	14,92	3.238,0	14,15	3.131,6	13,63	3.009,9	12,89	2.616,4	12,53	2.243,3	12,33
Russia	481.7	2,01	606,6	2,65	651,0	2,83	673,0	2,88	607,6	2,91	489,7	2,69
World	23,910.9		22.879,3		22.982,8		23.350,1		20.889,4		18.199,8	

Source: European Commission DG (2016) Trade Statistical guide 2016

We have already stressed that the numerous free trade agreements and trade privileges that the EU has signed with various countries are of great importance for the growth of total foreign trade. In recent times, when trade was restricted to movement of physical goods from one part of the world to another, negotiations were conducted almost exclusively on customs and quotas. Nowadays, when state economies are more sophisticated, trade policy encompasses a wide range of activities and practices. These include services, intellectual property rights, foreign direct investments, standards for plant and animal health, as well as for industrial and non-industrial goods, licensing practices and domestic taxes. The following table and diagram, according to the European Commission's report on trade, show the largest foreign trade partners of the European Union in 2015 with respect to the trade in goods. Foreign direct investments and trade in services are not included in the data given.

**Table 4** The 10 largest trading partners of the European Union in 2015<sup>16</sup>

Country	Import	%	Export	%	FTA	%
USA	246,211	14.27%	369,549	20.66%	615,760	17.52%
China	350,257	20.31%	170,399	9.52%	520,656	14.82%
Switzerland	102,299	5.93%	150,833	8.43%	253,132	7.20%
Russia	135,876	7.88%	73,905	4.13%	209,781	5.97%
Turkey	61,574	3.57%	78,959	4.41%	140,533	4.00%
Norway	74,313	4.31%	48,867	2.73%	123,180	3.51%
Japan	59,726	3.46%	56,572	3.16%	116,298	3.31%
South Korea	42,327	2.45%	47,882	2.68%	90,209	2.57%
India	39,449	2.29%	37,919	2.12%	77,368	2.20%
Brazil	30,879	1.79%	34,588	1.93%	65,467	1.86%
Others	581,956	33.74%	719,590	40.22%	1,301,546	37.04%
Total	1,724,867		1,789,063		3,513,930	

By analysing the above table, we can conclude that the main foreign trade partners of the European Union are the United States, China, Switzerland and Russia to which it accounts for 45,515 of the EU total trade of goods.

The United States are the most important foreign trade partner of the European Union. With the aim of increasing the trade volume, the most ambitious trade negotiations between the United States and the EU, known as the Transatlantic Partnership for Trade and Investment (TTIP) negotiations

<sup>16</sup> Source: Eurostat in The European Commission (2016) Policies of the European Union - Trade. Luxembourg: Publications Office of the European Union, p. 6.

began in June 2013. The achieved strategic partnership should further strengthen the links of the Union and its largest export market, but also serve for high-quality check of trade rules on a global level. Since the average customs duties are about 4%, the easiest method to achieve progress is by removing non-customs barriers.

China is the second largest EU partner, while EU is China's largest partner. At the end of 2013, the Union began negotiations with China on a comprehensive investment agreement that would allow for gradual liberalization of investments and mutual removal of restrictions on investors in both markets.

As for Russia, it is necessary to emphasize that the EU is Russia's most important trade partner, comprising about a half of Russian exports and imports. After joining the WTO in 2012, Russia reduced import duties, thus opening the door for resolving bilateral issues with the EU. However, the situation in Ukraine and the sanctions imposed on Russia have recently significantly affected the volume of trade between the EU and the Russian Federation.

## CONCLUSION

Globalization represents the growing economic dependence of all the world's countries, which has enabled the increase and diversification of the number of international transactions of goods and services, the exchange of capital, and accelerated and generalized the technological exchange.

Thanks to the volume of its GDP and the openness of its internal market, the EU has a leading role in shaping the global trading system, primarily through its active contribution to the creation of the World Trade Organization.

The EU trade policy focuses on key partners such as the United States, Canada and Japan, although the importance is given to large emerging economies such as the BRICS countries (Brazil, Russia, India, China and South Africa), as these countries are considered to be the new drivers of the world economy due to its enormous market.

The Union's modern trade policy is an integral part of its broader strategy planned up to 2020 for the purpose to incitement of employment and creation of a more modern, more successful and sustainable economy. In the given strategy, the importance of free trade is particularly emphasized. The most important part of the Union's foreign trade policy is the moulding of global trade flows in accordance with its own values and interests.

In accordance with its own trade policy, the EU today represents the largest world economy, has the largest foreign trade, is the largest exporter and importer of goods and services, but also the leading investor and recipient of foreign direct investments as well as the main aid donor.

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# PERSPECTIVES AND PROBLEMS OF HARMONIZING ENERGY LEGISLATION OF UKRAINE WITH THE EUROPEAN UNION STANDARDS

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## SUMMARY

Essence, features and components of the energy market was investigated in the article. Regulatory support of energy efficiency and energy saving in the European Union and Ukraine was analyzed. Ukraine obligations due to the harmonization of the energy legislation with the EU standards were defined. Problems in the housing and communal services (HCS) as one of the largest consumers of energy resources were revealed.

**Keywords:** market of energy resources, energy policy, housing and communal services (HCS), adaptation of the laws, harmonization, implementation, European Union.

## INTRODUCTION

The systemic influence of external and internal political, organizational, economic, and social factors of Ukraine's development in conditions of its energy security has caused significant changes in the priorities in the formation and use of energy resources of the country. In modern conditions, the energy factor in the development of the national economy of Ukraine has a decisive influence on the level of its competitiveness, social stability, the trajectory of economic development. Undoubtedly important tasks for the formation of an energy efficient national economy model are optimization of the structure of primary supply and final energy consumption, proper investment provision of energy-efficient measures taking into account the specifics of energy consumption in different sectors of the national economy and households, which will enable to meet the energy needs of consumers in the conditions of minimization of total energy consumption (maximization of benefits to all participants of the energy market). It actualizes the task of increasing energy independence of Ukraine and the formation of a new state policy in the energy sector based on the experience of the European Union.

For Ukraine to deepen cooperation with the EU must be realized through the coordination of key directions of energy policy of Ukraine and the EU in the field of energy security, including the following tasks: ensuring consumer rights, preventing the dominance of one supplier in the market, increasing transparency of energy industry activity, expanding sources of energy supply, liberalization of the gas market and increase, the level of energy efficiency.

The above problems were addressed in many works of foreign and Ukrainian scholars:

M. Radovanovic (Golusin), S. Popov, S. Dodic [1], G. Smith, K. Parmenter [2], F. Sioshanci [3,4], G. Kayakutu, E. Mercier-Laurent [5], N. Hnydiuk [6], I. Hrytsiak [7], M. Makarenko, L. Khomutenko [8], I. Yakoviuk [9], I. Kosse [10], O. Shatylo [11], O. Pashechko [12].

At the same time, the resolution of the problems of harmonization of the energy legislation of Ukraine with the standards of the European Union and the definition of the basis on which basis the formation of an energy-efficient model of economic development of the country requires an analysis of the existing regulatory framework and its effectiveness in further introducing market relations in this area.

#### 1. The main problems of formation and development of the energy market in Ukraine

A modern energy market in Ukraine is under formation, but at the same time, the existing system of economic relations in this area is extremely politicized. So it has become a defining way of organization and functioning of the national economy and ensure its economic independence and competitiveness. The specificity of functioning of the national energy market is determined by: high level of monopolization that violates the balance of interests of energy market agents regarding the purchase and sale of energy resources with the conditions of territorial, temporal, situational constraints. The mechanisms of the state and supranational regulation of prices, supply and demand of energy are imperfect, high tariffs reduce the availability of energy resources, constrain economic development of business entities, is accompanied by an increase in the burden on the state budget of the country, since almost ten million households (more than 40% of their total number) receive subsidies from the State Budget.

Therefore, the main principles of functioning of the energy market are not complied, the characteristics of which are: the autonomy of participants in the economic process; the commercial nature of their interaction; rivalry (competition) of economic entities; formation of economic proportions influenced the dynamics of prices and competition; the prices are based on supply and demand [13].

The contents and features of formation of market energy resources of Ukraine determines its structure, namely: nuclear fuel market and nuclear technology; energy market; natural gas market; the oil market; the coal market and the market for alternative energy sources. In Ukraine, the markets of electric energy, thermal energy, natural gas are the key in terms of impact on the development of the national economy. It is legally determined that: Law: electricity market is a system of relations arising between subjects of the market in the implementation of the purchase and sale of electric energy and/or ancillary services transmission and distribution of electrical energy power networks, the supply of electricity to consumers; thermal power market is a sphere of circulation of thermal energy as a commodity for which there is demand and offer; the natural gas market is an aggregate of legal relations arising in the process of purchase and sale of natural gas and services on its transportation, distribution, storage (loading, selection), services installation LNG [14]. The established legal framework to a certain extent provides the formation of competition in the energy sector of Ukraine, but does not solve all problems of the functioning of energy resource markets.

The problem of reliable and secure supply of energy resources, diversification of the countries of receipt, the formation of energy-efficient consumer behavior, aimed at optimization of energy resources consumption, reduction of energy intensity of GDP of the country as a whole is not less important for Ukraine as an importer of energy resources. The complexity of solving such problem like this is that the structure of formation and consumption of energy resources has significant disproportions (Tab. 1 - 2) and practically determines its level of energy independence and energy security.

**Table 1** The distribution of energy sources in the total primary energy supply in Ukraine in 2013-2015

Energy sources	Structure, % to the total		
	2013	2014	2015
Coal and peat	35,7	33,7	30,4
Crude oil and petroleum products	8,5	10,1	11,7
Natural gas	34,0	31,6	28,9
Atomic energy	18,8	21,9	25,5
Renewable energy	2,7	2,6	3,0
Total	100,0	100,0	100,0

Source: consolidated on the basis [15].

Despite the fact that Ukraine is sufficiently provided with energy resources, it largely depends on the import of certain energy sources. So, in Ukraine, in 2016 the share of imported inputs in the consumption was as follows: oil and condensate is 19% of the total consumption of that resource, coal is 27%, gas is 33%, petroleum products is 77%, nuclear fuel is 100% [16]. In the structure of final consumption of fuels and energy in 2015 remains consistently high share of natural gas (31,5%) (Tab. 2).

**Table 2** The structure of final consumption of fuels and energy in Ukraine in 2013-2015

Types of fuel and energy	Structure, % to final consumption			
	2012	2013	2014	2015
Natural gas	36,4	35,8	34,1	31,5
Coal and peat	13,1	12,5	14,9	12,4
Crude oil and petroleum products	16,6	16,2	16,5	18,6
Electricity	16,2	17,0	18,0	20,1
Heat energy	16,2	16,8	14,5	14,8
Biofuels	1,4	1,6	2,0	2,5
Total	100,0	100,0	100,0	100,0

Source: consolidated on the basis [15].

The main consumers of fuel and energy in Ukraine in 2015 are households (32,6 %), industry (32,3 %) and transport (17,2 %) [15].

Therefore, the important priority of the state energy policy should be the creation of preconditions for the transition to an energy-efficient model of the economy, where the key remains the task of introducing mechanisms for stimulating the economy-friendly behavior of the population (households), as well as modernizing the economy by increasing the innovation activity of enterprises and introducing energy-efficient technologies. It is here that significant potential for increasing energy conservation in the country is concentrated.

## THE BASIS OF THE STAGES OF HARMONIZATION OF THE ENERGY LEGISLATION OF UKRAINE TO EU STANDARDS

Regulatory support of energy efficiency and energy saving in the EU is based on adaptation of a number of strategic policy documents, such as "Green Books", corresponding Roadmaps and Directives that form a single, reliable, modern European policy on rational and economical use of

energy resources.

Energy legislation on the regulation and functioning of the energy market of Ukraine was formed in several stages. The signing of the Agreement on partnership and cooperation between Ukraine and European Communities and their member States in 1994 and the adoption of other documents that defined the legal basis for the organization of cooperation with our government, created appropriate preconditions for the harmonization of Ukrainian legislation with the EU law, but the main disadvantage of this process was the lack of control by the competent Ukrainian institutions and the European Union over its implementation. In addition, there is harmonization of Ukrainian legislation in the energy sphere was not associated with the process of implementing internal economic reforms.

As the member of the Energy Community (2011), Ukraine received the opportunity of active use of the best practices of the EU, which is important for the modernization of oil and gas, electricity, coal and nuclear power sectors. From members of the Energy Community is required to harmonize the legal framework with the EU, implementation of the Second and Third Energy Package. Ukraine signed the Protocol of Accession to the Energy Community which contains a clear list of regulations that need to be considered in Ukrainian legislation and timeframe to appropriate these changes. Changes are related to the areas of production and transportation of gas, electricity, environment and renewable energy.

The next stage of harmonization of energy legislation concerning regulation and functioning of the market of energy resources of Ukraine should be recognized by the Law of Ukraine "On the National Program of Adaptation of Ukrainian Legislation to the Law of the European Union" (March 18, 2004). [14]. This law for the first time in Ukrainian national legal system without translation introduced term "acquis communautaire". Acquis communautaire (acquis) is means the legal system of the European Union, which includes (but is not limited to) acts of EU legislation, which adopted by European Community, the common foreign and security policy and cooperation in justice and home affairs, ie, *acquis communautaire* is a set of common legal heritage of the European Union.

Adaptation of Ukraine's legislation to the EU is a set of interrelated organizational, legal, socio-economic, scientific, and technical processes and measures, that aimed to the approximation of the Ukraine laws to modern European legal system by designing a new and making changes in current Ukraine's legislation in view of the common European standards, which are reflected in the current legislation of the European Union and the EU. In the broadest sense the legal approximation is not limited by the direct amendments to the legislation or the creation of new acts, because the main components of the adaptation process are implementation and enforcement of legislation approximated [17].

The obligation of the Ukrainian side about the approximation of the domestic energy sector to European standards enshrined in a number of documents (Tab. 3).

**Table 3.** Legal basis of cooperation between Ukraine and the EU in the energy sector

Date	Document	Energy component
signed 14. 06.1994 entered into force on 01.03.1998	Agreement on Partnership and Cooperation between Ukraine and the European Communities and their Member States (APC)	Cooperation in the following areas: the impact of energy production and consumption on the environment in order to prevent or minimize the harmful consequences of the results of these activities on the environment (environmental aspect); improve economically feasible and nature safe way the quality and security of energy supply, including diversification of suppliers (energy security); formulation of energy policy; improve the management and regulation of the energy sector according to market requirements; introduction of a number of institutional, legal, financial and other conditions which are necessary to promote the growth of energy trade and investment (institutional aspect); promotion of energy saving and its efficient use; modernization, development and diversification of energy infrastructure; improving energy supply technologies and end-use of all forms of energy; management and technical training in the energy sector (innovative aspect).
1.12.2005	Memorandum of Understanding of the collaboration in power industry	Strengthening cooperation in areas: nuclear safety; integration of electricity and gas markets; increasing security of energy supply and transit of hydrocarbons; structural reform, enhancing standards of safety and environmental protection in the coal industry (integration aspect)..
24.09.10	Protocol on Ukraine's accession to the Treaty of establish of the Energy Community	The integration of the Ukrainian energy sector with the EU markets, strengthening its energy security, ability to attract international loans and technical assistance (integration aspect).
27.06.2014	Association Agreement between Ukraine, on one hand, and European Union, European Atomic Energy Community and their Member States, on the other hand	Increasing energy security, competitiveness and stability for economic growth and progress in the direction market integration, including through a gradual convergence in the energy sector through participation in the regional initiatives on energy cooperation (sectoral and regional aspect). Cooperation in the legal sphere will take into account the need to provide the corresponding obligation to provide public services, in particular measures to inform and protect consumers from unfair pricing practices and access to affordable energy for consumers, particularly the most vulnerable (informational aspect).

Source: consolidated on the basis [14].

The biggest obstacle to the timely adaptation of EU norms in Ukraine is the delay by the Parliament of considering and adopting relevant bills, a slow and bureaucratized procedure for approving draft laws and regulations at the level of the Cabinet of Ministers, as well as insufficient staffing capacity of state authorities to develop quality projects for such acts.

With the signing in 2014 the Association Agreement between Ukraine, on one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand, began a new phase of international cooperation of Ukraine with the European Union in the field of safety of nuclear energy. Implementation of this Agreement requires from Ukraine achievements in ensuring respect for shared values and progress in approximation with the EU in political, economic and legal areas. Among the key objectives of the Agreement provides a high level of nuclear safety, enhance energy security, regulatory adaptations to the key elements of the EU acquis. Ukraine confirms its obligations to make closer its energy legislation to EU standards in the field of energy, at the same time promoting energy efficiency and renewable energy.

Integration of the Ukrainian energy sector with the markets of the EU countries is a common priority, but the practical implementation of these tasks is rather complex and contradictory from the standpoint of ensuring economic security (low level of diversification of sources of basic energy resources and high cost of their transportation along the new transport corridors bypassing Russia), technological safety (the need for technological modernization of power generating enterprises as a result of diversification of energy resources of resources and their qualitative parameters, use of existing transport energy infrastructure), environmental safety (limitation of greenhouse gas emissions into the atmosphere), social security (the need to ensure social stability of the country in terms of increasing the cost of energy for households and poverty), investment security (very

limited investment resources for ensuring the modernization of the energy sector of the economy and the transition to an energy-efficient development model of Ukraine).

Therefore, the process of harmonization of the energy legislation of Ukraine with European Union standards requires investigation of its impact on other aspects of the development of the national economy (environmental, safe (energy security), institutional, innovation, integration, sectoral, regional (regional initiatives), information). One can foresee that the formation of a new energy legislation in Ukraine will lead to a revision of the system of priorities and mechanisms for reforming the economy as a whole, and therefore it is appropriate to study the implications of such systemic changes and the establishment of risk prevention mechanisms.

## FEATURES OF THE IMPLEMENTATION OF LEGISLATIVE ENSURING DEVELOPMENT OF KEY SEGMENTS OF THE ENERGY MARKET OF UKRAINE TAKING INTO ACCOUNT REQUIREMENTS OF THE EU

Summarizing the full range of measures which taken by the EU to improve energy efficiency, we can choose three main areas: the use of alternative energy sources, modernization of housing and equipment, regulatory and operational regulation of energy consumption. The main direction of energy supply in HCS is an alternative energy. Tab. 4 shows the main EU Directives and Ukraine laws (integrated with the relevant provisions of European directives) that regulate the functioning of the energy markets and market of HCS as one of the largest consumers of the energy.

**Table 4.** Comparative table of legislative development energy and energy efficiency in the EU and Ukraine

The EU acquis	Ukrainian legislation
Market of nuclear fuel and nuclear technology	
<p>Council Directive 2006/117/Euratom of 20 November 2006 on the supervision and control of shipments of radioactive waste and spent fuel.</p> <p>Council Directive 2013/59/Euratom of 5 December 2013 laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation, and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom.</p> <p>Council Directive 2014/87/Euratom of 8 July 2014 amending Directive 2009/71/Euratom establishing a Community framework for the nuclear safety of nuclear installations.</p>	<p>The Law of Ukraine "About regulation of issues which related to Nuclear Safety" on June 24, 2004 №1868-IV.</p> <p>The Law of Ukraine "About licensing activity in the field of nuclear energy use" from February 11, 2010 №1874-VI.</p> <p>The Law of Ukraine "About Amendments to the Law of Ukraine "About Nuclear Energy Use and Radiation Safety" about regarding supplementing nuclear installations on December 20, 2011 №4175-VI.</p> <p>The Law of Ukraine "About handling of spent nuclear fuel on location, design and construction of centralized storage facility for spent nuclear fuel on domestic nuclear power" on February 9, 2015 №4384-VI.</p>
Natural gas market	
<p>Directive 98/30/EC of the European Parliament and of the Council on common rules for the internal market in natural gas.</p> <p>Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC.</p> <p>Council Directive 2004/67/EC of 26 April 2004 concerning measures to safeguard security of natural gas supply.</p> <p>Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC.</p>	<p>The Law of Ukraine "About Oil and Gas" of July 12, 2001 № 2665-III.</p> <p>The Law of Ukraine "About natural gas market" on July 8, 2010 №2467-VI.</p> <p>The Law of Ukraine "About natural gas market" on April 9, 2015 №329-VIII.</p>

Electricity market	
<p>Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity and repealing Directive 96/92/EC - Statements made with regard to decommissioning and waste management activities.</p> <p>Council Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity.</p> <p>Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of ecodesign requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council.</p> <p>Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment</p> <p>Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC</p> <p>Directive 2010/30/EU of the European Parliament and of the Council of 19 May 2010 on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products.</p>	<p>The Law of Ukraine “About Electric Power Industry” on October 16, 1997 № 575/97-VR.</p> <p>The Law of Ukraine “About Amendments to the Law of Ukraine “About Electric Power Industry” on June 22, 2000 №1821-III.</p> <p>The Law of Ukraine “About principles of functioning Ukraine electricity market” dated October 24, 2013 №663-VII.</p>
Market of heat energy	
<p>Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC.</p>	<p>The Law of Ukraine “About combined heat and power (cogeneration) and Waste of Energy Potential” on April 5, 2005 №2509- IV.</p> <p>The Law of Ukraine “About Heat Supply” on June 2, 2005 №2633-IV.</p>
Market of alternative energy sources	
<p>Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market.</p> <p>Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport.</p> <p>Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.</p>	<p>The Law of Ukraine “About alternative energy sources” from 20.02.2003 №555-IV.</p> <p>The Law of Ukraine “About Amendments to Some Laws of Ukraine on the establishment of “green tariff” of 25 September 2008 №601- VI.</p> <p>The Law of Ukraine “About amending some laws of Ukraine to promote the production and use of biofuels”: from May 21, 2009 №1391-VI.</p> <p>The Law of Ukraine “About Amendments to the Law of Ukraine “About Electric Power Industry to stimulate the production of electricity from alternative energy sources” from December 20, 2012 №5485-VI.</p> <p>The Law of Ukraine “About amending some laws of Ukraine to ensure competitive conditions of electricity from alternative energy sources” from June 04, 2015 №514-VIII.</p>

Market of HCS	
Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings.	The Law of Ukraine “About state regulation of utilities” on July 9, 2010 № 2479-VI.
Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC.	The Law of Ukraine “About providing commercial metering of natural gas” from June 16, 2011 №3533-VI.
Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings.	The Law of Ukraine “About the introduction of new investment opportunities, guaranteeing the rights and interests of businesses for major energy modernization” from April 9, 2015 №327-VIII.
Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC.	The Law of Ukraine “About peculiarities of ownership of an apartment building” from May 14, 2015 №327-VIII.
	The Law of Ukraine “About peculiarities of access to information in the supply of electricity, natural gas, centralized hot water, centralized drinking water supply and sanitation” of December 10, 2015 №887-VIII.

Source: consolidated on the basis [14,18].

The problems of implementing the provisions of the energy package of the EU Directives and Regulations in the relevant legislation of Ukraine are: significant technological gap in the energy sector of Ukraine and the EU (different architecture of networks and structure of generating capacities, shortage of maneuvering power in Ukraine, relatively low level of reliability and quality of power supply, etc.); the impossibility of the implementation of the EU legislation which regulates the institutional framework of markets, through the mechanism of a simple copy (translation) directives and regulations, as it is in the sphere of technical regulation; the rate of adoption of acts and the realism of their performance; the lack of accountability and sanctions for non-compliance with regulations and directives, implementierung in national legislation, as it applies to countries-EU members; low level of transparency, accuracy and matching (comparison) of data of energy statistics and the like.

Delay implementation of European rules or their inadequate implementation of the normative law of the country may lead to the isolation of the Ukrainian energy market from the energy space of the EU with serious negative long-term consequences. The implementation of European energy standards in national legislation will contribute significantly to improving the energy security of the country, and the entry into the European market will reduce the opacity of domestic energy markets.

## PROSPECTS FOR HARMONIZATION OF ENERGY LEGISLATION

Despite the fact that energy efficiency is undoubtedly one of the priorities of Ukraine’s energy policy, energy consuming is excessive, and effectiveness of energy efficiency measures, by international standards, remains low. The amount of energy that used to produce a unit of goods and services (per unit of GDP) in Ukraine exceeds level: Great Britain in 4.8 times; Turkey in 3.8 times; Poland in 3 times; Belarus in 1.8 times; the average of the European Union in 3.8 times; for the world in general in 2 times [19].

There are great hopes that the implementation of European experience of energy sector development and the implementation of European energy standards will improve energy efficiency of Ukraine’s

economy; reduce the high level of politicization of intergovernmental relations in the energy sector will allow to liberalise and de-monopolise the domestic energy markets to make them more transparent and competitive, and create conditions for their integration into the European market. However, the practical implementation in the energy sector of the package of laws is facing in reality is accompanied by a complex and somewhat contradictory processes, as each country has specific national features, the existing system of economic relations in the energy sector, which in Ukraine is first of all characterized by a high level of monopolization of markets.

The procedure of the implementation of Ukraine's commitments as a member of the Energy Community, due to make the necessary changes in the legislation of Ukraine, defined by the Cabinet of Ministers of Ukraine (CMU) №733-r of 03.08.2011 about Action Plan on implementation of Ukraine's commitments under the Energy Community Treaty [14]. One of the primary steps in this direction was adoption the Law of Ukraine "About principles of functioning of gas market" and "About the basis of functioning of electricity market" and the CMU Decree "About urgent measures to reform the management system of united gas transportation system of Ukraine".

European model natural gas market, including for domestic consumers provides free access to gas infrastructure; stable regulatory environment; the absence of monopolies among the owners of the resource; free pricing of natural gas; lack of economic incentives for suppliers; the presence of paying customers; a sufficient number of suppliers.

The liberalisation of the natural gas market and implementation of the relevant EU standards in this area is the Law of Ukraine "On natural gas market"[14], adopted April 9, 2015. Creating a complete and competitive natural gas market in Ukraine will increase the efficiency of decision-making in the energy sector, depoliticize the market; increase the attractiveness of economic activities in the market for its subjects, create the conditions for long-term investment in this sector, reduce risks and dependence on external suppliers monopoly natural gas, strengthening energy security of Ukraine and the prospects for a qualitatively new integration of the Ukrainian gas market to the EU market.

Unfortunately, in Ukraine the modern natural gas market maintains a significant drawbacks: the lack of a stable regulatory environments conducive to attracting new players; the state company of national joint-stock company "Naftogaz of Ukraine" controls 80% of the natural gas resource; free pricing of gas exists only in the category "industry"; the presence of National joint stock company "Naftogaz of Ukraine" benefits 20% value added tax, more than 40% of households in Ukraine is beneficiaries; there are a limited number of suppliers of natural gas [20]. Access to the infrastructure of the gas transmission system can be considered conditionally free. Thus, the implementation of the Law of Ukraine "On the Natural Gas Market" requires the consistent introduction of market and regulatory mechanisms on the basis of balancing their impact and overcoming the monopolisation of the natural gas market, which will help to establish a complete market relations in this area and reduce its level of shadowing.

An important step for the transition to the European model of energy market is the Law of Ukraine "On electricity market" [14], adopted on 8 June 2017 In particular, this concerns the question of separation companies in the areas of distribution and transmission of electricity. The law provides de-monopolisation and free competition for all market participants, opens up opportunities for consumers to choose their electricity supplier.

However, the modern development of electricity market of Ukraine entails a number of problems: we still have a large amount of cross-subsidization of households by industry, that is, the tariffs for industrial consumers are significantly higher than the market price, and the tariffs for households do not cover even half the costs (for 2016, the amount of subsidies amounted to about 45 billion UAH); the lack of competition in the generation and supply of electricity; the existence of significant debt on the entire chain of "customers – suppliers – State-owned enterprise "Energorynok" – the producers" (as of February 1, 2017. the debt of consumers for electricity has reached 27,6 billion UAH. debt providers is 30,1 billion UAH. the duty of the State enterprise "Energorynok" and 29,9

bln.). In addition, the market is “closed” for household consumers, they can’t change the main supplier of energy (State-owned enterprise “national energy company “Ukrenergo”) to other providers of electricity [21].

The adoption of the Law of Ukraine “On electricity market” are the first steps in reforming the domestic energy market, then you need to ensure the technical feasibility of free trade with electricity to provide infrastructure. The more investors, the better will be the situation in the economy as a whole. Technical opportunity to sell Ukrainian electricity abroad makes our country a more attractive investment.

In European countries, alternative energy is actively developed for a long time. Some countries (Germany, Italy) even exceeded its state program for the replacement of traditional energy sources renewable. Ukraine is only at the beginning of this journey. In Ukraine there is a certain revival of the market development of alternative sources of energy. It is planned that in Ukraine by 2030 in the structure of energy resources 11% will be alternative sources of energy (renewable resources); were introduced green tariff. The state is obliged to buy electricity produced from renewable sources subject to the green tariff, which, as it turned out, was one of the highest in the world. Recently, changes were made to the Law “On electric power industry”, since the previous version created a ground for corruption. Today, tariffs on manufactured renewable electricity in Ukraine is more or less balanced and balanced [22].

To accelerate renewable energy development in Ukraine should be: increased domestic and foreign investment in new capacity due to the simplification of the procedure of qualification for getting green tariff, the adoption of incentives for small investors and the establishment of funding available loan banking products such as loan guarantees.

The main problems in the oil market of Ukraine – the decline in domestic production of oil and increase the economy’s dependence on import of petroleum products; lack of significant investment in geological exploration; technically worn out and obsolete material and technical base of oil refineries, high cost of production and the unresolved questions of ownership. As a result, Ukraine has a significant dependence on imports of petroleum products, whose share in 2016 reached 80% of its total consumption [21].

Positive changes in the oil market of Ukraine is the conformity of production of petroleum products of Ukrainian producers to the standards of quality of imported counterparts; adoption of legislative changes regarding the ease of administration of an excise tax on the sale of the fuel, which will reduce the share of the shadow market; introduction of a decline in rental rates will help to increase oil production, to increase investment in exploration; the use of new production technologies will enable to increase the attractiveness of the industry, thereby improving the load factor of the Ukrainian refineries, as well as reduce the import of petroleum products.

The main problem of the nuclear fuel market and nuclear technology of Ukraine is a problems of technogenic safety. In 2016, the number of accidents at nuclear power plants has increased five times compared to 2015. Reasons: outdated equipment; reduction in training of personnel; the transition to new fuels (Ukraine replaces Russian nuclear fuel to fuel the American company Westinghouse Electric). The second component of the problem is extending the life of nuclear reactors; lack of funding, withdrawal of the units from operation and handling of nuclear waste [23].

Ukraine considers the nuclear energy as one of the most cost-effective low-carbon energy sources. The further development of nuclear energy sector for the period up to 2035 is projected on the assumption that the share of nuclear generation in total electricity production will grow.

The coal market of Ukraine is characterized by a shortage and the need for coal imports (due to the loss of control over part of the Donetsk and Luhansk regions); the imperfection of price and tariff policy depending on the energy value of coal products and the opacity of the market; the lack of funds for the purchase and introduction of modern high-performance cleaning and trampoline technology, vehicles, as well as the latest technological decisions for coal mining; the loss of the personnel potential of the coal industry due to the fall in the prestige of mining work, the lack of a

training base and the lack of compliance with the level of professional training of workers for the needs of innovative development of coal production [21].

Ways of overcoming the shortage of coal: the reform of the coal industry and thermal generation; admission to the internal coal market of importers; the implementation of the gradual elimination of loss-making mines; creation of favorable investment conditions for the privatization of mines; the introduction of an electronic exchange form of trade in coal products.

On thermal power market of Ukraine there are the following problems: the lack of preconditions for competition in the heating sector; lack of incentives to improve the efficiency of heat production; the existence of barriers to access to heating systems of independent heat producers; the lack / failure of investment as a consequence of the imperfection of the existing mechanisms for tariff setting. The reasons for this situation are the monopoly position of the enterprises of municipal power system in the district heating sector and the imperfect legislation in the field of power system.

The urgent question for housing and communal services is the replacement of fossil fuels with alternative energy sources for production of thermal energy, since the consumption volume of natural gas companies Teplokommunenergo amounted to about 8,6 billion m<sup>3</sup> in 2014 and 6,9 billion m<sup>3</sup> in 2015 [24]. An important role in this process can play a bioenergy, but significant barriers to the entrance of bioenergy technologies in the sphere of municipal power system is the lack of a competitive market of thermal energy.

The developed European countries such as Sweden, Finland, Germany, Austria, Belgium, France and UK have created a competitive market of the heat, the rest of the EU countries are moving in this direction right now. Almost all EU countries more or less conducted unbundling (legal division of existing heating companies, at least for two independent companies, one of which produce thermal energy, and the second made its transportation and delivery) in the sector of the heat and ensured conditions of access the independent producers to the heating networks [24].

The introduction of competitive energy market in Ukraine, provides the opportunity to: create competition in the district heating sector; improving the efficiency of thermal energy production for operators and independent producers; the application of the concept of “open heating” on the basis of non-discriminatory conditions for connection of independent producers; the growth of private investment in the district heating sector; increased demand for biofuels and other alternative energy sources in the district heating sector.

In the context of the implementation of the Association Agreement between the EU and Ukraine we should pay attention to the existing experience in the field of housing and communal services (HCS). European approach is provided by current building standards, which define mandatory installation of the metering devices of house heat and instalation to every apartment metering devices of electricity, hot and cold water. Reserve of increasing energy efficiency of the apartment, especially in the current fund, is to create conditions for every apartment metering of thermal resources that can significantly increase the motivation of residents to careful attitude to the operation of heating systems.

Of course, reforming HCS in EU was due to the economy development, and with the financial and standartpmy help of EU; and made such great progress as a result of the transformation of HCS (restructuring, de-monopolization, market liberalization, privatization) and because of the introduction of effective management control (regulation) and market pricing methods.

In 2015 in Ukraine there was a significant raising of tariffs for housing and communal services, within the framework of the memorandum with the key creditor of country - the International Monetary Fund, namely the minimum fare for households was increase by 3.3 times up to 3600 UAH per thousand cubic meters of fuel consumption below 200 cubic c. m. of gas; heat tariffs for the population by 72%, to UAH 537.2 UAH G.cal.; electricity tariffs for households rose for the year twice: first to 19%, then from 24.6% to 0,456 UAH per kW / h [25].

Thus, given the existing tariffs for housing and communal services, and a tendency to their increase in the near future, comparing the rates of wages and pensions of ordinary citizen, realizing that the

revision of existing tariffs and use of Ukrainian gas production for the needs of population issue more political than economic and solving it requires knowledge of changes in the energy policy of the country, so improvement is now possible only on the base of economic motivation of energy saving consumer behaviour and improving energy efficiency in HCS in Ukraine [26].

## CONCLUSIONS

Today Ukraine is moving toward increasing energy efficiency, in particular to fulfillment of its targets adopted under the Energy Community Treaty. In terms of energy consumption per unit of GDP Ukraine exceeds the average level of the EU countries is more than twice, so its potential for energy efficiency is really enormous. Its potential is still unused at national and local levels, that leads to significant economic losses and negatively influence on the economy of the state.

One of the main barriers to energy efficiency in Ukraine is a significant number of the not adopted necessary primary and secondary legislations. Also it is very important to develop a legal and regulatory framework of the energy efficiency of the buildings. In addition, improving coordination between the executive authorities, expert organizations and investors is a prerequisite for further progress in implementation programs and energy efficiency measures.

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# CORRELATION AND RELATIONSHIP ANALYSIS FOR BUSINESS RISK AND COMPANY ASSETS (Case Study of Food and Beverage Companies in Indonesia)

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## SUMMARY

**Purpose :** This study aims to investigate how variable ratios such as capital structure, NPM, ROA, asset structure and business risk on 60 companies listed on the IDX to know the book ending 2016.

**Research methodology :** The method used in this research is descriptive statistic analysis, correlation analysis and multiple regression analysis.

**Findings :** result of research explains that capital structure of 60 food and beverage industry company have significant relation with variable of Net Profit Margin (NPM) equal to 0,0658, business risk equal to 0,0401, asset structure equal to 0,0019 and for ROA variable with no relation significant with a value of 0.5929. So that 3 variables that have significant relationship and 1 variable of capital structure with ROA is not significant.

**Originality :** This study can contribute to the existing literature, especially those related to the analysis of the company's financial ratios. And later the results of this study can be used as an investigation tool about the impact of business risk to the company's financial analysis of the food and beverage industry.

**Keywords:** business risk, profitability, size, sales growth, capital structure.

## INTRODUCTION

Fiscally the capital structure can determine the organization of the company financially and health. The company's financial leaders create an effective and efficient capital budget structure, by diversifying loan financing such as short-term debt and long-term debt and in the form of outstanding shares. The financial analyst model can be done and evaluates the financing structure by looking at the characteristics of the financing model undertaken by the company, as well as the analysis of long-term financial assets, financial set analysis of the control of the company's financial leaders, or it could be in the form of planning analysis and analysis of the company's historical performance in the past. The existence of flexible and efficient capital structure makes a key in lowering costs and can increase profits and dividends for stakeholders. Using an efficient and effective model of capital structure analysis can be made in-depth research material. An established company, simply plotting the assessment of capital structure as well as ongoing financial practices within the company. In the analysis of capital structure, if done in detail, it can assist the organization

of the company in determining the direction of the policy that is important, for example in the pricing of a product or service, or within the terms of the loan in the short term or long term that has been received, or in the form of allocating some of the company's resources. The occurrence of a process of capital structure optimization, can reduce the risk of default, as well as can increase corporate earnings indirectly, and can increase shareholders' capital.

## **THEORY REVIEW**

### **CAPITAL STRUCTURE**

In Weston and Copeland, (1992) and Munawir (2004), explain about capital. According to them, capital is one of the rights and one part of the existing components in financial funds, which are in equity position, indicated by the recognition of common share capital and preferred stock, the share of operating profit and the profit component is held up. This welding is part of the excess of the assets owned by the company against the components of other parts in the balance sheet position. The existence of company policy in choosing additional sources for business capital, part of the financing process that is faced to the situation to increase operating cash flow. From several existing financial ratios, long-term debt to equity is one of the ratios that should also be used as a measuring tool in the analysis of a company's finances. Or commonly called the long-term debt to equity ratio over the composition of the company's capital structure and debt to capital, the amount of corporate financial leverage is determined by this ratio.

### **ASSET STRUCTURE**

In Darmawan (2003), Syamsudin, (2001), and Riyanto (2001) define the Asset Structure as determining how much allocation of each component of the asset describes the distribution of the assets of lancer and non-lancer assets and other assets. The asset structure can also be interpreted as a balance and comparison of a component of current assets with fixed assets. So the asset structure can be explained some of the composition of the presentation of assets in the format of existing financial ratios of financial statements, the comparison is a formula of current assets with fixed assets. With the difference in the composition of assets that can be used as collateral company, affecting financing and an investor will be easier to provide loans if accompanied by existing guarantees.

### **COMPANY SIZE**

In Sujianto, (2001), to say that to measure a company's size, is to describe the size of a company, the big and small is shown from the ratio of total assets to the amount of sales that are owned by the company during 1 accounting period. Large companies in large companies have diversified with operational risk levels slightly smaller than small companies that sell different types of products. In Nofal, (2007) The word size is negatively associated with a chance of a failit. From an asymmetric point of view of information, in large firms, the information asymmetric issue between management and investors is smaller, so large firms are easier at issuing securities that are sensitive to asymmetric information issues, such as stocks. Based on this thinking, large companies are less indebted than small companies.

### **PROFITABILITY**

According to Sartono, (2001) and Riyanto (2001) explain the meaning of profitability as a company's ability to earn profits, strong relationship with sales components, total assets owned by the company,

or own capital. Profitability can also explain how much a company's ability to earn a profit during the current accounting period. From the explanation it is concluded that the profitability of one company's ability to generate profit, by comparing the profit earned by the company during one accounting period, to the amount of assets or capital owned. This theory provides two different assumptions, related to profitability. The first assumption of profitability and the level of debt has a positive relationship because profitable companies are more likely to owe to take advantage of the economy significantly. On the one hand, however, creditors expect low-risk firms to be attributed to the fact that with profit, firms can fulfill their obligations to creditors, so debt levels are positively correlated with profitability. The second assumption in Nofal (2007) that the argument of agency costs implies that the greater the yield given by assets, the greater the free cash flows that must be reduced by the obligation to pay the debt.

## **BUSINESS RISK**

Business risk according to Atmaja (1999), Brigman & Houston, (2006), and Gitosudarmo & Basri, (2008) is a situation where the possibility of a loss or deficiency that can be explained by using data or information that is quite reliable or more relevant. Or business risk is an incident that can not be sure how much the company's operating revenue earned in the future and the possibility of future losses will be gained. So that business risk can stand alone as a function of data in katakana existence of uncertainty that arise, but this risk can be done projection return of capital which have been invested in a company.

## **HYPOTHESES DEVELOPMENT**

In this research built the hypothesis as follows:

H1: There is a correlation between the variables in the study

H2: There is a significant relationship between the variables in doing research

## **TIME, DATA AND RESEARCH METHODS**

### **TIME AND DATA RESEARCH**

This research was conducted in October 2017. The data used in this study consisted of capital structure, net profit margin, business risk, asset structure and ROA of 60 companies listed on the BEI during 2016.

### **DATA ANALYSIS TECHNIQUE**

This research uses 3 analysis data technique :

Descriptive statistic analysis model

The purpose of this descriptive statistical analysis technique is to organize the data obtained and to be able to clarify the issues to be discussed. This arrangement is done by tabulating the data in tabular form

Correlation analysis

The purpose of this analysis to measure the strength of the relationship 2 Variable or more and also to be able to know the form of relationship between 2 variables or more with the results of a quantitative nature.

Multiple regression analysis

The purpose of multiple linear regression analysis is done to measure the intensity of the relationship between two or more variables and make predictions of the estimated value of the dependent

variable X over the variable Y. Variables used as variable Y are capital structure and variable X1, X2, X3 and X4 are Net profit margin (NPM), business risk, structure asset and ROA.

## RESULT RESEARCH

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. The results of the analysis for the variables in doing research, seen and presented in table 1 below :

**Table 1** Result for statistic descriptive

	Capital Structure	NPM	Business Risk	Structure Asset	ROA
Mean	1.056500	0.076500	0.073000	0.537000	0.069333
Median	0.950000	0.075000	0.060000	0.555000	0.050000
Maximum	2.710000	0.370000	0.310000	0.740000	0.320000
Minimum	0.250000	-0.230000	-0.060000	0.300000	-0.050000
Std. Dev.	0.660572	0.092623	0.077794	0.110688	0.071731
Skewness	0.808546	0.178710	1.149948	-0.180844	1.113268
Kurtosis	2.708651	5.287852	4.170495	2.352491	4.463161
Jarque-Bera	6.749668	13.40504	16.64896	1.375217	17.74575
Probability	0.034224	0.001228	0.000243	0.502777	0.000140
Sum	63.39000	4.590000	4.380000	32.22000	4.160000
Sum Sq. Dev.	25.74497	0.506165	0.357060	0.722860	0.303573
Observations	60	60	60	60	60

Source : Proceed by author with STATA

In descriptive statistics that must be remembered from the above output are:

- Mean is the sum of all data values divided by the number of data / cases.
- StDev (standard deviation) is the positive square root of variance
- Variance is the sum of the squares of the difference between the observation value and the average count divided by the number of observations.

Q1 is a quartile to one, remember the meaning of quartiles are the values that divide the ordered data into four equal parts, so that in a cluster there are 3 quartiles (quartile 1, quartile 2 / median and quartile 3).

- Median is the median value of observed values that are arranged regularly according to the size of the data.
  - Q3 is the third quartile.
  - Range is the difference between the maximum value and the minimum value in a data cluster.
  - IQR (interquartil range) is the distance between the 75th percentile and the 25th percentile.
  - Mode is the value that has the largest frequency in a data set.
  - Skewness is a measure that can be used to determine the tilt or absence of a distribution curve.
  - Kurtosis is the rate of mounting a distribution that is generally compared to a normal distribution.
- All of which is described above, is in the table view 1. It is obvious if the observed data, the number of 60. For further tests, the use is a correlation test.

The correlation is one of the most common and most useful statistics. A correlation is a single number that describes the degree of relationship between two variables. Let's work through an example to show you how this statistic is computed.

**Table 2** Result for correlation

	Capital Structure	NPM	Business Risk	Structure Asset	ROA
Capital Structure	1	-0.421769408260	-0.360455578581	-0.138187171813	-0.402179286254
NPM	-0.421769408260	1	0.534736828384	-0.250014271268	0.818280759085
Business Risk	-0.360455578581	0.534736828384	1	-0.491615071566	0.834426076747
Structure Asset	-0.138187171813	-0.250014271268	-0.491615071566	1	-0.399448967039
ROA	-0.402179286254	0.818280759085	0.834426076747	-0.399448967039	1

Source : Proceed by author with STATA

From table 2 above can be obtained information that:

- Partial correlation coefficient between Capital structure and NPM is -0.360. The relationship between Capital structure and NPM is very weak.
- Partial correlation coefficient between Capital structure and Business risk is -0.360. The relationship between Capital structure and Business risk is very weak.
- Partial correlation coefficient between Capital structure and asset structure is -0.138. The relationship between Capital structure and asset structure is very weak.
- Partial correlation coefficient between Capital structure and ROA is -0.402. The relationship between Capital structure and ROA is very weak.
- How to read the same information and study, also applies to the relationship between the other variables in the table.

The next test is multiple regression, as presented in Table 3.

**Table 3** Result for multiple regression

Dep. : Capital Structure				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.789620	0.454670	6.135486	0.0000
NPM	-2.897726	1.543539	-1.877326	0.0658
Business Risk	-4.198356	1.996863	-2.102475	0.0401
Structure Asset	-2.456079	0.753939	-3.257661	0.0019
ROA	1.643508	3.056293	0.537746	0.5929
R-squared	0.334684	Mean dependent var		1.056500
Adjusted R-squared	0.286297	S.D. dependent var		0.660572
S.E. of regression	0.558057	Akaike info criterion		1.750945
Sum squared resid	17.12854	Schwarz criterion		1.925474
Log likelihood	-47.52836	Hannan-Quinn criter.		1.819213
F-statistic	6.916869	Durbin-Watson stat		0.906765
Prob(F-statistic)	0.000139			

Source : Proceed by author with STATA

From the output of software analysis column in table 3 above, can be obtained information that the coefficient of simultaneous correlation is 0.334. This value indicates that the relationship between all

independent variables with the dependent variable is weak. Also can be obtained also information how the coefficient of determination is equal  $(0.334) \times 100\% = 33.4\%$ . This value indicates that the contribution of all independent variables to the dependent variable simultaneously is 33.4%. The remaining 66.6% is contributed by factors other than the factor represented by the independent variables in this case.

## CONCLUSION

From the research that has been done, this research has a purpose to know how the ratio of variable like capital structure, NPM, ROA, asset structure and business risk at 60 companies listed in BEI using company financial report for food and beverage industry ending for year 2016 From the research that has been carried out, using descriptive statistical analysis method looks the general picture of data as presented in table 1. Followed by correlation analysis and multiple regression analysis, it was found that the ratio of financial ratios carefully, has correlation correlation of -0.4217 for the relationship between capital structure and Net profit margin (NPM), -0.3604 for capital structure and business risk, -0.4021 capital structure and ROA, -0.1381 for capital structure with structure asset. while for ROA variable correlated with NPM variable, business risk capital structure and strong and strong asset structure with values ranging from -0.3994 up to 0.8344. While the results of the last analysis by using multiple regression. The conclusion that variable Capital structure is a variable Y which has a significant relationship with Net Profit Margin (NPM) (X1) with 0,0658, business risk with value 0,0401 (X2), asset structure with value 0,0019 (X3) and ROA not significant at the value of 0.5929 (X4). So that only 3 significant variables, but 1 variable has no significant relationship that is variable of capital structure that is varaibel ROA.

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# THE IMPACT OF THE APPLIED EXCHANGE RATE REGIMES ON THE INTERNAL BALANCE OF TRANSITION COUNTRIES

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## SUMMARY

One of the key goals of the economic policy makers of every country is to achieve internal and external balance. An unavoidable segment of the analysis concerning the achievement of internal and external balance is certainly the influence of the exchange rate regime applied in a country. European transition countries, despite their similar initial problems and final objectives, applied different exchange rate regimes adapted to the economic circumstances and needs of the country. The paper aims to examine and demonstrate the impact of the applied exchange rate regime on the internal balance of the transition countries. The research encompasses 10 representative transition countries, in the period from 2000-2014. The results of the research, from the aspect of internal balance, confirmed the justification of the application of the floating exchange rate regime in more developed, but not in less-developed, European transition countries. The application of floating exchange rate regimes in less-developed transition countries is associated with a considerably higher average inflation rate, which may be explained by the higher import dependence of less-developed countries and by the consequent transfer of depreciation to price growth.

**Key words:** transition countries, exchange rate regimes, economic growth, unemployment, inflation

JEL classification code: E31, E52, F41, F43

## INTRODUCTION

Achieving internal and external macroeconomic balance presents the key economic goal of every country. According to the definition by Krugman and Obstfeld (2009), when a country's productive resources are fully employed and its price level is stable, the country is in internal balance. External balance represents a certain target state of the current account towards which economic policy makers aspire, and which may imply a lower deficit, namely, a current account surplus.

The exchange rate regime, as a manner of establishing and managing changes in the exchange rate, influences how and to what extent the monetary authority will control not only the movement of the exchange rate, but also the volume of money and the level of interest rates, and thus how and how much it can affect international flows of goods and capital flows, price stability, production and employment. In that context,

one of the key assignments of the monetary authorities is to choose an appropriate exchange rate regime, in line with the conditions of the national economy, and in accordance with defined macroeconomic goals. The most common classification of the exchange rate regimes is into fixed and floating regimes, which, as the two basic regime groups, depending on the intervention policy of the monetary authorities in the foreign exchange market, are operationalized in various forms. The IMF exchange rate classification from 1998, based on de facto exchange rate policies, distinguishes eight exchange rate regimes, grouped according to the increasing degree of flexibility: no separate legal tender, currency board arrangements, conventional peg, pegged exchange rates within horizontal bands, crawling pegs, crawling bands, managed floating and independently floating. In order to allow for greater coherence and objectivity and improve transparency, the aforementioned system of the exchange rate regimes was modified in 2009.<sup>1</sup>

Despite similar initial economic problems and ultimate goals, the experience has shown, especially in the period after solving initial transition difficulties, that the choice of exchange rate regimes among European transition countries was significantly different - from independently floating to currency board arrangements, and acceptance of the euro as a common currency. Taking that into consideration, the paper seeks to determine whether the differences in the applied exchange rate regimes, after the period of macroeconomic stabilization, and in circumstances characterized by European transition countries, as countries with mutual similarities, but also their specificities in relation to other transition countries and developing countries as a whole, have led to differences in their macroeconomic performance at a domestic level (output, employment, inflation).

The paper attempts to provide an answer to what extent the applied exchange rate regimes have affected the internal balance of transition countries. The starting premise is that the application of floating regimes in transition countries enables faster achievement of internal balance. The premise is based on the theoretical conception that automatic changes in the nominal exchange rate, which allows the application of floating regimes, weaken the effect of negative external shocks on the national economy, thereby alleviating internal disorders such as decline in production and employment. In floating exchange rates regimes, monetary policy, from the aspect of the use of instruments, is free enough to address the internal issues (price stability, employment, economic growth) and can have a stabilization (countercyclical) role. In the context in which the primary money issue should be linked to the value-creation process in the economy and, relating it mainly to exchange flows, the application of the fixed exchange rate regime, by imposing strict rules for the primary money issue, impedes the achievement of the optimum amount of money in circulation. This may cause the problem of liquidity, the slowdown of the economy, reduction of production and employment, or, on the other hand, it may lead to the inflationary processes.

In addition to the Introduction and Conclusion, the paper consists of four segments. The first part of the paper discusses general experiences in the application of exchange rate regimes in the European transition countries that are on their path to the EU or have become its members. The second segment provides an overview of the main results of the previous empirical studies regarding the impact of the applied exchange rate regimes on internal balance. The third part of the paper describes the methods of research, the used data sources and the samples, while the fourth segment of the paper consists of the empirical part. The Conclusion provides the summary of the key results of the conducted research.

## **EXPERIENCES IN THE APPLICATION OF EXCHANGE RATE REGIMES IN EUROPEAN TRANSITION COUNTRIES**

The beginning of the transition process has been characterized by the pronounced disorders of internal and external balance<sup>2</sup> and uncertain circumstances, as well as the need for faster economic development and integration into the regional and global economy. The choice of an adequate

<sup>1</sup> See Habermeier, Kokenyne, Veyrone and Anderson (2009).

<sup>2</sup> The three-digit inflation rate, which according to the study by Fischer and Sahay (2000) was avoided only in three European transitional countries, best illustrates the extent of economic disturbances

rate exchange regime was one of the significant dilemmas of the European transition countries in circumstances where internal stabilization (reducing inflation) requires a more stable exchange rate, while external stabilization requires a more competitive and more flexible peg of domestic currency. Given that at the beginning of the transition process, the inflation was the biggest problem and the greatest concern, Fischer and Sahay (2000) note that many European transition countries, which entered the transition process relatively early, such as Poland, the Czech Republic, Hungary, Slovakia, Estonia, Croatia, and Macedonia, have opted for some form of fixed exchange rate in providing support to the disinflation process.<sup>3</sup> The fixed exchange rate as a nominal “anchor” of the stabilization program should contribute to combating inflation and putting it under control. Countries such as Albania, Bulgaria, Latvia, Lithuania, Romania and Slovenia have targeted a certain monetary aggregate, often insufficiently transparent, in order to stabilize prices, while the exchange rate is fundamentally determined by market forces. Due to the insufficient level of exchange rate reserves necessary to maintain the peg, or due to the belief that, in the circumstances of the increasing openness of national economies, the exchange rate market formation will prevent larger oscillations of economic activity, these countries opted for more flexible exchange rate regimes, mostly for independently floating. However, after a relatively short period, Lithuania, Latvia and Bulgaria, having failed to achieve the expected progress in fighting inflation and putting it under control, were forced to carry out monetary reform and move to the fixed exchange rate regime. Bosnia and Herzegovina, Serbia<sup>4</sup> and Montenegro are countries where, due to expressed political instability and war events, the transition process was discontinued, with a delay of almost a decade, and was continued with the application of fixed exchange rate regimes. Therefore, in the initial transition phase, given that the inflation was the biggest problem of most European transition countries in creating and establishing a framework of monetary stability, as one of the priorities for the successful implementation of the transition process, the priority was given to a fixed exchange rate regime which as a nominal “anchor” of the monetary, but also the overall macroeconomic, policy was to support the disinflation process.

The experience of many transition countries has confirmed that the fixed exchange rate policy, as part of the anti-inflation strategy, has contributed to macroeconomic stabilization reflected in a relatively rapid reduction of the inflation rate to single digits, creating thus conditions for the improvement of structural reforms. Price stabilization and the continuation of structural reforms were accompanied by the inflow of foreign capital, which in the circumstances of maintaining the nominal exchange rate unchanged created inflationary pressure. This led to the appreciation of the real exchange rate and deterioration in the international competitiveness of the national economy, and consequently to the increased risk of rapid devaluation. The appreciation trend of the real exchange rate, due to the increasing openness of national economies, caused some transition countries to abandon fixed and accept more flexible forms of the exchange rate and monetary policy regime, with a view to stimulating competitiveness of the economy, (Beker, 2010).

On the basis of the studies by Reinhart and Rogoff (2002), and Bubula and Ötoker-Robe (2002), and the IMF publication, primarily the report on exchange regimes and restrictions, but also based on my own research, it has been determined that Poland, the Czech Republic, Slovakia, Hungary and Serbia, following the initial macroeconomic stabilization established with the help of a fixed exchange rate and most often under the influence of capital inflows, gradually moved to more flexible forms of exchange rate regimes (horizontal bands, crawling peg and crawling band), in order to finally adopt the regime of managed/independently floating exchange rate. This practically means that the floating exchange rate regimes in these countries are still in use, except in the case of Slovakia, which, at first with the acceptance of the ERM II mechanism, and then the single

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3 Fixed regimes: currency board arrangements, explicit and implicit peg, crawling peg with floating margins. Floating regimes: independently (free) and managed floating .

4 Although the monetary authorities of Serbia, after political changes in October 2000, announced the use of a managed floating regime, Beker (2010) finds that the fixed rate regime was applied in conventional form until January 2003.

currency - the euro, returned to fixed exchange rate regimes.

The European transition countries, which, after the initial macroeconomic stabilization, decided to apply some form of fixed exchange rate regimes, given the state of internal and external balance, include: Estonia, Lithuania, Latvia, Bosnia and Herzegovina, Bulgaria, Montenegro and Croatia. Estonia, Lithuania (until entry into the Eurozone), Bulgaria and Bosnia and Herzegovina apply the currency board arrangements. Before the entry into the Eurozone, Latvia applied conventional fixed peg. Montenegro uses the euro as the official means of payment and, accordingly, a firm fixed regime in the form of official euroisation, while Croatia and Macedonia, by linking their currencies to the euro, apply the classic form of a fixed regime with the possibility of peg adjusting. It can be concluded that countries such as Albania, Romania and Slovenia, both in the initial and in the next stages of the transition process, applied floating exchange rate regimes and/or some form of so-called soft peg (usually in the form of crawling bands), although the exchange rate did not play the role of a nominal "anchor". Unlike Slovenia, which, like Slovakia, first accepted the ERM II mechanism, and then the single currency - the euro, returned to the fixed exchange rate regime, Albania and Romania, today, apply floating exchange rate regimes.

## **AN OVERVIEW OF PREVIOUS RESEARCH**

Many empirical studies find the connection between fixed exchange rate regime and low inflation. Such is the study conducted by Ghosh, Guide, Ostry and Wolf (1996) on a sample of 145 countries classified into three groups (hard peg, intermediate and floating), on the basis of the official exchange rate regime applied during the 1960-1990 period. The average annual inflation rate in the countries that applied hard peg was 8%, 14% in countries with intermediate regime and 16% in countries with floating exchange rate regimes. Differences in average inflation rates are even more pronounced in a group of countries with low per capita income, where the difference between a fixed and a floating regime is almost 10 percentage points. Furthermore, the authors point out that the fixed exchange rate regimes, by increasing confidence in monetary authorities and the national currency, may cause more demand for the domestic currency (the desire to keep the money, not to spend), which will affect not only the lower money circulation speed, but also faster decline in domestic interest rates.

A study carried out by the International Monetary Fund (IMF, 1997), which included developing countries, in the 1975-1996 period, classified in two basic groups of regimes (fixed and floating), showed that the average inflation rate is usually lower 5 to 6 p.p. in countries that applied the fixed exchange rate regimes than in countries with floating exchange rate regimes, with the observation that, especially during the 1990s, these inflation rates converged among themselves.

Using a sample of 154 countries (22 industrial and 132 non-industrial), whose macroeconomic variables were observed in the period after the collapse of the Bretton Woods monetary system, Levy-Yeyati and Sturzenegger (2001) obtain results that also indicate the link between the fixed exchange rate regime and low inflation, but only if the fixed exchange rate regime was applied for five years or more. Countries that apply the fixed exchange rate regime for five years or more have lower inflation rates, but at the expense of slower economic growth. Contrary to that, countries that apply the fixed exchange rate regime for less than five years, in relation to the countries applying a floating exchange rate, achieve lower economic growth rates without having a positive effect on the inflation side.

While studying the link between the exchange rate and inflation regimes, Rogoff, Husain, Mody, Brooks and Oomes (2003), using a sample of 153 countries in the period from 1946-2001, concluded that the advantage of fixed exchange rate regimes over other regimes relates mainly to developing countries with relatively low income. In the group of countries with emerging markets, research results showed the absence of a stronger link between inflation and exchange rate regimes.

In the group of developed countries, the results indicate that floating regimes are associated with somewhat lower inflation than in countries of the same group that have fixed exchange rate regimes. The advantage of a fixed over floating exchange rate regime in achieving price stability has been demonstrated in a recent study by Gosh, Kureshi and Tsangarides (2011), which included 145 countries (emerging and emerging markets - EMDCs), classified in three groups of de facto regimes (hard peg, intermediate and float), in the 1980-2010 period. It was determined that the average inflation rate in countries with hard peg amounted to 5.8%, 9.4% with float, and 11.2% with intermediate regime. The research concluded that the lower inflation rate is a consequence of the monetary discipline imposed by the fixed exchange rate regimes. The second reason for lower inflation is the “confidence effect” - the greater confidence created by the fixed exchange rate regime reduces inflation for the given money growth rate.

Certain differences in empirical conclusions may be observed in not so extensive literature on the linkage of the exchange rate regime with economic growth, as is the case with inflation. In the aforementioned study, Gosh et al. (1996) note that the highest growth rate of GDP per capita of 2.1% was achieved in intermediate, followed by float of 1.7%, while in the application of hard peg the lowest growth rate of 1.4% was recorded. The authors explain differences in economic growth rates by the differences in investment rates and productivity growth. Namely, the investment rates have a declining trend from hard peg - through intermediate-towards float. However, fixed exchange rate regimes are linked to larger investments, but at the same time they are in correlation with slower productivity growth compared to countries with floating regimes. Furthermore, the research at the level of sub-samples led to different conclusions about economic growth. The highest rate of per capita income growth was recorded in countries with fixed exchange rate regimes, in the group of industrially developed countries and high income countries. In the group consisting of medium and low income countries, the highest rate of growth was recorded in countries with floating exchange rate regimes. However, the difference in rates of economic growth between countries using the fixed regime and countries using the floating exchange rate is not significant.

The research of the International Monetary Fund (IMF, 1997) conclude that there is no clear link between the exchange rate regime and the production growth. The research showed that the average real growth rate was higher in countries with floating regimes compared to countries with fixed exchange rate regimes. This is partly a consequence of the inclusion of the fast-growing Asian economy in the group of countries with floating exchange rate. When these countries are excluded, the growth performance between these two groups of regimes does not differ significantly.

Using the IMF's classification of the exchange rate regime, Levy-Yeyati and Sturzenegger (2001), found that the highest average rates of per capita income growth in the 1974-1999 period were achieved by the countries with intermediate regimes, in the amount of 2%, followed by countries with fixed exchange rate of 1.2%, while the lowest rates were recorded by countries with floating regimes of 1%. However, according to the Levy-Yeyati & Sturzenegger (LYS) regime classification, countries with floating regimes of 1.9% had the highest average growth rate per capita income.

Rogoff et al. (2003) note that within developing countries, economic growth decreases with increased flexibility of the regime, although the effect is not statistically significant. Consequently, the claim that lower inflation is associated with higher exchange rate rigidity, according to the authors, seems to cause growth reduction. For emerging markets, the link between growth and the exchange rate regime is also uncertain. Contrary to that, developed market economies in floating regimes achieve higher rates of economic growth than those applying fixed exchange rate, without generating inflation. In fact, the results suggest that the rigidity of exchange rate is accompanied by slower growth for developed economies.

De Vita and Kyaw (2011) conducted a study analyzing 70 developing countries in the period from 1981 to 2004. The study did not establish a significant link between the choice of the exchange rate regime and the economic growth.

In an empirical study of the impact of the exchange rate regime on economic growth, conducted

for the period of the first decade of the 21st century for Central and Eastern European countries, Ihnatov and Capraru (2012) conclude that countries that had applied more flexible regimes had better growth indicators in relation to countries with fixed regimes.

A recent analysis by Sosvilla-Rivero and Ramos-Herrera (2014) encompassing 123 countries, reveals that, from the aspect of economic growth, countries with intermediate exchange rate regimes have the best performances, while the countries with floating regimes have the poorest performances. Differences in the impact of the applied exchange rate regime are more pronounced in countries with a lower level of per capita income.

## RESEARCH METHODS, DATA AND SAMPLES

The paper provides a comparison of the different exchange rate regimes according to their impact on the internal balance between two groups of European transition countries - countries that apply a fixed and countries applying the floating exchange rate regime, after a period of macroeconomic stabilization. The grouping of countries according to the exchange rate regimes that were applied by monetary authorities was carried out on the basis of a database prepared by Bubula and Ötker-Robe (2002) for the 1990-2001 period, and on the basis of the IMF publication - reports on exchange regimes and restrictions. In order to exclude the effect of the so-called low base, to a certain extent with some countries, and in order to get a sufficiently long period characterized by the predominant application of the fixed or floating exchange rate regime, the focus was placed on the period from 2000 to 2014. The analysis encompasses 10 European transition countries that are on their path to the EU or have become its members, namely four countries that during 2000-2014 mainly applied fixed regimes and 6 countries that mainly applied floating exchange rate regimes. In order to appreciate the differences in the level of development that exist between the countries with floating regimes, and to some extent limit the influence of the level of economic development on the results of the research, two samples each with three countries were taken from this group (Table 1).

**Table 1.** Structure of samples of European transition countries

Countries with fixed exchange rate regimes	Countries with floating exchange rate regimes
	Less developed countries
	Albania
Bosnia and Herzegovina	Romania
Bulgaria	Serbia
Estonia	More developed countries
Latvia	Poland
	The Czech Republic
	Slovakia

**Source:** Author's presentation

The classification of transition countries with floating exchange rate regimes into less developed and more developed countries requires the empirical analysis of the impact of the applied exchange rate regime on internal balance consisting of two parts. The first part of the empirical analysis includes countries with fixed exchange rate regimes and less developed countries with floating exchange rate regimes. In the second part, the same analysis is done between countries with fixed regimes and more developed countries with floating regimes.

The GDP, the consumer price index and the unemployment rate were taken out of the set of basic

macroeconomic indicators that point to the state of internal balance of a country. A comparative analysis and an impact assessment of the applied exchange rate regimes on economic growth, (un)employment and price stability, in the period from 2000 to 2014, is carried out between European transition countries with fixed and countries with floating exchange rate regimes, by comparing their long-term average values and their movements with the measure of variability (interval of variation and standard deviation). The examination of the statistical significance of the observed differences in the long-term average values of the observed macroeconomic indicators is done by a two-way Student's t-test for testing the equality of arithmetic means of two basic sets based on two independent samples, for a level of significance of 5% ( $\alpha = 0.05$ ), using EXCEL Statistical tool.

Data on economic growth rates, inflation rates and unemployment rates, in relative values and annual frequency, on which a descriptive analysis and application of the statistical test are based, are taken from the IMF publication - World Economic Outlook, April 2016, except the data on unemployment rates in BiH, which are taken from the World Bank's statistics.

## RESEARCH RESULTS

### Countries with fixed and less developed countries with floating exchange rate regimes

#### *Contribution of the exchange rate regimes to economic growth*

By comparing the movements in annual real GDP growth rates using variables (variation interval and standard deviation), given in Table 2, it can be noted that their values are more dispersed at the sample level of countries with fixed exchange rate regimes.

**Table 2.** Difference in GDP growth rates between sample countries with fixed and sample of less developed countries with floating exchange rate regimes

Overview of statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	-8.527	8.655	3.790	4.404
Floating regimes	15	-2.276	7.693	3.877	2.948

Results of a two-way Student's t-test for two independent samples:

Difference	-0.087
t (Observed value)	-0.064
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(-2.890) to (2.716)
p-value (Two-tailed)	0.950
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016.

However, the obtained data on the average value of the real GDP growth rate, realized in the period from 2000 to 2014, which at the level of the sample of less developed countries with floating regimes is 3.9%, and at the level of the sample of countries with fixed exchange rate regimes is 3.8%, indicate that these are negligible differences. The value of  $p = 0.950 > \alpha$ , obtained by the t-test, also confirms that the observed difference in average values of 0.1 p.p. is statistically negligible. This means that there is no proven existence of a clear link between the applied exchange rate regime and economic growth.

## CONTRIBUTION OF THE EXCHANGE RATE REGIME TO PRICE STABILITY

Significantly worse dispersion measures (variation interval and standard deviation), achieved at the sample level of less developed countries with floating regimes, shown in Table 3, suggest that the application of these exchange rate regimes, in the long run, is accompanied by a lower degree of price stability compared to fixed exchange rate regimes. In addition, the t-test result ( $p = 0.011 < \alpha$ ) confirms that the difference in the average values of the inflation rates, achieved in the period from 2000 to 2014, is statistically significant, namely, that it is related to the differences in the applied exchange rate regimes. This implies that the greater contribution of fixed exchange rate regimes to price stability is proved in this part of the analysis, in comparison with the floating regimes.

**Table 3.** Difference in inflation rates between sample countries with fixed and sample of less developed countries with floating exchange rate regimes

Overview of statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	-0.333	11.308	3.909	2.889
Floating regimes	15	1.594	22.853	8.441	5.771

Results of a two-way Student's t-test for two independent samples:

Difference	-4.532
t (Observed value)	-2.720
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(-7.945) to (-1.118)
p-value (Two-tailed)	0.011
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016.

### *Impact of the exchange rate regime on the unemployment rate*

The results of descriptive analysis, given in Table 4, show that the values of annual unemployment rates, realized during 2000-2014, differ to a greater degree among countries at a sample level of countries with fixed regimes compared to the sample of less developed countries with floating exchange rate regimes.

**Table 4.** Difference in unemployment rates between sample countries with fixed and sample of less developed countries with floating exchange rate regimes

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	10.690	18.420	15.321	2.234
Floating regimes	15	11.013	15.365	13.429	1.346

Overview of statistics:

Results of a two-way Student's t-test for two independent samples:

Difference	1.892
t (Observed value)	2.810
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(0.513) to (3.272)
p-value (Two-tailed)	0.009
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016.

With more unfavorable dispersion measures, the sample of countries with fixed exchange rate regimes also has more unfavorable central tendency measures. According to the obtained data, the long-term average unemployment rate at the level of the sample with fixed regimes is 15.3%, and at the level of the sample with floating regimes 13.4%. The p value of  $0.009 < \alpha$  obtained by a t-test indicates that there is observed difference in unemployment rates, regardless of the fact that it is relatively small, nevertheless statistically significant. In other words, the results of the test show that differences in unemployment rates are caused by differences in the applied exchange rate regimes.

### Countries with fixed and developed countries with floating exchange rate regimes

#### *Contribution of the exchange rate regime to economic growth*

Descriptive statistics of the observed samples relating to the variability measurements (interval of variation and standard deviation), presented in Table 5, show that, at the sample level of more developed countries with floating regime, the annual GDP growth rates, realized in the range of -1.1 to 7.9%, significantly differ from one another, than at the level of the fixed exchange rate regime, where they were realized in the range of -8.5% to 8.6%.

**Table 5.** Difference in GDP growth rates between sample countries with fixed and sample countries with floating exchange rate regimes

Overview of statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	-8.527	8.655	3.790	4.404
Floating regimes	15	-1.104	7.855	3.397	2.444

Results of a two-way Student's t-test for two independent samples:

Difference	0.393
t (Observed value)	0.302
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(-2.271) to (3.057)
p-value (Two-tailed)	0.765
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016

However, in the period from 2000 to 2014, at the sample level of countries with fixed regimes, a slightly higher average value of the real GDP growth rate was achieved compared to the sample of the more developed countries with floating exchange rate regimes, namely from 3.8% towards 3.4%. The Student's t-test result ( $p = 0.765 > \alpha$ ) indicates that the difference in the average values of the real GDP growth rate is not statistically significant. This implies that the different exchange rate regimes have not affected the differences in the GDP growth rates. Therefore, as in the part of the analysis involving transition countries with fixed and less developed countries with floating regimes, there is also no evidence of the existence of a clear link between the exchange rate regime and the economic growth.

## CONTRIBUTION OF THE EXCHANGE RATE REGIME TO PRICE STABILITY

By comparing the movement of annual inflation rates with the measures of variability (interval of variation and standard deviation), given in Table 6, it can be noted that their values (achieved in the range of 0.2 to 8.7%) are less dispersed at the sample level of developed countries with floating regimes, than at the level of the sample with fixed exchange rate regimes (realized in the range from -0.3 to 11.3%). A lower degree of mutual differentiation of annual inflation rates at the sample level of more developed countries with floating regimes was also followed by their lower long-term average value, which, according to the data obtained, at the level of the sample with floating regimes is 3.3%, and 3.9% at the sample level with fixed regimes. Although descriptive statistics suggest that, within the more developed transition countries, floating regimes, in the long run, provide a somewhat higher level of price stability than fixed exchange rate regimes, the t-test result ( $p = 0.484$  samples) shows that the difference in the average values of the inflation rate are not statistically significant, namely, from the aspect of the exchange rate regime, the samples behave as if belonging to the same group of transition countries.

**Table 6.** Difference in inflation rates between sample countries with fixed and sample more developed countries with floating exchange rate regimes

Overview of statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	-0.333	11.308	3.909	2.889
Fluctuating regimes	15	0.164	8.690	3.259	2.062

Results of a two-way Student's t-test for two independent samples:

Difference	0.650
t (Observed value)	0.710
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(-1.227) to (2.528)
p-value (Two-tailed)	0.484
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016

## IMPACT OF THE EXCHANGE RATE REGIME ON THE UNEMPLOYMENT RATE

The results of the descriptive analysis presented in Table 7 indicate that the sample with floating regime, compared to a sample with the fixed exchange rate regime, has somewhat more unfavorable variability measures, that is, a wider variation interval and a higher standard deviation, but a better parameter of the central tendency, i.e. higher long-term average unemployment rate, namely 11% to 15.3%. The obtained p value of  $0.0004 < \alpha$  confirms that the difference in average unemployment rates of 4.3 p.p. is statistically significant, namely, that the applied exchange rate regimes had an impact on the difference in the mean values of the unemployment rate achieved in the fifteen-year period.

**Table 7.** Difference in unemployment rates between sample countries with fixed and sample countries with floating exchange rate regime

Overview of statistics:

Variable	Observations	Minimum	Maximum	Mean	Std. deviation
Fixed regimes	15	10.690	18.420	15.321	2.234
Fluctuating regimes	15	7.031	15.355	11.034	3.438

Results of a two-way Student's t-test for two independent samples:

Difference	4.287
t (Observed value)	4.050
t  (Critical value)	2.048
DF	28
95% confidence interval on the difference between the means:	(2.119) to (6.456)
p-value (Two-tailed)	0.0004
alpha	0.05

Source: The result of data analysis using the Excel statistical tool - XLSTAT2016

## CONCLUSION

On the basis of the obtained results presented in the paper, the advantages of floating regimes in relation to fixed exchange rate regimes have not been proved on all key macroeconomic indicators of transition countries, grouped according to the level of development, in the analyzed period from 2000 to 2014. The research shows that the European transition countries in the analyzed period achieved successful economic growth measured by the average real GDP growth rates, but with statistically negligible differences. The research has not determined which exchange rate regime contributed to economic growth to a greater extent.

The research results of the effects of exchange rates regimes on the inflation rate reveal that in more developed European transition countries floating exchange rate regimes lead to price stability, and in the long run, to the levels ensured by fixed exchange rate regimes. Unlike more developed countries, the research has shown that fixed exchange rates lead to higher long-term price stability compared to floating exchange rate regimes in less developed European transition countries. The positive effect of floating regimes, in the long run, is particularly pronounced in employment. It has been determined that floating regimes, regardless of the level of the development of European transition countries, result in statistically significantly higher average employment rates than fixed exchange rates.

The research results, from the aspect of the internal balance, confirmed the justification of the application of floating regimes in more developed, but not in less developed European transition countries. On account of the research results, it can be concluded that the application of floating exchange rate regimes in more developed European transition countries, with statistically negligible differences in average rates of economic growth, is associated with a lower unemployment rate and price stability, which is approximately at the same level as ensured by fixed exchange rate regimes in the long run. At the same time, the research results suggest that the use of floating regimes in less developed European transition countries, in the long run, with virtually identical average rates of economic growth, is followed by a lower unemployment rate but a higher average inflation rate, compared to fixed exchange rate regimes.

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# THE IMPACT OF FOREIGN DIRECT INVESTMENT ON TURKISH ECONOMY 2010-2016

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## SUMMARY

This study focuses on Foreign Direct Investment (FDI) inflows and how they are linked with the economic indicators in Turkey including the Real Effective Exchange Rate (REER), and Gross Domestic Product per capita of Purchasing Power Parity - GDP (PPP) in Turkey. The GDP (PPP) variable is used because it shows significant causality on REER, along with the exchange rate volatility of the U.S Dollar in the Turkish stock market. Also, as an important sector of the Turkish economy, tourism revenue is elucidated according to the Organization for Economic Co-operation and Development (OECD) data from 2016.

The main objective of this study is to evaluate the impact of the FDI investment on economic condition in Turkey for the period between January 2010 and July 2016. The selected period is important because it represents the crucial time for Turkish economy following the 2008 global financial crisis along with the ongoing Civil War in neighboring Syria that had initiated in 2012, Turkish-Russian crises of 2015, and the military coup attempt in Turkey in 2016.

It is argued that despite all the negative international and regional developments, FDI and Tourism play key roles in attracting income to the country. This is presented in the level of REER and GDP for PPP. The results also support the findings of many economists, who have previously asserted that the Turkish economic interaction is growing at a globalized level, and is able to compete with the other large attractive areas for foreign investors around the world. Finally, the results demonstrate that the tourism industry was the least affected sector in Turkey.

## INTRODUCTION

As put forward by Yalçın and Kirişçi (2017) Turkey has a period of “economic boom” between 2002 and 2007. There had been significant growth in the infrastructural industry as a result of successful implementation of domestic reforms. The Justice and Development Party government that is ruling Turkey since 2002 has played a large role in increasing FDI and promoting investments in various sectors. Significant legislative reforms made to adopt the European business regulations and standards along with the establishment of Investment Support and Promotion Agency of Turkey (ISPAT).

In consequence, Turkey attracted FDI inflows as a result of the prevailing low-interest rate coupled with steady economic growth by leveraging on international partnerships. Many studies including

Kalyoncu (2009), Demir (2010), Arslantürk and Atan (2012), Ekinci (2013), Özen, Şahin, and Ünalmiş (2013) confirmed a remarkable progress and stability in the Turkish economy with steady economic growth which has increased the country's competitiveness in the global market.

In the same vein, Kaytaz and Gül (2014) argued that the Turkish economy was one of the few countries that show quick recovery after the global financial crisis in 2008-2009. Similarly, Kemal Derviş (2013) suggests that Turkish economy shows significant increase in GDP per capital compared to individual European countries through the Eurozone crisis in 2012. Derviş findings are supported by the official statistics by the Turkish Statistical Institute (TUIK) for the GDP series in 2012. This positive trend also confirmed by the empirical data. According to the World Bank, Turkey's GDP has passed 950 billion dollars which means the boost in the Turkish economy has made the country the world's 15th largest nominal Gross Domestic Product (GDP) and 13th largest GDP by PPP country in 2013.

**Table 1.** Turkey's GDP 2006-2016



On the other hand, despite this positive trend, Turkey encountered with various regional and international challenges from 2008 on. First of all, 2008 Global Financial Crisis is considered by many economists as the worst financial crisis since the Great Depression during the 1930s. The crisis directly affected international trade and financial flows all around the world. Although the crisis is not initiated by the developing countries, it affected them more including Turkey by mounting their deficits in trade and payment balances, along with triggering currency devaluations, increasing inflation rates, and public budget deficits. Turkish economy was adversely affected by the crisis most visible on the sharp decline on country's export and a significant sudden stop in financial flows (CÖMERT and ÇOLAK 2014). As a result, the Turkish economy witnessed one of its worst economic down-turns after the Second World War.

Secondly, the civil war in neighboring Syria harmed Turkish economy in many ways. First of all, it left a dangerous vacuum that was filled by terrorist organizations (IŞIKSAL 2017). Islamist State in Iraq and Syria (ISIS), and the Kurdistan Workers' Party's (PKK) terrorist activities escalated in Turkey. For instance, 51 people were killed in Reyhanlı-Hatay in 2013, and 34 people were killed in 2015 in Suruç-Şanlıurfa by ISIS both along the Syrian border. In 2015, the deadliest terror attack in Turkey's history again carried out by ISIS resulted with the killing of 103 civilians in the capital city Ankara. Similarly, 13 people were killed in ISIS's Sultanahmet Square attack in January 2016 in Turkey's principal city of Istanbul. On the other hand, PKK increased its terrorist activities on Turkey's South Eastern regions again on the Syrian border.

Furthermore, the refugee problem brought a considerable social and economic burden for Turkey. Although the actual number is still unknown, the United Nations Refugee Agency Report estimated that by the end of 2015 at least 3 million Syrian refugees are residing in Turkey. Turkish authorities have spent more than 25 billion US\$ on these refugees (UNRAAF 2015).

As a third significant challenge, Turkey hit a Russian fighter jet on the Syrian border in November

2015 after an alleged airspace violation. This led to Russian administration to impose a series of economic sanctions against Turkey including certain goods and all touristic trips. In consequence, there had been 30 percent decline in a number of tourists entering Turkey in the first seven months of 2016 (FINANCIAL TIMES). It is estimated that Russia's economic sanctions cost Turkey's economy a real loss of 8.3 billion US \$ in 2016 (SÖNMEZ 2016).

Lastly, the military coup attempt on July 15, 2006 where many government buildings including the Parliament and Presidential Palace were bombed, caused the killing of 300 people and more than 2100 injuries. There is no doubt that this event also negatively affected FDI since it is perceived as major political instability within the country.

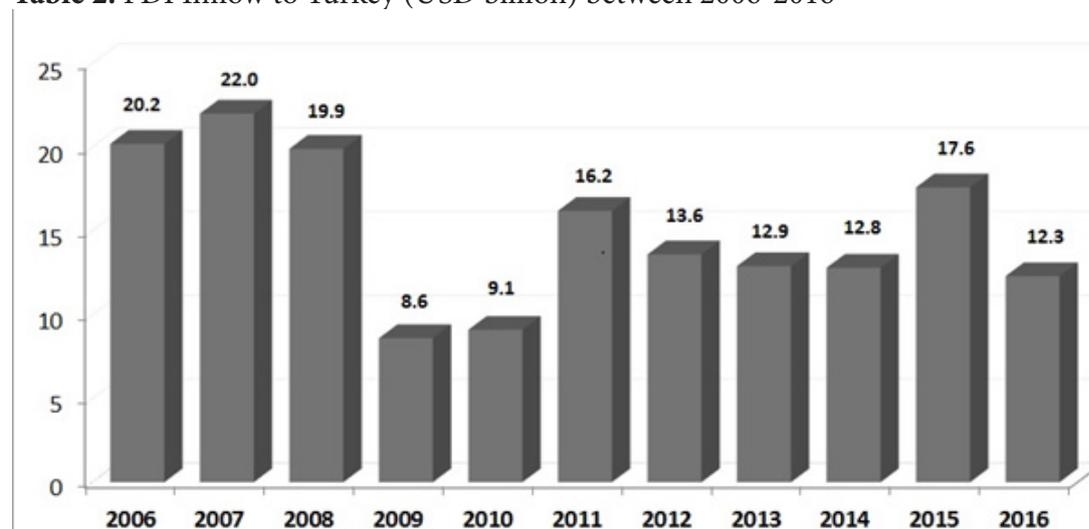
In addition to these problems, over the past decade, Turkey has been experiencing different macroeconomic shocks, which have had a negative effect on the country's currency (Turkish Lira). This has also created inflationary trends. Prevention these shocks are essential for Turkey in order to protect itself from further macroeconomic shocks. Consequently, Turkey has been unable to attract the expected FDI inflows. Credit rating agencies (S&P, Moody's and Fitch) have awarded Turkey a poor risk score after the failed military coup and terrorist attacks that occurred in July 2016.

All these domestic and international challenges brought the question of what would happen to the FDI investments in Turkey and whether Turkish economy able to compete with the other foreign investors around the world.

There is no doubt that FDI is one of the tools available that can contribute to the promotion of economic development efforts. Therefore, countries seek to create an environment that enables investment in order to increase inflows. Turkey, which is a developing country, has designed policies to attract qualified investment with the aim of improving the efficiency of the economy since 2006. Moreover, it is also widely acknowledged that developing countries often face shortages of capital inflows. In this respect, fundraising is one of the principal factors required by policy makers to maintain their position in global economic markets. FDI is one of the mediums that can attract financial capital to a region.

Despite all the challenges mentioned above, according to a financial stability report released by the Central Bank of Republic of Turkey (CBRT) in 2016, Turkey has shown significant macroeconomic adjustment towards steady economic growth after the events that occurred in July 2016. Deriving from this statement, this article investigates the impact of FDI inflows on the real effective exchange rate in Turkey.

**Table 2.** FDI Inflow to Turkey (USD billion) between 2006-2016



Source: Central Bank of the Republic of Turkey

As demonstrated from the Table 2 above, following the 2008 global financial crisis that negatively affected all the countries economy in general and developing countries economy including Turkey.

FDI inflows to Turkey declined sharply in 2009 from 19.9 billion US\$ to 8.6 billion US\$. Then, following a steady year in 2010, FDI inflows again raises to 16.2 billion US\$ in 2011. Despite global and domestic challenges mentioned above, FDI even raised to 17.6 billion US\$ in 2015 and despite the military coup attempt in 2016, FDI did not fall below 12.3 billion US\$ level in the same year.

**Table 3.** FDI Inflow to Turkey by Sector 2012-2016

USD million					
Sectors	2012	2013	2014	2015	2016
Industrial sectors	5,480	4,757	4,258	5,772	2,669
Mining and quarrying	188	717	382	207	217
Manufacturing	4,519	2,209	2,742	4,225	1,710
Electricity, gas, steam and air-conditioning supply	773	1,795	1,131	1,338	740
Services	5,238	5,086	4,312	6,271	4,191
Wholesale and retail trade	221	379	1,136	598	601
Transportation and storage	130	364	594	1,524	544
Accommodation and food service activities	16	59	24	11	235
Financial and insurance activities	2,084	3,415	1,470	3,516	1,705
Financial service activities (banks)	1,500	1,608	912	2,776	1,271
Real estate activities	174	128	252	171	277
Total	10,761	9,890	8,631	12,074	6,886

Source: Central Bank of the Republic of Turkey

Table 3 indicates the details of FDI inflow by sector. As could be seen from the table above the main reason behind the fall of FDI is industrial and manufacturing sectors that combined declined around 6 billion US\$. This is also could be linked to the 2008 Global crises that directly affected these sectors all around the world. Despite this decline, it is evident that FDI in other sectors including mining and quarrying, wholesale and retail trade, transportation and storage, accommodation and food service activities, and real state activities continue to grow where all the other sectors able to keep the stable FDI inflows.

**Table 4.** The Regional Base of FDI Inflows to Turkey 2012-2016

USD million					
	2012	2013	2014	2015	2016
Europe	7,927	6,424	6,369	7,980	4,391
Other European countries	30	894	723	758	260
America	491	343	334	1,630	458
North America	471	342	334	1,619	456
Asia	2,337	2,899	1,886	2,464	2,008
Near and Middle Eastern countries	1,593	2,286	1,336	1,317	1,253
Arabian Gulf countries	940	880	364	460	446
Other Near and Middle Eastern countries	653	1,406	954	850	804
Other Asian countries	744	613	550	1,147	755
Oceania and polar regions	6	3	0	0	24
Total	10,761	9,890	8,631	12,074	6,886

Source: Central Bank of the Republic of Turkey

As illustrated by Table 4, the biggest decline in FDI inflows to Turkey is from Europe. Being similar with the previous table, it could be put forward that 2008 Global Crisis resulted in falling demand from its traditional markets such as Europe.

## LITERATURE REVIEW

There are numerous contributions in the literature related to the impact of FDI inflows on real effective exchange rate in Turkey. For the purposes of effective analysis, these contributions can be grouped under four categories namely; FDI inflows and exchange rate, financial stress, approaches regarding financial crises (including macroprudential policy and purchasing power parity), and the impact of tourism on the real Turkish GDP.

Within the literature that focuses on FDI inflows and exchange rate, Cushman (1985) analyzed the relationship between FDI inflows, rate of risk, and exchange rate regime. In order to minimize the effect of inflationary trends as estimates, Cushman used the real exchange rate instead of the nominal exchange rate. The findings from the U.S. annual data show that risk would significantly increase when there is a steady decrease in FDI inflows. This finding is also valid and significant for the Turkish case. The strong decline in FDI inflows in 2009 increased the risk factor on real exchange rate in Turkey.

In the same vein, a study by Bilgili, Tülüce, and Doğan (2012) employed quarterly data for the time interval between 1988 and 2010. They tested the impact of FDI in Turkey, using the Markov Regime-Switching model (MSM). In this model, several variables were tested, such as GDP growth rate, confidence levels of country risk, energy prices, discount rate, trade balance, and the labor cost in Turkey. The null hypothesis of this study is linearity against the alternative hypothesis of nonlinearity. According to the MSM, there is a positive correlation between FDI growth and GDP growth rate, while the MSM correlates negatively with the discount rate, labor cost, import, export, and country risk.

Similarly, Alfaro, Chanda, Kalemli, and Sayek (2001) analyzed the link between FDI and economic growth. The study used data from 39 countries as the sample. Data was collected from the World Bank for a 17 year period. The results showed that FDI inflows contribute to economic growth. Additionally, the findings revealed that the financial market promotes the economic growth of a country by attracting more foreign direct investment.

All these studies demonstrate that FDI inflows have direct influence on economic growth. The country may stabilize steady economic growth by attracting FDI. These factors further increase the significance of FDI in Turkey as a developing country.

In order to examine the relationship between financial stress and FDI, Aykut Ekinci (2013) covered the index of financial stress for the period between 2002 and 2013. He used the sum of stress levels collected on the banking and public sectors, foreign exchange, and the stock market. Ekinci's findings demonstrate that during the high-risk period, which is considered as a risk factor by the Central Bank, Turkey reduces financial stress to levels that are significantly below normal. In support of this argument Özen, Şahin and Ünalmiş (2013) argues that external financial stress is one of the causes of capital out-flows and it also causes a reduction in the ability to borrow from emerging markets.

Regarding the literature concerning the approaches regarding financial crises, Hakan Kara (2016) provided a brief account of the macroprudential policy approach adopted in Turkey between 2011 and 2015, a period when global capital flows experienced unprecedented volatility. Kara underlined that the global financial crisis led to a reassessment of macroeconomic policy formulation across the world. He identified the role of cross-border financial flows for macroeconomics and financial stability, and stated that this role has imposed complex policy trade-offs for emerging economies,

particularly after the financial crisis of 2008.

According to Hakan Kara, Turkey has taken a number of successful steps towards building an institutional framework for implementing explicit macroprudential policies since 2011. For instance, the Central Bank of the Republic of Turkey (CBRT) modified the inflation targeting framework by incorporating financial stability as a supplementary objective. In consequence, macroprudential policies have improved external balances, dampened financial amplification channels, and reduced the sensitivity of the Turkish economy to capital flows. Therefore, macroprudential policies have significantly contributed to the rebalancing process and have bolstered the resilience of the economy against external shocks.

In this connection, Erdem and Yamak (2016) conducted economic analysis to create an Optimal Uncertainty Index for Turkey at the macroeconomic level. The study's data covered the period between 2002 and 2014 based on quarterly data. The analysis was conducted using seemingly unrelated regression (SUR), ordinary least squares (OLS), and the generalized method of moments (GMM). The results show that there was a negative relationship between the general economic situation index and the optimal macroeconomics uncertainty index.

Related with this discussion, Kalyoncu (2009) studied the sensitivity of purchasing power parity, and its validity when using the unit root test to examine data from Turkey and its trading partners. He chose data from several countries, including the United States, France, Germany, Japan, and the United Kingdom. Kalyoncu's results indicate a significant correlation between the validity of PPP and trade level for each of the sample countries.

In terms of the literature focusing on the effect of foreign exchange and tourism on GDP of Turkey, Arslantürk and Atan (2012) analyzed the effect of foreign exchange and tourism on the GDP of Turkey. The data was collected from 1987 to 2009. Co-integration and Granger causality models were used to test the relationship between the two variables. The results of their study showed a positive relationship between tourism income and gross domestic product growth. Therefore, tourism income as economic growth increased. The Granger causality test results showed that FDI inflows and GDP affected the Turkish economy in different way. These two variables experienced a decline over this period. However, they revealed that tourism income is a significant source of revenue for Turkey.

Similarly, Dinçer (2015) used the reflections in the monetary policies and (REER) during the 2000s in order to analyze the dynamics of the macro interpretation in the Turkish economy. Dinçer reached the conclusion that the volatility in the Turkish currency was comparatively reduced in the aftermath of regulations introduced in the finance sector in recent years. Dinçer also added that the contribution and added value of the tourism sector to the national economy was an important factor influencing this trend, since tourism is one of the major sectors in Turkey that are open to international markets and it has the capability of attracting foreign currency.

## **METHODOLOGY**

### **DATA COLLECTION PROCEDURES**

The data was collected from several official sources, including the Turkish Statistical Institute (Turkstat), The Central Bank of the Republic of Turkey's statistical website (CBRT), and the Organization for Economic Co-operation and Development (OECD) statistical database. Therefore, the data that was collected within this study is from first hand and reliable sources.

REER which is the dependent variable for this study, aims to understand the dynamics between international markets principle competitions, relative country's price, and international cost competitiveness. REER is used because the volatility of the REER takes into account both cost and price trends. The independent variables for this study are the total foreign direct investment inflow FDI, GDP per capita purchase power parity, and total tourism income. As the main independent

variable, according to Hymer's study (1960), FDI measures the effects of multinational enterprises which are a result of imperfect markets and it is viewed as an institution of international production. All the variables that are used in this study are measured in U.S dollars.

## EMPIRICAL METHODOLOGY

A unit root test is used to examine the properties of the time series data and to determine the stationary of variables at a level or at first difference. The Zivot-Andrews test is the break point unit root test. The Augmented Dickey Fuller (ADF) unit root test by Dickey and Fuller (1981) is used in order to test the instability in the time series data as an equivalent unit root test. The Phillips and Perron (1988) test differs from the previous tests as it does not contain decimal values for the differences. In this way, it takes into account the correlation in the first differences in the time series data using the non-parameterized correction and allows an average of zero and a linear trend of the time.

As powerful time-saving models generated by statistical software, ARDL models have been used in empirical testing for decades. They have gained popularity in recent years as a method of examining relationships between variables. The model was first introduced by Pesaran, Shin and Smith (1999). The ARDL approach is used to check for co-integration between selected variables. The bounds test is used to confirm if there is any long-run relationship between the selected variables.

## RESULTS

**Table 5** Augmented Dickey Fuller Test

ADF Test Results on REER			
I(0) C		I(1) C&T	
REER		-2.0401	REER -6.8426
ADF critical values at 5% = -2.8996		ADF critical values at 5% = -3.4692	
ADF Test Results on FDI			
I(0) C		I(1) C&T	
FDI		-3.2925	FDI -8.6424
ADF critical values at 5% = -2.8991		ADF critical values at 5% = -3.4692	
ADF Test Results on GDP PPP			
I(0) C		I(1) C&T	
GDP PPP		-3.3767	GDP PPP -8.1044
ADF critical values at 5% = -2.8991		ADF critical values at 5% = -3.4692	
ADF Test Results on Tourism			
I(0) C		I(1) C&T	
Tourism		-1.9701	Tourism -1.8361
ADF critical values at 5% = -2.9055		ADF critical values at 5% = -3.4793	

Null Hypothesis H0: variable is not stationary, or has a unit root.

Alternative Hypothesis H1: variable is stationary.

The results of the ADF unit root test at level and intercept show that, when the P-value < 0.05, the null hypothesis H0 is rejected and the alternative hypothesis H1 is accepted. Therefore, it can be concluded that variables with the probability of P < 0.05 are stationary. Another method of checking for stationarity with ADF is to compare the critical value to the T-statistics.

According to Table 5, the null hypothesis for REER, GDP-PPP, and FDI inflows is rejected. This means that these three variables are stationary. On the other hand, the null hypothesis for tourism is not rejected, which implies that the tourism variable is not stationary.

**Table 6** Results of Phillip Perron Test

Variables	I(0)	I(1)		
	C	C&T	C	C&T
REER	0.3116	0.5421	0.0000*	0.0000*
FDI	0.0000*	0.0876	0.0001*	0.0000*
GDP PPP	0.0113*	0.0612	0.0000*	0.0000*
Tourism	0.0052*	0.0303*	0.0000*	0.0000*

Note: All the values are p values.

Null Hypothesis: variable has a unit root

Alternative Hypothesis: variable is stationary, and does not have a unit root

\* reject the null hypothesis at 5% level of significance

The results of the Phillips Perron test in (Table 6) at level demonstrates that FDI, GDP PPP, and Tourism are significant at the intercept, while REER is not significant at intercept. Therefore, null hypothesis for FDI, GDP PPP, and Tourism is rejected, which implies that these variables are stationary. On the other hand, the null hypothesis for REER is not rejected, which implies that REER is not stationary at level.

All variables are stationary at first difference, which means these are integrated at order one.

**Table 7** Zivot-Andrews Break Point Test

Ho = Variable has Unit root with structural break point		
VARIABLE	ZIV.A TEST I(0)	ZIV.A TEST I(1)
REER	-3.1713	-7.3495*
FDI	-3.6161*	-8.3179*
GDP PPP	-4.5780*	-8.9961*
Tourism	-2.8234	-2.5098*

Note: All the values are t-statistics.

\* reject the null at 5% level of significance.

The Zivot-Andrews Break Point Test results in (Table 7) indicate that REER and Tourism are stationary at the first difference I(1), but are not stationary at the level I(0), while FDI and GDP PPP are stationary in both tests: I(0) and I(1).

The next approach is the ARDL model that includes lags of both the dependent variable and explanatory variables as regressors. The two dynamic models that are both short run and long run, are used to check for co-integration between all the variables.

**Table 8** ARDL Long-Run BoundsTest (H0 – No long-run relationships exist)

Test Statistics	Value	K
F-statistics	3.352517	3
Critical Value Bounds		
Significant	I(0) Bound	I(1) Bound
10%	2.37*	3.20*
5%	2.79*	3.67

\*Note: the null hypothesis is rejected, and there is a long-run relationship between variables.

The results show that the F-statistics value is greater than the critical value at  $\alpha=0.10$  in both I(0) Bound & I(1) Bound. Therefore, the null hypothesis is rejected, which implies that there is a long-run relationship between variables.

**Table 9** ARDL Test Short Run Co-Integration (H0 – No Co-Integration)

Variable	Coefficient	t-statistic	Prob*
FDI	-0.0008	-0.1566	0.8760
GDP PPP	0.0004	2.6018	0.0113*
Tourism	-0.0006	-2.3170	0.0234*
C	-0.1065	-3.8080	0.0003*

Note: All the values are p values.

Null Hypothesis: No Co-Integration

Alternative Hypothesis: There is co-integration between variables

\* reject the null at 5% level of significance

Table 9 shows the results of the ARDL approach for the short-run co-integration, which indicates that variables have significant results given that the P-value is lower than  $\alpha=0.05$  for both the dependent variable REER and the explanatory variables, which are FDI, GDP PPP, and Tourism. Therefore, FDI does not show a significant relationship with REER in the short run, while the null hypothesis H0 is rejected the alternative hypothesis H1 is accepted, which indicates that there is co-integration between FDI and REER in the short run.

**Table 10** ARDL Test Long-Run Co-Integration (H0 – No Co-Integration)

Variable	Coefficient	t-statistic	Prob*
FDI	-0.0037	-2.3036	0.0242*
GDP PPP	-0.0028	-2.0508	0.0440*
Tourism	0.0028	1.0982	0.2758
C	138.292	5.0639	0.0000*

Note: All the values are p values.

Null Hypothesis: No Co-Integration

Alternative Hypothesis: There is co-integration between variables

\* reject the null at 5% level of significance

Table 10 shows the results of the ARDL approach for long-run co-integration. The findings indicate that there is co-integration between the dependent variable REER and the first two explanatory variables FDI and GDP PPP. Since the P-value is lower than  $\alpha=0.05$ , the null hypothesis H0 can be rejected for Tourism. On the other hand, the P-value is greater than  $\alpha=0.05$ , which implies that REER and Tourism have no co-integration in the long run; therefore, the null hypothesis H0 is not rejected.

**Table 11** Granger Causality Tests (Short run)

Dependent Variable	REER	FDI	GDP PPP	Tourism
REER		0.0651	0.0195*	0.1627
FDI	0.0560*		0.0279*	0.0016*
GDP PPP	0.0004*	0.3971		0.0002*
Tourism	0.9185	0.5901	0.0581*	

Note: \* reject the null at 5% level of significance.

H0 = No causality

**Table 12** Granger Causality Tests (Long-run)

Dependent variable: D(LREER)

Excluded	Chi-sq	df	Prob.
D(LGDP PPP)	2.413017	2	0.2992
D(LFDI)	6.628624	2	0.0364
D(LTURISM)	2.413697	2	0.2991
All	11.20604	6	0.0822

The Granger Causality tests are used in order to analyze the effects of a shock on all the selected variables. The impulse reaction function is used to determine the long-run causality on these variables. The results in (Table 12) indicate that there is a long-run relationship between FDI and REER.

## CONCLUSION

This study is focused on the link between FDI and the economic condition in Turkey for the period between January 2010 and July 2016. This period is one of the most important in country's history because the Turkish economy encountered with serious global, regional, and domestic challenges during this period. The 2008 global financial crisis affected all the countries economy in general and developing countries economy including Turkey. Additionally, Turkey is affected most from the ongoing Civil War in neighboring Syria that had initiated in 2012. This war not only resulted with the flow of more than three million Syrian refugees to country, but also escalated the terrorist groups' activities within the country. The instability and terror caused by ISIS in both Syria and Iraq, and the domestic terrorist activities of ISIS and the Kurdish terrorist organization PKK have burdened the Turkish economy with certain economic challenges. Furthermore, Turkish-Russian crises of 2015, and military coup attempt in Turkey in 2016 adversely affected Turkish economy as they also negatively influenced the FDI.

Despite all these negative international and regional developments, FDI and Tourism play key roles in attracting income to the country. This is presented in the level of REER and GDP for PPP. The results also support the findings of many economists, who have previously asserted that the Turkish economic interaction is growing at a globalized level, and is able to compete with the other large

attractive areas for foreign investors around the world. Stating in different words, it could be put forward that Turkey has passed the test in terms of FDI and proved that the country's economy is not that fragile despite all the aforementioned challenges.

The World Investment Report 2017 indicates that despite the global decrease in investments in 2016, Turkey was the most active country in promoting FDI by signing seven treaties with countries around the world in the same year (WORLD INVESTMENT REPORT 2017). In this respect, it is worth mentioning that Turkey able to keep economic stability despite the Global Financial Crisis and its impact on falling demand from the country's biggest economic partner Europe.

More importantly, considering the facts that the civil war in Syria is almost over and Syrian refugees in Turkey initiated to return their home countries, the ISIS threat is virtually over following the successful Turkish military operation in Syria, the termination of the PKK terrorist activities in Turkey by Turkish security forces, and the normalization of Turkish-Russian relations reveal that the FDI inflows to Turkey and its positive contribution to economy will further increase as also demonstrated by the 2017 figures. Turkey attracted \$4.8 billion FDI between January and May 2017, which refers to an increase of 11.2 percent compared to the same period in 2016 (DAILY SABAH).

The results also demonstrate that the tourism industry was the least affected sector in Turkey. The fluctuation in tourism income did not show any crisis or break points. Furthermore, economic growth from the purchase power parity side did not exhibit a clear decrease has maintained its stability, which is opposite to the inflation rate that has shown a continuous increase over the past several years.

On the other hand, it should be emphasized that foreign direct investment results demonstrate some reaction against the situation in the country. This was particularly visible in the decline of the country risk rate by some rating agencies, which had the greatest effect on the FDI level and on the real effective exchange rate value in Turkey. Therefore, some factors that have led to the decline of foreign investment are externally based and beyond the government's control.

Deriving from these points, in conclusion, various recommendations can be made that would increase the attraction of foreign investment and raise awareness of the importance of this type of economic activity in the country.

First of all, the role of the institutions in attracting foreign direct investment should not be underestimated and could be given greater importance. Related to this point, it is important to note that the employees of these institutions should be highly qualified in order to achieve the required results. This also requires education of the labor force and an increase in the level of efficiency in all production sectors.

Secondly, it is equally important to employ partnership agreements and economic integration to attract foreign direct investment with other countries and organizations. In this respect, it should be noted that the current Turkish government, the Justice and Development Party, is assigning more importance to areas and regions that have historically been rejected, particularly the neighboring countries and the Middle East (IŞIKSAL 2015).

Finally, Turkey should give prominence to research into alternative ways to transfer technology and modern management techniques, which can represent an incentive for foreign direct investment in the future.

As the last word, two significant remarks could be made as a supportive to future prospects of FDI inflows to Turkey. First of all, Turkey has diversified industrial manufacturing and structure despite having no oil resources. Nearly half of FDI inflows to Turkey in recent years are from the manufacturing sector which is a positive sign for the future. Secondly, Turkey's young and growing population, its dynamic economy, comparatively low labor costs, and strategic location with access to regional markets in Europe, the Middle East, Africa and Central Asia make it an ideal country for future FDI inflows.

Conflict of interests

Authors declare no conflict of interest.

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# ANALYSIS OF THE BANKING SECTOR PERFORMANCE IN BOSNIA AND HERZEGOVINA, MONTENEGRO AND SERBIA BEFORE AND AFTER THE GLOBAL FINANCIAL CRISIS

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## SUMMARY

The focus of this study is the banking sector of the three neighbouring countries Bosnia and Herzegovina; Montenegro; and Serbia. These are former communist countries which have been going through the transition from centrally-planned economies to open market economies over the past 25 years. During the transition process, structural reforms were conducted to transform the banking sector into a sector suitable for open market economy. These reforms are considered to be the most successful ones in the region. Before the Global Financial Crisis of 2008-09, the economies of the three selected countries were experiencing credit booms. The aim of this research was to examine how the banking sector is performing on an aggregated level years after the crisis and whether the performance is better or worse compared to the pre-crisis period. The findings show that the banking sector was performing better before the crisis in all three countries. After the crisis, the three countries experienced prolonged slow credit growth and had higher non-performing loans.

**Keywords:** Banking sector; Bosnia and Herzegovina; Global Financial Crisis; Montenegro; Non-performing loans; Post-communism; Serbia.

## INTRODUCTION

### GENERAL INTRODUCTION

The topic of this research study is banking sector development in three neighbouring countries in South-eastern Europe namely Bosnia and Herzegovina; Montenegro; and Serbia. As with other former planned economies, these three countries had to undergo a transition process to be transformed into open-market capitalist economies. Part of that process involved transformation of the banking sectors.

Structural reforms, as part of the transition process, have attempted to transform the banking systems of former communist countries into modern banking systems suitable for open-market economies. Domestic state-owned banks were mostly privatized by foreign private-capital or were closed due to undercapitalization. New regulatory frameworks were introduced and bank supervision enhanced. These changes generally had positive effects on public trust in the banking

systems. Before the Global Financial Crisis (hereafter GFC) of 2008-09 was felt, credit activity was intense and the profitability of the banking sectors in all three countries was satisfactory or better. However, the GFC changed the environment and conditions under which the banks operate. In 2009, the negative effects of the GFC spilt over into these three countries causing recession. Since the banking systems were not directly exposed to 'toxic assets', the GFC was transmitted to the region indirectly. The effects of these indirect transmissions included a contraction of international trade; a sudden cessation of credit growth; a fall in inflow of foreign direct investment; and a fall in remittances from migrant workers. These reflected the impact of the GFC on financial markets; goods markets; capital markets; and labour markets (Bartlett and Monastiriotis, 2010). The aim of this research was to investigate whether the banking sectors of the three selected countries are performing better now as compared to the pre-GFC period.

## RESEARCH QUESTION

The authors' goal was to investigate the conditions of and changes to the banking sectors in the 2008-16 period in South-eastern Europe by analysing data for the three countries mentioned previously: Bosnia and Herzegovina; Montenegro; and Serbia. The aim was to examine the latest available data related to the banking sector; compare it to the pre-GFC period; and answer the main research question which is as follows:

Research Question 1: Have the banking sectors in Bosnia and Herzegovina, Montenegro and Serbia recovered from the Global Financial Crisis (GFC) of 2008-09 and do they currently perform better? To be able to adequately answer this question, the following areas had to be researched and analysed: the intensity of credit activity; the sources of funding of the banking sector; the quality of credit portfolio; the intensity of deposit activity; and profitability of the banking sector. Credit and deposit activity had to be analysed because they are core business areas of commercial banks (Van Horne and Wachowicz, 2008).

## RESEARCH METHOD AND LIMITATIONS

Due to the nature of the research question, the authors' only possible option was quantitative analysis of numerical data collected from secondary sources (e.g. monetary authorities of the selected countries; the World Bank; and the International Monetary Fund). Variables compared pre-GFC and post-GFC period were: level of credit activity compared to gross domestic products and total bank assets; trends of total loans and sectoral structure of loans (household sector and sector of non-financial corporations) measured as annual growth rates and shares in total; total assets compared to GDP and to total assets of financial systems; quality of assets and credit portfolios measured as share of non-performing loans in total credit portfolios; ownership structures of banking sector capital and numbers of banks; deposit activity and sectoral structures of deposits measured as annual growth rates and shares in total sources of funding of bank activities; shares of non-performing loans; returns on assets (hereafter ROA); and returns on equity (ROE).

The data was collected from the central bank statistical database websites of each of the selected countries; the International Monetary Fund (IMF); the World Bank; and the United Nations (UN). In addition, data from different reports and publications by the above-mentioned institutions were utilized, as well as information obtained from banking supervisory agencies.

The authors were faced with the challenging issue of limited availability of data for the analysed countries, which impeded the full review of longer time series and comparative analysis of the banking sectors in the selected countries. Most publicly-available data for the banking sectors of Bosnia and Herzegovina and Serbia refer to periods beginning from 2000 and 2002, respectively, until 2016, which is the most recent year observed for this study. However, most data for the banking sector of Montenegro is only available from 2006 onwards.

## STRUCTURE

The present article is organised into the following four sections. The first section (presented above) introduced the topic; the research question; and the research method. The second section presents a review of prior literature and is divided into two sub-sections. The first sub-section gives a brief overview of the importance of the financial sector and the roles of banks; while the second sub-section discusses banking sector developments specific to the former centrally-planned selected countries, as well as the influence of the GFC on the banking sectors. The results and discussion are presented in Section 3; whilst Section 4 concludes.

## LITERATURE REVIEW

### Importance of a functional financial system and the role of banks

Before introducing banking sector development in Bosnia and Herzegovina; Montenegro; and Serbia, a brief overview of the importance of a functional and stable financial sector is provided, and the main roles of banks are explored.

The financial sector is a complex industry comprised of financial institutions, markets, and instruments, whose main purpose is to efficiently allocate funds to those projects which will yield the highest rate of return for a given risk. The main function of financial system intermediation is to utilize the advantage of economies of scale, i.e. pooling funds together from various lenders (investors, savers) and transferring them to borrowers; this, in turn, lowers transaction costs compared to direct financing, and reduces the exposure of lenders to risk because their investments will be dispersed across various borrowers (Mishkin, 2012). Much of the risk is diversifiable (idiosyncratic).

As Karl Marx might have pointed out, the functionality of the financial system of a country is determined by the economic development of that country. However, the financial system itself also has a significant (reverse) impact on economic growth. A number of studies document a strong positive correlation between a functioning financial system and economic growth (Eschenbach, 2004; Levine, 2005). Duisenberg (2001) emphasizes the important role that financial intermediaries play in overcoming the problems of adverse selection and moral hazard that exist between lenders and borrowers, and they ensure that funds are reallocated to the most promising projects.

Owing to its vital role in efficiently allocating funds and supporting economic growth, stability of the financial system is of utmost importance, a fact brought to the forefront of people's consciousness following the GFC of 2008-09. Schinasi (2004, p. 10) defines financial stability as a condition under which an economy's mechanisms for pricing, allocation, and management of financial risks are functioning well enough to contribute to the performance of the economy. The World Bank definition is more specific regarding performance of the economy, and states that: 'a stable financial system is made of financial intermediaries, markets and market infrastructure, is capable of efficiently allocating resources, assessing and managing financial risks, maintaining employment levels close to the economy's natural rate, and eliminating relative price movements of real or financial assets that will affect monetary stability or employment levels' (Financial Stability, n/d). Most modern definitions of financial system stability focus on the financial system as a whole operating as it does as part of the real economy (Borio and Drehmann, 2009). The GFC started in the U.S.A. and then affected the world economy. It was a result of the failure of financial markets to fulfil their purposes especially the failure to prevent adverse selection and moral hazard (Mishkin, 2004).

The main purpose of banks is to provide deposit and loan services to other financial and non-financial companies; the government; households; and other economic entities. By providing deposit services, banks allow the liquidity of savings from lenders to be channelled to borrowers for their consumption or business investment needs in the form of loans. By providing fundamental

deposit-loans services, banks participate in a process called multiple deposit creation which affects the money supply (Mishkin, 2004). When commercial banks lend money to a client, they do not provide it in the form of cash, but rather they credit it to the customer's account, and thus create deposit money (McLeay et al., 2014).

## TRANSITION AND BANKING SECTOR REFORM PRIOR TO GLOBAL FINANCIAL CRISIS

A transition process refers to structural changes which transform a centrally planned economy to a market economy, a process which started at the end of the eighties and the beginning of the nineties of the last century in those countries which abandoned communism. The transition process included: liberalization of prices, trade, and foreign exchange through legal and regulatory changes; privatization of small businesses and large-scale privatization; competition policy; governance reform; and enterprise restructuring (Roaf et al., 2014).

The banking sector of most countries in South-eastern Europe had to undergo major structural reforms during the decades surrounding the turn of the 21st-century. Under communist rule, central banks were functioning as commercial and central banks, a form of banking known as a mono-banking system. The role of banks in centrally-planned economies was administrative / bureaucratic, i.e. the banks were vehicles to carry out government plans and decisions regarding capital allocation to different businesses and sectors (Živko and Kandžija, 2013). The mono-banking system was abandoned after the collapse of the communist regimes in Eastern Europe and the two-tier banking system was adopted, meaning separation of the functions of central banks (monetary authorities) from those of commercial banks (or any other type of bank).

Barisitz (2009) recognizes two waves of banking system reform in the move towards a market-oriented system that most of the former communist countries underwent: (a) an initial wave mainly focused on liberalization of the banking market regulations, which allowed undercapitalized private banks to enter the market and led to further deterioration of banking sector assets and destabilization; and (b) a second wave mostly focused on restructuring and institutionalization, which included stricter regulation; privatization of banks by large foreign-owned companies; and accelerated credit activity.

The results of the banking sector reforms may be summarized as follows (Živko and Kandžija, 2013): (a) entry of foreign capital into the banking system; (b) growth in domestic lending, in particular to the household sector; (c) increase in the exposure to foreign currency risk; (d) increase in profitability and a satisfying rate of capital adequacy; (e) credit expansion and growth of risk assets; (f) improvement of the supervisory framework; and (g) implementation of International Accounting Standards Board (IASB) or other high-quality accounting standards.

Although Živko and Kandžija (2013) carried out their analysis of the banking sector in Croatia, most of these results were also achieved in neighbouring countries (Montenegro; Serbia; and Bosnia and Herzegovina) that followed the same path.

Entry of foreign capital into the banking system led to better credit supply and higher quality bank services; improved management of banks; greater satisfaction of clients; entry of new business technologies; improvement of financial system infrastructure; advancement in the competitive environment; and attraction of foreign direct investments (Bajraktarović, 2009; Mešić, 2006).

The transition process and transformation of the banking sectors was mostly completed before the GFC in our three selected countries. Bosnia and Herzegovina, Montenegro, and Serbia modernized their banking systems to comprise commercial (mostly privately-owned) banks, whose business and performance are subject to supervision of independent institutions. These national banking systems were established with the European Union (hereafter EU) as a role model (Bajraktarović, 2009).

### Monetary and banking supervisory authorities in selected countries

In Bosnia and Herzegovina, the banking sector is overseen by two regulatory bodies, namely the Federal Banking Agency of Bosnia and Herzegovina and the Banking Agency of Republic Srpska<sup>1</sup>. The Central Bank of Bosnia and Herzegovina is responsible for monetary policy and for the support and maintenance of appropriate payment and settlement systems; it also co-ordinates the activities of the two supervisory agencies (General Information about the Bank, n/d).

In Montenegro and Serbia, central banks are responsible for both monetary policy and supervision of banks. Nevertheless, regardless of which public body(ies) is / are responsible for banks' supervision, these responsibilities include: bank licensing and revoking bank licences; control of bank performance; enactment of laws and bylaws regarding the banking sector; and generation and dissemination of banking statistics.

## IMPACT OF GLOBAL FINANCIAL CRISIS ON BANKING SECTOR IN SELECTED COUNTRIES

Barjaktarović et al. (2013), in their study of the impact of the GFC on the development of the banking sector in Central-eastern Europe, analyse in great detail the countries of South-eastern Europe. They conclude that there was an upward trend in the share of loans and deposits in GDP in 2009 and that the banking sector managed to adequately respond to the negative effects of the GFC by implementing more conservative credit policies; improving the classification of clients; increasing the level of equity; and maintaining and planning liquidity positions.

Cocozza et al. (2011), in their work analysing the GFC's impact on South-eastern Europe, which includes six countries from the region, claim that the main feature of the GFC in the region was the absence of a large-scale banking crisis thanks to high capital and liquidity buffers that were the result of supervisory actions taken by central banks. Živković (2011) shares the opinion that the banking sector in South-eastern Europe remained stable, liquid, and relatively profitable thanks to adequate levels of capital and effective measures taken by monetary authorities. However, it is not clear what is meant by the phrase 'relatively profitable banking sector'.

Roaf et al. (2014) consider the main issue during and after the GFC to have been the slow credit growth resulting from the rise of non-performing loans and the deleveraging process. Furthermore, they emphasize their opinion that governments should take a more proactive role in finding solutions for resolution of bad credits. Nurboja and Košak (2017) find that banking efficiency in South-eastern Europe actually improved over the period 2008-2013 with regard to costs, which was probably the result of pressures imposed on banks' managements.

Sanfey (2010) argues that the impact has been better than expected and that this resilience can be attributed to a great extent to the mature and sensible reaction of the region itself and to the financial support of international financial institutions. Whilst the second part of Sanfey's (2010) claim seems credible enough, the first part, regarding the mature and sensible reaction of the region, is debateable.

In conclusion, researchers appear to agree that the GFC did not have an overwhelmingly negative impact on the banking sectors or the financial stability of the region. However, the effect of the GFC may have been underestimated due to comparisons being made with the U.S.A.

Having reviewed the literature related to the banking sector in general and the three selected

1 Not to be confused with Republic Serbia. Republic Serbia is an independent sovereign country. Republic of Srpska is a part of Bosnia and Herzegovina. Administrative division of Bosnia and Herzegovina is quite complex. The country is comprised of two autonomous entities, Federation of Bosnia and Herzegovina and Republic of Srpska and each has its own government and governmental bodies. The central state government has limited power over institutions. While the monetary policy is conducted on the state level, financial supervision is conducted on the entity level. Although two banking agencies exist in Bosnia and Herzegovina, their responsibilities, laws, and regulations are harmonized.

countries in particular, the authors are not aware of any study that covers longer time series of indicators of banking sector conditions following the GFC and specifically focused on our three countries. Therefore, this research study will try to fill this research gap.

## **RESULTS AND DISCUSSION**

### **BANKING SECTOR SOURCES OF FINANCING**

Banks in the discussed countries were mostly privatized by foreign banking groups coming mainly from EU countries. Foreign banks were attracted to the region as the high returns provided them with an opportunity for gain in these transitioning economies (Bartlett and Prica, 2012). Banks could meet demand owing to stable financing from parent banks from abroad. As a result, foreign liabilities were quite an important source of funding for banks in Bosnia and Herzegovina, and Montenegro, and to a much lesser extent for Serbian banks. This was a cheap form of financing for foreign-owned banks that dominate banking markets in the region. Similarly to emerging markets of Central-eastern Europe, which did not engage in wholesale markets to access funds, banks in South-eastern Europe did not do this either (Wiesiołek and Tymoczko, 2015).

### **FOREIGN LIABILITIES**

Foreign liabilities of the banking sector in Bosnia and Herzegovina made up 28.9% of total sources of funding in 2008, which was close to the five-year average. In Montenegro that share was even higher, comprising 38.0% of total sources of funding. On the other hand, Serbian banks seemed to be less dependent on foreign funding, at least in 2008, when foreign liabilities made up 19.0%. During 2003-2008, foreign liabilities recorded a two-digit growth rate y/y in all three countries, showing how intensive the financing from foreign parent companies was. Bartlett and Prica (2012) find that capital inflows to the region were significant and mainly related to rise in capital and liabilities of foreign-owned banks which entered into the regional market during restructuring and reforming of the banking sector. The results of the present study confirm that liabilities of foreign owned banks had an accelerated increasing trend before the GFC.

However, in the years following the GFC, the trend of foreign liabilities as a source of financing changed completely. From 2009 onwards, the banking sector of Bosnia and Herzegovina has been recording negative annual growth of foreign liabilities, meaning that banks are not taking new loans and deposits from abroad, but rather deleveraging. This can also be confirmed by observing the share of foreign liabilities in total sources of financing, which has seen a constant decreasing trend since 2008. For Serbia, a similar conclusion can be reached. Following 2009, a slowdown began and in 2011 the annual growth turned to negative and stayed negative until the end of the observed period, with the exception of 2012. Only the banking sector of Montenegro has recorded growth in the last two years, but the share of foreign financing is much lower than it was in 2008.

### **CAPITAL**

From 2009 onwards, the share of capital as a source of financing seems to be more stable than the share of foreign liabilities. Before the recession, capital financing showed a decreasing trend in Bosnia and Herzegovina, and Montenegro, while in Serbia it displayed a more volatile trend. However, following the GFC, there have been no major changes in the share of capital in total sources of financing, proving that foreign owned banks had support from parent companies.

**Table 1** Share of foreign liabilities in total sources of funding and annual growth rates of stocks of foreign liabilities

Year	Bosnia and Herzegovina		Serbia		Montenegro	
	Share in total	Growth rate	Share in total	Growth rate	Share in total	Growth rate
2003-2008 average	28.3%	28.3%	23.4%	37.3%	22.5%	100.8%
2008	28.9%	24.5%	19.0%	15.9%	38.0%	57.4%
2009	26.1%	-10.2%	26.3%	69.0%	34.4%	-17.3%
2010	21.2%	-18.4%	28.5%	27.0%	31.6%	-10.4%
2011	17.6%	-14.0%	25.0%	-6.9%	28.6%	-13.7%
2012	16.2%	-5.8%	23.6%	2.8%	24.9%	-13.0%
2013	14.4%	-6.4%	18.4%	-22.3%	24.4%	3.3%
2014	12.3%	-11.1%	13.3%	-24.4%	21.9%	-5.0%
2015	10.5%	-11.7%	11.5%	-10.2%	21.4%	8.3%
2016	9.5%	-5.3%	9.9%	-9.6%	21.6%	10.0%

Source: authors' calculation based on data from Central bank of Bosnia and Herzegovina, 2017; Central bank of Montenegro, 2017; National bank of Serbia, 2017.

**Table 2** Share of capital in total sources of financing of banking sector and annual growth rate of stocks (%)

Year	Bosnia and Herzegovina		Serbia		Montenegro	
	Share in total	Growth rate	Share in total	Growth rate	Share in total	Growth rate
2003-2008 average	13.2%	11.4%	19.5%	34.1%	15.1%	25.2%
2008	11.0%	15.4%	22.6%	41.4%	8.4%	17.9%
2009	11.2%	2.1%	288.7%	19.6%	11.0%	18.7%
2010	12.1%	8.1%	390.0%	19.4%	10.6%	-6.3%
2011	14.2%	21.4%	440.5%	19.5%	10.9%	-1.8%
2012	14.6%	4.8%	465.2%	18.8%	10.3%	-5.4%
2013	14.5%	4.9%	497.3%	17.8%	13.2%	35.1%
2014	14.2%	1.8%	0.0%	17.1%	14.0%	12.9%
2015	14.2%	4.3%	0.0%	0.0%	13.4%	5.6%
2016	14.5%	6.2%	0.0%	0.0%	13.1%	6.9%

Source: authors' calculation based on data from Central bank of Bosnia and Herzegovina, 2017; Central bank of Montenegro, 2017; National bank of Serbia, 2017.

**Table 3** Number of banks and share of foreign capital in banking sector

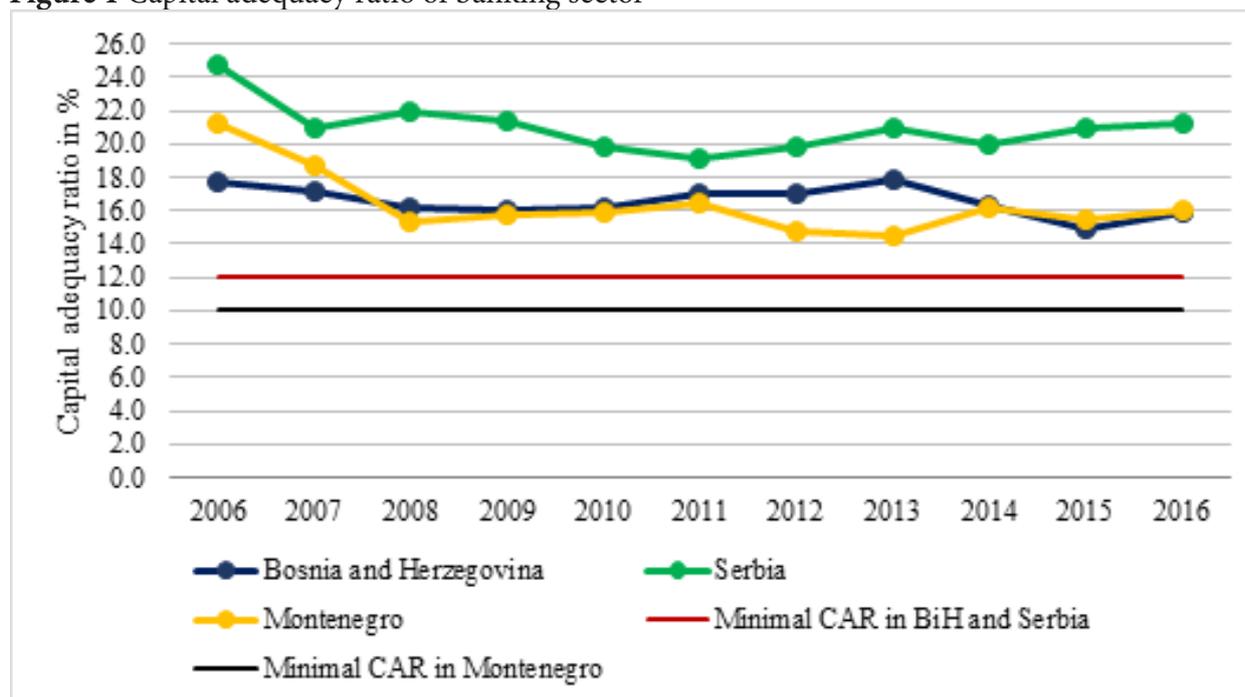
Year	Country	Banks with foreign capital	Banks with domestic private capital	Banks with domestic state capital	Total number of banks	Share of foreign capital in total capital
2008	Bosnia and Herzegovina	21	7	2	30	87.2%
	Montenegro	9	2	-	11	78.0%
	Serbia	20	6	8	34	75.0%
2016	Bosnia and Herzegovina	16	8	2	26	82.4%
	Montenegro	7	5	0	12	n/a.
	Serbia	22	6	2	30	79.4%

Source: authors' work based on data from Banking Agency of Federation of Bosnia and Herzegovina Publications (n.d.); Banking Agency of Republic Srpska Publications (n.d.), National Bank of Serbia Quarterly Reports (n.d.), International Monetary Fund (2008) and International Monetary Fund (2016).

In 2008 the share of foreign capital in banks was high, 87.2% in Bosnia and Herzegovina, 78.0% in Montenegro, and 75.0% in Serbia. The dominance of foreign-owned banks can be seen in Table 3. As is evident from Table 3, the banking sectors of the observed countries were mainly foreign owned before the GFC and this remains the case. For Montenegro, the exact share of foreign capital was not available, but the number of foreign owned banks has remained higher than the number of domestic banks throughout the observed period.

In late 2008 and early 2009, there was a fear that foreign owned banks would withdraw from the region so as to decrease their exposure. This would have caused a complete collapse of the financial system in South-eastern Europe. Fortunately, this did not occur. The European Investment Bank, European Bank for Reconstruction and Development, European Commission, World Bank, and International Monetary Fund all lent their support to the banking sectors of South-eastern Europe. Under an agreement commonly known as the Vienna Initiative, foreign banks committed to maintaining their levels of exposure at 2008 levels and to support their subsidiaries (European International Bank, n/d).

One of the most important indicators of banking sector health is the capital adequacy ratio. Capital adequacy ratio is calculated by putting capital in relation to risk weighted asset (Van Greuning and Brajovic-Bratanovic, 2009). The regulatory requirements for minimal capital adequacy ratio did not change after the GFC and in Bosnia and Herzegovina and Serbia it is 12.0%, while in Montenegro it is 10.0%.

**Figure 1** Capital adequacy ratio of banking sector

As presented in Figure 1, through all the observed period, the banking sectors at the aggregated level did not have problems with adequate capitalization. This is in line with Cocco et al. (2011) who show that during the GFC the banking sector in the region had solid capital buffers.

## DEPOSITS

Domestic deposits represent the largest source of financing for the banking sectors of the selected countries. In 2008, deposits made up 57.2% of banking sector financing sources in Bosnia and Herzegovina. The figure was 58.1% in Serbia and it was 60.1% in Montenegro.

In the period from 2003-2007, the countries experienced strong growth in deposits. The average annual growth of total deposits ranged from 22.0% in Bosnia and Herzegovina and 29.2% in Serbia to 64.9% in Montenegro. However, one of the first signs of the GFC spilling over to the region was a deposit outflow in the last quarter of 2008, which caused a slowdown in deposit growth or even negative growth depending on the country. Bosnia and Herzegovina and Montenegro experienced sharp declines and negative growth rates, -1.8% and -4.8% respectively, while Serbia recorded a slowdown from 54.5% to 6.8%. A probable reason for this deposit outflow was the not-so-distant memory of billions worth of savings, mostly denominated in German marks, being lost during the collapse of Yugoslavia. Fortunately, the outflow was of a temporary nature and did not have a major effect on banking systems.

**Table 4** Share of deposits in total sources of financing and growth rates of stocks (%)

Year	Bosnia and Herzegovina		Serbia		Montenegro	
	Share in total	Growth rate	Share in total	Growth rate	Share in total	Growth rate
2003-2008 average	59.2%	22.0%	64.3%	29.2%	65.0%	64.9%
2008	57.2%	-1.8%	58.1%	6.8%	60.1%	-4.8%
2009	58.6%	1.8%	52.7%	7.1%	60.3%	-8.3%
2010	60.3%	3.6%	53.4%	4.3%	60.8%	-1.9%
2011	60.5%	3.7%	54.4%	10.4%	64.7%	1.5%
2012	60.1%	1.4%	59.1%	-0.5%	70.5%	9.0%
2013	61.8%	8.1%	58.4%	3.3%	70.9%	5.9%
2014	63.9%	7.9%	63.2%	3.8%	73.6%	10.0%
2015	66.3%	7.5%	72.0%	3.5%	75.6%	13.7%
2016	68.0%	7.4%	67.8%	9.2%	75.8%	9.4%

Source: authors' calculation based on data from Central bank of Bosnia and Herzegovina, 2017; Central bank of Montenegro, 2017; National bank of Serbia, 2017.

**Table 5** Sectoral structure of total deposits in Bosnia and Herzegovina and annual growth rates of stocks (in %)

Year	Household deposits		Non-financial corporations deposits		Other deposits	
	Share in total	Growth rates	Share in total	Growth rates	Share in total	Growth rates
2006	46.8	28.6	30.5	24.5	22.6	29.1
2008	43.8	0.8	25.6	13.1	25.7	-18.0
2010	51.8	14.5	24.7	0.2	20.3	-13.2
2012	57.1	6.7	21.1	-4.3	18.0	-5.7
2014	58.8	8.1	22.0	2.4	17.6	15.4
2016	60.1	8.1	23.3	5.6	17.4	7.4

Source: authors' calculation based on data from Central bank of Bosnia and Herzegovina, 2017.

**Table 6** Sectoral structure of total deposits in Serbia and annual growth rates of stocks (in %)

Year	Household deposits		Non-financial corporations deposits		Other deposits	
	Share in total	Growth rates	Share in total	Growth rates	Share in total	Growth rates
2006	51.7	37.2	40.3	36.8	7.9	46.1
2008	52.6	9.4	35.7	-10.1	11.7	100.1
2010	63.2	15.2	28.8	-5.8	8.1	-22.9
2012	65.3	4.2	28.5	-8.0	6.1	-9.2
2014	66.9	4.0	28.7	10.4	4.3	-27.1
2016	63.1	5.8	33.2	16.6	3.7	6.6

Source: authors' calculation based on data from National Bank of Serbia, 2017.

**Table 7** Sectoral structure of total deposits in Montenegro and annual growth rates of stocks (in %)

Year	Household deposits		Non-financial corporations deposits		Other deposits	
	Share in total	Growth rates	Share in total	Growth rates	Share in total	Growth rates
2006	46.4	184.1	34.6		19.0	
2008	43.0	-16.0	35.3	-4.5	21.7	28.4
2010	53.2	12.8	28.0	-16.8	18.8	-11.0
2012	57.9	11.0	29.7	10.3	12.4	-1.9
2014	57.7	7.6	32.1	20.2	10.2	-3.4
2016	53.4	6.6	39.2	22.3	7.3	-20.0

Source: authors' calculations based on data from Central bank of Montenegro, 2017.

As shown in Table 4, between 2009 and 2013, deposit activity was quite modest or even negative. From 2013, until the end of the observed period, the banking sectors of all three countries recorded accelerated growth rates. In addition, they all saw increases in the shares of domestic deposits in total financing sources in the banking sector balance sheets compared to 2008. At the end of 2016, the share of domestic deposits in the banking sector balance sheet was 68.0% in Bosnia and Herzegovina, 67.8% in Serbia, and 75.8% in Montenegro.

The results show that household sector deposits have the biggest share in total deposits in all three countries (Tables 5-7). Despite the deposit outflow of the last quarter of 2008, household deposits in Bosnia and Herzegovina did not record a negative growth in any year during the observed period, and both stocks of the household deposits and their share in total deposits kept an increasing trend. On the other hand, comparing 2008 and 2016, deposits of non-financial corporations and other deposits decreased their shares in total deposits, but recorded positive annual growth rates recently. Similarly, the banking sector in Serbia recorded lower positive annual changes (9.4%), but kept an increasing trend in terms of the stocks of the household deposits and their share in total deposits. But, unlike the banking sector in Bosnia and Herzegovina where the household sector is the main driver of total deposits, in Serbia it appears that sector of non-financial corporations is recording much higher annual growth of deposits than households in the last few years, giving higher contribution to growth of total deposits.

However, the banking sector of Montenegro was faced with a declining trend of household deposits two years in a row, -16.0% in 2008 and -1.5% in 2009, after which the growth turned positive again. Similarly to trends in Serbia, deposits of non-financial corporations are recording much faster annual growth than household sector deposits.

Although the intensity of deposit activity is lower compared to pre-GFC period, it is still better than credit activity. Domestic deposits recorded increasing shares in balance sum, meaning that they are a more important source of financing after the GFC than before. The main driver of expanding deposit base in Bosnia and Herzegovina is household sector. However, in the last few years it seems that in Serbia non-financial corporations had higher contribution to total deposit growth than household sector. The Montenegro situation is similar. This means that besides households' deposits, the driver of total deposit growth in these two countries is deposits of non-financial corporations, which is a surprising result of this research.

**CREDIT ACTIVITY AND BANKING SECTOR ASSETS****BANK LOANS TO DOMESTIC SECTORS**

Prior to the GFC, the banking sector of South-eastern Europe was experiencing a credit boom. The average annual credit growth rate in the 2003-2008 period for Bosnia and Herzegovina was 22.1%, for Serbia 37.3%, and for Montenegro 77.9%. The main driver of the credit growth was high demand from the private sector (households and non-financial corporations).

**Table 8** Annual growth rate of total loan stocks in %

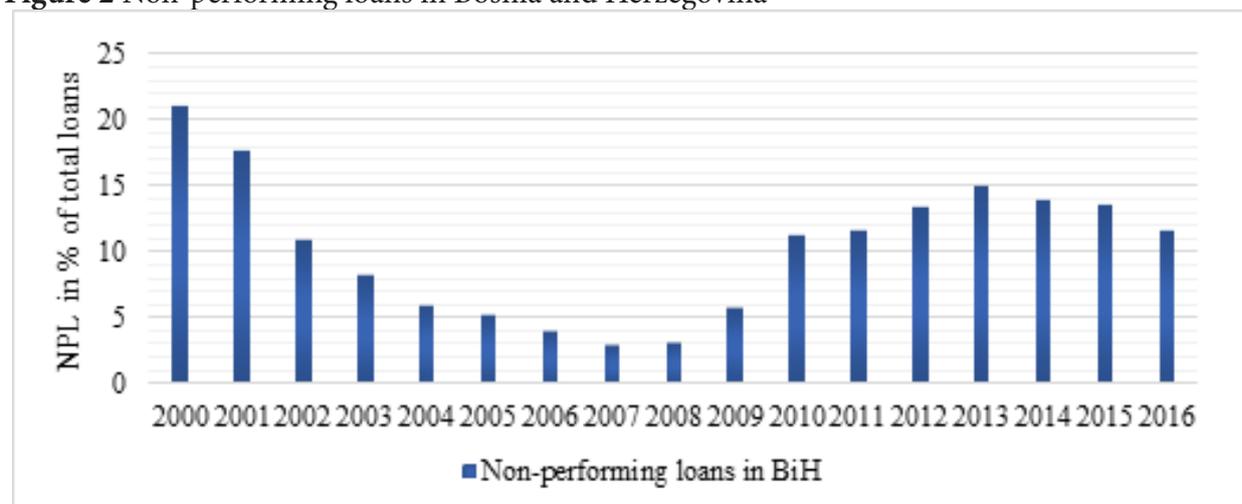
Period	Bosnia and Herzegovina	Serbia	Montenegro
Average 2003-2008	22.1%	37.3%	77.9%
2008	23.0%	36.0%	24.8%
2009	-3.2%	16.3%	-13.7%
2010	3.4%	27.2%	-7.9%
2011	5.4%	8.0%	-9.7%
2012	4.3%	9.5%	-4.6%
2013	3.1%	-4.1%	7.7%
2014	2.8%	3.4%	-3.0%
2015	2.4%	2.9%	1.9%
2016	2.0%	2.6%	6.7%

Source: authors' calculation based on data from Central bank of Bosnia and Herzegovina, 2017; Central bank of Montenegro, 2017; National bank of Serbia, 2017.

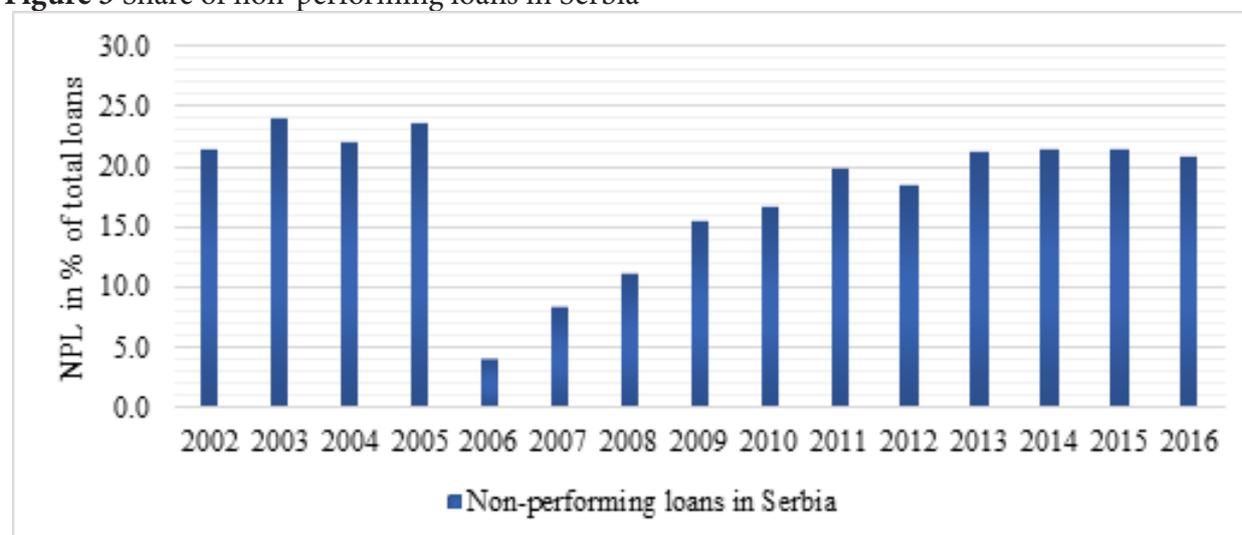
The GFC had a serious impact on credit activity. In 2009, credit activity was negative on annual level in Bosnia and Herzegovina and Montenegro, -3.2% and -13.7%, respectively (Table 8). In Serbia, a slowdown was recorded, from 36.0% in 2008 to 16.3% in 2009. Credit activity following 2009 has been very different in the observed countries. While in Bosnia and Herzegovina recorded modest growth, Serbia has witnessed significant volatility. On the other hand, Montenegro has seen a very slight, but steady, decline in credit activity. However, at the end of the observed period, all countries recorded low, but positive, annual growth. Nevertheless, it is evident that credit activity did not return to pre-GFC levels. Prolonged weak macroeconomic conditions continuing during the following years influenced behaviour and creditworthiness of borrowers and behaviour of banks. Households are more prone to saving than spending, which decreased demand for bank loans.

**NON-PERFORMING LOANS**

The banking sector in Bosnia and Herzegovina had a clear decreasing trend before the GFC hit the region when non-performing loans started to rise. High share of poor loans can be credited to negative or low economic activity affecting the ability of companies to meet their obligations and decreased income of households.

**Figure 2** Non-performing loans in Bosnia and Herzegovina

Source: authors' work based on data from Central Bank of Bosnia and Herzegovina, 2017

**Figure 3** Share of non-performing loans in Serbia

Source: authors' work based on data from The World Bank Data, 2017

Following a sharp decline in 2006, the quality of credit portfolios started to deteriorate again in Serbia. Data on non-performing loans for Montenegro is available from 2004. Similarly, to Serbia, improvement in the quality of loan portfolios was recorded only in 2006. The first signs of the GFC appeared in the last quarter of 2008, which might have triggered an upward trend. It seems that after 2013 banks became better at managing their credit portfolios and began clearing out bad assets.

Results regarding non-performing loans and decreased financing from abroad in the form of foreign liabilities of banking sectors confirm the findings of the previous study by Roaf et al. (2014) of credit activity limitations. The rise of non-performing loans can be related to economic conditions in the country that affect borrowers' repayment capacity (Klein, 2013). Banking sectors of all three countries are operating in worse economic conditions than prior to 2009, and persistently have non-performing loans higher than in the pre-GFC period. However, there is a convincing improving trend in Bosnia and Herzegovina and Montenegro, which cannot be said for the banking sector in Serbia.

**BANKING SECTOR ASSETS SIZE AND ANNUAL GROWTH****Table 9** Total assets to GDP and annual growth rate of stocks (in %)

Year	Bosnia and Herzegovina		Serbia		Montenegro	
	% of GDP	Growth rate	% of GDP	Growth rate	% of GDP	Growth rate
2008	81.3%	7.8%	69.8%	30.5%	106.6%	11.2%
2009	83.3%	-0.5%	81.1%	18.1%	100.8%	-8.6%
2010	82.0%	0.7%	89.4%	2.9%	94.2%	-2.7%
2011	82.0%	3.4%	85.2%	8.4%	86.1%	-4.5%
2012	83.7%	2.0%	88.1%	-8.4%	88.3%	-0.1%
2013	86.3%	5.2%	81.2%	4.5%	88.0%	5.4%
2014	88.1%	4.3%	84.6%	-4.0%	90.7%	6.0%
2015	87.1%	3.7%	84.8%	-9.3%	95.8%	10.7%
2016	88.9%	4.6%	85.6%	16.0%	101.6%	9.2%

Source: authors' calculations based on data from National Accounts Main Aggregates Database, 2016; IMF Data Accesses to Macroeconomic and Financial Data. (n.d.); Central Bank of Bosnia and Herzegovina, 2017; National Bank of Serbia, 2017; Central Bank of Montenegro, 2017.

**Table 10** Foreign owned bank assets in total bank assets

Year	Country	Banking assets in foreign owned banks, % of total bank assets
2008	Bosnia and Herzegovina	95.0%
	Montenegro	n.a.
	Serbia	67.0%
2016	Bosnia and Herzegovina	85.7%
	Montenegro	79.2%
	Serbia	69.9%

Source: authors' work based on data from Federal Banking Agency of Bosnia and Herzegovina Publications (n.d.); Banking Agency of Republic Srpska Publications (n.d.); National Bank of Serbia Quarter and Annual Report. (n.d.); International Monetary Fund Financial System Stability Report (2008) and International Monetary Fund (2016).

Structural reforms in the banking sectors prior to the GFC resulted in fast growth of banking sector assets. From 2003-2008 the average annual growth rate of banking sector assets in Bosnia and Herzegovina was 22.1%, 30.7% in Serbia, and 61.7% in Montenegro. Naturally, 2009 was a year of change brought about by the GFC. The rapid rate of annual growth of the banking sectors' assets prior to the GFC was replaced by sluggish and unstable growth after the crisis (see Table 9).

Comparing ratio on banking sector assets to GDP between 2008 and 2016 one can conclude that there was a continuous trend of financial deepening in Bosnia and Herzegovina and Serbia. However, this is not because of convincing growth of banking sector assets and financial sector deepening, but rather because economic growth was poor. It should be kept in mind that using only ratios of banks' asset to GDP to measure size and depth of banking sector does not give us too much information. The size of banking sector should be assessed from a wider industry policy perspective (Schoenmaker and Werkhoven, 2012). However, this is a topic for some other research. The analysis of the ownership structures of the banking sectors confirms earlier findings that major portions of them are foreign-owned.

## RETURN ON ASSETS AND EQUITY

Finally, the question of whether profitability recovered to its pre-GFC levels will be answered. Return on assets and return on equity (hereinafter ROA and ROE) were used as indicators of profitability. Although ROA and ROE cannot provide sufficient grounds for a deep analysis, they can serve as indicators of general trends.

**Table 11** Return on assets and return on equity

Year	Bosnia and Herzegovina		Serbia		Montenegro	
	ROA	ROE	ROA	ROE	ROA	ROE
2006	1.1	10.6	1.8	9.6	0.6	5.5
2007	1.0	10.5	1.9	8.9	0.5	5.6
2008	0.5	4.9	1.6	7.1	-0.3	-4.2
2009	0.2	2.3	0.7	3.4	0.3	3.5
2010	-0.6	-4.9	0.8	4.0	-2.5	-23.4
2011	0.7	5.8	0.9	4.4	-0.7	-6.2
2012	0.7	5.1	0.6	2.9	-2.5	-23.4
2013	-0.1	-0.5	-0.4	-1.9	0.0	0.4
2014	0.8	5.4	0.6	2.9	1.0	6.9
2015	0.3	2.0	0.3	1.6	0.3	1.7
2016	1.1	7.3	0.7	3.4	0.7	5.0

Source: authors' work based on from Global Financial Development, 2017; Central Bank of Bosnia and Herzegovina, 2017; National Bank of Serbia, 2017; Central Bank of Montenegro, 2017.

The banking sectors' profitability started to decline in 2008, though in Bosnia and Herzegovina and Serbia it was just lower compared to the previous year, while in Montenegro it was actually negative, so Živković's (2011) findings related to profitability and crisis could not be confirmed. It seems that the banking sector in Montenegro experienced the biggest hit on profitability compared to the other two neighbouring countries. The worst period was 2010-2012 when, for three years in a row, financial result on aggregated level was negative. After this period, the banking sectors managed to generate positive ROAs and ROEs, but results are still weak. High share of non-performing loans and lower level of profitability are characteristics of the banking sector in Serbia since 2008, as well as in Bosnia and Herzegovina. The banking sector in Bosnia and Herzegovina had a particularly disastrous 2010 and 2013 when it comes to profitability, while in Serbia a negative financial result was registered only in 2013. This fall in profitability can be related to the rises in non-performing loans in all three countries and poor credit growth.

Findings on profitability lead to the overall conclusion that the banking sectors' profitability has been low since 2008 and this could be related to higher shares of non-performing loans in credit portfolios. Alper and Anbar (2011) examine the case of the ten biggest banks in Turkey and find that quality of assets had significant impact on return on assets. Dumičić and Ljubaj (2017) reach a similar conclusion for the banking sector in Croatia for the period 2009-2015 when ROA started to drop as soon as non-performing loans given to the corporate sector started to rise.

For many consecutive years, the banking sectors have a share of non-performing loans higher than 10% in all three countries.

## CONCLUSION

The aim of this research was to examine data related to the banking sectors, compare them to the pre-GFC period, and answer the main research question: Have banking sectors in Bosnia and Herzegovina, Montenegro and Serbia recovered from the global financial crisis and do they perform better currently?

Findings show that credit activity did not recover after the GFC. The rapid rate of annual growth of bank loans prior to the GFC was replaced by sluggish and unstable growth after the GFC. Factors could be found on demand and supply side of bank loans. Lower demand for banks loans is primarily caused by the change of household attitudes towards consumption. Lower supply of bank loans is primarily caused by more cautious lending due to high level of non-performing loans after the GFC meaning that the credit risk is high and due to limited funding from abroad. However, the weak economic performance in all three countries is the underlying cause of these trends.

The results show that after the GFC the sources of funding changed. Before the GFC, foreign liabilities in form of loans and deposits from parent companies from abroad were important sources of financing for the banking sectors in Bosnia and Herzegovina, Montenegro, and Serbia since foreign-owned banks make up large parts of the banking sectors. After the GFC, foreign-owned banks started to deleverage, meaning banks were repaying foreign obligations to parent companies, without issuing new ones. On the other hand, the shares of capital in total sources of funding did not experience major changes. Parent companies did not withdraw capital from subsidiaries in the region. The share of deposits in total sources of financing increased, meaning that banks more rely on domestic deposits.

Every following year after the GFC, the banking sector in Bosnia and Herzegovina recorded much higher levels of non-performing loans than in pre-GFC period. However, there is a promising downward trend during the last few years. The results describe a similar scenario for banking sector in Montenegro. On the other hand, it seems that the banking sector in Serbia has a prolonged problem with non-performing loans in their assets. Even before the GFC this was a major problem, except for 2006. It is recommended for all three countries that regulation related to resolution of non-performing assets should be improved in a way that helps banks to better deal with this problem.

The results show that deposit activity is not as low as credit activity. Nevertheless, it is not as intense as it was before the GFC. If comparing annual growth rates of total deposits recorded in years before the GFC to the ones recorded after the GFC, it becomes evident that the growth is much lower afterwards.

The main driver of deposit growth in Bosnia and Herzegovina before and after the GFC is household sector. However, in Montenegro and Serbia, the household sector was the major driver until the last few years, when deposits on non-financial corporations started to record much higher annual growth rates compared to deposits of households. This is an interesting finding and it would be interesting to investigate it with more detailed data on factors that influence behaviour of non-financial corporations and households. This is a worthwhile topic for future research.

The results regarding profitability show that profitability has been low since 2008. For years after the first wave of GFC, banking sectors in selected countries were recording either negative profitability or lower than before the GFC, depending on the country. However, results for 2016 are promising, but it is not clear whether this improvement is a one-time event, since there is no clear trend after the crisis.

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# THE IMPLICATIONS OF SAVING AND INVESTMENT BALANCE ON ECONOMIC GROWTH OF THE REPUBLIC OF MOLDOVA

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## SUMMARY

The saving and investment balance can ensure the stability of the financial market. The aim of the study is to analyse the dynamics of the saving-investment balance in the Republic of Moldova and its impact on economic growth. The role and possibilities of attracting foreign investments into fixed assets are presented. The indicator of investment growth with a low level of gross savings is a signal or a harbinger of a decline in economic growth. According to the National Bank of Moldova, legal export of capital from the Republic of Moldova takes only a small part in the process of export of capital. The leading role in the mechanism of transformation of savings into investment should belong to BNM.

**Keywords:** savings, investments, economic growth, financial stability, capital outflow.

## INTRODUCTION

The saving-investment balance is not only an important indicator of monitoring financial stability in the Republic of Moldova but also a condition for the economic growth. In the neoclassical model, the equilibrium of saving and investment is the main condition of a self-regulating economy. The rate of GDP growth has a positive correlation to the average propensity to save. Through the mechanisms of transformation of savings into investment, the influence of financial factors on economic development is manifested. The greater the level of savings and investment in the economy, the greater is the rate of national income.

## METHODOLOGY

The system of national accounts is based on the balance method of interrelated complex study of economic processes and the results of their activities. With the help of the national accounts system, the interrelations between economic processes and phenomena are revealed.

In a state of economic equilibrium  $I$  is equal to  $S$ , but in the active phase of economic development, as a rule  $I > S$ , as investments exceed savings. If investments lag behind savings, then growth in GDP is slowed.

The current account balance reflects the movement of savings and investments of the domestic economy:

$$CAB = X - M + NY + NCT = S - I, \quad (1)$$

where  $X$  — export of goods and services;  $M$  — import of goods and services;  $NY$  — net income from abroad;  $NCT$  — net current transfers;  $S - I$  (capital account) - is the internal balance of the economy, and  $CAB$  (Current account) external balance.

If the value of domestic savings is insufficient to finance domestic investment in an open economy, additional financing is attracted through external debt ( $D$ ) or equity participation of foreign investors ( $E$ ):

$$S - I = CAB + D + E \quad (2)$$

The current account of the balance of payments represents the gap between national savings and national investment. The deficit of balance of payments indicates that the amount of the current account and the capital account are not balanced.

In most developed countries the correlation between the  $S - I / S$  does not exceed the level of 10%; in countries with economies in transition, the threshold value is defined as:

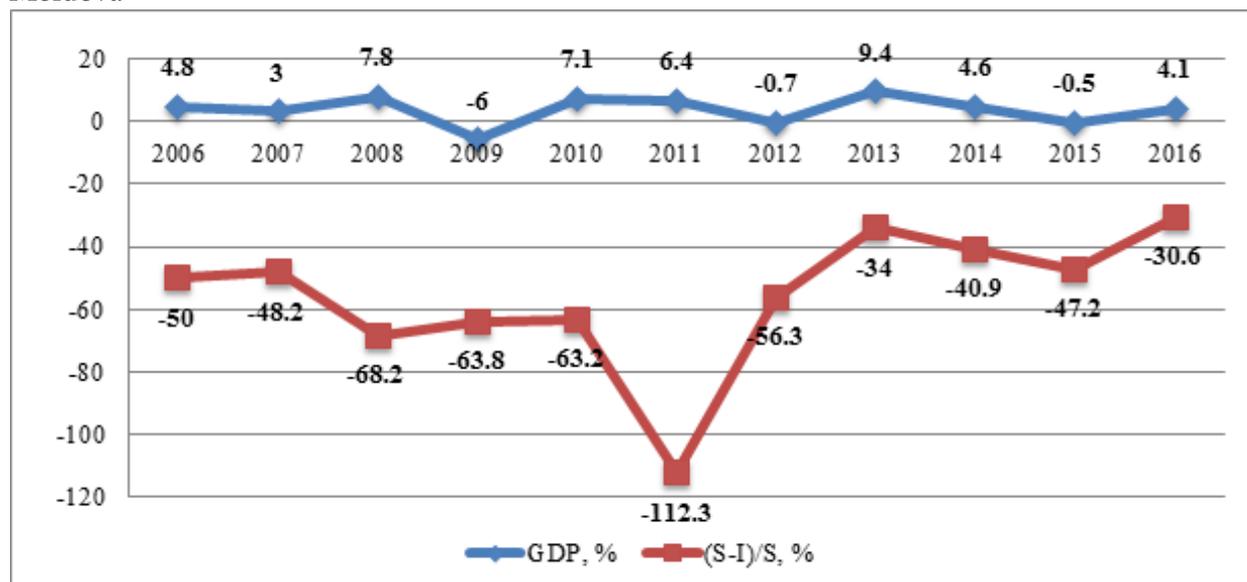
$$S - I / S \geq 30\% \quad (3)$$

The criterion shows what percentage of the gross savings in the economy does not translate into investment (Бланшар, 2010).

## THE IMPACT OF NATIONAL SAVINGS AND FIXED CAPITAL ACCUMULATION ON THE ECONOMIC GROWTH OF THE REPUBLIC OF MOLDOVA

Figure 1 shows the impact of the level of savings transformation in investments on the economic growth of the Republic of Moldova. The savings level is calculated by the formula:  $S - I / S$  and it shows that the growth rate of investment with a low level of gross savings can be a signal or a precursor of a decline in the economic growth.

**Figure 1** Influence of the balance of “saving-investment” on economic growth in the Republic of Moldova



Source: calculated by the authors based in NBS data [www.statistica.md](http://www.statistica.md)

The decrease in the level of the savings-investment balance in the Republic of Moldova can be regarded as a lack of domestic funds for investment in 2008, 2011 and 2015. Along with other indicators of financial stability, this affected the decline in economic growth rates in 2009, 2012, and 2015, respectively. Table 1 shows the comparative data of national savings and fixed capital accumulations in relation to GDP in emerging economies, as well as the level of net capital inflows as the sum of net direct investment positions.

Table 1. Balance of payments for some countries for 2016, in %

	Bulgaria	Romania	Azerbaijan	Belarus	Armenia	Georgia	Ukraine	Moldova
Gross savings (% of GDP)	23	24	29	26	18	21	15	17
Gross capital formation (% of GDP)	21	26	29	30	21	32	15	22,5
FDI, net inflows (% of GDP)	2,4	2,9	11,9	2,6	3,2	2,26*	0,04*	1,8

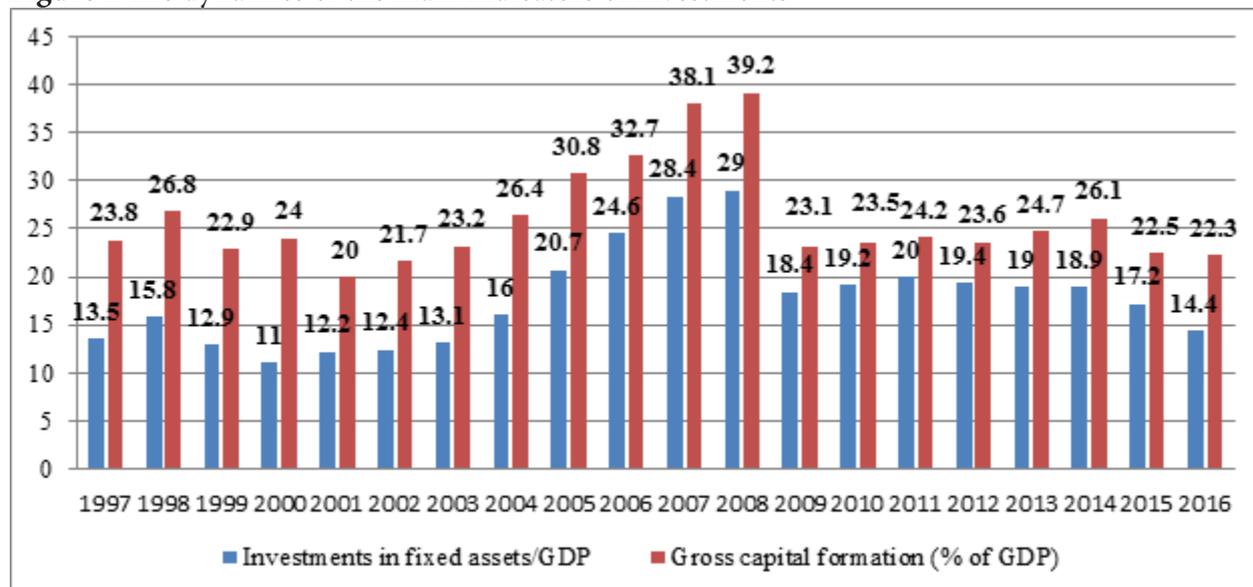
Note: \* data for 2015

Source: IMF data [www.data.imf.org](http://www.data.imf.org)

From the point of view of the overall adequacy of investments, the ratio of the gross accumulation of fixed capital in GDP is most important. The rate of accumulation is a consolidated macroeconomic indicator reflecting the final balance of the actions of all economic, legal, institutional and other factors regulating the volume and structure of investment activity. By the level of formation of fixed capital, the Republic of Moldova lags behind countries actively developing their industrial potential, with the exception of Ukraine, while the savings rate in these countries provides a significant share of national investment. At the same time, developing countries are actively using foreign investments to modernize and develop the economy. In comparison with other countries with emerging economies in the Republic of Moldova their level is insignificant.

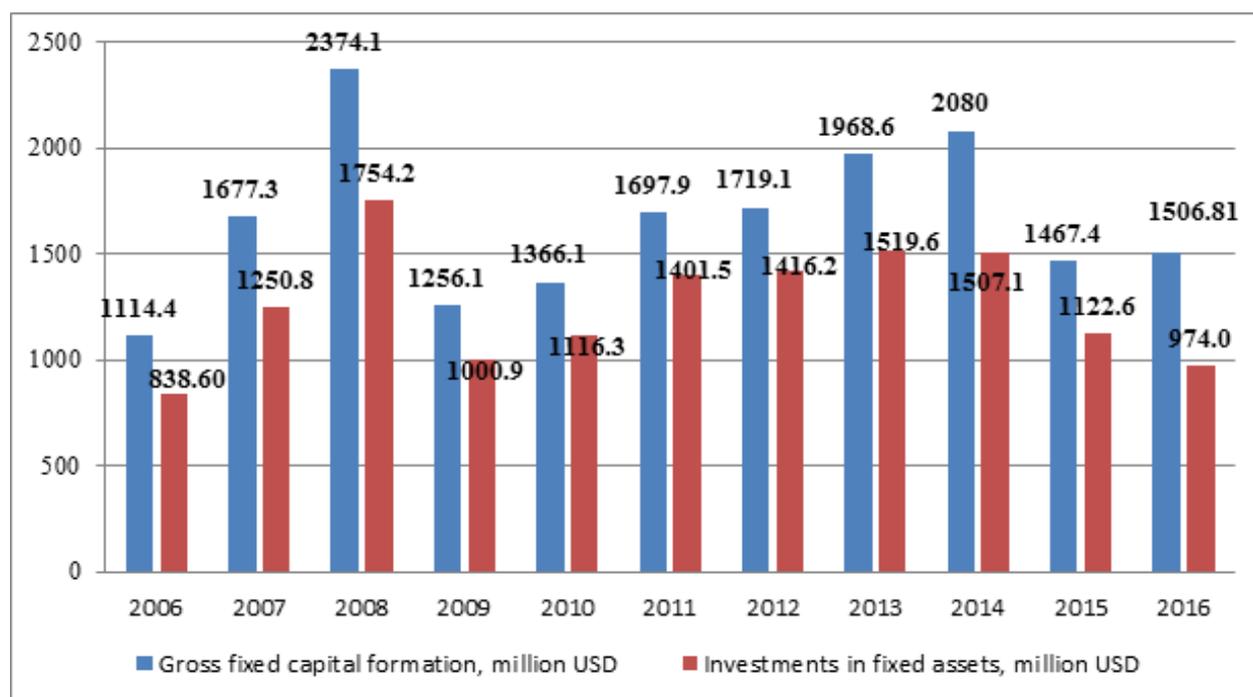
According to published estimates (Shneider, 2003) for countries with transitional economies, the minimum threshold value of gross fixed capital formation is estimated at 25% of GDP. Otherwise, the normal process of reproduction of fixed capital is violated as the foundation for the constant modernization and competitiveness of the national economy. According to McKinsey experts (McKinsey & Company), currently for each 1% of the growth of the economy, it is necessary to increase the volume of investments to GDP by 2.5 p.p. (i.e. dynamically growing countries need more active investments).

**Figure 2** The dynamics of the main indicators of investments



Source: elaborated by the authors based on NBS data [www.statistica.md](http://www.statistica.md)

The amount of investments in long-term tangible assets differs from gross capital formation primarily on the amount of capital repair costs and the cost of uninstalled equipment. The highest level of gross capital formation in Moldova was achieved before the crisis of 2009. The level of gross capital formation increased in 2008 to 39.2% / GDP and 29% of investments in fixed assets / GDP. The growth was also noted in 2014 to 26.1% / GDP and 18.9% of investments in fixed assets / GDP. In 2016, investments fell by 4.0 p.p. compared to 2009, and the accumulations - by only 0.8 p.p. Accumulation in 2016 compared to 2014 (when the highest level was recorded for this indicator) declined by 3.8 p.p. and respectively in 2016 investments fell by 5.6 p.p. compared to 2011.

**Figure 3** Use of fixed capital formation and investments in long term tangible assets

Source: elaborated by the authors based on NBM data [www.bnm.md](http://www.bnm.md)

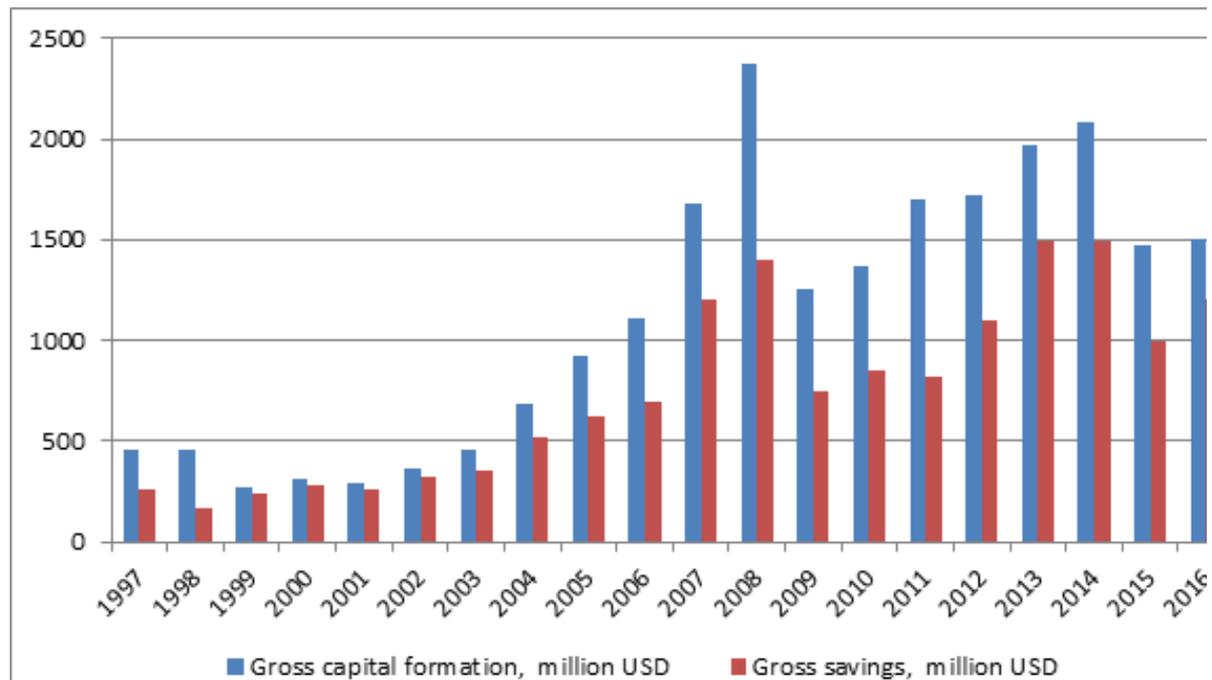
In 2016 investments in long-term tangible assets amounted to 64.6% of gross fixed capital formation, which indicates a significant component of capital repair expenses in the Republic of Moldova. A serious problem is that in the post-crisis period, in order to restore growth, investments have not reached the values of pre-crisis years.

Against the background of general under-accumulation of capital in the economy, nevertheless, we can assume some “conditional overheating” of the economy in the pre-crisis period (2008 and 2014). This situation is due to the fact that in conditions of slow reforms when certain indicators go far ahead, it is necessary to establish the incentive correspondence of many components and overcoming imbalances, in the transformation of savings into investments. Expert Fedorov V. notes the danger of the situation, as economic growth has no reliable basis and unjustified distortions in the structure of the economy (Федоров, 2006).

These data show the instability of investment opportunities within the limits of the changes in the investment climate, depending on economic, political and financial (internal and external) factors. Investment activity in Moldova can be characterized as a country with unstable and risky conditions, which has a negative impact on attracting investors.

Gross savings of the Republic of Moldova do not cover the investment needs of the economy, and the share of the formation of fixed capital in the last 2 years was on average less than 23% (Сенчагова, 2005) of GDP, which is not enough for effective development and modernization of the economy.

**Figure 4** Dynamics of the internal balance of “savings and investments” in the economy of the Republic of Moldova



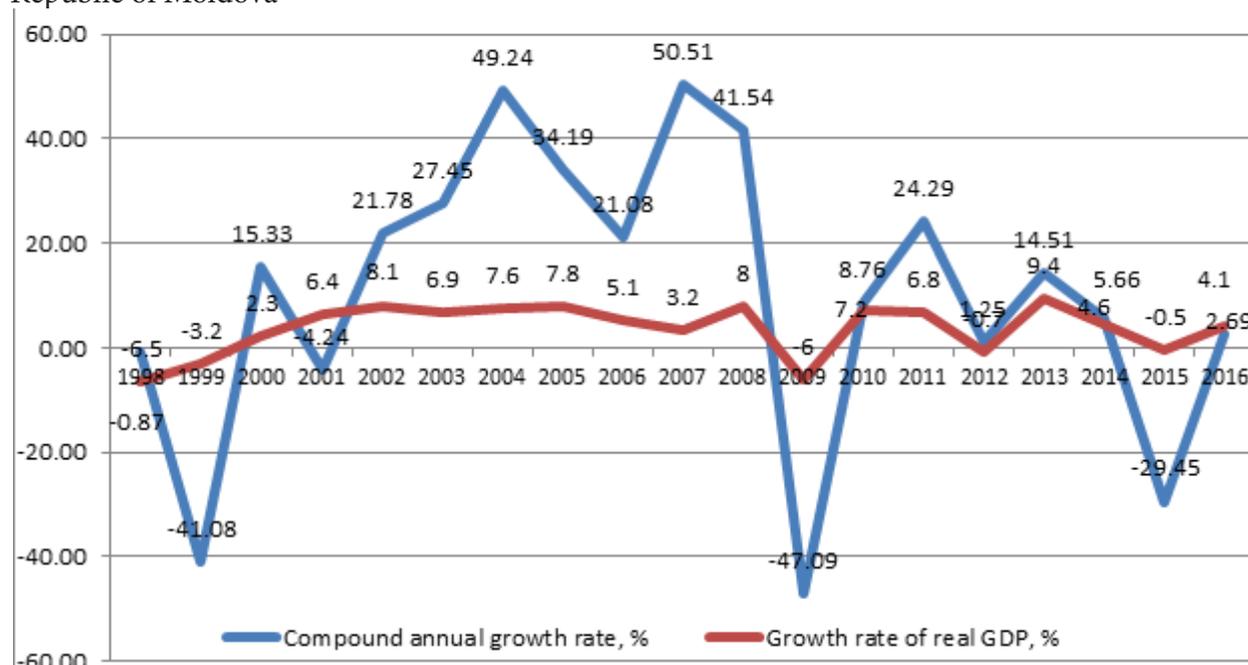
Source: calculated by the authors based on NBM data [www.bnm.md](http://www.bnm.md)

The concomitant decline in gross capital and gross savings is one of the most vulnerable trends in the national economy. During the crisis of 2009 and 2015 there is a sharp decline in savings and investments. Two years before the crisis, were registered some signs of economy overheating: an increase in investment and savings and an increase in domestic and external loans. The increase in gross savings led to a significant increase in investments in long-term tangible assets in 2008.

In the context of financial stability it is important to find the optimal balance between saving and investment, which would allow the country to have sustainable economic growth. Authors argue that during 1997-2016 investments in fixed assets are higher than gross savings. Theoretically, Moldova should be in an active phase of growth, but in reality, growth in investments by gross capital formation indicator is below the recommended threshold. During the period of economic transformation, especially after passing the crisis, this indicator should be higher, as a reduction in incomes leads to a drop in the level of savings, which ultimately leads to a reduction in investment and a slowdown in the development of the economy.

Figure 5 shows the correlation between the degree of transformation of savings into investment and the economic growth of the country.

**Figure 5** The degree of savings transformation into investment and the economic growth of the Republic of Moldova



Source: calculated by the authors based on NBS data [www.statistica.md](http://www.statistica.md)

## EXTERNAL ECONOMIC FACTORS OF FINANCING WITHIN THE OPEN ECONOMY OF THE REPUBLIC OF MOLDOVA

The Republic of Moldova imports more goods than exports. The most significant impact on cross-border capital flows is provided by current transfers, including personal remittances. Thus, the current costs of imports are covered in a significant proportion by remittances. It can be concluded that about 60% of current transfers are received personal remittances.

**Figure 6** Comparison of the total trade flows and remittances to the Republic of Moldova (current USD).



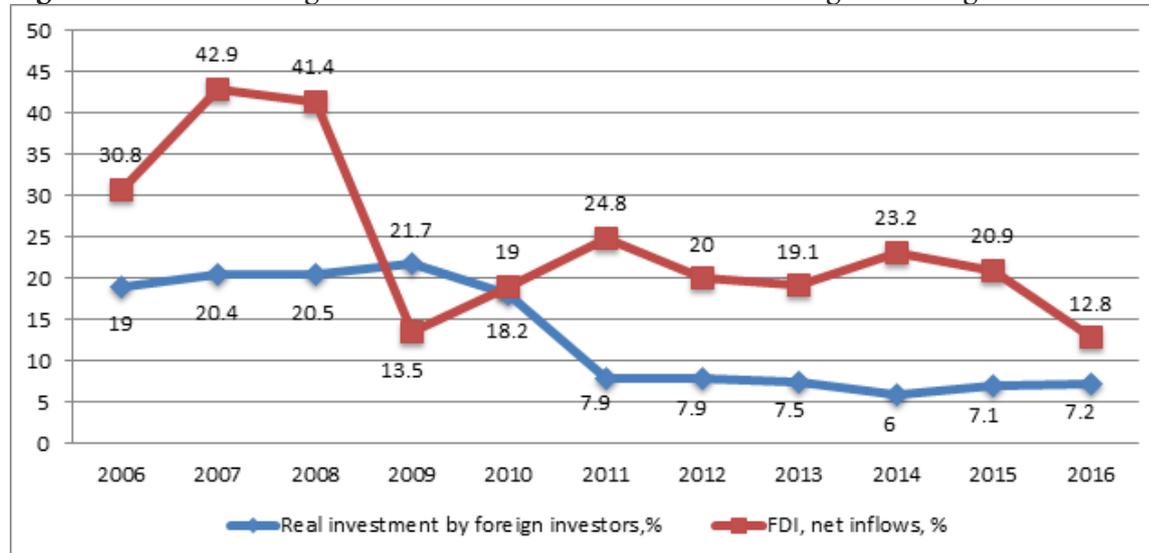
Source: calculated by the authors based on NBM data [www.bnm.md](http://www.bnm.md)

Taking a look on imports increase compared with exports, we can affirm that Moldova has problems of competitiveness. The possibility of taking corrective measures to achieve a secure position in external payments (deficit of goods, services and incomes) is financed through private and formal transfers, financial flows and the use of reserve and other financial assets or through the import of foreign savings (borrowings).

On the account of capital transactions, a considerable amount of resources provides “rest of the world” to the Republic of Moldova. During the 2008 crisis, the amount of “borrowings”<sup>1</sup> was 1002.59 million USD and 819.96 million USD in 2011 (more than 95% of the savings level). Despite the fact that by 2015 net borrowing decreased to 390.8 million USD and amounted 39.2% to the level of savings or 6% to GDP, the dynamics of low investment level was reflected in the fall of Moldovan growth in 2015 (NBM, 2016).

Net capital inflows are analogous to the current account deficit and a sign that the economy works unstably. However, the share of foreign direct investment in total investments decreased up to 12.8% in 2016 (NBM, 2017).

**Figure 7** Share of Foreign Direct Investment transformed in long-term tangible assets



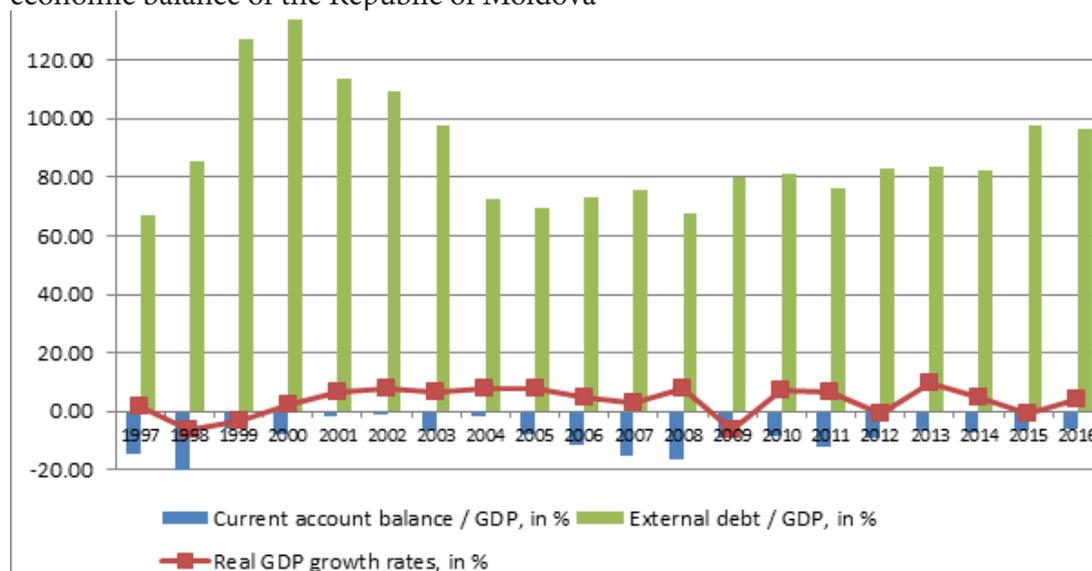
Source: elaborated by the authors based on NBS, NBM data [www.statistica.md](http://www.statistica.md), [www.bnm.md](http://www.bnm.md)

A significant part of savings due to external sources of financing is not transformed into investments. On the one hand, foreign investments fill up the deficit of their own financial resources, create a basis for the development of production and, consequently, solve the problems of unemployment, and to overcome the structural crisis, etc. On the other hand, in the long term, an increase in paid foreign investment income could lead to a reduction in domestic savings and, as a result, a reduction in domestic investment and then in GDP. At the same time, only a small proportion of foreign capital is involved in the investment process.

Reduction of domestic investment creates a demand for cheaper international credit resources, which stimulates the growth of foreign debt. As a result of the growth of external borrowings, the financial account of the balance of payments is improving, but only in the short term. In the medium and long term the situation is reversed, as interest on debt and debt itself are paid. In the Republic of Moldova, the growth of the total external debt is much faster than the GDP growth.

<sup>1</sup> Borrowing characterizes the excess or shortage of sources of investment financing in comparison with the expenses for the net acquisition of non-financial assets. At the level of the economy as a whole, net lending means acquiring financial assets from non-residents, and net borrowing means financial obligations to non-residents.

**Figure 8** The growth dynamics of gross external debt in relation to GDP growth and external economic balance of the Republic of Moldova



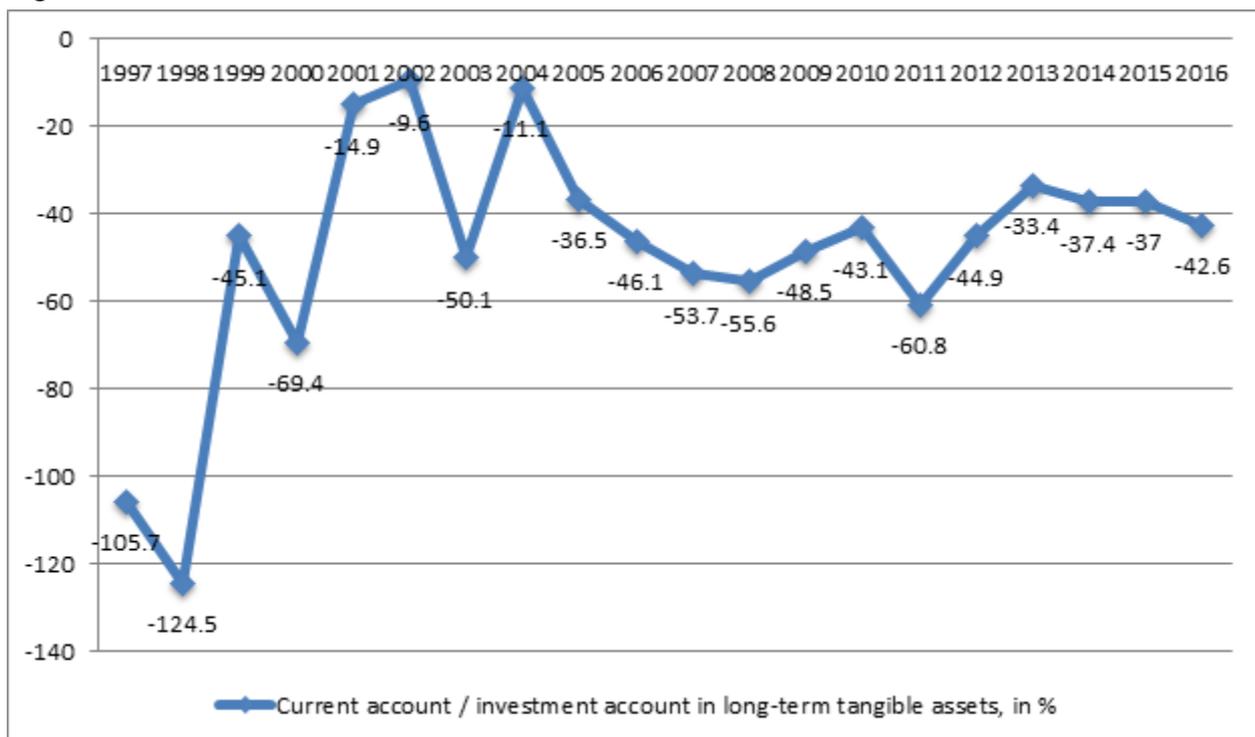
Source: elaborated by the authors based on NBS data [www.statistica.md](http://www.statistica.md)

A deficit of current account balance sheet reflects a structural imbalance between savings and investment. The increase of deficit of current account results in an increase of the budget deficit. In 2015 the budget deficit increased to 39% compared to 2014. Despite the fact that in recent years the national budget deficit in Moldova is down by 1.9% of GDP in 2016 and amounted 2 487.1 million MDL, the state budget in 2017 consists of 1/3 of external financial sources. The increase in the budget deficit leads to an increase in the current account deficit.

By international standards, the worst case of the current account in the Republic of Moldova is:

- The country has a budget deficit (expenses > income);
- National savings are less than investments;
- Imports exceed exports.

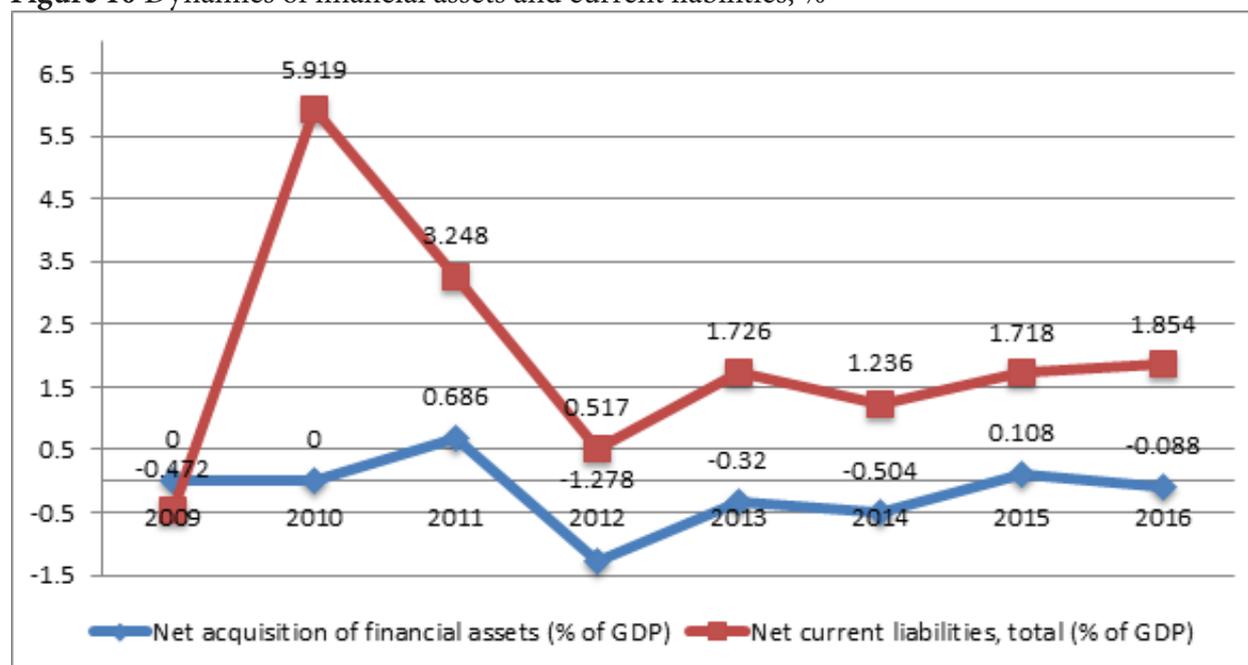
The balance of savings and investments and their transformation increase are indispensable conditions for the effective functioning of the mechanism for ensuring financial stability. The reduction of national savings increases the investment deficit and, accordingly, causes a deficit in the current account, which can be financed by a net inflow of financial resources. The financial conditions for the activation of investment activity determine the financial stability of the Republic of Moldova. The approach of the financial crisis is signaled by the high level of current account deficit in relation to investments.

**Figure 9** Current account in relation to investments, %.

Source: elaborated by the authors based on NBM data [www.bnm.md](http://www.bnm.md)

If the deficit reflects a low level of savings and investment, it can be concluded that there is a poorly thought-out fiscal policy and a significant increase in consumption. Thus, due to the stable level of the current account deficit in Moldova, enterprises could invest and the population can consume more than if it were vice versa. Any measures that are taken to change the balance of the current account deficit of the balance of payments (e.g. changes in tariffs, quotas, exchange rates) will affect the dynamics of savings and investments. Financial crises have shown how important it is to track data on external assets and liabilities within the country's external vulnerability. Analysis of these positions becomes increasingly important factors in the context of monitoring the financial stability of the state. Thus, a significant reduction in the net borrowing indicator for the capital account in 2015 indicates the retirement of financial assets. According to the financial account (NMB), net lending / net borrowing are the net acquisition of assets minus net liabilities. Net acquisition of resources from the rest of the world should be covered either by liquidating foreign assets or by increasing liabilities of non-residents. According to the results of the financial account (NBM, 2016) for 2014-2015 there was a decline in assets and liabilities. According to the international investment position of the Republic of Moldova for 2016, the balance of external assets in relation to external liabilities decreased by 1.9 p.p., that means a net decrease in the assets of the Republic of Moldova (i.e. the amount of debts exceeds the value of the entire property of the company) (NBM, 2017).

It is to be mentioned that flows of resources are accumulating and form resource stocks. Reserves arising from the international movement of financial resources form the country's international investment position (the balance of international investment).

**Figure 10** Dynamics of financial assets and current liabilities, %

Sursa: NBM, International Investment position

In the IMF's Government Finance Statistics Manual (IMF, 2001), the change in the net asset value is the recommended quantitative indicator for assessing the degree of sustainability of fiscal activities of the state. Another reason are external transactions that can cause a change in asset holdings and financial liabilities, that can be represented as one-way actions of one country and create or decreases financial assets.

The country's balance of payments is closely linked to the economic development of this country, and reflects in a certain moment the degree and the way in which the country participates in the world economy. Thus, we can say that the balance of payments is essentially a barometer of the entire financial and economic activity of the country. This highlights the potential for the production of goods and their competitiveness in the international market, both in terms of quality and price. There is a double influence between the balance of payments and the currency: on the one hand, the exchange rate of the currency affects prices and thus increasing or decreasing the profit from international transactions, on the other hand, the balance of the payment situation has an active or a passive influence on the exchange rate of its currency. As the process of "maturing" convertibility, it will grow more and more its role in determining the mobility of convertibility of payments and exchange rates. Convertibility for success in the medium and long term, it is essential to achieve and maintain a certain balance between structural current transactions and capital and financial account. The aggregate of operations of the financial account of the balance of payments and the international investment position constitute a complete set of international accounts in the economy. At the same time, in the international financial and foreign exchange market, the quality of the country's balance of payments is an important criterion in the issuance of loans and the determination of their conditions.

## CONCLUSIONS AND RECOMMENDATIONS

Thus, through the mechanisms of transformation of savings into investment is manifested the influence of external and internal factors on financial stability and on economic development. In the conditions of the unstable economic growth of the Republic of Moldova, the risks of financial instability increase:

The reduction in gross fixed capital formation after 2009 with a low level of savings is one of the most alarming trends in the development of the national economy. Relative indicators of investment growth with a low level of gross savings can be a signal or precursor of financial instability and a decline in economic growth.

The structural imbalance between savings and investments is explained by the fact that economic growth does not have a reliable financial base, unjustified distortions in the structure of the Moldovan economy remain. The main resources for investments in the national economy are the accumulation of fixed capital, as well as current and capital transfers received from the rest of the world.

Stable shortage of payments threatens long-term economic well-being and financial stability. The main mechanism for the transmission of the crisis to the economy of the Republic of Moldova is affected by the fall in remittances. The approaching financial crisis in the Republic of Moldova is signaled by the high level of current account deficit relative to investments.

Reduction in the level of foreign direct investment shows instability of investment opportunities within the limits of the changes in the investment climate, depending on economic and political factors, as well as internal and external financial conditions. Investment activity in Moldova can be characterized as unstable and with risky conditions, which has a negative impact on attracting investors.

A significant decline in the “net borrowing” indicator for the capital account in 2015 indicates the retirement of financial assets. Analysis of assets and liabilities of IIP positions is becoming an increasingly important factor in the context of monitoring the financial stability of the state.

In the future, financial stability in Moldova will largely depend on external circumstances, and will have serious consequences not only for capital inflow and investment in future growth, but also for the formation of a new model of the country’s economic development. One of the priorities for the development of the Moldovan economy would be to switch from external financing to domestic sources (which would mean reducing the vulnerability of the country’s economy), including through the development of the local capital market, and therefore diversification of financial instruments in this area. Significant remittances of migrants working abroad could become an important source of investment resources for the Moldovan economy.

The leading role in the mechanism of transformation of savings into investments should belong to the National Bank of Moldova, which is called upon to contribute:

to increase the savings of the main economic entities in the form of bank deposits; the deposit guarantee fund should be increased in order to stimulate their long-term attraction to banks; strengthening the orientation of the financial system on production and investment activities, transforming savings into investments in the real sector through the banking sector. improving the quality of integrated management of assets and liabilities of the state.

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# IMPACT OF SOME OVERSEAS MONETARY VARIABLES ON INDONESIA: SVAR APPROACH

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## SUMMARY

This study aims to investigate how the influence of monetary variables from abroad to Indonesia's monetary conditions. This study uses exchange rate variables, interest rates of U.S. central banks, world oil prices and interest rates of Indonesian banks. This study proposes a short-term SVAR analysis using FEVD and IRF as an additional analysis tool. From the research done in the explanation that with SVAR model that in the proposal is less precise, the result for IRF and FEVD analysis can not be made as additional material of analysis tool from SVAR model which in proposal.

**Keywords:** Monetary variable; FFF; WP; BI Rate.

JEL classification: E52; F31.

## INTRODUCTION

Some of the studies that empirically focus on the impact of U.S. monetary policy have established delayed overshooting and only wait for the peak of response that will occur 1 to 3 years, before it happens right away. Thus in Dornbusch (1976) it has been explained that the evidence of monetary accumulation that occurs, in turn creates a 'conditional futures puzzle', to gain profit by borrowing overseas or investing in the US.

In Frankel (1986), Clarida and Gali (1994), Evans (1994), Eichenbaum and Evans (1995), Kalyvitis and Michaelides (2001) and Lobo et al. (2006) describes in his study of the response of U.S. monetary variables, by looking at the behavior of the dollar currency, which can behave overshooting 'for almost 2 to 3 years against the major currencies of other countries. It is also assessed in other studies in Japan, some use weekly, monthly and yearly data, and find that the dollar currency is overshooting, up to a period of up to two or three years of delays against the yen. They argue that the dollar strengthened against the yen exchange rate over the period of the first five months, which is marked by a monetary shock in advance. And in other studies, explaining empirically, that the U.S. monetary policy performing contractions such as domestic interest rates that have increased relative to foreign interest rates, as well as the dollar strengthened and specified with output value, so as to be able to know the position of business cycles Country of the United States and domestic countries relative. The occurrence of persistent deviations from a hypothesis relates to an undetectable interest rate parity characteristic of a country's economic structure, making its

asymmetry in the application of monetary policy in a country. But a new finding was found in the study, about changes in the impact of the Federal Funds Rate (FFR) on daily currency values, as well as finding surprises related to monetary contraction.

## LITERATURE REVIEW

In some studies and theories of economic literature explain how the impact of a monetary variable from abroad on the domestic monetary variable of a State, which can create an economic bubble in it. If viewed, in the literature, there are 3 explanations of the view of the monetary state of a State to the monetary conditions of a State that affect indirectly. This can be made as a view and an approach, in improving liquidity and liaison functions within a monetary analysis transmission. Hereinafter in the era of 1920, some economists from Austria, believes in an asset price increase, which is due to a slightly lower and more stable inflationary environment. The next view is explained in an equilibrium analysis. Where the monetary conditions can stabilize the price level in general and ultimately lead to fluctuations in asset prices. In monetary conditions can affect the economic state of a State in general, especially those associated with exchange rates there are 3 places:

1. Impact of monetary conditions on a currency if there is an expansionary monetary condition, there will be an increase in the money supply in the domestic country, with the occurrence of interest rate cuts, capital outflows will be able to reduce the supply of foreign currency, thus increasing the exchange rate. If, on the other hand, the central bank intervenes on the value of the currency, then the market will not allow the exchange rate of a currency to rise. Thus the reserves will enter the market. Making foreign currency purchases in the community, will cause the increase in the money supply to decrease, so as to neutralize the value and the amount of money in circulation.

2. Impact of monetary conditions on the price level If a central bank implements an expansive monetary condition, it will lead to an increase in the money supply, and may increase prices in general. The occurrence of fluctuations in domestic prices to rise, making the price of goods and services domestic demand is relatively more expensive, compared to foreign goods, so that the competitiveness of exports globally to decline. On the other hand, supply of a currency will decline. This led to a two-place exchange rate increase.

3. Impact of monetary conditions on the portfolio If in a State, the Central Bank conducts an expansive monetary state, it may lead to an increase in the money supply, and indirectly decrease the interest rate. With reduced interest rates, bank deposits make it less attractive, and most customers will withdraw their money from the bank, then invest it in other instruments, not to mention money markets.

## METHODOLOGY, TIME AND DATA RESEARCH

### RESEARCH METHOD

In this study used SVAR model, which assumes block exocception for small domestic open economic variables (Indonesia) relative to external variables (U.S.A). In Kim and Roubini (2000) explains that a non-recursive VAR model that allows monetary conditions to respond simultaneously, in the case of shocks to exchange rate variables, and will be able to complete part of the pending 'overshooting effect'. They also provide evidence of an unexpected rise in the U.S. monetary conditions, making interest rates in the short-term, non-US G7 countries increase, so the currency in the country is depreciating. This is further clarified by Faust and Rogers (2003) that the recursive SVAR model can be a powerful model for seeing how assumptions change over identification, and will result in "sensitive overshooting", against the assumptions adopted.

## TIME OF RESEARCH

This research was conducted in October 2017.

## SOURCE OF DATA RESEARCH

Data in research can be from various sources such as website, Bank Indonesia, world bank, IMF, Blomberg and others. The data in this study consist of 1 monetary variable from USA and 1 variable of world oil price, assumed to have influence to 2 monetary Indonesia that is BI rate and exchange rate Rp / USD during period of december 1984 - December 2015

## RESULT AND DISCUSSION

From the model proposed in this study, using short-term SVAR analysis, the assumption of 2 influencing variables and 2 variables that are influenced. The scale of the model in use, is a small scale model, assuming for a small open Indonesia economy. In table 1 below we see the results for the proposed research model.

**Table 1** Result for SVAR Model short run analisis

Structural VAR Estimates				
Model: $Ae = Bu$ where $E[uu'] = I$				
Restriction Type: short-run text form				
	Coefficient	Std. Error	z-Statistic	Prob.
C(2)	-0.081244	0.071208	-1.140941	0.2539
C(4)	30.68367	84.65927	0.362437	0.7170
C(5)	21.05788	212.5011	0.099095	0.9211
C(7)	-0.663528	0.371917	-1.784074	0.0744
C(8)	0.547891	0.931655	0.588084	0.5565
C(9)	0.000991	0.000800	1.238033	0.2157
C(1)	3.037527	0.392143	7.745967	0.0000
C(3)	1.184704	0.152945	7.745967	0.0000
C(6)	1378.896	178.0147	7.745967	0.0000
C(10)	6.044421	0.780331	7.745967	0.0000
Log likelihood	-479.5340			
Estimated A matrix:				
1.000000	0.000000	0.000000	0.000000	
0.081244	1.000000	0.000000	0.000000	
-30.68367	-21.05788	1.000000	0.000000	
0.663528	-0.547891	-0.000991	1.000000	
Estimated B matrix:				
3.037527	0.000000	0.000000	0.000000	
0.000000	1.184704	0.000000	0.000000	
0.000000	0.000000	1378.896	0.000000	
0.000000	0.000000	0.000000	6.044421	

Source : Proceed by author

From the results of table 1 that has been in the show, how, the probability value for the matrix model C (i) as visible. The matrix estimation number A and the matrix estimation number B are significant, thus the results can not be determined, because the p value does not appear from the model in the proposal. So we can make sure the model in the proposal is not correct. The IRF FEVD analysis is used to view the continuation of the analysis model for short or long term analysis within the proposed SVAR model, as presented in Table 2 and figure 1 below:

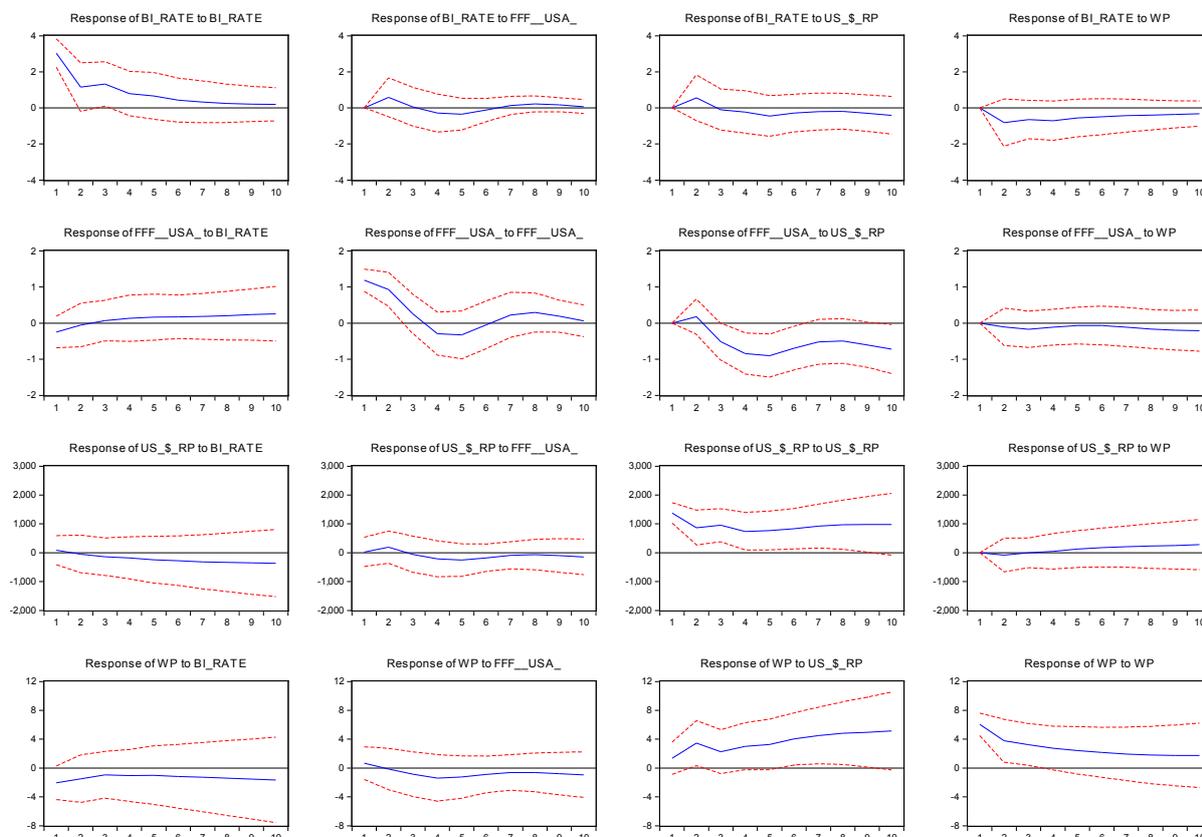
**Table 2** Result for FEVD on SVAR Model short run analisys

Response of BI_RATE:				
Period	BI_RATE	FFF__USA_	US_\$_RP	WP
1	3.037527	0.000000	0.000000	0.000000
2	1.147713	0.583851	0.558856	-0.820031
3	1.321999	0.055468	-0.100217	-0.652667
4	0.789536	-0.287872	-0.236679	-0.712479
5	0.659244	-0.349011	-0.452346	-0.563114
6	0.429393	-0.123097	-0.289504	-0.493035
7	0.328922	0.125001	-0.210823	-0.433746
8	0.246110	0.222632	-0.188880	-0.403594
9	0.213805	0.169486	-0.296365	-0.366556
10	0.192420	0.070815	-0.414743	-0.322693
Response of FFF__USA_:				
Period	BI_RATE	FFF__USA_	US_\$_RP	WP
1	-0.246781	1.184704	0.000000	0.000000
2	-0.054947	0.926044	0.179646	-0.108706
3	0.066088	0.253405	-0.515271	-0.174418
4	0.133821	-0.294994	-0.845480	-0.115982
5	0.164611	-0.329602	-0.902370	-0.069423
6	0.169420	-0.047041	-0.692689	-0.066195
7	0.183202	0.225927	-0.520451	-0.110839
8	0.205969	0.292707	-0.497324	-0.165078
9	0.233210	0.189523	-0.602323	-0.199787
10	0.253874	0.061770	-0.721987	-0.210272
Response of US_\$_RP:				
Period	BI_RATE	FFF__USA_	US_\$_RP	WP
1	88.00576	24.94736	1378.896	0.000000
2	-47.17810	190.0724	866.7500	-80.53614
3	-137.9651	-55.19640	950.3978	-3.631262
4	-182.6440	-212.0156	735.9143	48.93634
5	-243.4690	-254.8827	769.3456	124.6090
6	-281.8265	-176.8618	828.9266	175.4896
7	-315.9179	-93.12523	923.7851	207.9300
8	-335.2796	-67.40779	967.2353	229.6962

9	-350.3550	-100.8037	978.1032	251.9631
10	-363.2238	-149.6658	980.4891	278.1253
Response of WP:				
Period	BI_RATE	FFF__USA_	US_\$_RP	WP
1	-2.063495	0.673807	1.366237	6.044421
2	-1.486515	-0.149950	3.444947	3.779275
3	-0.949927	-0.861065	2.269842	3.244021
4	-1.045965	-1.400534	3.011124	2.760058
5	-0.999479	-1.255372	3.265180	2.436569
6	-1.163432	-0.890171	4.040422	2.162894
7	-1.266521	-0.623439	4.495251	1.945455
8	-1.405560	-0.627320	4.815038	1.799379
9	-1.527274	-0.789085	4.963237	1.738820
10	-1.663688	-0.938528	5.136699	1.743431
Cholesky Ordering: BI_RATE FFF__USA_ US_\$_RP WP				

Source : Proceed by author

**Figure 1** Result for IRF on SVAR Model short run analysis  
Response to Cholesky One S.D. Innovations  $\pm 2$  S.E.



Source : Proceed by author

The FEVD and IRF results in Table 2 and Figure 1 show that the relationship between BI\_Rate, FFF, exchange rate and world oil prices is explained from period 1 to period 10, as illustrated by the response rate generated. Likewise for the movement of impulse response from the first period up to the tenth period that looks far away for the overall variables in the perusal.

## CONCLUSION

From the research that has been done, the conclusion that the proposed model is less precise, so that SVAR produced less able to provide adequate opinions. However, from FEVD and IRF in the show can explain how the variables in carefully away from the balance point, for each variable for the period of the first to the tenth period. In response, the response to varabel from abroad affecting the state of Indonesia's monetary condition is explained from FEVD and IRF. According to the author of this analysis can be used if the model SVAR in the proposal has met the right form.

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# REFORMS OF THE COMMUNITY AGRARIAN POLICY: MISCONCEPTION OR NEW AGRICULTURAL ARCHITECTURE?

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## SUMMARY

The European Union is the most complex and by any aspect the most unique example of a regional economic integration. Its origin, evolution and survival are based on a common legislative and institutional framework. The so-called common policies implemented in a number of economic and non-economic areas are particularly distinctive. Most of them are implemented on two levels: national and communal. The only common policy that is fully implemented at the European Union level is the Community Agrarian Policy (CAP), whereas the agriculture has the highest expenditure in the communal budget. The function of CAP is primarily economic as its goals are strictly related to economic issues: price stability of agricultural products, productivity growth, higher wages for the farmers, etc. The CAP strengthens the Union's social cohesion, which is of utmost importance in times of constant crises, BREXIT and other extreme instabilities. For this reason, the CAP has been in the processes of continuous reforms (MacShary, Mansholt and those of recent times) for decades, in order to increase its efficiency and justify enormous financial investments. The CAP results depend on the achievement of preset objectives and the exchange of agricultural products and food that the European Union generates globally. It has been demonstrated that the CAP is a significant common policy, both in achieving economic goals and in the sphere of strengthening communal cohesion.

**Keywords:** Community Agrarian Policy, European Union, reforms, goals of the CAP, agriculture.

## INTRODUCTION

Although it has a small share in total GDP in developed countries, agriculture is a strategically important economic sector. For example, in the European Union (EU), agriculture generates about 2% of GDP, but employment in this branch is higher and accounts for about 4%. Due to such relations, production and employment in agriculture are not equally relevant. Alongside with economic potential, the agricultural population acts both as an important demographic resource and as a compact political factor, much more homogeneous than other social groups. It is precisely because of such values, back in the time of creating the Community that farmers from the founding countries accepted European integrations and because of the promises that they will thereby protect their financial status and ensure development of the agricultural sector and agriculture as a whole in the long term.

The term „modern agriculture” speaks of a reformed and technologically advanced branch. Developed countries have modern agrarian economies under continuous reforms (Zakić and Stojanović, 2008, pp. 10-15). The first modern reforms were carried out by the United States. In the mid-1950s, the primary agriculture is subject to structural and other reforms, mostly under the pressure of the increasing technical progress. At that time and even today, the United States boast a more efficient agricultural sector than Europe (except for Britain and to some extent - France). Although it is the leader in trading agricultural products and food, the productivity of EU agriculture is lagging behind the US. The growth of technical and technological progress improves production. A modern farming sector is unthinkable without business firms working for the sake of production and marketing of agricultural products. Modern agriculture is considered to be more influential than a mere sum of farms, warehouses and intermediaries.

Thus, for example, the American definition of agribusiness perceives the sum of activities related to the production and distribution of agricultural products. According to them, modern agriculture consists of family farms and large companies, food industry, trade, banks and marketing companies, equipment and machinery, catering, etc. Therefore, agriculture does not include only physical and biological production. That is the reason the economic policies deal with this sector, i.e. sectorial measures of the so-called agricultural policy. These measures in the EU mainly include subsidies, pricing policy and protection, as well as other support instruments.

## **GENESIS AND EVOLUTION OF THE COMMUNITY AGRARIAN POLICY**

Community Agrarian Policy (CAP) is the oldest common, or community policy. Since its creation, there has been a question of supporting this branch. Nowadays, agriculture is an autochthonous, traditional, but also the most controversial policy in the EU. Although its share in the GDP is relatively low, the budget for supporting agriculture is still extremely high. In the period 2007-2013, although being the largest, the budget for agriculture has been slightly reduced, while in the period 2014-2020, it has managed to retain the same level. Today the CAP is fully implemented at the EU level and firmly incorporated into the intra and extrapositions of the Community.

The Treaty of Rome mentions a community agrarian policy, but not the methods of its organization. It only strengthened support for integration. At that time, the EEC members had a significantly higher share of agriculture in GDP and employment (in France, Germany, Italy, the Netherlands and Belgium, its share in GDP was about 10%, whereas the employment amounted to about 20%). Later, the Treaty of Amsterdam emphasizes the need for production growth and higher standards, better supply and stable prices. Initial and additional goals evolve from the traditional to modern agriculture, that was initially protected by import duties, barriers and other incentives in the EU.

The Summit in Streza (1958) provided contours and principles of the CAP by emphasizing the issues of agricultural development: a unified market and free intra-trade of agricultural products and food without customs duties, taxes, quotas and other restrictions, giving priority to the Community products and financial solidarity of CAP costs. Therefore, a unified market for agricultural products was to be formed with the priority given to domestic products.

The Community Agrarian Policy was de facto launched in 1962 through the cooperation and partnership of agriculture and society, that is, the Union and its farmers. A common goal, with the growth of productivity, was sublimated in safe and affordable food supply and the assumptions for achieving reasonable farmers' earnings.

Later, (in 1964), the Commission proposes to the Council a Community Agrarian Policy, which rapidly gave birth to collecting import duties (levies) and subsidies for most agrarian products, whereas foreign trade moves to a controlled regime of export incentives and high import duties. With minor changes, this system managed to function for almost three decades. It was a period of enormous growth in production and export, but also a year with unwanted surpluses of agricultural

products and food.

MacShary Reform reforms of CAP (in 1992) were confirmed in the Maastricht Treaty, adding “including rural areas.” The accompanying Maastricht document is Delors II Package, in which rural development encourages the stay of landowners on their land, diversifies production, community development planning and environmental protection (European Commission).

Agenda 2000 is the most important document of the Commission following the MacShary Reform (in 1992) on the future of the CAP. It opens new prospects for rural development and affirms economic and social cohesion. The Council of Europe (end of 1997) at the proposal of Jacques Santer adopts AGENDA 2000 as the basis of its reform. The Agenda is a program of strengthening the community policy followed by Structural Funds. It puts emphasis on the living standard of the farmers, competitiveness without high subsidies, as well as environmental protection, quality and product diversification (Barnes and Barnes, 2009).

Reforms have been on the rise, but it should be noted that some changes took place due to the pressure of GATT and the WTO, because in the final rounds, there have always been negotiations on reductions in interventions in agriculture.

The Cork Declaration was adopted at the European Conference on Rural Development, where political directions of further activities in the implementation of rural policy were adopted (Plumb, 1996, p.7-9). It confirmed that citizens of the Union should pay for sustainable growth, higher quality of life and a balanced social situation

Fischler’s Reform (1999) foresees that agricultural expenditure may increase up to 74% of GDP growth. Price reductions in the Berlin Agreement (1999) are not new to the CAP reforms, as the weakening of price support began with the MacSherry Reform (in 1992). Nevertheless, the reduction was not that significant to cause higher level import to occur. Fischler’s reform also stimulates specific areas (mountains-hills or the ones featuring severe climatic conditions). The goal of the reforms from Berlin is to adapt the CAP to the eastern extensions. Through amendments, the Council adopts the Berlin Agreement as a compromise, whereby the intervention prices of cereals are reduced by 15%, with increase in direct payments to farmers. However, the reductions in the price of agricultural products in the Berlin Agreement were not new, as it has been stated before, the reduction in incentives for intensive production had already been introduced through MacShary Reforms when farmer incentives were increased, with reduction in price support and direct payments to producers.

Reforms from 2003 introduced income support, whereas subsidies became separated from production. Farmers became eligible for income support, but under the condition to take care of land, animals, environmental standards and product safety.

The continuity of reforms continued in 2008 with the introduction of the so-called health check instruments. The second pillar of the CAP included issues of climate change, environment and biodiversity, as well as the production of renewable energy. The key items of health check strategies include: distinction of payment for production, support for sectors with specific problems, gradually abolishing milk quotas by 2015 and increasing assistance for young farmers.

The new reforms (from 2011) have been aimed at strengthening the competitiveness of the agricultural complex, growth of technical progress and innovation, as well as the prevention of negative effects of climate change and the growth of rural employment. Modern CAP consists of three interactive dimensions: market and income support, and rural development. At that time, 12.2 million farms were registered in the EU, which accounted for 174.1 million hectares of land, or two fifths (about 40%) of the total area (2010). An average of 14.2 ha of farmland was cultivated (European Commission). In 2012, 10.3 million (full time) workers were registered.

Despite the reduction of the CAP allocations, they are still the largest. From year 2007 to 2013 they were slightly reduced. In the period 2014-2020, there has been a stagnation trend. From 2007 to 2013, CAP funds without rural development were reduced by about 3%, whereas the share of agriculture and rural development in the EU budget decreased from 45% (2006) to 31% (2013).

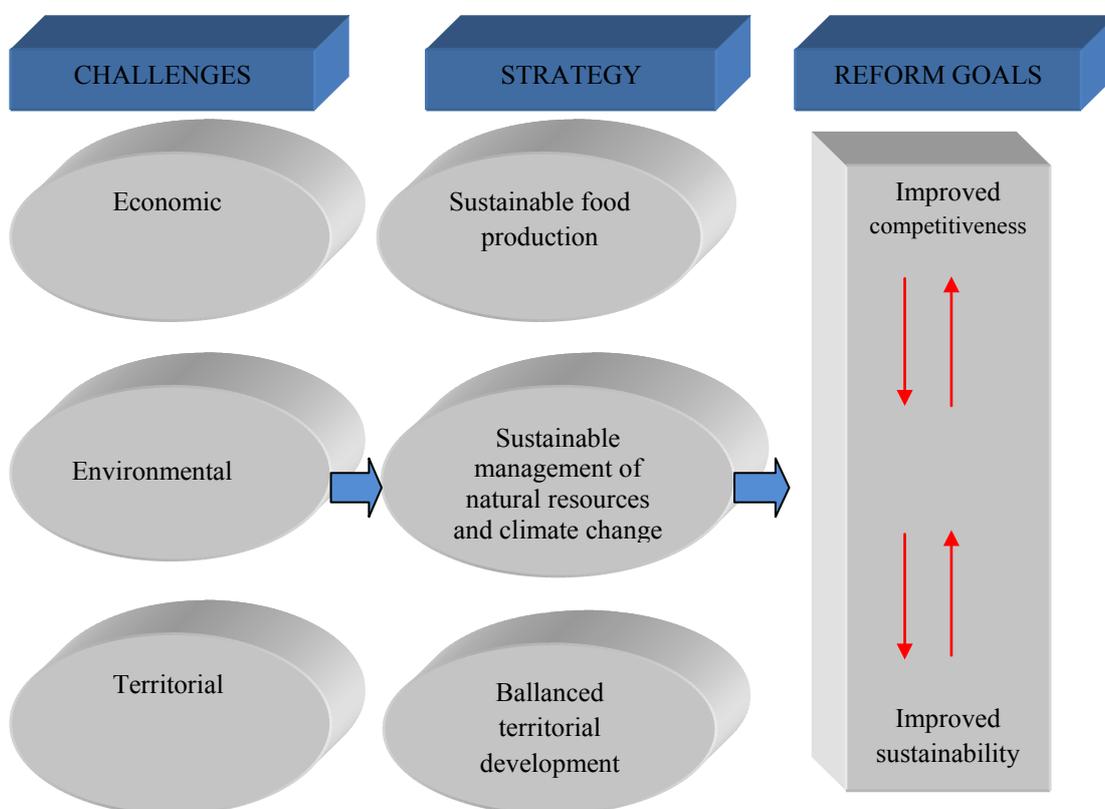
Deep reforms of the payment system have also been made.

A part of the subsidies was transferred to the “rural economy” due to the circumvention of the WTO rules. In doing so, the EU’s relations with the WTO remained undisturbed, whereby the village started developing in a new way. This refers to an indirect support to the village and the strengthening of economic and social cohesion. Thus, it allowed for interventionism to be introduced into the agricultural production and rural economy in a “circumventive” manner.

The new reforms (confirmed by the discussion on the new CAP) emphasise the following: increasing the competitiveness of European agriculture, creating a more just and diversified agrarian system, better attitude towards climate and protecting natural resources, as well as improving relations in the food chain (Mikuš, Franić, Ramani, 2010, pp. 345 -358). At the end of 2013, the European Union published four directives of the new CAP, which include: rural development, horizontal issues such as e.g. financing and control, direct payments and market measures.

The new CAP (after year 2013) is demonstrated in the following figure:

**Figure 1.** Community Agrarian Policy after 2013 (Agriculture policy and perspectives).



requirements and terms of labelling. It is easier to trade in the intra-market, the information on the origin of goods, varieties, production method and price are much better. Namely, organization of the market is a set of legal regulations for a product on the regulation of production and sales in the euro market (prices, purchase guarantees, sale of food to non-members, etc.). There is a gradual transition (after 2008) from different product categories (21 markets) onto a unique organization of the market for all products.

## **GOALS, INSTRUMENTS AND RESULTS OF THE EU CAP**

As stated before, the general goals were defined by the Treaty of Rome. By introducing the CAP, the Commission became in charge of proposing measures and goals of the CAP: to supply throughout the Union and stabilize the common market with agricultural products and food at “affordable prices”, to increase productivity with the rational use of inputs, stimulate the growth of technical progress, and ultimately ensure the growth of farmers’ living standards. The starting goals could be achieved by price policies, stimulations, favourable financing, various barriers, etc.

Nowadays, the Union has a developed system of financing agricultural production. Most of the initial goals have been accomplished, thereby placing the updated goals under the limelight. New goals have been added to the new reforms: strengthening competitiveness, implementing a more just and diversified agrarian system, caring for climate and natural resources, improving relations in the food chain, caring for the quality of the production process and finished products, etc. The European Union in the four directives of the new CAP (2013) emphasizes investments in rural development, financing and control, direct payments and market measures. Price policy is still a precondition for the stability of material and financial balances, and monetary compensations have also been affirmed in the Union.

## **RESULTS AND CONSEQUENCES OF THE IMPLEMENTATION OF CAP**

The European Union has taken advantage of the past 5-6 decades and has managed to apply protectionist and other measures in agriculture for the purpose to achieve global leadership. Today, the EU produces most of the food products which it has natural preconditions for. The EU meets domestic demand while exporting large quantities as well. By achieving self-sufficiency in agriculture, the EU has managed to meet the primary goal of the CAP. More so because at the time of the formation of the Community, domestic demand was not met. However, nowadays food surpluses have led the EU to become the global leader in trading these products. Its participation in the world trade in agricultural products is high and is continuously increasing. In order to preserve such status, the EU continues to hamper global competition.

In the early stages of the CAP, farmers started introducing new machinery, artificial fertilizers and protective agents. Due to the rapid increase in productivity, there have been cases of unwanted food surpluses. In addition to the above, CAP improved the social status of farmers both directly and through diversifying agriculture. It contributed to building of rural economy and infrastructure.

It is considered that the prices of agricultural products and food are “appropriate” to the purchasing power of the Union’s inhabitants. In the meanwhile, there are also CAP critics who believe that the prices of agricultural products in the EU are “unfair and inappropriate”, especially when compared to the import ones. Table 1 and Table 2 show the trends in prices until the outbreak of the economic crisis.

**Table 1** Agricultural production price indices 2001-2008 (2000=100)

GEO/TIME	2001	2002	2003	2004	2005	2006	2007	2008
EU 28 (2000=100)	104,6	104,8	106,5	111,6	112,6	116,1	125,9	144,4
EU 28 (change in %)	4,6	0,2	1,6	4,7	0,9	3,1	8,4	14,7

Source: Eurostat (2008; 2017)

**Table 2** General price index 2001-2008 (2000=100)

GEO/TIME	2001	2002	2003	2004	2005	2006	2007	2008
EU (2000=100)	101,2	103,5	105,6	107,9	110,3	112,7	115,2	119,0

Source: Eurostat (2008; 2017)

The tables show that in the eight year period, the prices of agricultural products and food grew by about 44%, which is cumulatively about 25% more than the general price increase. This confirmed the statements of the CAP critics that the prices of agricultural products and foods were too high in relation to the import ones. The highest growth was registered in 2007 and 2008 and is the result of the global price increase of agricultural products that preceded the financial crisis in the United States.

Self-sufficiency and export depended on total agricultural production. Table 3 shows that the growth of agricultural production before the crisis is significant, but it is nevertheless significantly lower than the price growth of these products.

**Table 3** Agricultural manufacture indices 2001-2008 (2000=100)

GEO/TIME	2001	2002	2003	2004	2005	2006	2007	2008
EU 27 ( 2000=100 )	106,4	103,9	107,9	108,6	106,5	112,2	122,6	129,3
EU 27 ( change in % )	6,4	-2,3	3,8	0,7	-2,0	5,4	9,3	5,5

Source: Eurostat (2009; 2017)

Production of agricultural products follows increase in GDP and industrial manufacturing, as evidenced in below tables.

**Table 4** GDP EU 28 in bn EUR and industrial growth

GEO/TIME	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU 28 GDP	17,834	18,116	16,459	17,653	18,516	18,919	19,021	19,675	20,721	20,887
Index 2010=100	101.9	102.4	97.9	100.0	101.7	101.2	101.5	103.3	105.6	107.6
Industrial growth %	3.7	-1.8	-13.8	6.7	3.2	-2.1	-0.5	1.2	2.3	1.4

Source: Eurostat (2009; 2017)

**Table 5** Gross added value in agricultural industry (bn EUR)

GEO/TIME	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU 28	345.971	365.481	323.550	349.441	383.559	395.476	406.511	399.992	394.112	381.038
Index 2010=100	110,5	105,6	88,5	100	109,7	103,1	102,7	98,3	98,52	96,6

Source: Eurostat (2010; 2017)

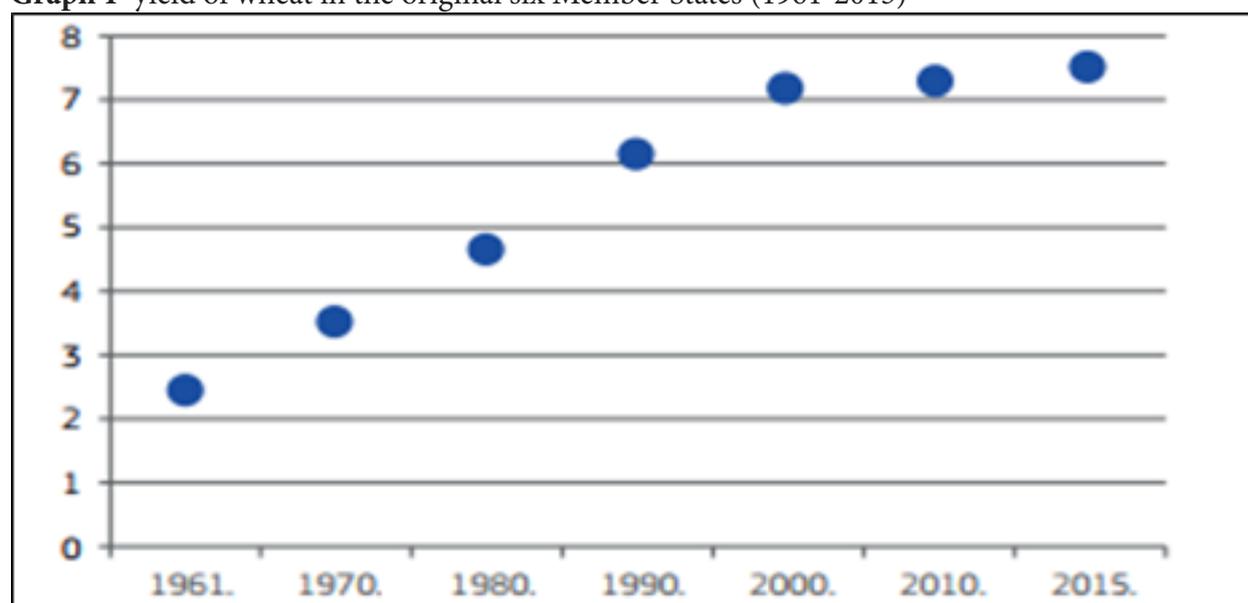
**Table 6** Grain production value (bn EUR)

GEO/TIME	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
EU 28	49.997	52.666	36.095	45.413	56.160	59.662	55.762	52.908	50.438	43.455
Index 2010=100	147,3	105,3	68,5	100	123,6	106,2	93,4	94,8	95,3	86,1

Source: Eurostat (2012; 2017)

The oscillations of GDP growth are more than obvious, but also the stagnation of gross added value in agriculture (2014, 2015, 2016), as well as in the production of cereals, which are the key agricultural product. The cause is global oscillations and natural factors. Additionally, the gross added value of the food production sector has been dropping slightly since 2014.

The primary objective of productivity growth is the achievement of other goals: the correct use of inputs and the increase of technical progress in agriculture. Support has long been focused on technically and technologically prolific productions. The result is high yields in certain productions, which can be illustrated by the high growth in wheat yield in the EU founding countries. Labour productivity in the agriculture EU is on the rise, which is also reflected in the gross added value, as can be seen from Table 5. Although there are oscillations, it is obvious that this indicator is growing in the long run.

**Graph 1** yield of wheat in the original six Member States (1961-2015)

Long-term tendencies in wheat yields for EU founders show growth in productivity. Older member countries nowadays achieve yields of 7t / ha, which is close to the maximum for the European climate conditions and land quality. Decades of investments in CAP have affected yield growth in other plant and animal production as well.

Finally, by intensifying rural development policy, the European Union effectively implements new policies in agriculture promoted by the new CAP. In this context, the highlights are upon the activities and results focused on strengthening competitiveness, introduction of a more just agrarian system and diversifying agriculture, greater concern for preserving climate and natural renewable and non-renewable resources, as well as improving relations between participants in the food chain. Today, the EU achieves maximum quality of production of primary and finished agricultural products.

## CONCLUSION

Although significant oscillations of production growth and prices of agrarian products have been observed, there is still a continuity of production levels and relative price stability. Although, higher price fluctuations give the critics the right to state that the prices of agricultural products and food in the EU are too high, the objectives of self-sufficiency and “acceptable” prices have largely been accomplished. However, due to the low income of the poorest population category, the high share of food expenditure in total consumption is registered. After all, it is well known that lower food prices indirectly affect the growth of real wages.

EU participation in global trade of agrarian products is high and continuously keeps growing. Alongside with the US, the EU is the world’s leading food exporter that dictates global production standards, quality and even the prices of some products. Its companies are present in all markets.

Interests in this area are heterogeneous, meaning it is natural that the standpoints of the CAP are contradictory. Therefore, the social significance of the CAP’s influence on the social sphere is controversial. Nowadays, CAP measures directly affect the social status of farmers and the economic environment in (and around) agriculture. The growth of farm incomes intensified the growth of the rural economy, infrastructure, environmental protection and the improvement of living conditions in the countryside. All of the above affects the development of the food industry.

The use of new production methods in agriculture affects the continuous growth of productivity. The new CAP is three-dimensional and includes market support, income support and support for rural development. These dimensions are interactive. Market support is specific. Income support for direct payments stimulates farm income growth and stimulates organic production. Rural development, as a third dimension, has been intensively implemented within the CAP, as well as within regional policy and other communal measures. The Union successfully implements the CAP measures foreseen by the new reforms. Although it is difficult to accurately determine the effects of centralizing agricultural policy, it can be concluded that European production of agricultural products and food without CAP would be quantitatively and qualitatively at a lower level. Community Agrarian Policy is an important economic and cohesion factor, especially in periods of crisis, economic and geopolitical instability. However, as it has been already pointed out, the views on the CAP are often opposed, meaning that the controversies about the significance and impact of the CAP on the economic, social and cohesion aspects of EU member states do not pose a surprise..

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# DIGITAL TRANSFORMATION AND ITS INFLUENCE ON GDP

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## SUMMARY

Digital transformation as integration of digital technology into business results in fundamental changes of way world does business, communicate and develops on national and international level. There is increase of high-tech public spending which is connected with increase of need for high-tech as well as importance and benefits that it brings to development of economy. This so called digital or high-tech sector is one of the strategic sectors in the leading world economies, starting from the US and the European Union. EU recognized it in strategic document "Europe 2020" which sees this sector as key factor in smart growth based on tech knowledge and innovation. Europe, especially western and northern Europe, is trying to keep its competitiveness in global tech arena with USA and fast developing countries such as China and India as well as Asian tech giants such are Japan, South Korea and Singapore.

There is increase of European countries investment in digital transformation through private and public ICT sector development which usually has positive impact on economic growth as well as key indicators such are GDP, productivity and employment.

This paper provides basic review of digital transformation and high-tech sector in Europe as well as comparison between EU and Western Balkan countries. Additionally, there is analysis of influence of ICT spending on GDP growth. Paper could serve as basic for further research in area of influence of tech investment on key macroeconomics indicators.

**Keywords:** digital transformation, ICT spending, GDP

## INTRODUCTION

Digital transformation as a new and modern term in business and technological literature is usually defined as integration of digital technology into business that results in, sometimes fundamental, changes in business operation and delivery of value to customers. It is affecting not just operational work but also has influence on working culture, human relations and speed of change, on microeconomic as well as macroeconomics level. World is witnessing growth challenges and constant political shocks which sometimes cause hard times for countries' government in dealing with everyday issues as well as development problems. That is forcing countries to look for policies that will stimulate growth and create new jobs – make their economies stronger. Information and

Communications Technologies (ICT further in this paper) is without doubt significant sector in job creation and economy development. However, there is still a certain level of doubt if ICT spending (government as well as private capital spending) has significant or any influence of GDP growth. This doubt is even more important for developing countries in regions with high potential. South East Europe is definitely one of those high potential regions but ICT spending is not on the level of European Union (EU further in this paper) and especially Western Europe and USA level.

ICT is sometimes misinterpreted and mixed with term IT (Information Technology). IT is just one, maybe more important, part of ICT. Second is Telecommunications. ICT is consisted of set of different product and service technologies as well as telecommunication technologies and functionalities. It is not just one of the most important innovation “creators” but also a cause of cultural, economic, political and educational changes. OECD defines it as a “combination of manufacturing and service industries, whose products electronically capture, transmit or display data and information. The production (goods and services) of a candidate industry must primarily be intended to fulfill or enable the function of information processing and communication by electronic means, including transmission and display” (OECD, 2009). For the purposes of this paper, the 2007 OECD ICT sector definition (ISIC Rev. 4) will be used. OECD defines different categories of ICT products: (1) Computers and peripheral equipment; (2) Communication equipment; (3) Consumer electronic equipment; (4) Miscellaneous ICT components and goods; (5) Manufacturing services for ICT equipment; (6) Business and productivity software and licensing services; (7) Information technology consultancy and services; (8) Telecommunications services; (9) Leasing or rental services for ICT equipment and (10) Other ICT services (OECD, 2002). Therefore, investment in ICT should be considered not just as private sector investment but also a public spending in ICT sector and having in mind OECD product categories it is increasingly important sector.

Elena Kvochko, manager of Information Technology Industry at World Economic Forum has identified five common economic effects of ICT (Kvochko, 2013):

Direct job creation

Contribution to GDP growth

Emergence of new services and industries

Workforce transformation

Business innovation

As stated, World Economic Forum has identified ICT sector as one of the sectors that contribute GDP growth. Same article suggest that ICT sector, in the US alone, is expected to aggregate growth of 22% in number of jobs up to 2020, which is more than significant number, and it goes almost up to 760000 new jobs. In Australia, the case is quite similar and it goes around 25000 of new jobs annually created in this sector. Additionally, it will have influence on GDP growth from 1.4% in emerging markets up to 2.5 in China (Kvochko, 2013).

## EUROPEAN TECH SECTOR

Based on Atomico report „The State of European Tech 2016: the future is being invented in Europe“, tech is changing economy in general and sifting not just focus on ICT investment but also on connection between ICT and other industries (ATOMICO, 2016). This report states that Europe tech industry has several characteristics. Since 2011 the number of tech-based startups which are founded in Europe has grown more than three times and just in 2015 tech investment was 2.3bn USD. Europe is becoming recognized by its tech hubs such are London, Berlin or Stockholm. Additional are rising and one of those is without doubt Munich, Zurich, Lisbon and Copenhagen. However, mentioned report does not mention any of East-European cities and definitely none of Southeast-European tech capitals. Furthermore, report states that existing business are investing in

their tech companies and sometimes even acquiring those.

European tech market is quite divided between west and north on one side and south and especially east on another side. Based on European tech funding report 2015 more than 50% of all founding rounds raised by European tech companies happened in just two countries: UK and Germany and three the most active investors in European technology companies were, two from Germany (Gründerfonds and Index Ventures) and one from Nordics' Northzone VC (Wauters, 2016). However, European technology startups raised approximately 12 billion euros in 2015 with the most startups in fintech and e-commerce verticals. George Whiteread from Octopus Ventures predicts that European tech market, especially tech startups will continue to record growth in 2016. In his article "The European investment and technology industry trends in 2016" he notices that sectors as fintech will have continuation of growth and that West Europe, leaded by UK, Germany, Nordics as well as rising France will continue to dominate European tech market supported by adequate public policies that supports this industry (Whitehead, 2016). There is significant data that proves that tech sector in Europe is very important and considered as one of the key industries for European governments.

## HIGH-TECH STATISTICS IN EUROPE – ECONOMIC DATA

High-tech industry is becoming more and more important for global race and European Union as well as other European developed countries (such are Switzerland and Norway) have recognized this industry as potential economic competitiveness factor. EU has recognized this sector as driver for economic growth and productivity and sector that provides high value-added and well-paid employment which has high value for European governments.

Based on Eurostat statistics from 2014 there are almost 46000 enterprises in high tech manufacturing and even more in high-tech knowledge-intensive service sector (Eurostat, 2014). However even statistics prove that there is division between strongly developed West and less developed East and new EU countries. Four countries, Germany, UK, Italy and Poland together have more that 53% of the high-tech manufactures in EU-28 and in high-tech, knowledge-intensive service sector difference is even higher: UK has 180257 enterprises; France 141647 and Germany 112570. As obvious, Poland is exemption but also a model for East and “new EU” countries and represents good example for other east European countries to follow in their tech-developing strategies and policies. Turnover is proven higher in high-tech knowledge-intensive service sector than in high tech manufacturing sector however, there are some exceptions (Eurostat, 2014). Germany’s high-tech manufacturing turnover was in 2014 121 billion euros, followed by France (68 billion euros) and Italy (44 billion euros). Knowledge-intensive services are proved to generate a value of production at least 300% higher than high-tech manufacturing in the several countries such are UK, Portugal, Lithuania, Greece, Spain and Romania. Once more, rich west countries such are UK, Germany, France and Italy are proved leaders in this sector, which is obvious in table with full data from Eurostat statistics.

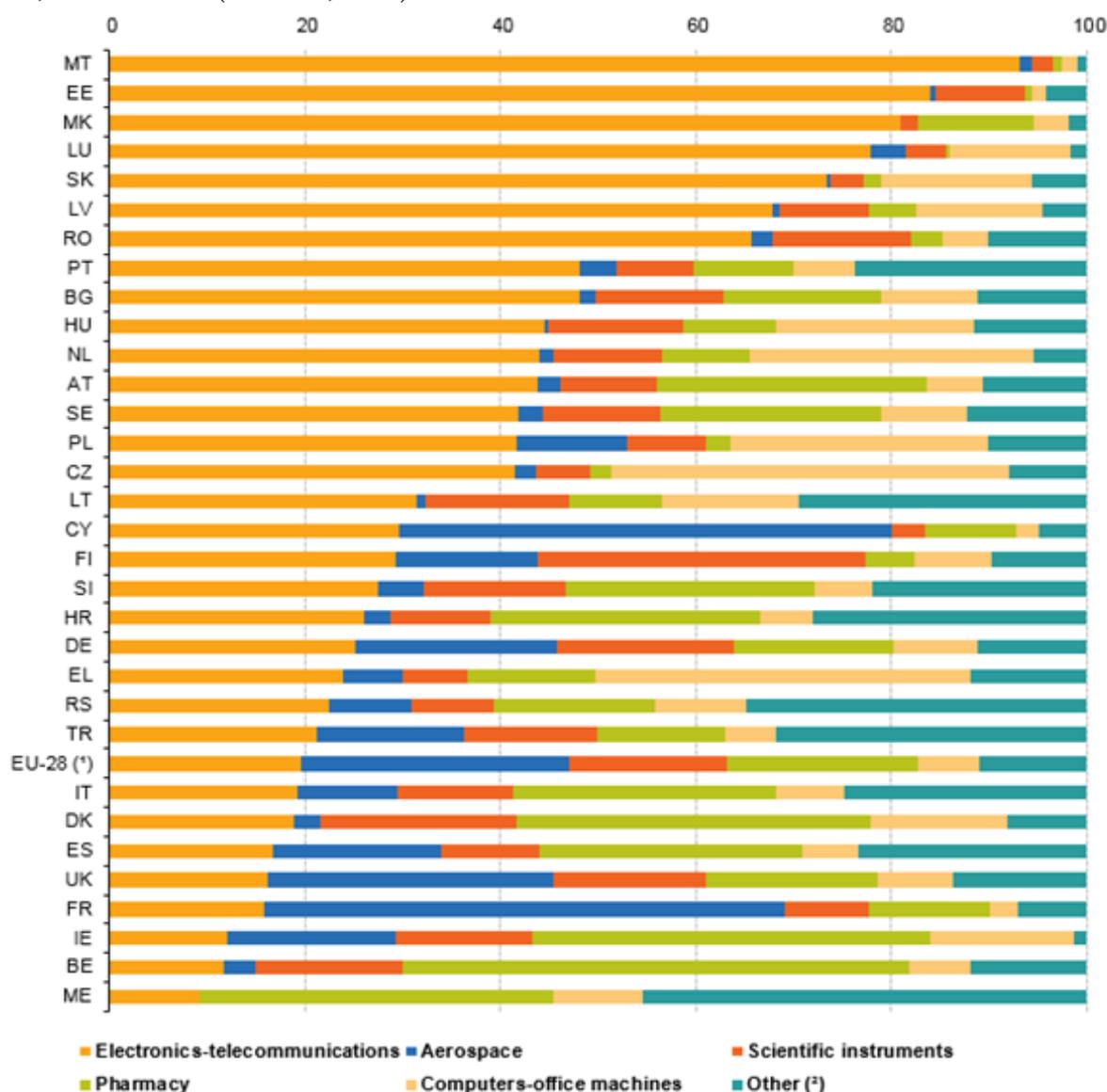
**Table 1** Economic statistics on high-tech sectors in 2014 in EU and some EFTA countries Source: (Eurostat, 2014)

	High-tech manufacturing					High-tech knowledge intensive services				
	Number of enterprises	Turnover (EUR million)	Production value (EUR million)	Value added (EUR million)	Gross investment in tangible goods (EUR million)	Number of enterprises	Turnover (EUR million)	Production value (EUR million)	Value added (EUR million)	Gross investment in tangible goods (EUR million)
<b>EU-28</b>	46.097	p 524.520	p 470.349		18.107					
BE	566	17.425	18.553	7.527	830	28.617	33.549	33.931	14.709	3.234
BG	414		c	c		9.919	3.734	3.571	1.863	389
CZ	3.339	12.065	11.695	1.735	335	31.561	11.633	11.127	5.122	601
DK	648	16.018	15.787	7.580	600	15.115	21.339	18.406	9.836	991
DE	8.827	121.114	110.528	42.906	4.281	112.570	221.094	180.334	109.543	12.193
EE	128	1.871	1.836	170	30	3.875	1.583	1.473	711	108
IE										
EL	295	1.543	1.378	552	122	12.106	7.422	5.555	3.019	545
ES	2.668	17.193	16.234	6.230	598	50.116	68.707	53.443	30.047	2.497
FR	3.178	68.467	60.668	19.614	1.869	141.647	156.964	160.988	69.412	8.957
HR	544	1.126	1.051	447	94	5.383	3.069	2.919	1.452	199
IT	5.453	44.247	42.884	13.962	1.578	100.384	96.813	99.232	44.370	4.864
CY		c	c	c	c	866	1.076	1.030	560	151
LV	171		c	c	c	5.294	1.520	1.424	696	122
LT	168	390	358	138	21	4.803	1.606	1.410	765	130
LU	10		c	c	c	2.009		c	c	c
HU	1.525	13.674	12.036	2.784	438	35.154	10.055	7.432	4.027	707
MT	36		c	c	c		c	c	c	c
NL	1.813	38.930	33.772	5.023		84.213	55.054	51.622	25.412	3.519
AT	688	9.431	8.818	3.902	582	18.321	19.847	14.468	8.887	1.038
PL	3.461	12.857	11.700	2.387	390	73.280	25.283	22.894	11.129	1.618
PT	468	2.740	2.338	711	116	14.726	10.382	10.101	4.594	1.162
RO	990	2.596	2.388	748	191	17.284	8.896	8.637	4.088	1.075
SI	347	2.450	2.331	981	228	8.543	2.982	2.657	1.243	206
SK	796	6.216	5.971	687	123	14.084	5.244	4.721	2.254	428
FI	600	24.491	11.002	2.735	234	9.223	15.592	15.102	7.382	1.299
SE		c	c	c	c	54.120	49.863	40.779	17.451	2.215
UK	6.504	40.922	37.599	16.608	1.380	180.257	248.404	237.656	120.333	15.021
NO	309		c	c	c	14.043	23.175	22.100	10.596	1.338
CH	1.664	105.129	110.403	35.102	3.443	6.470		c	c	c

: Not available  
e Estimate  
c Confidential  
p Provisional

The high tech products industry represents 17% of the value of all exports from EU-28 in 2014, which proves to be extremely important sector. Percentage ranges from 35.3% share in Malta to just 2.9% share in Greece. Again, in a trade sector, Germany is again a leading economy of EU and the most important exporter to the rest for the world in 2015, followed by some other also west European countries such are Netherlands, France, UK. However, although Eurostat notices that in 2015 more than 2/3 of the countries recorded increase of their high-tech export from 2014 levels, EU has recorded deficit with imports around 22 billion euros higher than exports which still emphasis importance of further investments in this sector (Eurostat, 2014).

**Figure 1** High-tech exports by high-technology group of products, EU-28 and selected countries, 2015, in %. Source: (Eurostat, 2014)

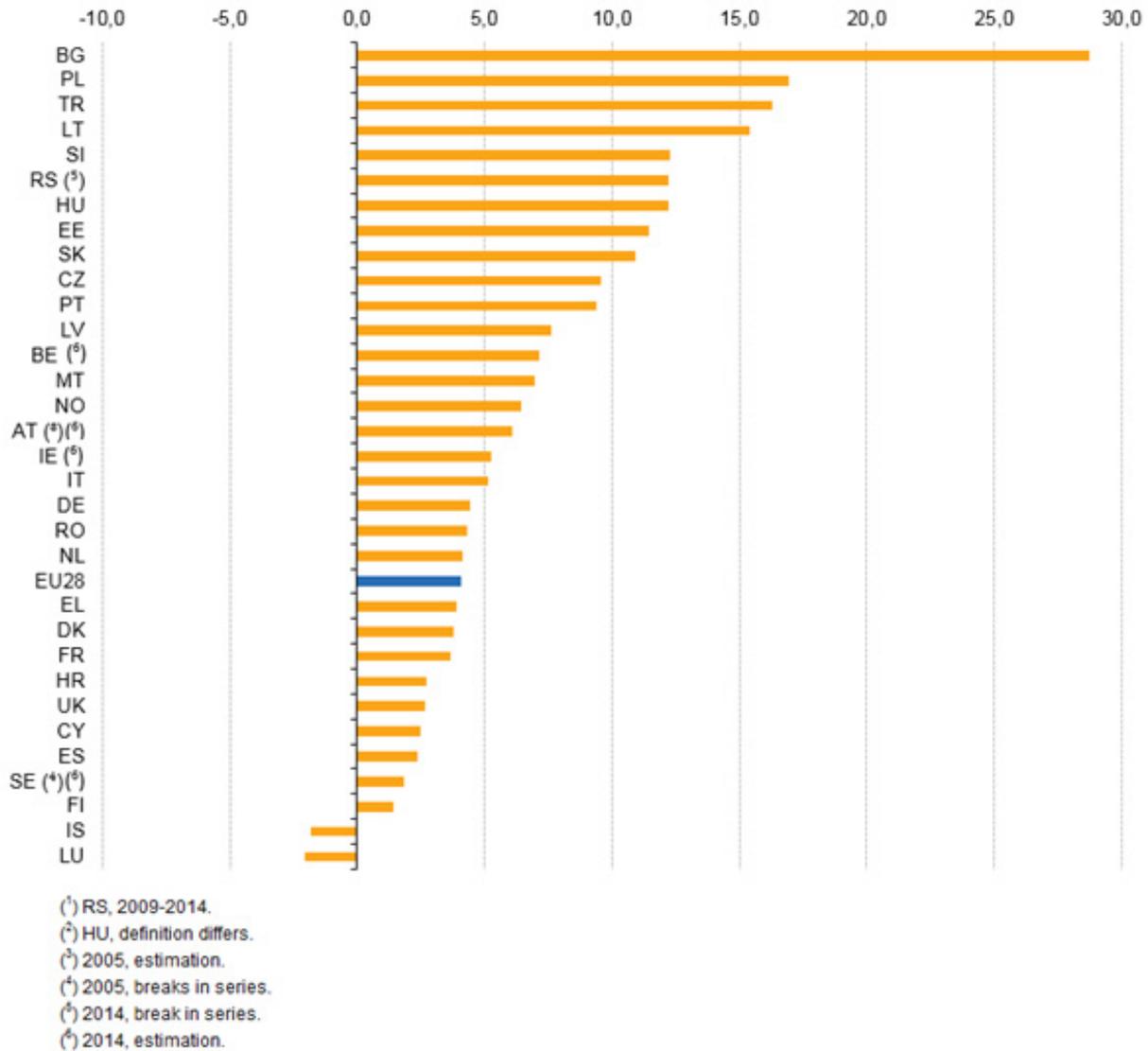


(¹) Extra-EU trade.

(²) 'Other' includes 'Electrical machinery', 'Chemistry', 'Non-electrical machinery' and 'Armament'.

EU has recognized importance of Research and Development (R&D in further text) for tech sector. Based on Eurostat R&D spending has increased by an average of 4% in year 2015/2014 reaching 182 billion in 2014. Again, western countries such are Germany, France and UK accounted for more than half of total R&D spending in 2014 with especially noticeable Germany's 11.5 billion Euros or 20% of its total R&D spending (Eurostat, 2014). UK was leading nation in R&D spending in 2014 with 14 billion euros.

**Figure 2** Average annual growth rate of R&D expenditure in business enterprises, 2005-2014 (Eurostat, 2015)



It is also interesting to analyze venture capital investments (VCI in further text) in EU. Based on Eurostat data in 2015 VCI has reached level of around 45 billion of euros per year (Eurostat, 2015). However, VCI represents less than 1% of GDP in each country except UK in 2007, 2008, 2010 and 2011 and in Luxembourg in 2008. However, level of 45 billion euros is significantly smaller than 70 billion in 2007 before the economic crisis.

**Table 2** Total venture capital investment (VCI), in millions of euros. Source: (Eurostat, 2015)

	2007	2008	2009	2010	2011	2012	2013	2014	2015
EU <sup>(1)</sup>	70.276	51.636	22.816	40.019	44.570	35.275	36.116	38.745	44.497
BE	1.048	636	1.018	476	590	522	925	664	722
BG	39	15	6	5	11	65	2	1	16
CZ	70	40	61	37	193	17	24	14	13
DK	1.334	512	452	439	421	694	1.484	663	1.162
DE	8.083	7.115	2.619	4.826	4.439	5.315	6.146	5.922	5.996
IE	321	75	59	48	65	93	91	138	161
EL	90	234	39	15	9	0	1	0	0
ES	2.923	1.681	959	2.480	1.974	1.475	754	958	1.051
FR	12.725	8.551	3.457	5.959	9.264	5.247	5.925	8.998	9.451
IT	2.839	3.400	1.385	905	1.211	1.192	1.159	735	1.160
LU	68	425	82	101	240	250	71	67	74
HU	48	34	191	45	78	104	22	101	118
NL	2.843	1.763	805	1.326	2.101	1.362	1.002	1.904	1.708
AT	394	214	140	130	124	155	86	106	109
PL	435	727	482	504	692	541	352	337	802
PT	206	399	299	203	442	229	273	237	150
RO	156	123	83	80	48	24	49	41	50
FI	381	487	370	442	437	483	556	566	512
SE	3.010	3.330	1.337	3.135	2.166	2.022	1.557	1.616	1.722
UK	34.012	22.813	9.793	19.534	21.085	16.236	16.086	16.170	20.521
NO	698	770	642	936	706	880	883	1.287	1.165
CH	970	1.084	718	1.555	640	662	609	1.237	640

<sup>(1)</sup> The EU aggregate is calculated based on data available for listed countries.

## EU POLICIES IN ORDER TO DEVELOP TECH SECTOR

EU has developed several policies in order to develop tech sector in Europe and to make it less dependent on products and service from US and other global player's economies. In 2010 EU has developed strategic document "Europe 2020", a strategy which sets out a vision of social market economy in Europe in 21st century. It writes about three reinforcing priorities:

smart growth — developing an economy based on knowledge and innovation;

sustainable growth — promoting a more resource-efficient, 'greener' and more competitive economy;

inclusive growth — fostering a high-employment economy, delivering social and geographical cohesion.

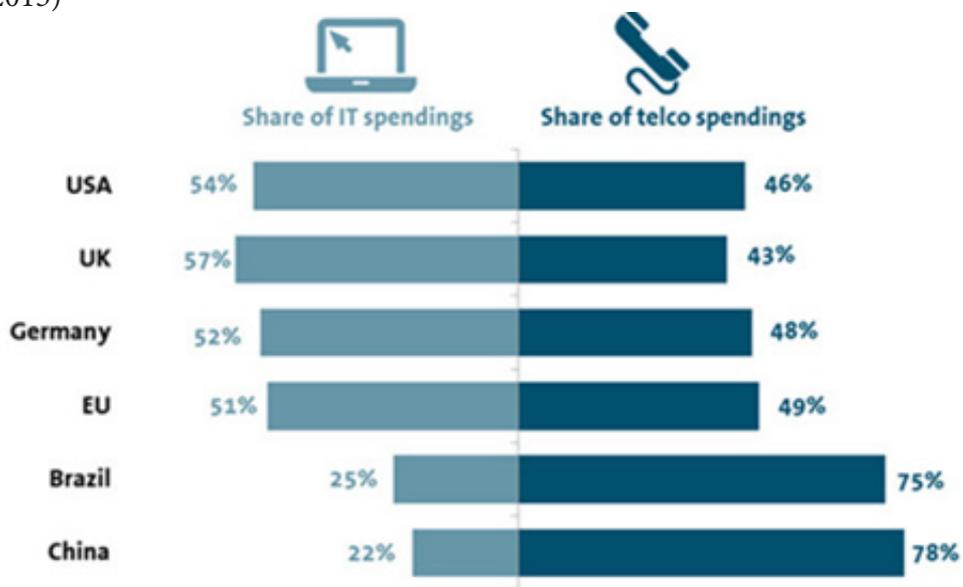
Strategy is developed by the European Commission and it has strengthened by seven flagship initiative of which for the tech sector the most important is "smart growth". Additionally, European Commission Communication published "Regional Policy contributing to smart growth in Europe 2020" which highlights regional contribution and funding to innovation in all regions. A main element of this document it to encourage national and regional government in identification of the key resources in order to identify their own best assets and with focus on limited number of priorities that will ensure the most effective use of public funding but also private investment. Additionally, European Council has published a Communication on "Measuring Innovation output: towards a new indicator" which has a main aim to measures the extent to which innovations are able to reach market in reality and in which amount it makes Europe more competitive. The indicator has been using some of Eurostat's science, technology and innovation (so-called STI) statistics and concepts. It all contributes in strategy development as well as measurements of initiatives in The Europe 2020 strategy as strategy for sectors of the future among tech sector plays important role.

ICT spending per capita in Europe

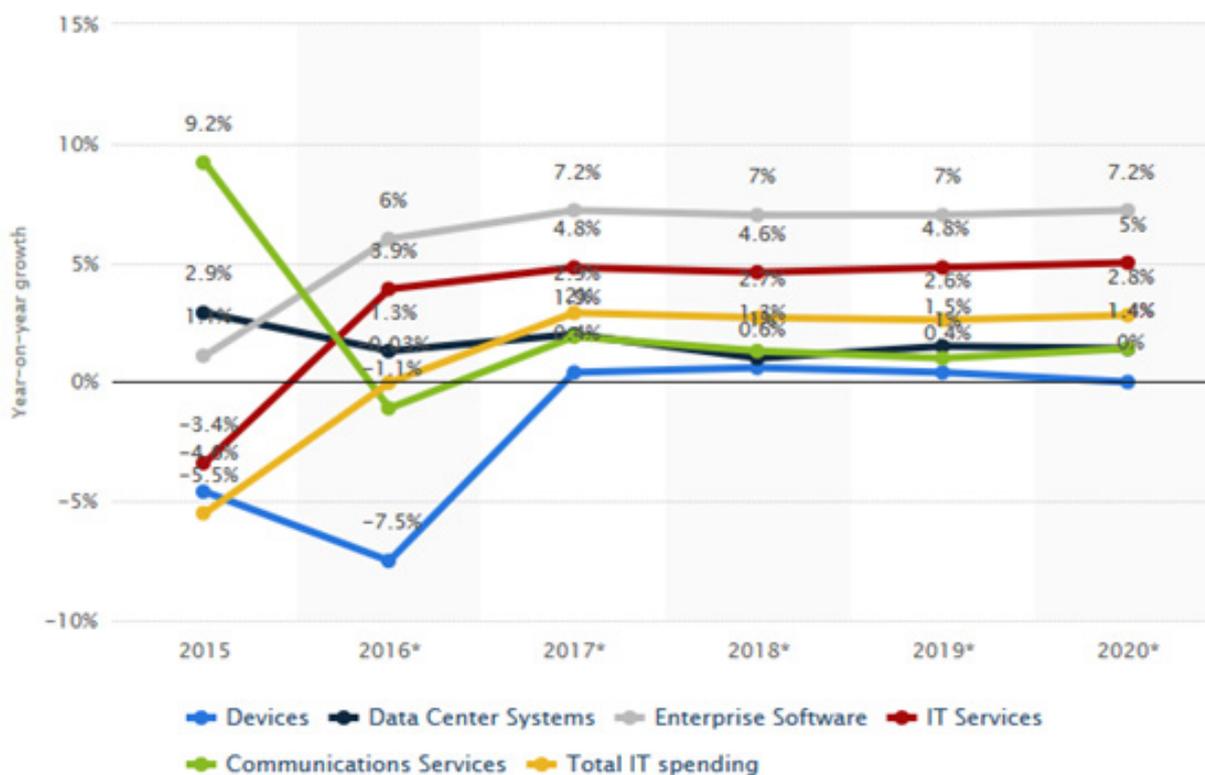
One of the key data in understanding tech and especially ICT market in Europe is ICT spending

per capita. It is data that shows how much money is spent for ICT per capita which is respectful data because it takes to account number of citizen. For example in Europe in 2013 the leading country is UK with 1912 euros per capita spending on ICT which is quite above EU average for the same year (1182 euros). Germany and France are following UK with 1476 and 1413 euros, respectfully. After them, there is Spain with 904 and Italy with 876 euros (Bitkom Research, 2015). But Europe is still losing this battle compared to US market where average is 2468 euros per capita of ICT spending which still makes US as a global leader in tech sector, not just as a manufacturer/ service provider but also as a tech market. Germany as a leading economy is additionally interested for comparison of how this ICT spending per capita is distributed among two parts of ICT. 52% of this spending is spent on IT and 48 on Telecommunication which is quite similar in other western economies. It is different in emerging and fast growing markets such are China and Brazil where is still significantly more percentage spent on telecommunications: more than 70% in both countries (Bitkom Research, 2015).

**Figure 3** Distrubution of ICT spending per capita on IT and telecommunication in 2014 (Bitkom Research, 2015)



But not just that ICT spending per capita has a growth. It is noticable that general ICT spending has a growth which si promising for this industry. Statista predicts that ICT spending from 2015 to 2020 will continue to grow. In 2015 their research confirmed growth by 2.9% on worlwide level (Statista, 2015).

**Figure 4** percentage of year on year growth of ICT spending by segments (Statista, 2015)

ICT spending and GDP per capita in Europe: correlation between ICT investment and GDP per capita growth

Based on Eurostat statistics and research “ICT in Serbia - At a Glance” Europe is quite divided in technological industry. When we compare two above mentioned parameters it is more than obvious that leading western EU countries, such are Germany, UK and France, are far away from western Balkan countries such are Serbia, Bosnia and Herzegovina, Macedonia and Albania (Matijevic & Solaja, 2015). Based on so called Technological map of Europe (which compares GDP per capita and ICT spending) it is easy noticeable that there from four possible quadrants there are only two filled with countries: one where countries have high GDP per capita and ICT spending and another one, where are some of the western countries too, which is quadrat of low ICT spending and low GDP per capita (Matijevic & Solaja, 2015).

Technological map of Europe, comparison of GDP per capita and ICT spending, identifies six tiers (Matijevic & Solaja, 2015):

- Tier 1: UK, Germany and France
- Tier 2: Denmark, Sweden, Nederland, Finland, Austria and Belgium
- Tier 3: Italy and Spain
- Tier 4: Greece, Portugal and Slovenia
- Tier 5: Central and Eastern Europe
- Tier 6: Baltic and West Balkan Countries

It also takes to account how big IT market is based on the size of the circle: from 1 billion to 70 billion.

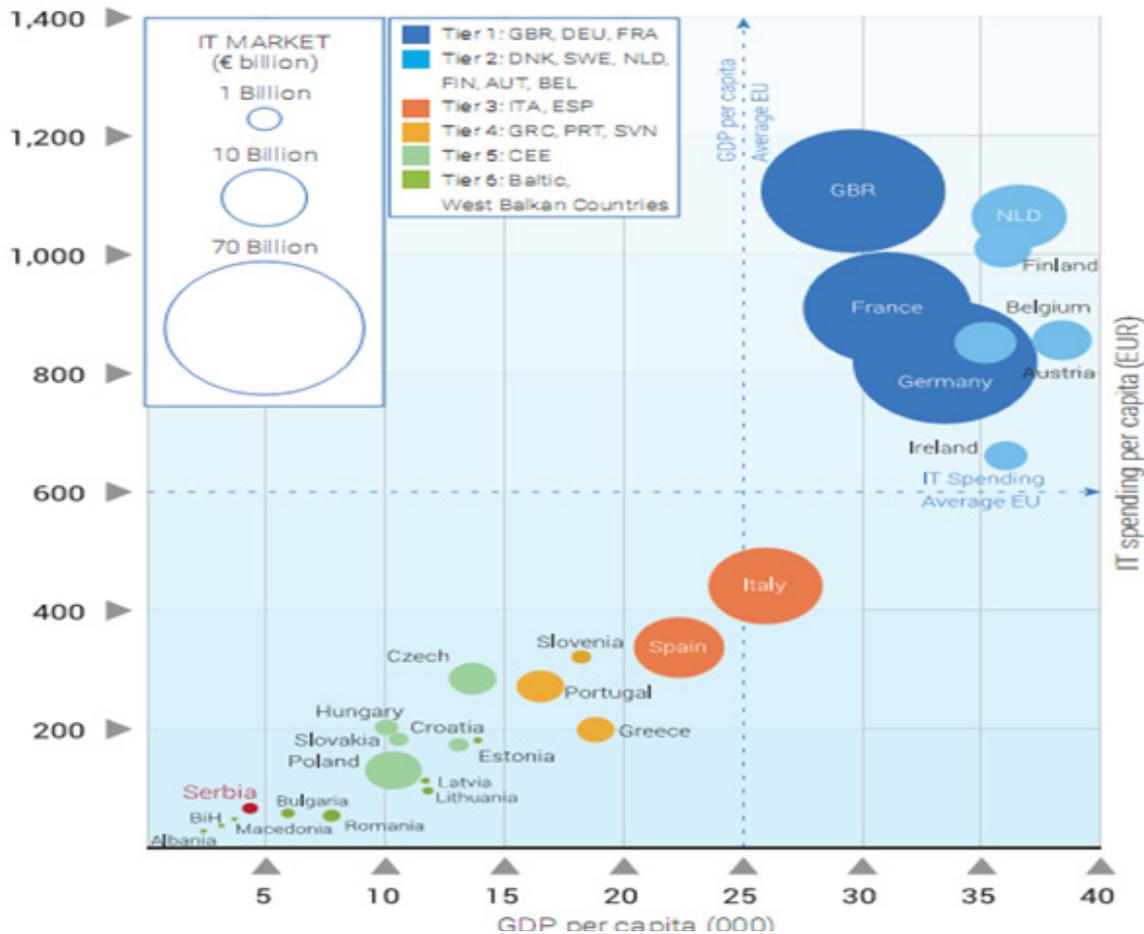
Matijevic and Solaja identify some of the key points of this map:

North and west European countries, part of tiers 1 and 2, have high GDP per capita but also a significant ICT investments,

It is different when we look at south Mediterranean countries such are Portugal, Spain, Italy and Greece which have significantly smaller GDP per capita but also significantly smaller ICT spending, All so called “new members” with maybe except of Slovenia are in the third league and difference in ICT investment is really strong.

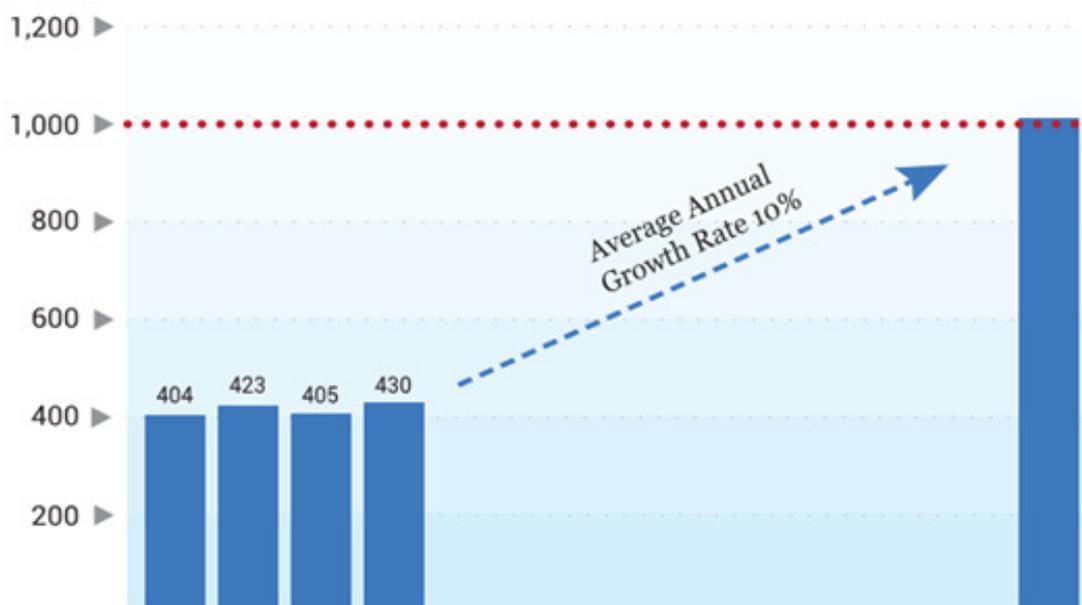
Balkans and Baltics are far away from EU average and there is huge need for significant ICT investments in order to catch up with EU average (Matijevic & Solaja, 2015). Matijevic even suggests that “The Serbian economy and society will avoid further drop to even deeper crisis if the IT investments from present <1% of GDP growth to 2% of GDP in the period 2011-2015”. To jump the EU bandwagon, it is necessary to triple IT investments in Serbia in the same period” (Matijevic & Solaja, 2015).

**Figure 5** Technological map of Europe, comparison of GDP per capita and ICT spending (Matijevic & Solaja, 2015)



Based on above mentioned technological map it is easy to notice that countries with significantly higher ICT spending are those with greater GDP per capita. There are two possible conclusions for this: they have more need for ICT investment due to greater ICT penetration in business as well as in everyday life, or they want, based on public policies and strategic orientation, to develop their ICT sector and make it more leading sector than it is now. Based on this map it is also notable that there are three groups of countries: rich west and north with higher GDP per capita and higher ICT investment, medium Mediterranean countries and less developed eastern and south-eastern countries with strong lag compared to their European neighbors. In the same report it was emphasized for Serbia, which could be almost fully applied to all the other SEE countries, that crucial investment is expected from government spending and investment in order to achieve EU level of IT usage in education, health, public and other sectors. Having in mind that Serbia, as well as other western Balkan countries, is willing to apply for EU membership so therefore, it should has ICT spending on minimum level of EU10 when they joined EU. That minimum is 1 billion of euros (Matijevic & Solaja, 2015) which is cca 150 euros per capita (when we divide it with number of Serbian population). But based on current data for 2015 which tell us that ICT market is only on level of 413 million of euros it leads us that Serbian market should have a rise of more than 10% per year in order to be close to desired level before 2023.

**Figure 6** Trends and Potentials – New IT Goal for the Period 2015-2020 in Serbia (Matijevic & Solaja, 2015)



However, same report predicts that in order to achieve that level of EU10 in 2004 (level of 1 billion of ICT spending) it should be government top priority and should be one of the key sector for not just investments but also for a policy and strategy support.

Farhadi and group of authors in paper “Information and Communication Technology Use and Economic Growth” have proved that there is a positive relationship between growth rate of real GDP per capita and ICT use index (as measured by the number of internet users, fixed broadband internet subscribers and the number of mobile subscription per 100 inhabitants) using Generalized Method of Moments (GMM) estimator within the framework of a dynamic panel data approach and applies it to 159 countries over the period 2000 to 2009 (Farhadi, Ismail, & Fooladi1, 2012). They have also found that the effect of ICT use on economic growth is higher in high income and richer countries rather than other (Farhadi, Ismail, & Fooladi1, 2012).

Dedrick and group of authors also state that ICT investment should not be consider as pure investment in hardware but also investment in telecommunications as well as related software and services (Dedrick, Gurbaxani, & Kraemer, 2003).

Different researcher had focus on influence of ICT investment on GDP growth. Jalava and Pohjola have stated that that ICT is one of two the most important factors in US economic growth in the 1990s. Additionally, they prove that ICT boosts growth in Finland from 0.3% to 0.7% in 1990s (Jalava & Pohjola, 2002).

Schreyer stats that impact of ICT capital to economic growth of some European countries, the United States, Canada, and Japan during 1990–1996 is about 0.17–0.29% (Schreyer, 2000). Daveri expand mentioned Schreyer’s research to additional European and five others countries and proves significantly higher impact of ICT on GDP growth. But both researchers agree it is smaller influence than in the USA (Daveri, 2000). Some authors have doubts regarding influence of ICT investment in less developed or developing countries. Therefore, group of authors suggest that this influence is significantly smaller in developing economies which they suggest is influenced by human capital, knowledge-based structures and small previous IT investment which are prerequisite for productivity of current ICT investment (Dewan & Kraemer, 2000). Some researchers, for example Kiley, state that impact of ICT on economic growth is even negative due to adjustment cost (Kiley, 1999). He suggests that introduction of new technology is imposing large adjustment costs for the economy and decrease economic growth (Kiley, 1999). However, this statement is considered outdated and cannot be taken seriously based on date when it was concluded.

Digital economy and influence of the information and communication technologies to economic growth

Digital economy should be one of the key sectors for economic growth and booster for new employment. In one of his papers Mastilo identifies four key impacts of the digital economy on today's global economy: it created a new use-value of products and services, it has a destructive impact which threatens traditional business, it created a new way of communication and it a chance for creation of new jobs (Mastilo, 2017). In the USA it has influenced in creation of 500000 new jobs which could be also a role model and example for economies of the Southeast European countries (Mastilo, 2017). Some authors stated that the increase of the IT production in economic output may increase the overall level of productivity of a country (Albers, 2006). Some research showed that 22% of the global economy is actually digital economy which proves that countries as well as business and individual should invest more in ICT as a development potential area (Mastilo, 2017). Additionally, same paper quotes Oxford study in 2016 which predicts that the development of the digital economy by 2020 would contribute to the economic growth of 25% (Mastilo, 2017). However, all this requires further research in order to prove that investment in ICT and digital economy can have significant effect to GDP and economic growth.

## CONCLUSION

Forbes has indentified that change in area of digital transformation is going to happen whether you pursue it or not. Government as well as companies and individual should do all they can in order to gain benefits from it in key economic indicators. Real digital transformation requires financial investments and public spending in order to achieve adequate level on development and to have some positive impact on macroeconomic indicators. Although there are researches, reports and studies that correlate high GDP per capita with high ICT investment and spending there is no adequate study which completely confirms that hypothesis. Based on that, this correlation could be result of other economic processes and public policies. Therefore, there is a reasonable level of doubt that high ICT investment has unreasonable impact on GDP per capita. However, technological map of Europe identifies that those countries with high level of ICT investment are those countries that also have high GDP per capita. Therefore, further increase of ICT investments and development of ICT industry should be one of the key priorities in south-east Europe in order not just to achieve level of EU10 countries in 2004 but also to join group of the countries in central Europe with medium GDP per capita and more developed economies. Further investments in high tech sector can just improve digital transformation and with proper use has positive effects on macroeconomic indicators.

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# RELATIONS OF TOURISM AND HOTEL MANAGEMENT WITH RESPECT TO GDP GROWTH OF REPUBLIC OF SRPSKA

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## SUMMARY

Tourism is the fastest growing and one of the most profitable industries in the world, with countless opportunities for the economic development of the regions.

One should not view tourism and hospitality as separate concepts, since one can neither exist nor can be sustained without the other.

A tourist, besides wanting to see and get to know the attractiveness of a place, wants to be offered a satisfactory level of basic (food, accommodation, transport) and additional (entertainment, recreation, shopping. . .) services which will certainly have an influence on his satisfaction and the desire to return.

If we don't turn to socially responsible behavior, we will lose the conditions for the development of tourism, and therefore a possible basis for social and economic prosperity as a result of such a sustainable tourism.

Globalisation also appears as a threat of uniformity of everything that surrounds us, because different societies, economies and cultures are increasingly intertwined and thus endanger the identity of one nation, its customs, folklore and overall cultural creativity.

**Keywords:** tourism, hospitality, tourist, globalisation

## INTRODUCTION

Tourism is the fastest growing and one of the most profitable industries in the world, with countless opportunities for the economic development of regions. Current time of rapid changes requires restraint when it comes to making short-term, and especially long-term forecasts, since a large number of factors influence tourism events, so a realistic objective forward view is available only for a very short period of time. Tourism and hospitality should not be considered as separate concepts, since one can neither exist nor can be maintained without another. The tourist is primarily motivated to the travel by natural and cultural attractions, and in order to realise the journey, a tourist suprastructure is needed, among which the greatest influence have transport, food and accommodation. The tourist, in addition to the desire to see and get acquainted with the sights of a place, wants to be offered a satisfactory level of basic (food, accommodation, transport) and supplementary (entertainment, pastime, recreation, shopping ...) services that will certainly affect

his satisfaction and desire to return again. The fact is that the increasing pollution of the Earth encourages tourists to “escape” from the polluted environment in an environmentally unpolluted areas where they can regain a peace of mind and find a place where they can recreate, rest and recharge their batteries. But the question is, in fact, how long we can still “rejoice” in ecologically untouched areas, because man has proved to be insufficiently responsible to preserve and help nature retain its original appearance. It’s the same with cultural and historical heritage, monuments, temples, buildings of exceptional value for the history of a nation where little attention is paid to their preservation as a base for the development of tourism. If we do not turn to socially responsible behavior, we will lose the conditions for the development of tourism, and therefore a possible basis for social and economic prosperity which comes as a result of such a sustainable tourism.

Globalisation also appears as a danger of the uniformity in everything that surrounds us, as different societies, economies and cultures are increasingly intertwined, thereby endangering the identity of one nation, its customs, folklore and overall cultural creativity.

## **GENERAL DETERMINERS OF TOURISM**

### **CONCEPT OF TOURISM**

Tourism is an act of travel with recreation as a goal, as well as the use of various services related to this goal. The word “tourism” comes from the French word *tour*, which means travel, sightseeing, excursion.

A tourist is a person traveling at least eighty kilometers from a place of permanent residence for the purpose of recreation, as defined by the World Tourism Organisation.

A more comprehensive definition would be that tourism is a service industry consisting of a number of tangible and intangible elements. The tangible elements include:

- transport system - air, rail, road, water and more recent, space;
- hospitality services- accommodation, food and drinks, tours, souvenirs;
- related services - banking, insurance as well as safety and security.

Intangible elements include: rest and relaxation, culture, adventure, new and different experiences.

According to the latest data from the World Tourism Organisation (WTO)<sup>1</sup> in 2007, 898 million tourists participated in international tourism, and annual growth rate of 6.50% was recorded in the period from 1950 to 2007. The estimates of the World Tourism Organisation are that by 2020, the number of tourists participating in international tourism could amount to even 1.6 billion.<sup>2</sup>

### **CHARACTERISTICS OF TOURISM**

Basic characteristic of tourism are:

- diversity or heterogeneity (a large number of different services used by tourists);
- non-productive character of work (services provided can not be felt or stored before use);
- seasonal character of business (large concentration of tourists in a certain period of the year);
- a high degree of elasticity of demand (tourist demand is sensitive to the changing circumstances under which travels take place);
- inelasticity of the offer (tourist offer can not be changed in the short term).

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1 <http://media.unwto.org/>

2 Ogorelc, A. (2001): International tourism (Mednarodni turizem), Economic and business faculty, University in Maribor, Maribor

## DEFINITION OF TOURISM

Universal definition of tourism: “Tourism is a set of relationships and phenomena occurring during travel and stay of foreigners in a place if that stay does not mean permanent residence and is not linked to earning of profit.” (Kurt Krapf and Walter Hunziker, 1942). This definition was recognised by the International Association of Experts for Tourism in 1971, although it only applies to foreign tourists.

## DEVELOPMENT OF TOURISM

Tourism is a modern and massive socio-economic phenomena, but it is not new. Its development began at the same time three basic conditions for tourist movement were achieved:

free time - a time when it is possible to engage in tourism;

money - surplus of money needed for tourism;

infrastructure - facilities for providing hospitality services to tourists.

The World Tourism Organisation predicts that international tourism will continue to grow at an annual rate of 4 percent. By 2020, Europe will remain the most popular tourist destination, but its share will fall from 60 percent in 1995 to 46 percent. The number of long-distance trips will grow slightly faster than the interregional, and by 2020 their share will increase from 18 percent in 1995 to 24 percent.

The share of space tourism should significantly increase in the first quarter of the 21st century, although compared to traditional forms of tourism, the number of tourists in orbit will remain small until technologies like space lift do not make travel to space more profitable.

Over time, there have been setbacks in the development of tourism, among the latest is the one related to the 11th September 2001 attacks and terrorist threats to major tourist destinations such as Bali and European cities. Some of the famous tourist destinations, including Costa del Sol, the Balearic Islands and Cancun, have lost their popularity as tourist destinations, with a change in world tourism trends. In this context, excessive construction and destruction of the natural environment often associated with the traditional type of tourism (“sun and sea”) can lead to significant degradation of tourism at that destination. Something like this happened to the famous Spanish resort of Costa Brava, which in the 1960s and the 70s was synonymous with this kind of tourism while the tourism industry of this region is facing a big crisis today.

When on 26th December 2004, tsunami caused by an earthquake in the Indian Ocean hit the coastal states, tens of thousands of people were killed, including a large number of tourists. This, together with the massive operation to cleaning the coastal area from the effects of the tsunami, has halted or significantly slowed down the development of tourism in this area.

## FIRST ORGANISED JOURNEY

Wealthy people have always traveled to distant parts of the world to see glorious buildings or works of art, to learn new languages or to get acquainted with other cultures.

The first organised trip is connected to the name of Thomas Cook. He organised the transport of 570 tourists, who in 1841 were supposed to participate in a congress. That was the first time when a price discount was granted for a group trip. Cook suggested his service in the organisation and better utilisation of this means of transport to the railway in order to provide a favorable price for transportation. Thus Cook rented the whole composition and organised the transport of passengers. He provided tea and festive music for the participants, and the price of this arrangement per person was one shilling. Cook organised the first trip around the world in 1871. The terms tourist and tourism were first officially used in 1937 by the League of Nations. Tourism is defined as traveling of people for 24 hours or longer in a country where they do not have permanent residence.

**TYPES OF TOURISM**

According to the duration of the stay:

Overnight stay, in which tourists stay at least 3 consecutive nights at the accommodation facility or at the destination;

Excursions, whose duration is not longer than 24 h;

Weekend tourism, most often includes staying at a destination from Friday afternoon to Sunday evening.

According to the degree of mobility of tourists:

Stationary, it means the realisation of the entire annual holiday in one destination;

Mobile, includes continuous movement of tourists in the space.

According to the nationality of the tourists:

Domestic - it means visiting an attractive place located within the border of the country of residence,

Foreign (international) - includes travel of tourists outside the borders of their country of residence with the aim of visiting a tourist destination.

According to the spatial coverage:

Local - movement of tourists at the local level, most often excursions;

Regional - movement of tourists within one region (e.g. skiing, swimming, hunting), most often excursion and weekend tourism;

National - which does not require crossing the country's borders;

International - global scale movement that involves visiting attractive places that can not be found in the country of residence.

According to the age structure:

Children's - organised type of group trips for children under 14 years. Prerequisites for this type of tourism are high quality of space and educated staff;

Youth - includes an organised type of group trips with a wide selection of sports, educational and entertainment content;

Family - includes tourists between the ages of 18 and 60, yields the highest income but also has the most numerous requirements;

Pensioners' - consumer opportunities of this segment are growing. The working life is decreasing, and life expectancy is increasing and this is the most homogeneous group of tourist demand.

According to the area where tourist travel takes place:

Seaside - the most attractive in the summer;

Mountain - that is attractive throughout the year, and especially in winter;

Thermal baths - as a rule it can be excursion and residence;

Lake - usually excursion or weekend tourism;

Rural - formed on the basis of cultural-historical identity, customs and tradition;

Urban - involves staying in a large urban environment with specific architecture, ambiance, cultural-historical values and events.

According to manner of the organisation:

Individual - implies a travel in one's own arrangement, according to one's own knowledge;

Organised - travel organised by a tourist agent and it's characterised by participants of similar wishes and expectations;

Mixed - represents a travel in your own arrangement and use of information obtained by a travel agency or by purchasing tickets for an event;

According to the effect it has on balance of payments of a country:

Active - causes the overflow of funds from one country into tourist receptive country due to travel and stay of foreign citizens, which creates significant foreign exchange income;

Passive - causes the overflow of funds from one country tourist into tourist receptive country due to travel and stay, which results in foreign exchange expenditures.

## CURRENT STATE OF TOURISM AND CONSEQUENCES OF TOURISM DEVELOPMENT

Tourism as a socio-economic phenomenon is in the process of continual and powerful changes. After the Second World War, primarily under the influence of an increase in living standards and leisure time, tourism grew into a mass phenomenon, taking into account the realised tourist traffic and the volume of activities in the tourist destination.

### MODERN SOCIAL TRENDS

The achievement of ambitious growth rates of tourism trends will depend on the ability of the tourism to respond to the challenges of the expected changes in a society that will have an impact on tourist demand or so-called megatrends. There are eight modern megatrends:

**Globalisation** - the main characteristic is increasing intertwining of different societies, cultures and economies. Technological changes, further liberalisation in the trade of goods and services and increased mobility have made the whole world accessible.

**Demographic changes** - in 2020, about 20% of the European population will be older than 65. This part of the population will often have significant purchasing power and more free time for travel. In addition to the aging of the population, the number of households with one or two persons will increase.

**Access to information** - computer technology, the internet, internet browsers, mobile phones, global positioning systems (GPS) and digital television have deeply changed and are still changing the way in which we communicate, collect information and distribute products and services in the whole world.

**Economy of experience** - in an era where there is plenty of supply and where it is not always easy to differentiate products and services based on quality, consumers are increasingly looking for other factors on which they could base their choice. "Soft" features such as designs as well as the creative combination of products and services in a "total experience" are gaining importance.

**Adjustment** - the focus on "me" as a specific person will increase. Consumers are looking for "tailor-made" solutions that suit their personality. Society can no longer be divided into homogeneous target groups, but it will be made of many different market niches.

**Sustainability** - concern over climate changes, environmental pollution and social well-being is transforming into increased demand of environmentally, socially and economically responsible consumption. This trend is strengthened by legislative initiatives aimed at encouraging consumers and companies to act more sustainably.

**The health and wellness** - the "sedentary" way of life of many people in developed countries has led to increased focus on health and wellness, as well as on free-time activities. The boundary between wellness and a lifestyle, on the one hand, and health care on the other, is becoming increasingly blurred.

**Business models based on low cost** - these business models are increasingly and successfully penetrating the market by bringing products and services to their most basic components, doing so along with more traditional business models.

Directing a large number of people to tourist destinations has led to certain ecological, cultural and social consequences that caused a review of the underlying basis of tourism. In order to reduce the negative effects of tourism, all costs must be covered by those participants who have directly or indirectly caused these costs. This can lead to the tourist product becoming uncompetitive in terms of the price, and there may also be difficulties in determining the cause of environmental pollution. There is also the opinion that by including social costs in price, the quality of products will be increased, and therefore the level of tourist experience in the destination will be greater and he will be ready to pay a higher price.

Some of the important aspects of the negative effects of tourism development are:

Economic aspects - influence of the seasonal factors on tourism business, the effect of competition, high import dependence, which significantly reduces the realised foreign exchange inflow from tourism, the consequences of globalisation, the share of unqualified and poorly paid jobs in total employment, destruction of traditional forms of employment.

Socio-cultural aspect - the loss of cultural identity, the disappearance of the traditional system of values, the endangering of human rights, crime, prostitution.

Ecological aspects - emission of harmful gases by tourist means of transport, huge use of resources and waste production, water consumption, land consumption for tourist purposes.

To ensure that tourism contributes to overall development, it needs to be planned and managed in a manner that contributes to the quality of life of the local population and the protection of the natural and cultural environment. It also represents the basis of a sustainable development concept that is defined as a development that meets the needs of the current generation without compromising the ability of the next generation to meet its needs. Within the framework of sustainable development, economic and social development and environmental protection are considered to be interdependent and mutually supportive components, which form framework for directing efforts towards achieving a better quality of life for all people. Namely, that is responsible tourism, tourism friendly towards natural and cultural heritage.<sup>3</sup> With the development of tourism, a number of positive economic functions are realised, such as the effect of tourism on the development of the tourism economy, the effect of tourism on the social product through invisible exports, the effect on employment that stimulates not only employment in tourism-related activities directly, but indirectly as well. Under the influence of tourism, poorly developed areas are beginning to develop more intensively because tourism becomes a driving force. Indirect effects that are not related only to basic tourist services (accommodation, food, transportation) such as on industry, construction, trade and agriculture are made by tourists simply staying in a tourist destination and consuming their products and thereby creating an additional market. Many places have their population number many times multiplied during the tourist season in comparison to off-season.<sup>4</sup>

## **FACTORS NECESSARY FOR THE DEVELOPMENT OF TOURISM AND SEGMENTATION OF TOURISM**

For tourism to take place it is necessary to realise various factors related to demand, supply, and mediation of organisations that will facilitate the development of tourist traffic.

On the side of the demand, there must be driving factors which are divided into objective (rational) and subjective (irrational). Objective factors can be defined as created conditions in which a person lives and works, which, as such, determine his preferences and decisions, such as: population, industrialisation, urbanisation, financial resources, leisure time, cultural level of population, political and economic conditions in the country, income level. Subjective factors depend more on a man as an individual and his psychic and moral convictions, as well as on perception involving fashion, mood, habits, prestige, faith, love, snobbism.

On the offer side there are all the features important for one destination and precisely on them the level of tourist satisfaction with tourist products will depend. These factors include:

Attractive - they act as a driving factor for people looking for a vacation, entertainment, fun, recreation, they can be natural (hydrography, flora, fauna, relief) and anthropogenic (cultural and historical monuments, social events).

Communication - development of infrastructure and transport branches (roads, airports, railways).

Receptive - activities that are directly and indirectly included in the provision of services to tourists (hotels, restaurants, post offices, telecommunications, shops, utilities).

<sup>3</sup> Strategy for Tourism Development in Bosnia and Herzegovina for period 2008-2018.

<sup>4</sup> <http://www.bhtourism.ba/loc/>

On the side of intermediaries, intermediary factors link the demand and offer to achieve social and economic effects, and those are: travel agencies, tour operators, social tourism organisations, national tourism organisations.

The tourist offer of receptive factors is diverse and it can be divided into basic (transport accommodation, food) and supplementary (entertainment, sports, passtime activites, recreation). The needs of tourists are varied and to reach the point of saturation toursits strive to try new experiences, get to know new areas, increase the quality of services provided more and more.

At given moment the offer can not respond to new tourist requests with new content, because the offer is not elastic in short term. Infrastructure and other tourist facilities require high investment and a longer period of time for construction.

Since tourism demand is heterogeneous and it is impossible to meet the needs of all tourists, it is necessary to divide the market and opt for one or more market segments whose needs can be met. The most common divisions are geographical, demographic and psychographic, and division according to the behavior in different situations. Geographical division helps us to determine the range of services according to the origin of tourists - cities, regions, and countries from which they come. Demographic division is useful because it determines nationality, age, sex, religion, income, occupation, education and it facilitates the choice of the target market. Psychographic division of the market implies the choice of a market based on personality, lifestyle, social class and perception. Division by behavior implies the expected behavior of tourists in accordance with the situation.

## CONCEPT OF HOTEL AND HOTEL INDUSTRY

In order to tackle the concepts of hotel and hotel industry in the general sense, as well as an integral and inalienable part of the hospitality industry, it is necessary to make a small overview of what hospitality is as an essential factor in the existence and development of tourism as an economic activity, as we know it today. In that respect, it should be said that hospitality involves dealing with two types of activities, namely the preparation and sale of food and beverages in a specific way and the rental of furnished room for overnight stay. Therefore, hospitality is an economic activity of preparation, production and servicing of food, drinks and beverages and the provision of accommodation services. In practice, the catering sector is gravitating more towards the local population, while it is characteristic that the accommodation sector is primarily related to visitors from other areas and, in addition to offering accommodation services, it most frequently enables and provides food and beverage services as additional services. It is this fact that determines or defines, to a large extent, the hotel industry as an activity.

It should be noted, however, that when it comes to hotel industry, the provision of accommodation and catering services is not mandatory and that there are examples of such hotels where the food service is not implied. For example, this is the case with the so-called budget hotels or BB (bed and breakfast) hotels where the catering service is so rudimentary and it only includes a light continental breakfast. Precisely based on this fact, the rule that the accommodation and catering services are objectively separated and viewed as two different service packages remained till today. This means that you can use the hotel accommodation service separately from catering services in each hotel, and vice versa, which means that you do not have to be a hotel guest to use the food and beverage service within the hotel facility. Thus, the term BB (bed and breakfast), half board and full board were created. As we have seen it, the decisive activity of hotel industry is focused on the accommodation sector, but practice and theory confirm and appreciate the existence of hotel accommodation with or without food services.

## DEFINITION OF HOTEL INDUSTRY

Hotel industry is an activity that offers guests accommodation, food, drinks, recreation and a variety of other services. During the temporary stay in the hotel facilities at the selected destination, the hotel industry provides leisure and relaxation, helps business people make business contacts, hold seminars and various other professional, scientific and political gatherings, creating conditions for constructive work, allowing tourists to get acquainted with natural attractions and cultural monuments.

Hotels provide accommodation services in rooms, but also in hotel suites. As a rule, hotels offer double rooms, they can also offer single rooms, and often provide the possibility of using an additional or auxiliary or children's bed. However, in any case, hotels rent rooms, beds and the hotel's "unit of measurement" for the purpose of determining the business results is a rented room and not an overnight stay.

Hotel industry is an activity that is a result of relatively short production processes with a variety of services and products that satisfy the wishes and needs of consumers. Although a part of the business activities have the character of material production (supply of food and beverages), hotel industry is essentially determined by the circular character.

## SPECIFIC FEATURES OF HOTEL INDUSTRY

- In hotel facilities, consumers are offered accommodation, food and drinks, other outside services;
- Services must be constantly adapted to the requirements of guests;
- Direct contact with the guest is necessary because the services can not be provided when there are no guests;
- Employees must always be ready to provide services;
- Working time is "flexible";
- It is difficult to plan and coordinate the needs of employees with occupancy of the capacity;
- Uneven business intensity during the day and year determines special working conditions - seasonal work, with long standing, walking or working at high temperatures.

When it comes to hotels as the most well-known and most widespread facilities for providing accommodation services, it should be said that many authors emphasize the specialty of services in hotels, which primarily relate to the high quality of accommodation services, personnel and interior design, as well as ability to meet modern requirements of travelers. In this sense, a hotel has to respond to certain habits of travelers, such as high class of living and alimentation, and in this regard, provide adequate quality of service, professionalism and modern management of the facility. In order to separate the hotel as a special type of hospitality facility for accommodation and differentiate it from other facilities that nominally provide the same type of service, International Association of Hotel General Managers reached a decision in 1926 on the minimum common characteristics of each object that wishes to be called hotel. These common features relate to: organisation and management which function to provide high quality of accommodation, accommodation and food as respective activities, architecture and design of space in and around the facility, emphasised sanitary and hygienic safety and fire protection, interior design of rooms for accommodation with the existence of an appropriate number common rooms and sanitary facilities outside of the commercial rooms, appropriate surface area of the rooms and their interior fitting, service and technical personnel and fitting of the kitchen unit according to modern food, technical, sanitary and hygienic standards.

When it comes to the capacity of the hotel, which alludes to its size, it can be said that there are several such divisions. The hotels are mainly divided on small, medium and large hotels, that is, hotels with small, medium and large capacities. In some divisions, the medium capacity can be

defined through two determinants, as average and above average. The essence is clear, but the problem arises, however, with defining terms small and large, which are drastically different from one author to the next, that is, they depend on the continent from which they come from. In that sense, European authors like Dukas from Great Britain think that small hotels have up to 25 rooms and large hotels have a capacity of over 300 rooms. On the other hand, American authors Casavana and Brooks move the borders up, so hotels with a smaller capacity have up to 150 rooms, while large-capacity hotels have over 600 rooms. Also, the experience has shown the existence of the so-called mega hotels whose capacity exceeds 1000 rooms. Such hotels are characteristic for the world's major metropolises, the most famous entertainment centres and the world's greatest summer resorts.

Another important feature of the hotel as a hospitality facility for accommodation and hotel industry as a business activity with constant development is the typification of the hotel. Typification is the process of differentiating certain phenomena within the same type of object. The separation of certain types of hotels is an integral part of the development of hotel activities, but also reflects the degree of development of this activity. This means that the existence of a number of different types and subtypes of hotels indicates a higher degree of development of hotel industry as an economic activity. The process of differentiation, i.e. typification within the hospitality industry takes place under the influence of a large number of different external factors. The two most important factors based on which hotels can be differentiated into dozens of special types of are: location on one hand and reason of visit, assortment of services and category of consumers on the other. In that sense, the location factor differentiates the following types of hotels: seaside, mountain, spa, city, transit. When it comes to the other mentioned factor, which primarily refers to the motive of the visit, it should be said that it caused the following division: resort, business, conference, convention, casino, sport and thematic hotels. Therefore, it is clear that the process of differentiating certain types of hotel facilities is under the influence of a number of different factors, whereby the forms of occurrence and intensity of effect are variable categories, which are changed in accordance with the development and improvement of hotel activities, human society as a whole and a man as an individual and consumer, that is, user of those services. It turns out that it is not possible to talk about complete divisions, but in a series of cases, hotels are border types dominated by two or even three factors. In this sense, the hotel can be located at the seaside, be themed and be oriented towards casino games. In this regard, a large number of objects representing combinations of different types exist, precisely because of the different criteria are simultaneously used for differentiation. The most important application of specialisation, that is, typification of the hotel is in defining and developing a business strategy. In a broader sense, specialisation implies directing attention to a precisely defined group of users of services, that is, consumers, so the business strategy in addition to directing activities into one of the specific market niches implies the establishment of basic guidelines in the field of marketing and management of the hotel.

## ORGANISATIONAL STRUCTURE OF HOTELS

Basic elements of organisational structure are:

- management
  - makes decisions, that is, manages the business activities of the hotel;
- accommodation department (room division)
  - reception - receives, allocates rooms, sends off guests and charges services;
  - porters' service, performs work related to arrival, stay and departure of the guest;
  - housekeeping department, takes care of cleanliness of rooms and common areas;
- catering department (food and beverage)
  - kitchen - production unit for preparation of meals and sweets;
  - restaurant - sale unit for sale of food and drink;

- aperitif bar - production and sales unit for preparing and serving drinks and beverages;
- recreation department
  - combines recreational, sporting, entertainment and cultural hotel facilities;
- sales and marketing department
  - carries out activities of sale and marketing of hotel facilities;
- controlling and finance department
  - collects, processes and presents data, that is, information on hotel business and performs other financial activities;
- technical department (maintenance)
  - takes care of the correct working of the equipment and the devices, that is, the maintenance of the hotel.

## **WORKING OF HOTEL**

In order for the hotel to operate successfully and achieve good results, it is necessary for the consumer to be the starting point of any business operation. It is necessary to carry out certain research and analyses in order to determine the segments for which its business is intended. This will affect the way the hotel will be equipped and arranged, the contents that it should have, and from there, also the appropriate organisation and all economic, technological and other key factors of the entire business activities of the facility. One of the basic goals, of other companies as well is the creation of loyal customers. This can be accomplished by a long-term process involving the creation of such a relationship which starts with the arrival of the guest, provision of services that exceed the level of his expectation, efficiency, quick delivery and above all a friendly demeanour of each employee, that is, responding appropriately in accordance with the situation. This relationship between the hotel and the guest does not end with the departure of a guest from the hotel, but they also strives to keep in contact after completion of the services via telephone, e-mail and other forms of communication so that the guest is informed about special offers, bonuses, complementary offers and other benefits in order to create a loyal customer. Type, category, size and location of the facility will depend on the market segment that it wants to enter as well as on the market potential and demand.

By implementing the categorisation of hospitality facilities setting of standards is done, which significantly affects the quality of services and competitive position in relation to other hotels. The categorisation increases consumer awareness of the quality and scope of services provided by the hotel, and facilitates the control of business operations.

The business of the hotel depends on its location to a large degree. The location dictates the type, category and size of the object, as well as the market segment whose needs are to be met. When choosing a site, one should take into account its attractiveness for certain segments, the connection with the suppliers of products which significantly affects the costs of the company, but also easy accessibility of the labour. Certainly larger cities have better predispositions to attract suppliers and high-quality workforce compared to smaller areas where business networks are not very developed, where educational programs are not strong, and the quality of life is much lower in terms of the availability of certain products and services whose proximity is especially important for facilitating business activities. If the hotel wants to opt for a segment of business guests, it should be located in towns as close to the city centre as possible. If tourists travel for tourist reasons: vacation, recreation, fun, entertainment, the hotel should be located in a place that will best meet the expectations of guests such as mountains, coasts or other attractive locations. In the transit area, hotels should be located next to the main roads. Each hotel should pay great attention to building a recognisable image that will separate it from the competition in a particular area. The image depends on the perception of the guest and the manner others see us. In order to maintain a good image and achieve better, it is necessary to constantly research and analyse the market to

find out ones weak points and what guests are thinking. The image should differentiate one from the competitors and this is achieved through price, quality, wide range of services, good staff and various different ways. By creating a brand in a particular business activity, customer confidence and buying security increases, meaning that the customer, regardless of the high substitutability of products and services, will always choose you, because he knows that your services are verifiably good, and the customer primarily wants to reduce the risk when buying, he want to achieve or exceed the expected level of benefits.

Staff plays an important role in the provision of services, since the quality of service and customer satisfaction will depend on the employees. It is a fact is that living human contact with the guest can not be replaced with any machines, appliances or devices. Therefore, due attention should be paid to recruitment, selection, training and grooming, inspection of work, motivation and encouragement of the highest quality of work by different methods. Some of the possible incentives can be pay raises, prize-winning trips for achieving business results that are above average, the possibility of taking days off, organised transportation, commendations, banquets. In order to provide quality services, first it is necessary to establish a relationship with employees and then with customers because there are no satisfied guests without satisfied employees.

The sale of hotel and other tourist services is often done well before their provision and consumption. It is done through a reservation system or contracting with tour operators and other partners before the arrival of guests to the hotel. The sale of hotel services can be direct and indirect. For direct sales, there are no intermediaries, these services are usually not sold on a flat basis, but only to individual guests. The benefits of direct sales are:

Establishes and maintains direct contacts with consumers;

It exercises control over placement in a situation where intermediaries do not show sufficient interest in increasing sales or they are neglecting certain parts and market segments when offering service packages;

It overcomes the possible lack of efficient and well-organised intermediaries;

It strives to reduce costs by creating its own sales organisation and thus make it more competitive.

The basic feature of indirect sales is the existence of an intermediary in sales. The function of intermediaries-tour operators and travel agencies is based on the following advantages:

For consumers - they can choose and compare different tourist services, they can purchase a complex tourist product that includes all elements at once, they can get relevant information in place of residence;

For hoteliers - they don't have to offer their services themselves and need fewer sales facilities, sale is made in much wider area, brokers are qualified and well-trained for sale, their role as intermediaries saves money and time of the producers, which enables the lowering of prices.

The development of information and communication technology has led to major changes in the sale of hotel and tourist services in general. Capacity management, productivity optimisation, coming closer to the customers, partnership development and many other phenomena have lost their traditional outlook and have a new one in contemporary conditions.

## CONCLUSION

Based on everything mentioned above in relation to tourism and hotel management, one concludes that both areas are strongly interdependent, they can not exist one without another. They are in the process of constant and dynamic changes dictated by the conditions in which they operate and such environment requires continuous monitoring of the situation and adjustment. Companies can influence some of those changes by undertaking the best actions in the given situations. They can influence customers, suppliers, distributors and competition. They have to adapt to the political, economic, technological and social environment because they can not be or can be only marginally influenced on. The occurrence of mass tourism has caused numerous negative ecological and social consequences. A large number of tourists have caused numerous environmental pollution with different types of transport, the construction of tourist suprastructure destroys nature and landscape, flora and fauna also suffer great consequences. The environmental resources are precisely the base on which certain forms of tourism develop and their destruction would not only have an impact on tourism, but also on the survival of the man who lives and exists thanks to them. Attractive anthropogenic resources are also endangered: monuments, buildings, temples, objects of importance for the history of man, because mass tourism, which does not care enough about such values, destroys and defiles them. Populated areas in which tourism develops also suffer the consequences of such mass tourism as the number of tourists threatens their conditions of life by creating crowds, rising food prices and directing the structure of the economy towards the development of tourism, ignoring other branches of the economy. The culture of that population is also endangered because tourists come from other areas and bring with them the habits and customs of their permanent place of residence that are different from the ones at tourist destination. The tourist offer adapts to the tourists in order to maximally meet their needs. These effects have a bad influence on the culture and identity of a nation. Due to all the negative consequences of mass tourism, the idea is to develop alternative, sustainable tourism that will be socially responsible to environment and will strive to use resources rationally in order to preserve them and at the same time meet economic criteria. Hotels that want to do business successfully will need to improve the quality of their products and services and strive to be superior in comparison to the competition. They can achieve this by selecting one or more segments and matching their offer with the needs of those segments. Consumers are a changeable category, always ready to try and experience something new, so researching their needs is a continuous process that alone can bring hotel success. Hotels should seek to create and maintain a good image that will differ from the competition. To achieve this, it is necessary to determine the strengths and weaknesses, threats and opportunities, and compare them with competitors. Based on this, we can best see what are our strengths and how we can be different. It is necessary to establish a harmonious internal organisation which will affect not only the satisfaction of the guests, but also the employees.

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## INSTRUCTIONS FOR AUTHORS

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### SUMMARY

*Summary should be written at the beginning of work and should be typed in Times New Roman, Italic, 12 pt. Alleged "Summary" should be written two spaces below the title, in Times New Roman, Bold, 11 pt. Summary length is 50 to 150 words. One line after the summary you should give key words (up to 10 keywords).*

### KEYWORDS

summary, the length of the summary, classification code, font.

### INTRODUCTION

Introduction should be written two spaces after keywords (TNR, bold, 12).

### HEADING 1

Main titles should be written in capital letters, centered, TNR font, bold, 12. Before and after the main title there is one blank line.

### HEADING 2

Second level headings should be written in lower case, centered, TNR font, bold, 12. Before and after the title is an empty line.

### HEADING 3

Third level headings should be written in lower case, flush with the left margin, font TNR 12, italic. Before and after the title is an empty line.

### PAGE FORMAT

Page size is A4. Margins are: top 2.54 cm, bottom 2.54 cm, 2.54 cm left, right 2.54 cm, respectively, each 1 inch. The paper should have a length of up to 20,000 characters, 10 pages (including abstract, equations, tables, references and appendices). The paper should be written in two columns (left column is in Serbian and

the right one in English). Column width is 7.91 cm, and the distance between the columns is 0.1 cm. The separation of paragraphs is done by inserting a paragraph initial order of 0.5 cm

## WRITING

Papers are written in Microsoft Word for Windows program. Language is Serbian and English. Part of the Serbian language to the Latin script. Economics, Journal of Economic Theory and Analysis using APA writing standards of scientific research. TABLES Tables should be numbered in Arabic numerals continuity, and the title and number of the tables are placed above the table, flush with the left margin. Legend is printed below the table. When quoting data table name with writing Capitalized and mention her number. APA follows the rule that the tables eliminate the vertical line and the horizontal retain only the most necessary. Font size is 10pt in the tables. Tables are centered and only in English language, and the legend, if necessary, should be written in the Serbian language too.

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Charts and pictures are numbered in Arabic numerals continuity. The title and number of the figures are entered below the figure, flush with the left margin. All figures quote an initial capital letter. The font size in the figures is 10 pt. The equation to be written in Equation Editor, and is positioned at the center, and the numbering is with Arabic numerals on the right margin.

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The basic principle of APA citation in plaintext is “one author, one word.” With the author’s name should be stated only age, but not the number.

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For an Internet source that does not have a bookmark, use the ¶ sign pairs and the number of paragraphs on the page where it published.

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