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CONTENTS

<i>PART I DEVELOPMENT STRATEGIES AND POLICIES AT THE MACRO AND MICRO LEVELS</i>	<i>13</i>
<i>INTEGRATION OF MANAGEMENT AND GROWTH: THE IMPORTANCE FOR PROTECTING THE SOVEREIGNTY OF THE NATIONAL ECONOMY</i>	<i>15</i>
SLAVOLJUB SLJIVIC PHD DRAGANA VOJTESKI-KLIJENAK PHD	
<i>META MODEL FOR THE PROCESS OF STRATEGIC DECISION–MAKING WITH MULTIVARIATE PLANNING</i>	<i>41</i>
DRAGAN MILOSEVIC PHD	
<i>THE POTENTIAL CONTRIBUTION OF ECONOMIC DIPLOMACY TO SERBIA'S EXPORT GROWTH</i>	<i>64</i>
KATARINA RADOSAVLJEVIC MA NIKOLA MARIC MA	
<i>HEALTH AND SAFETY AT WORK</i>	<i>81</i>
ALEKSANDAR PETROVIC PHD FILIP PETROVIC MSC	
<i>APPLICATION OF DATA WAREHOUSE AND OLAP TECHNOLOGIES IN BUSINESS DECISION MAKING</i>	<i>89</i>
JOVAN ZIVADINOVIC PHD BORIS JEVTIC MA	
<i>DEVELOPMENT PROGRAMMES OF CROATIA: REALITY OR ILLUSION</i>	<i>111</i>
MARKO SOSTAR PHD INES CEVAPOVIC MA	
<i>PART II. INVESTMENT POLICIES, FINANCE AND INSURANCE INDUSTRIES</i>	<i>131</i>
<i>PERFORMANCES OF DIFFERENT INVESTMENT POLICIES OF OPEN-END INVESTMENT FUNDS: COMPARATIVE ANALYSIS OF SERBIA AND THE COUNTRIES OF THE REGION</i>	<i>133</i>
MARIJA DJEKIC MSC DRAGICA JOVANCEVIC PHD	
<i>INVESTING INTO BUNKRUPT COMPANIES</i>	<i>150</i>
DEJAN VUKOSAVLJEVIC PHD DANIJELA VUKOSAVLJEVIC PHD	

<i>CONTEMPORARY TRENDS IN THE FINANCIAL SECTOR - DEREGULATION AND THE NEED FOR REGULATION OF THE FINANCIAL SYSTEM</i>	168
VERA KARADJOVA, PhD SNEZANA DICEVSKA PhD	
<i>THE PROBLEMS OF LIQUIDITY AND SOLVENCY OF THE REPUBLIC OF SERBIA</i>	184
MILAN GAVRILOVIC MSc BRATISLAV MILOSEVIC PhD	
<i>EFFECTS OF FISCAL SYSTEM CONSOLIDATION AND INFLATION AS A MONETARY PHENOMENON ON THE DEVELOPMENT OF BOSNIA AND HERZEGOVINA</i>	206
HARIS SARGANOVIC PhD MIRZA KULENOVIC MSc	
<i>THE INFLUENCE OF TAX RATES AND INCENTIVES ON FOREIGN DIRECT INVESTMENTS INTO SERBIA</i>	224
VLADIMIR JOVANOVI PhD MARIJA JOVANOVI PhD	
<i>INTEREST RATE PASS-THROUGH IN SERBIA: AN ASYMMETRIC THRESHOLD COINTEGRATION ANALYSIS</i>	240
SINISA MILETIC PhD NIKOLA TASIC PhD	
<i>FINANCIAL RISK TRANSFER – THE CASE OF FINANCIAL DERIVATIVES</i>	252
MARIJA JOVANOVI PhD VLADIMIR JOVANOVI PhD	
<i>PREDICTION OF RISK IN CORPORATE MANAGEMENT FINANCE</i>	265
MARIJA PETROVIC PREDRAG PETROVIC PhD	
<i>SINGLE WOMEN ACTIVISM IN NEPAL - MICRO CREDIT MOVEMENT TOWARDS SELF-RELIANT ECONOMY AND HAPPINESS</i>	279
RAGHU BIR BISTA PhD	
<i>OVERINDEBTEDNESS OF NATURAL PERSONS IN WIDER SOCIO-ECONOMIC CONTEXT</i>	296
ANA OPACIC PhD VLADIMIR COLOVIC PhD	
<i>THE ROLE OF A TAINABLE MONEY AS A MECHANISM OF MONEY LAUNDERING</i>	312
NENAD KALUDJEROVIC MSc SLOBODAN RADONJIC PhD	

<i>THE APPLICATION OF VOLATILITY MODELS IN PORTFOLIO MANAGEMENT</i>	365
JOVAN NJEGIC PhD JOVAN PETRONIJEVIC	
<i>THE ROLE OF MOBILE BANKING IN DEVELOPING BANKING SERVICES</i>	386
SANJA KOSTEVSKI MSC	
<i>THE IMPLEMENTATION OF MANAGEMENT INTO INSURANCE</i>	400
DUSAN COGOLJEVIC PhD IVAN PILJAN PhD	
<i>MEASURES TO THE ANTICIPATION AND MANAGEMENT OF RISKS ASSOCIATED TO NATURAL DISASTERS</i>	418
JOVAN SAVIC PhD ALEKSANDRA TESIC PhD	
<i>INSURANCE MARKET OF SERBIA FROM 2005 TO 2014</i>	435
IVAN PILJAN PhD DUSAN COGOLJEVIC PhD	
<i>CORRELATION BETWEEN THE VALORIZATION OF TOURIST RESOURCES AND SUSTAINABLE TOURISM DEVELOPMENT</i>	452
KATERINA ANGELEVSKA – NAJDESKA PhD	
<i>BASIC POSTULATES OF MASS AND POSTMODERN TOURISM CO-EXISTENTIAL RELATIONS</i>	466
MILAN NOVOVIC MSC JOVANKA POPOVIC PhD	
<i>THE IMPACT OF SPORTS EVENTS IN THE DEVELOPMENT OF SPORTS TOURISM</i>	486
FILIP RADOTIC MSC ZORAN MASIC PhD	
<i>POTENTIAL QUALITY INCREASE OF HEALTH AND RECREATIONAL TOURISM PRODUCT IN THE AREA OF FRUSKA GORA</i>	499
JOVANKA POPOVIC PhD VLADO RADIC PhD	
<i>EVOLUTION OF TIME-SHARING: FROM AN INNOVATIVE LEGAL CONCEPT TO A MODERN TOURISM PRODUCT</i>	520
ANDREJ MICOVIC	

FOREWORD

Global economic crisis has called into question basic ideas which were the foundation for economic and theoretical concepts and policies. Question of the sources of cyclical economic downturn has been re-opened, as well as the need to find an appropriate model that would ensure sustainable economic growth in times of economic and financial globalization. Post crisis period characterized by a slow recovery of the world economy as well as a slight increase have set new requirements for economic science to find new solutions and sources of sustainable economic growth.

This monograph includes researches that were presented at the fourth international conference “Employment, Education and Entrepreneurship” held in Belgrade from 14th till 16th of October, 2015.

All papers are grouped within three thematic units:

- Development strategies and policies at the macro and micro level
- Investment policy, finance and insurance sector and,
- Tourism and economic growth

In the first section, the authors dealt with the following issues: the preparation of different development strategies and policies at the state and enterprise level, the application of different models for strategic planning and model for optimization of business processes, the possibility of the development of mortgage market via public and private partnership and the results of the application of development strategies in the developing countries.

Within the second thematic unit, the authors focused on: the performances of banks and institutional investors in conditions of a volatile environment, the problem of liquidity and solvency of the insurance sector, the need for regulation or deregulation of the financial sector, the effects of fiscal and monetary policy in the developing countries, the application of different models for managing financial risks, the application of the volatility model in the process of modeling market indices and the analysis of the insurance market in Serbia during the crisis and post-crisis period.

Papers within the third thematic unit deal with: the link between tourism sources and sustainable tourism development in the region, the influence of sport events on the development of sports tourism, the potentials of the development of health and recreational tourism in the region.

The editors believe that this monograph will be significant for both the academic community and economic policy makers who have been faced with the problem of finding an appropriate economic model that would ensure sustainable economic growth, especially in the countries of the Western Balkans.

Dr Sinisa Miletic
Dr Dusan Cogoljevic

PART I
DEVELOPMENT STRATEGIES AND POLICIES AT THE
MACRO AND MICRO LEVELS



INTEGRATION OF MANAGEMENT AND GROWTH: THE IMPORTANCE FOR PROTECTING THE SOVEREIGNTY OF THE NATIONAL ECONOMY

Slavoljub Sljivic PhD¹

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ABSTRACT

The integration in this paper is understood as directing economic institutions towards stimulating economic growth and development. Unfortunately, poor development performance of Serbia during 25 years of transition suggests that economic institutions did not fulfill this task. The question that can be set is: What is wrong with the economic institutions in Serbia?

The answers to this crucial question can be summarized in three points. Firstly, the uncritical acceptance of "universal " models of economic growth leads to permanent disruption of the macroeconomic balance and the accumulation of foreign debt. Such a situation may represent introduction to the loss of economic and financial sovereignty of the country.

Secondly, the exit from this situation should be to strengthen the capacity of domestic supply of products and services, on the basis of a broader and consistent framework for managing industrial policies .The framework is based on five pillars, namely: (i) technical and technological modernization of production; (ii) restructuring of production, which should be in programs, markets, ownership and organization; (iii) financial relief of the economy; (Iv) activation of incomes policy and (v) attracting foreign direct investment.

Thirdly, the implementation of framework for managing industrial policy will likely face economic and social conflicts in practice, between different interest groups. Therefore, the development of institutions for managing conflicts is essential.

Key words: *Economic Growth, Governance, Institutions, Industrial Policy*

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INTRODUCTION

The weak performances of the Serbian economy needs no more prove to anyone in particular. After 25 years of transition, Serbia has not yet reached the level of GDP from the initial 1989. The state of "being stuck in transition" causes serious critique of academic economists in Serbia over a long period of time. In recent years, however, this criticism changes its character from purely professional, to genuine concern for the fate of Serbian economy. Therefore, terms that somewhat deviate from the protocol spirit of writing scientific papers are increasingly used in literature. For a description of the Serbian economy, some economists use epithets such as "shocking state" and a "recipe for disaster" (Madžar, 2012, pp.1-11). Other say that the political elite, not only in Serbia, declares for the economic success everything that is not a total collapse (Malinić, 2013, p. 41). The question that fits perfectly in that genuine concern for the Serbian economy is: Why do people constantly work against their own interests? The answer is: incorrect system (Đuričin, Vuksanovic, 2014, p. 229).

The system consists of institutions, and the institutions should be in the function of economic growth and development. When the growth and development don't exist for several decades, as in the case of Serbia, it is clear that institutions do not perform, or perform incorrectly. In this paper three hypotheses are set up to assist in determining what the problem exists between institutions and economic growth in Serbia and how this problem can be solved.

The paper consists of five parts. Hypotheses, methodology and data sources are explained in the first part. The second part is the review of literature. The third part is the analysis of Serbian national accounts for the period 2000.-2013. The fourth part is devoted to a discussion of the analysis results from the preceding paragraph. The fifth part is the conclusion.

HYPOTHESES, METHODOLOGY AND DATA SOURCES

In this part of the paper, three hypotheses about governance and economic growth relationships in Serbia are explained. After that, features of the methodology used in the work are exhibited, as well as the notes in connection with the data sources.

HYPOTHESES

H1: In 2000., Serbia started economic transition that continues today. Economic growth was based on the model that is known as Washington consensus. Consumer spending was the most important factor for initiation economic growth. It soon turned out that the model of the Washington consensus expressed serious weaknesses in practice. Consumption was growing much faster than domestic supply possibilities. Initially weak domestic supply was further crumbled by the intensification of foreign competition (liberalization), reducing the capacity of domestic production (privatization) and opening the door to foreign capital (deregulation). The gap between higher consumption and lower domestic supply was leveled by borrowing abroad. Therefore, deficits in the current account and the capital account were growing for years. Aggregation of external debt threatens to trigger a spiral: low economic growth-higher borrowing-even lower growth. In such circumstances, even a relatively modest rate of economic growth becomes unsustainable. Serbia threatens the loss of financial sovereignty in the future.

H2: Serbia should abandon the current model of economic growth. What is needed is a shift towards strengthening the potential of domestic supply of products and services. The turnaround is possible if Serbia implement properly industrial policies. Universal industrial policies do not exist anywhere in the world. Each country may respect a general experience and recommendations in the field of industrial policies. However, it is crucial that they are built on a basis of the specific constraints that exist in the local context. A good way for introduction the local context is the analysis of national accounts. This type of analysis is important for the industrial policy for two reasons. Firstly, it can detect what are the key constraints to economic growth. Secondly, it can assist in shaping the changes that are necessary for the release of growth potential. All this knowledge can be systematized in one authentic and consistent framework for managing industrial policies in Serbia.

H3: Changes in the national accounts are not just a matter of accounting conventions. The implementation of industrial policy is always associated with the redistribution of income in different national accounts, or even within the same account. Consequently, conflicts of interest may occur between different stakeholders. Successful industrial policies should also be able to cope with these conflicts. However, they can not do this alone; the state needs to strengthen its capacity, primarily through the development of institutions for conflict management.

METHODOLOGY

The analysis of national accounts is based on data from the Serbian System of National Accounts. System of National Accounts is in compliance with internationally recognized standards, such as SNA 2008 and ESA 2010 (EC, IMF, OECD, UN, 2009; Eurostat, 2013). National accounts show how to create a production and income that is later distributed, redistributed and consumed.

Figure 1 provides a simplified diagram of those national accounts that are used in the paper. Each account has its right and left side, as well as balance. The right side consists of sources of funds and shows transactions that increase the economic value of units or sectors. The left side shows the use of resources and is associated with the transactions that reduce the economic value of a unit or a sector. The balance sheet item or balance represents the difference between the right and left side of the account. The surveyed item closes the account and is located on the left side of the account. The balance of one account is transmitted to the following account in a line and represents the first item on the right side of that account. In other words, the balance closes one and opens another account. In this way, all the accounts are linked together. Balance sheet item or balance can be expressed in net and gross values. The difference between gross and net worth is the consumption of fixed capital, i.e. depreciation. Definitions and detailed content of national accounts which are used in this paper are available in various statistical publications (National Bureau of Statistics, 2014, pp. 113-128; Bisenić et al., 2005, pp. 3-38; 2008, pp. 3-34).

The starting point of analysis is the condition on the capital account, in which net lending, or, as in the case of Serbia, the net debt to foreign countries is recorded. Since the accounts are connected to each other through their balances, the basic idea is that "responsibility" for the condition on the capital account should be distributed to all accounts in the chain. Of course, the responsibility of individual accounts may be relatively smaller or higher, due to quite specific reasons. Therefore, each account is analyzed separately, following the course of the accounts as in Figure 1.

Analysis of individual accounts is carried out in two steps. The first step is to determine how to create a "surplus" income on that account. The purpose of this surplus is to be directed towards savings, which would be used for closing the deficit in the capital account. By using accounting-technical measures, certain positions in the account are increasing or decreasing, in order to create extra income. In the second step, however, true economic analysis of individual accounts is being implemented. The objective of the analysis in this step is to identify real constraints and measures which could help to turn such accounting-created income into a real economic income.

DATA SOURCES

The paper uses statistical data from multiple sources such as the Statistical Office of the Republic of Serbia, National Bank of Serbia, the Ministry of Finance, Eurostat, the World Bank and the like. Internet addresses of these institutions are attached to the end of the paper.

Production account		Generation of income account		Allocation of primary income account	
Resources	Output	Resources	GDP	Resources	Gross operating surplus / Gross mixed income
	Taxes on products Subsidies on products (-)	Usage	Compensation of employees Taxes on products and imports Subsidies (-)		Compensation of employees Taxes on production and imports Subsidies (-)
Usage	Intermediata consumption			Usage	Property Income
Balance	<i>Gross domestic product (GDP)</i>	Balance	<i>Gross operating surplus / Gross mixed income</i>	Balance	Property Income
Distribution of income account		Use of income account		Capital Account	
Resources	Gross national income Current taxes on income, wealth, etc. Net social contributions Other current transfers	Resources	Gross disposable income	Resources	Net savings
	Current taxes on income, wealth, etc. Net social contributions Other current transfers	Usage	Final consumption expenditure * Individual consumption expenditure * Collective consumption expenditure	Usage	Capital transfers, received Capital transfers, paid (-) Gross fixed capital formation Consumption of fixed capital (-) Changes in inventories
Usage		Balance	<i>Gross savings</i>	Balance	<i>Net lending (+) / net borrowing (-)</i>
Balance	<i>Gross disposable income</i>		Consumption of fixed capital (-) <i>Net savings</i>		

Figure 1: Simplified scheme of National Accounts

Source: Statistical Office of the Republic of Serbia, author

REVIEW OF THE LITERATURE

Economic growth forecasts for the world as a whole and in the regions are not too optimistic. In the period 2015.-2017. it is expected that world economy is growing at an average annual rate of about 3%, developed countries around 2%, and developing countries between 5% and 5.5%. Forecasts for Serbia are also not great; from -2% in 2014, to gradual increase of 2% in 2017. (World Bank, 2015, pp. 3-67).

Some global studies focus on long-term growth outlook, emphasizing the factors such as employment and productivity. Thanks to these factors, the global economy has increased 6 times during the last 50 years (1964-2014). However, in the next 50 years it is expected that the workforce becomes limiting factor for economic growth. In order to compensate for the impact of falling employment rates of economic growth, it would be necessary that another key factor-productivity-increases at a rate that is 80% higher than the realized historical rates. Without that compensating effect, the global economy would grow only 3 times in the period 2014-2064 (McKinsey, 2015, pp. 13-26).

In the background of these forecasts, discussions on how to manage the economic growth is carried out. Developed countries are in the process of transformation managerial capitalism to shareholder capitalism, and this phenomenon is known as *financialization*. The global economic crisis has shown that financialisation has a negative impact on economic growth. Another problem, especially in the EU countries, presents the so-called democratic deficit. The regulation and supervision of financial markets can not be seen as a purely technical matter, which is limited to insider group of financial experts. Since the taxpayer is the one that is the final guarantor of the financial system, the emphasis should be on socially useful financial system. Such a financial system should serve the interests of investors and general consumption in developed countries and developing countries, and not the financial system itself (Young, 2014, pp. 14; 71-72).

Confidence in the financial markets will not be able to recover until change their behavior through regulation. The regulation has to be comprehensive, and this process must also applies to regulatory institutions. Otherwise, the world will once again be forced to save capitalism from the capitalists, as well as 75 years ago at the time of Keynes (Stiglitz, 2009, pp.5-6).

Transition economies are faced with the problem of non-standard low rates of economic growth during the past few years. Stagnation and the slow recovery triggered doubts about the feasibility of "convergence" as one of the key strategic objectives of the transition region. It is the process of achieving the standard of living that exists in developed EU member states. Analyzes, however, indicate that such a goal will not be able to accomplish in the future. Transition indicators tell on declining in some segments of reforms in the period from the beginning of the global economic crisis to date (EBRD, 2013, pp. 13-15). Support for the development of markets and democracy has declined even among the population. The more the population was affected by the crisis, the smaller their support for further reforms (EBRD, 2011, pp. 44-59). Therefore, topical question for these

countries is how to return to the path of high economic growth rates from pre crisis period. In this sense, it is interesting the development strategy of the region of Central and Eastern Europe, which consists of Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. The strategy of development of the region for the period 2013-2025. is based on three pillars. The first pillar of development strategy is to increase exports and focusing on activities with higher added value. The second pillar is to increase growth, productivity and investment in the domestic sectors that are lagging behind (for example, construction, transport, retail and network industries). The third pillar is to attract foreign direct investments and to increase domestic savings (McKinsey, 2013, pp. 27-67).

Developing countries are facing a new era, which may be significantly less hospitable to their growth. The reason for this is slowdown of growth in developed economies, with which developing countries are linked by trade and financial flows. The prospects for economic growth do exist even in such conditions. What is needed are rapid structural changes from low-profitable/traditional, to highly profitable/modern economic activities. However, the problem is that the institutions that should support such growth can not be built overnight. Experiences in some developing countries-the so-called "growth champions"-show that the institutional barriers can be overcome. This can be done by using crisis management of a kind, with pro-active industrial policies at the center of it (Rodrik, 2009, pp. 3-9).

Industrial policies are otherwise controversial topic in the economic literature. Critics of industrial policy point to information problems in the course of their implementation, as well as the problem of corruption. Proponents of industrial policy relied on good practices and trying to build a conceptual framework for their implementation (Rodrik, 2008, pp. 25-30). Developed countries actively used industrial policies in order to protect their economies during the global economic crisis, despite the declaration in favor of free trade, unrestricted movement of capital and the like. These industrial policies made discrimination between sectors and were directed against foreign commercial interests. (Aggarwal, Evenett, 2012, pp. 279-281).

Institutions are indisputably important for economic development. Countries in which institutions do not function, or do not exist, are among the so-called failing states. Such states fail to provide even basic public goods for its population, such as justice and security. All failed states were former colonies. Economic development in these countries is not possible without continued international aid (Collier, 2009, pp. 219-240).

Institutional reforms should free the potential for economic growth, but to be successful, they must have internal support. Recommendation is to avoid reforms that create new and potentially dangerous political opponents. Any political intervention creates winners and losers. Winners become not only economically powerful, but also politically powerful. These politically powerful groups can later become an obstacle to future progress (North et al., 2008, pp. 1-7).

For economic development key are institutions that ensure macroeconomic stability, social stability and managing conflicts. The economy is practically based on a wide range of non-market institutions. Every country governs relations

between market and non-market institutions in its own way. For example, American style of capitalism is very different from Japanese style of capitalism. Both differ from European capitalism. Even within the EU there are major differences between the institutional arrangements, for example, in Sweden and Germany (Rodrik, 2000, pp. 12-27).

In recent years, the relationship between general policy and economic development is analyzed. In the literature is developed a special concept called a *trajectory approach*. Depending on the degree of political competition, the ruling elite can choose one of two opposing reform options. The first option is called *the dominant state trajectory*. In this option, the ruling elite has no political competition, or it is weak. The ruling elite maintains its legitimacy by promises that all decisions will be taken in accordance with broader and long-term public interests. If the promises are fulfilled, then economic development is also successful. However, failure is as likely as the success. Failure occurs when the dominant party promotes only their narrow interests or/and becomes corrupt.

The competitive clientelist trajectory, as other possible options, means that the groups of elites compete for power through elections. In countries where public institutions are weak, elites can promise to direct public resources to favored clients in exchange for their continued support. Favoring the interests of clients is carried out at the expense of public interest, which is identified with economic development in this case. In such circumstances the decision-making is under constant pressure of clients' interests. Conflicts threat constantly to get out of control. (Levy, 2011, pp. 60-63). A challenge for reformers is not to prescribe the optimum economic policies, but rather to identify entry points and development priorities that are able to break the trajectory of low income growth and initiate a spiral of cumulative changes. Figure 2 shows a decision tree that can help about choice of development priorities, depending on the specific circumstances of each country.

The first fork in the decision-tree makes a difference between countries in terms of their development performance. When a country is on the dynamic path of development, development priority or entry point should be to maintain the current development incentive. The principle that applies is that "if something is not broken, do not need to be repaired." Countries with low income and those that have stagnated in development, are faced with the question of whether incremental reforms can release development potential? If yes, then you can take the "just enough" governance reform. If the answer is negative, then the stagnant economy is sliding downwards along the decision tree until the last option, in which social mobilization is the last remaining option for the release of development potential (Levy, Fukuyama, 2010, pp. 36-41).

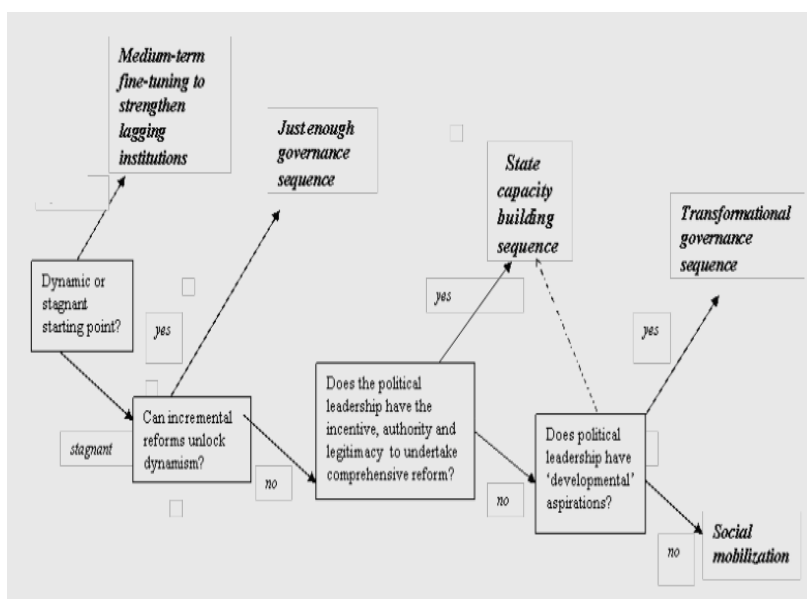


Figure 2: Country Circumstances and Development Sequences: A decision-Tree

Source: Levy, Fukuyama, 2010, p. 37

ANALYSIS OF NATIONAL ACCOUNTS OF THE REPUBLIC OF SERBIA

In the period 2000-2013., Serbian economy was in macroeconomic imbalances which was reflected in the gap between the primary distribution and final use of GDP. Domestic savings have not been sufficient to cover investment, and the difference is compensated from foreign sources, i.e. net borrowing on the capital account. The balance on the capital account was negative in all observed years, especially in the sub-period 2006-2008. (Table 1 and Figure 3).

If the capital account is observed in isolation from other accounts, then the solution for leveling the negative balance would be very simply: reduce the rate of investment (see Figure 1). No country, however, does not want to reduce their investments, because it would decline incomes in the future. Since investments depends on savings, and savings is part of disposable income that is generated in the production, logic dictates that production account has to be the starting point for the analysis.

Gross domestic product, or GDP is the balance on the production account. GDP growth would increase savings, and it would reduce the need for foreign borrowing to finance investments. Consequently, the deficit on the capital account would be reduced. There are several ways to increase the GDP on this account, namely: (I) an increase in output, (ii) an increase in taxes on production and

imports, (iii) reduction of subsidies and (iv) reduction of intermediate consumption. In the following, the first three ways to increase the GDP are analyzed, while the influence of intermediate consumption does not considerate further. The assumption is that there is no change in the other national accounts.

Table 1: Serbia: the capital account 2000-2013.

Year	Real GDP growth (%)	Domestic investment (% of GDP)	Domestic savings (% of GDP)	Capital account balance (% of GDP)
		(A)	(B)	(B) - (A)
00	7.8	14.1	7.7	-6.4
01	5.0	12.9	10.7	-2.2
02	7.1	16.2	6.0	-10.2
03	4.4	18.3	10.6	-7.7
04	9.0	20.5	17.0	-3.5
05	5.5	20.1	15.8	-4.3
06	4.9	22.3	13.1	-9.2
07	5.9	25.3	10.8	-14.5
08	5.4	24.9	7.6	-17.3
09	-3.1	19.7	10.0	-9.7
10	0.6	18.6	9.1	-9.5
11	1.4	18.4	11.2	-7.2
12	-1.0	21.2	10.2	-11.0
13	2.6	17.2		

Source: Statistical Office of the Republic of Serbia, author

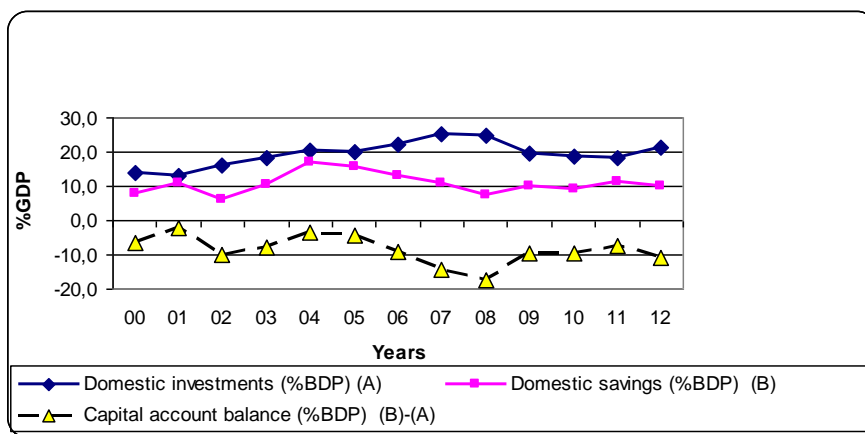


Figure 3: Serbia: investments, savings and balance on the capital account 2000-2013. (% of GDP)

Source: Statistical Office of the Republic of Serbia, author

With regard to above assumption, output on production account can be increased only with the growth of productivity. Since consumption is also unchanged on the use of income account, higher output could be realized only through an increase in exports. Export growth may be further driven by the depreciation of the exchange rate. Depressed exchange rate would cause reducing imports, which would correct the imbalance of the trade balance. In addition, decreasing imports contributes to the revival of domestic production, or output.

What are the chances for realization of such a scenario to increase output? The answer to that question requires examining barriers below. The first barrier is related to productivity as a factor which may increase output. In the period from 2004-2013, the productivity of Serbian economy grew at annual rates that were higher than the average rate of productivity growth of EU-28 (Figure 4).

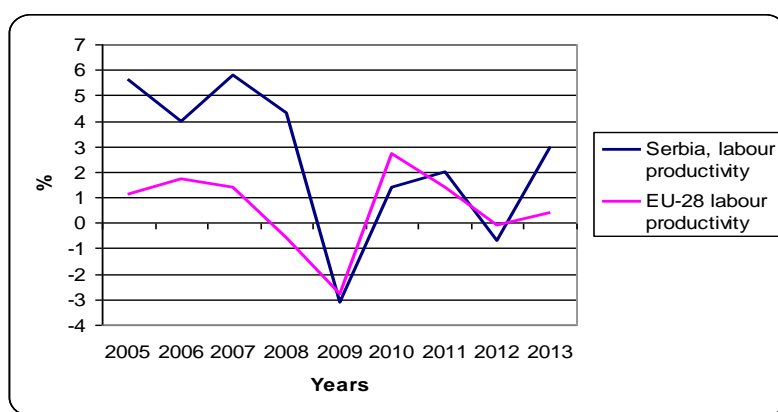


Figure 4: Serbia and the EU-28: labor productivity 2005 to 2013.

(Percentage change over previous year)

Source: Eurostat, calculated by the author

Thanks to higher rates of productivity growth of Serbia in relation to the average of the EU-28, the differences in the level of productivity are reducing gradually (Figure 5). In 2002, the productivity of EU-28 countries and Serbia was in proportion of 9.6: 1. Difference in productivity was decreasing gradually during the period, that would be reduced to a ratio of 5.8: 1 in 2013. However, the size of this gap warns that the "convergence" process of Serbia to the level of productivity that exists in the EU -28 countries, will be a very long one (Knežević, Ivkovic, 2014, pp. 13-30). Such process necessarily involves technical and technological modernization of the Serbian economy, and solving "internal" problems, such as the completion of the privatization and restructuring of public enterprises.

Insufficient productivity impacts on reducing the competitiveness of Serbian economy. Reduced competitiveness is one of the main reasons why Serbia has continuous deficit in foreign trade. Throughout the period 2004-2013, imports were higher than exports. Unrealistic, namely overvalued exchange rate, was partly responsible for unfavorable performance in foreign trade (Figure 6). In the period 2004.-13. the nominal exchange rate was overvalued by about 7% a year on average against the euro.

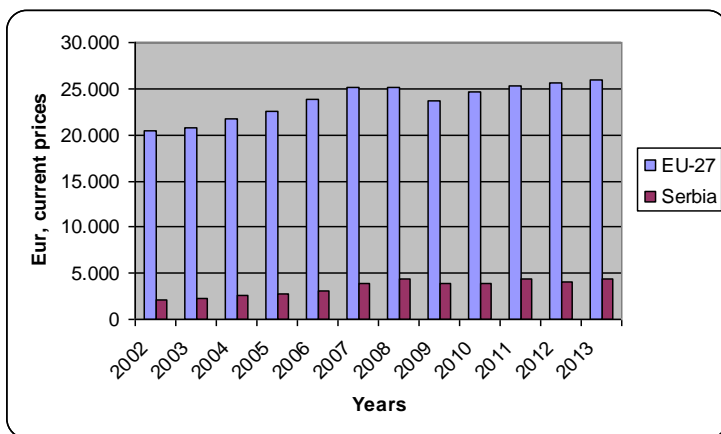


Figure 5: Labor productivity in Serbia and the EU-27 (GDP per capita, euros, current prices), 2002 to 2013.

Source: Eurostat, author

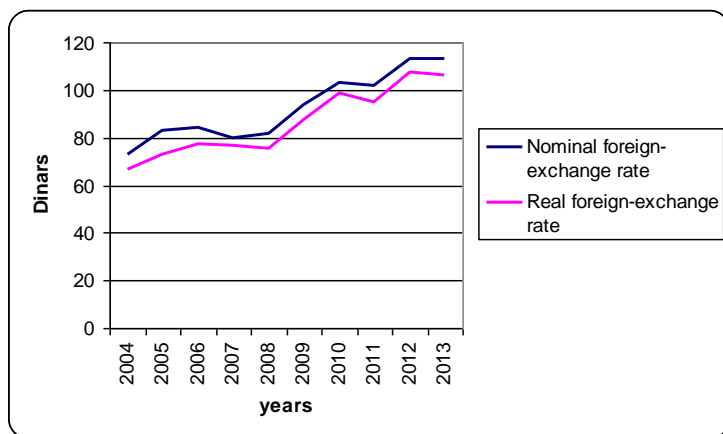


Figure 6: Nominal and real exchange rate against the euro in the period 2004- 2013.

Source: National Bank of Serbia, Eurostat, calculated by the author

In addition to the unrealistic exchange rate, an unfavorable structure of production is a significant constraint on the growth of Serbian exports. From the perspective of supply, sectors with non-tradable products, i.e. services give the largest contribution to GDP growth (Figure 7).

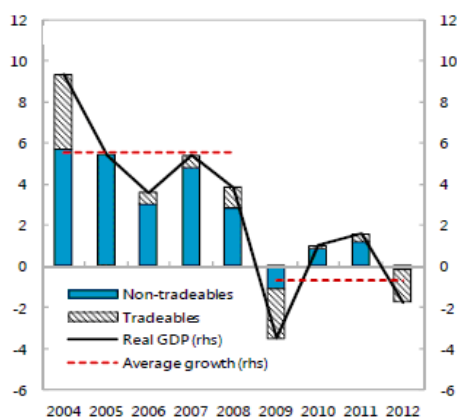


Figure 7: Contribution to GDP growth (supply side)

Source: IMF, 2013, p. 5

Increasing taxes on production and imports is another way to increase GDP. Higher taxes increase the value of GDP, but also the cost of products and services. More costly production discourages final consumption, which would result in reduction of GDP in the future. From the perspective of the national accounts, increasing taxes on production and imports is a controversial measure, which increases GDP in the present, and reduces it in the future. In addition, higher taxes on production and imports would exacerbate the international competitiveness of Serbian economy. Figure 8 shows the level of tax on production in Serbia and in EU countries. In all the observed years, level of these taxes minus subsidies is higher by 5-6 percentage points in Serbia compared to the average of the EU-28 countries.

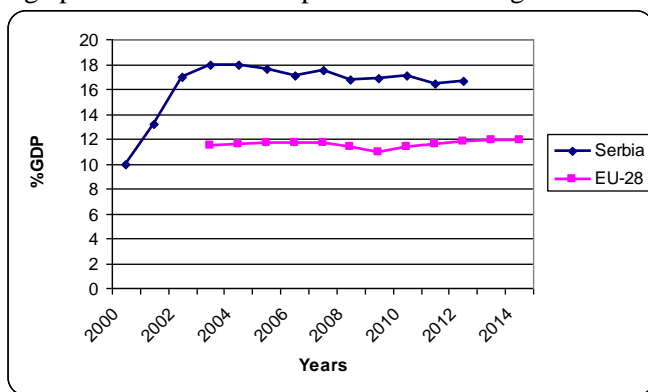


Figure 8: Taxes on production and imports less subsidies: comparative review of Serbia and the EU-28

Source: Statistical Office of the Republic of Serbia, Eurostat, calculated by the author

Reducing subsidies is also controversial measure to increase GDP. At the macro level, reduction of subsidies increases GDP. At the micro level, however, the reduction of the subsidies complicate position of branches and enterprises that are accustomed to this type of state aid for many years (for example, agriculture, public utilities, etc.). The world experience shows that subsidies can have a positive role in increasing the GDP, if they are targeted towards structural changes in the direction of manufacture of modern and profitable products and services. The problem with subsidies in the Serbian economy is that they are mainly targeted in the direction of covering losses in public enterprises and state-owned banks.

Generation of income account describes the primary income distribution. The participants in the primary income distribution are employees, the state, and capital which is engaged in the production. Employees receive compensation in the form of gross salaries for their work. The state is forming its income by collecting taxes on production and imports. Capital, which is engaged in the production, appropriates the gross operating surplus. In the unaltered state to other accounts, net borrowing of the total economy can be reduced so as to increase the gross operating surplus. The mechanism for the increase in gross operating surplus covers reducing employee benefits and/or reducing taxes on production and imports. As has already been discussed on taxes on production and imports, the analysis below focuses on salaries of employees.

When it comes to employee benefits, i.e. their gross salaries, before any analysis it should indicate for a few facts. Salaries are formed within the five institutional sectors. In doing so, the level and dynamics of salaries in these sectors is determined by different criteria. For example, in most of the non-financial and financial sectors, as well as in the household sector, it should be expected that salaries are determined primarily on the basis of economic criteria. These criteria may include marginal contribution of labor and/or the relationship between supply and demand in the labor market. Regarding the government sector, salaries are determined on non-market mode, i.e. by laws and regulations.

The key question for empirical analysis is whether and how much gross operating surplus of Serbian economy is threaten by the salaries of employees? Figure 9 shows the movement of real net salaries and labor productivity at the level of the total economy of Serbia. In the period 2000- 2013. the real net salaries rose 3 times, while labor productivity increased by 1.7 times (2000 = 100). It is indicative that the real net salaries almost doubled in the first year of implementation of political and economic transition.

Similar tendencies in real net wages and productivity can be detected when viewed by individual institutional sectors. Figure 10 refers to the manufacturing industry, which belongs to the non-financial sector. Even in this industry, which was selected because it should be an example how to form earnings on the basis of economic criteria, there is a large discrepancy between the real net salaries and realized productivity. In the period 2000-2013., real net salaries rose slightly more than 3 times, while labor productivity increased by about 2.5 times.

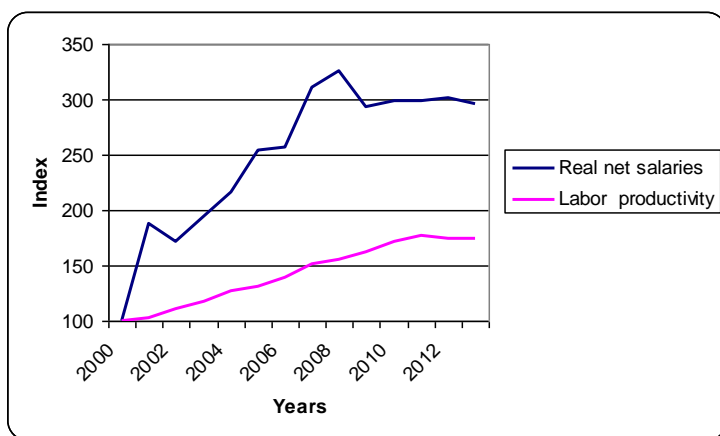


Figure 9: Serbia: real net salaries and productivity-overall economy (index 2000 = 100)

Source: Statistical Office of the Republic of Serbia, calculated by the author

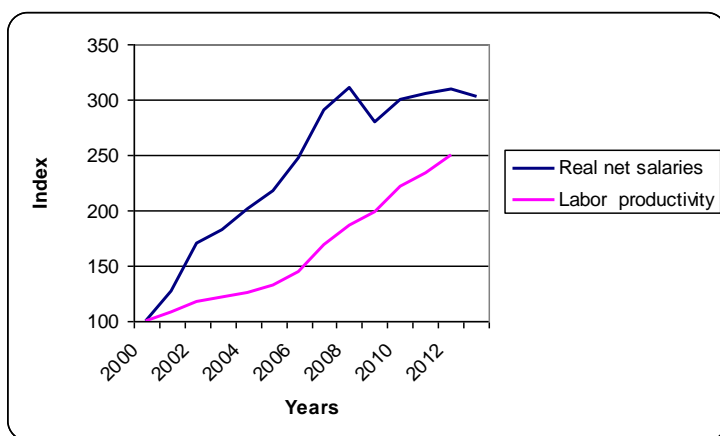


Figure 10: Serbia: real net salaries and productivity-manufacturing (index 2000 = 100)

Source: Statistical Office of the Republic of Serbia, calculated by the author

At the other extreme, unrealistically high salaries are formed in the government sector, too. Figure 11 shows the comparative trends in gross salaries in the public and private sectors in the period 2003-2012.

Large public enterprises do not belong to the government sector, but to non-financial sector. However, salaries in these companies are determined under the influence of state. In the period 2009- 2011., in three out of the ten largest public companies, salaries are at the level of the average of the government sector. These are

ŽTP, Srbijašume and PTT. In the remaining seven companies salaries are well above average, from 2 to 3 times, although most of them are loss-making and receive subsidies from the state (for example, Srbijagas, Srbijavode, etc.) (IMF, 2013, p. 8).

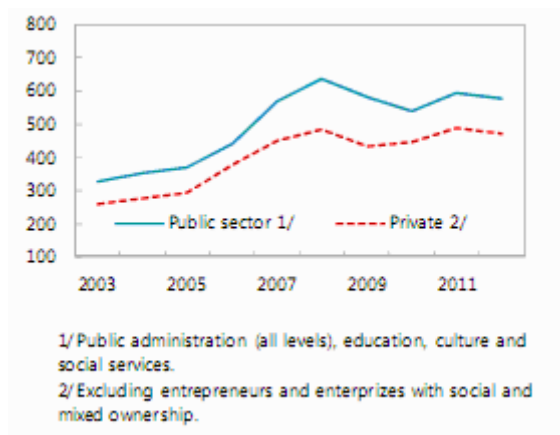


Figure 11: Serbia: average monthly gross wage, 2003-12. (Euros)

Source: IMF, 2013, p. 24

Gross operating surplus of Serbian economy has been continuously threatened by (i) faster growth of salaries than productivity, (ii) higher salaries in the public sector than in the private sector, and (iii) "champion" earnings in the majority of largest public companies. On the other hand, very low labor costs and reducing the number of employees throughout the period of transition were the factors that have helped to prevent the complete collapse of the gross operating surplus.

Table 2 contains comparative data on average labor costs per hour in Serbia and a few selected countries of the EU and the former Yugoslav republic of Macedonia. Table also contains data on labor costs in a number of individual branches, in the form of a percentage deviations from the national average.

Labor costs in Table 2 include net salaries, plus taxes and social contributions at the expense of employees and employers, as well as other costs associated with the labor (for example, training costs, cost of work clothes, etc.). At the level of EU-28 countries, the average labor costs amounted to 24.12 euros per hour in 2012. With 5.12 euros per hour, Serbia is located at the penultimate place, ahead of Macedonia. Labor costs in the public administration and defense in Serbia are significantly higher than the national average (+ 24%), than is the case in the EU-28 (+ 7%). Labor costs in public administration and defense in Serbia are also significantly higher than the labor costs in education and particularly in health and social work.

Table 2: Hourly labor costs by selection of industries compared to the national level - 2012

Country	Hourly labor cost (whole economy, except public administration, in EUR)	Manufacturing	Financial and insurance activities	Public administration and defense	Education	Human health and social work activities
EU-28	24,12	2%	70%	7%	7%	-2%
Germany	31.58	14%	56%	8%	15%	-12%
France	34.55	4%	53%	-13%	13%	-15%
Italy	27,99	-3%	73%	7%	40%	1%
Poland	7.88	-13%	60%	19%	38%	-11%
Croatia	9.48	-15%	45%	15%	4%	9%
Slovenia	15,59	-6%	48%	19%	9%	4%
FYR Macedonia	3.48	-25%	111%	25%	-5%	3%
Serbia	5.12	-12%	87%	24%	2%	-2%

Source: Eurostat

Serbia, together with Macedonia and a few other countries that are not represented in the table, such as Romania, Bulgaria, Lithuania and Latvia have the lowest labor costs per hour in Europe. In addition, the number of employees in Serbia decreased by 380 thousand, or almost 20% from 2000 to 2013.

Flows of primary income distribution continue over allocation of primary income account. The balance in this account is the gross national income. The higher the gross national income, in an unaltered state to the other accounts, the lower the net debt of the overall economy.

Gross national income represents the sum of GDP and net property incomes. Property incomes include: interest, distributed profits, rents and the like. Interest has the largest share in the structure of property incomes, both on the side of receiving, and the payments side. On the receiving side, financial sector, i.e. commercial banks realize the greatest positive difference between interest received and paid, as expected. On the payments side, the greatest negative difference between interest received and paid realizes non-financial sector, the government sector and the household sector. The analysis below focuses on the impact of interest rates on the growth of gross national income.

The Serbian financial system is bank-centric. Commercial banks are the largest creditors of other institutional sectors. Commercial banks earn a significant portion of profit from interest margin, i.e. difference between active and passive interest

rates. Changes in interest margins has resulted in property incomes redistribution among sectors. Thus, for example, increasing interest margins improves the position of the financial sector, but at the same time and in the same scope deteriorates position of other institutional sectors. Conversely, a decrease in interest margins mean less income for the financial sector, for how much more remains income to other institutional sectors. The reduction in interest margins would be particularly useful for non-financial sector. The income surplus of this sector, which would not have gone to pay interest to banks, could be used in a whole for increasing investments and a higher degree of self-financing. This would allow to reduce the debt on the capital account.

If commercial banks would not change their interest margins, then the redistribution of property incomes in favor of other institutional sectors can be implemented by reducing the level of their indebtedness in the future. The practice of so-called deleveraging shows that this process has a negative short-term effects on GDP growth, but it creates a good basis for sustainable growth in the future (Šljivić, Vojteski-Klijenak, 2014, pp. 106-121).

Interest margins of commercial banks in Serbia are among the highest in Europe. They were particularly high in the first years of economic transition, but show a declining trend. In 2010, interest margins have fallen below 10% for the first time (Figure 12).

Another important characteristic of the banking business is reduced lending to the economy and households. Especially spectacular decline in lending was recorded in the household sector. When it comes to the economy, both domestic and cross-border loans are decreasing (Zipovski, Kvrđić, Vujadin, 2013, pp. 41-53).

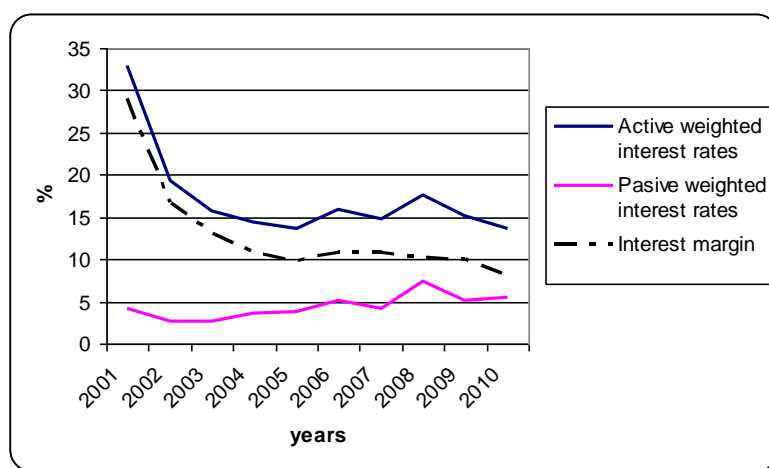


Figure 12: Active and passive interest rates and interest margin of commercial banks in Serbia, 2001- 2010.

Source: National Bank of Serbia, calculated by the author

For the whole 2013, corporate loans have negative growth rates. If all this is added a fact that the Government of the Republic of Serbia began fiscal consolidation at the end of 2014, it is clear that the entire Serbian economy entered the process of deleveraging.

Allocation of primary incomes between institutional sectors in Serbia is not only influenced by interest margins. The efficiency of investment is an important channel affecting the allocation of primary incomes. At the beginning of this analysis, it was concluded that the domestic savings were insufficient to finance investments in the whole period 2000-2013. Lack of financial resources was offset by net borrowing from abroad. This method of funding is not in dispute until the investments are economically efficient.

Capital-output ratio is commonly used as an indicator of the efficiency of investments. It represents the relationship of gross fixed capital formation and the growth rate of gross domestic product and shows what percentage of GDP should be invested in order to ensure its growth by 1 percent. The higher the capital-output ratio, the higher investments are required for unit growth in GDP, and investment efficiency is reduced. Figure 13 shows the movement of the capital-output ratio in Serbia in the period 2000 to 2013.

Ironically sounds, but Serbia has had the best values of the marginal capital coefficient at the beginning of economic transition. Unfortunately, with age this ratio only increased, indicating a worsening of efficiency of investment in Serbia. The year 2009 is a crucial year, because the value of marginal capital coefficient drastically worsened.

Gross national income is directed further to the income distribution account. On this account the distribution of income is performed by current transfers received and paid.

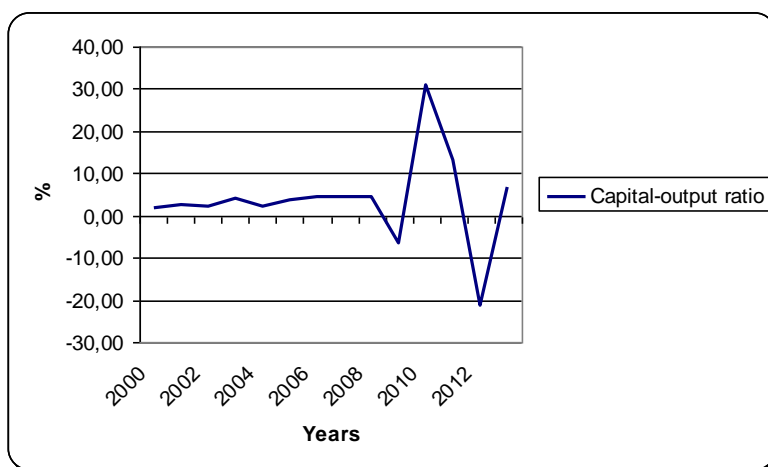


Figure 13: capital-output ratio in Serbia 2000-2013.

Source: Statistical Office of the Republic of Serbia, author

Gross national income can be increased if you make a larger difference between the received and paid current transfers. Therefore, it is useful to make an insight into their structure. Current transfers are parsed into three groups: (i) current taxes on income, wealth, etc; (ii) social contributions and benefits, and (iii) other current transfers.

Current income taxes consist mainly of taxes on household income, or corporate profits, as well as from taxes on wealth, such as land, property, luxury goods and the like. In times of crisis, when many countries are looking for additional sources of tax revenue, more acceptable solution for the economy is that the taxes burden more assets, i.e. wealth, and less factors of production such as labor and capital. Serbia has so far done little in this direction, especially when it comes to progressive taxation of wealth.

Social contributions and benefits are the second group of current transfers. The main beneficiaries are pensioners and vulnerable groups. In late November 2014, as a result of the three-year agreement with the IMF, there was a reduction of pensions by 10%. It was a "bitter medicine", but necessary for sustainable growth of the Serbian economy.

Less bitter drugs, however, can be used in other categories of transfers. The most significant of these groups are remittances from abroad. According to the World Bank, Serbia is ranked high on the list of countries receiving this type of transfer. In the period 2010 to 2013., the inflow of remittances ranged from 3.3 to 4.0 billion dollars a year, or 8-9% of GDP. Remittances from abroad are a stable source of foreign exchange inflows, which improves Serbian balance of payments position. Remittances from abroad are of great importance for the Serbian economy due to the number of Diaspora. In fact, more than 3.5 million Serbs are distributed in approximately 100 countries around the world (Vasiljevic, 2009, pp. 201-213).

When the gross national income is adjusted for current transfers, the balance is the gross disposable income. This balance is transferred to the use of income account, where its allocation to final consumption and savings is carried out.

Allocation of disposable income on consumption and savings is one of the fundamental issues of economic development of each country. The higher final consumption today, the less domestic savings for investment remains for increased spending in the future. Table 3 and Figure 14 contain comparative data on expenditures for final consumption at EU-28 and Serbia in the period 2004-2013.

Table 3: Final consumption expenditure of the EU-28 and Serbia (percent of GDP)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU-28	78.8	78.9	78.3	77.3	78	80.7	80.3	79.7	80	79.8
Serbia	97.1	95.9	96	96.9	97.1	99.6	99.8	96.3	96.7	93.2

Source: Eurostat, author

EU countries spend on average about 80% of GDP on the final consumption. In Serbia, the percentage is much higher; in either year final consumption was no less than 95% of GDP, except in the final 2013., when it amounted to 93.2% of GDP. The highest level of final consumption in Serbia was realized in 2009 and 2010, when almost the entire GDP was spent for this purpose. Differences in the levels of final consumption between the EU-28 and Serbia most stem from differences in income levels. However, some EU member states, which are at a similar level of development as well as Serbia, have a much lower share of final consumption in GDP. For example, in 2013, Bulgaria had a share of 80% of GDP, Croatia 81%, Hungary 74% and Romania 78% (Eurostat).

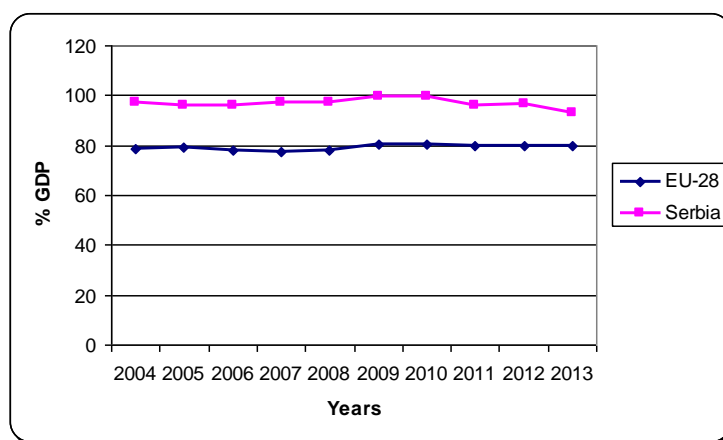


Figure 14: Final consumption expenditure in Serbia and the EU-28, 2004-2013. (Percent of GDP)

Source: Eurostat, author

The percentages in Table 3 are the best proof of how Serbia was consistent in implementing the concept of economic growth which was based on consumption. The problem with this concept is that the impulses in the form of final consumption could not launch domestic production. What's more set aside for final consumption, the greater the pressure was to increase imports. Consequently, a disproportionate growth of final consumption in relation to the possibility of domestic production, resulted in a foreign trade deficit and current account deficit.

How to reduce excessive consumption and increase savings in Serbia? Bearing in mind the channel: final consumption-trade deficit, the logical economic policy measures would be to implement a policy of real exchange rates, which would mean a gradual depreciation. More expensive imports would discourage final consumption. Consequently, unspent incomes could be used to increase savings. The second measure, long-term in character, could be the strategy of import substitution. The essence of the strategy is to replace as many imported products with domestic manufacturing, thus increasing employment, incomes, and savings.

Final consumption is a very sensitive area for the functioning of economic policy. The final consumption is made up of two aggregates, namely: (i) the individual consumption expenditures and (ii) the collective consumption expenditures. When it comes to individual consumption expenditure, incomes in this sector have already been experienced a decrease by the amount of interest on the allocation of primary income account. The population of Serbia is in charge. Each resident owes on average 818 euros and each employee 2,728 euros, according to data for 2013 (National Bank of Serbia). The absolute level of debt per capita, or per employee, is not large compared to other countries. However, we should bear in mind that Serbia is at the very bottom among European countries by the level of net salaries. Serbia also has a high unemployment rate, officially around 20%, as well as a high rate of inactive population, about 38%, according to data for the first quarter of 2015 (Statistical Office of the Republic of Serbia) On the basis of all above it follows that self-discipline of the population will not be the main "motivator" for a possible reduction in personal spending and increase savings in the future, but disciplining role of debt.

Behind the collective consumption stands the government sector. Collective expenditure services are classified as a public goods in economic theory. These services include defense, public order and security, health, education, culture and religion, and the like. In a word, such public goods build the pillars of every state, including Serbia. Consequently, any idea of the potential reduction of collective consumption should be considered with the greatest attention. In the period 2000-09, the expenditures for collective consumption in Serbia have ranged from 7.5 to 8% of GDP, in order to reduce to around 6.5% of GDP in the period 2009-13. year (Statistical Office of the Republic of Serbia, 2014)

DISCUSSION

Previous analysis has aimed to offer arguments in support of the three hypotheses about the integration of governance and economic growth in Serbia. The first hypothesis concerns on the effects of the economic model which is known as the Washington Consensus. Analysis showed that the final consumption outstripping domestic supply. Serbia consumes over 95% of its GDP on final consumption, which is about 15 percentage points more than the average in the EU-28 and significantly more than in countries with a comparable level of economic development. Excessive final consumption caused two major consequences in Serbia. Firstly, the foreign trade deteriorated and the large current account deficits are formed. Secondly, domestic savings were insufficient to finance investments and the difference was compensated abroad. In this way a chronic deficit in the capital account was formed.

The second hypothesis concerns on the need for Serbia to turn to a new model of economic growth that would strengthen the capacity of domestic supply. It requires building a broader framework for the conduct of industrial policies, on

the ground of economic changes resulting from the analysis of national accounts. Previous analysis has shown that such changes can be made in any national account. In conclusion, all these changes will be incorporated in a systematic framework for conducting industrial policies.

The third hypothesis concerns on the need for the state to strengthen its capacities through the development of institutions to manage social and economic conflicts between different interest groups. Previous analysis has shown that such institutions are necessary, because there are many neuralgic points with which industrial policies could confront in Serbia. For example, support for import substitution can cause resistance by import lobbies. The tendency to reduce taxes on production can bring nervousness to the tax authorities, just as monetary authorities will not likely be sympathetic to the idea of keeping the real exchange rate. Incomes are enough explosive area even without the inclusion of otherwise passive unions. Commercial banks are resisting the idea to reduce interest margins and the like. That is why Serbia needs strong institutions for conflict management such as rule of law, independent and quality judiciary, independent trade unions, social partnerships, etc.

CONCLUSION

Integration of management and growth describes the way in which the institutions are involved in solving the problems of economic growth. Good institutions are a prerequisite for successful economic growth. In recent years, however, the world economy is faced with the unfavorable forecasts of economic growth. Forecasts are not just short-term, but also long-term. If growth is not satisfactory, then it raises a logical question: What's wrong with institutions?

Three hypotheses in this paper dealt with the relationship of institutions and economic growth in Serbia. The arguments for the hypotheses gradually collected through the analysis of national accounts in the previous part of the paper. On the basis of these arguments could be carried out generalization. For any country, ever, it is not good that the institutions for economic development adapt to the "universal" models of economic growth. Models such as Washington Consensus do not know and do not accept barriers faced by national economies. With final consumption without limits in its epicenter, that model really represent "a recipe for disaster."

Serbia needs to build its institutions for economic development so to strengthen the capacities of domestic supply of goods and services. In such a model of economic development, final consumption has no priority over savings and investments. The opposite is true; savings and investments determine reasonable limits for final consumption. A framework for managing industrial policies was gradually built in this paper, and it can serve as a strategic guide for strengthening the capacity of domestic supply of products and services. Here, in conclusion, remains for this knowledge to be systematized and generalized. .

The framework for managing industrial policies in Serbia should be based on the five pillars, namely: (i) technical and technological modernization of production, with the aim to increase productivity and reduce the gap in relation to the EU-28; (ii) the restructuring of production, which should be in the program (tradable products and services with greater added value) market (increase in export / import substitution), ownership (including the bankruptcy of the failing companies) and management (public enterprises), with the aim of increasing competitiveness and profitability; (iii) financial relief of the economy in order to reduce debt and increase domestic sources to finance investments; (iv) active income policies, which should prevent economically unjustified income spillovers in the public sector, and labor as a factor of production to become a real economic category in all institutional sectors and (v) attracting foreign direct investment, as compensation for low domestic savings and accelerating economic growth.

All five pillars which constitute the framework for managing industrial policies in Serbia result from the barriers that have been identified on the basis of the analysis of national accounts. In this sense it can be said that the proposed framework is comprehensive and consistent. To activate it in Serbia, it is necessary that the political elite, as the main driver of change, replace clientelist reform path with the path of the dominant state.

Offered framework for industrial policy is wide. Each of the five pillars can continue to be filled with elements that derive from the analysis of national accounts. It is also possible to incorporate positive experience of European and international practices into the pillars. A framework for managing industrial policies is open to the so-called sectors policies relating to specific branches and sectors of national economy. Further researches in the field are necessary and useful.

This framework does not represent a negation of traditional macroeconomic policies, such as monetary and fiscal policy. Rather, one could be spoken of as a necessary supplement to existing economic policies. The monetary and fiscal policies are more effective when it comes to the regulation of aggregate demand, but they do not have such a powerful effect on strengthening the capacity of domestic supply. This space should belong to the industrial policies.

This paper contributes to the affirmation of a strategic approach to the study of the relationship between institutions and economic growth. The aim of this approach is also strategic, to reduce the deficits and foreign indebtedness of Serbia, by strengthening the capacity of domestic supply. In this way, country would be able to preserve its economic and financial sovereignty.

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META MODEL FOR THE PROCESS OF STRATEGIC DECISION-MAKING WITH MULTIVARIATE PLANNING

Dragan Milosevic PhD³

ABSTRACT

Strategic decision-making represents a collection of connected decisions made at the highest level of an organization, and these decisions define the strategy of a certain organization in given circumstances. They represent a making of a key choice amongst the alternatives on which the future of the organization depends. In order to make the right choice it is necessary to go through a great amount of data about the situation factors, so as to gain information which is crucial for the choice of the alternative. A great deal of complex information represents a problem for the decision-maker. Most of strategic decisions, by their characteristics, represent precedents made in given circumstances. A decision-maker is expected to bring rational decisions which will help maximize economic benefits for an organization in a longer period of time. In addition to significant research effort invested in this, practical methods that would help managers while making key decisions are still missing. The process of strategic management represents a sequence of steps that keeps up with the logic of problem-solving. In order to save time, modern process of strategic management also includes multivariate planning.

Key words: *Strategic Decision-Making, Strategy, Strategic planning*

JEL Classification: *D81, O21*

UDC: *005.5*

005.311.6

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INTRODUCTION

Modern business environment of the XXI century has had a large number of different types of changes which have been happening faster and faster, so we can define this environment as a turbulent environment. What comes from a characteristic of having a turbulent environment is its uncertainty of prediction. Therefore, it is not surprising that this kind of environment can be associated with a disorderly and chaotic system.

Environment which is defined this way sets additional requests for the companies in their eagerness to adapt to it. According to (Pascale, 1999) a complex adaptation system exists on the possibility of recognizing patterns in a great number of changes. Because there is a possibility for these changes in their basic elements to be predicted or at least sensed, the entire system of adaptations to one company's changes greatly depends on this.

According to (Whelen, Hunger, 2012, pp 25) when an organization is becoming larger and more complex, when the unpredictability of modern environment is becoming more pronounced, the decisions are also becoming more complex and more difficult to make. The company conducts its adaptation to environment changes through a sequence of mutually connected decisions, on all managerial levels, within a long-term process of forming and applying the strategy.

Rumelt, et al., (1991) claimed during the 1990s that the paradigm of a key source of competitive advantage was changing. Theoreticians but also practitioners see the source of competitive advantages as a result of organizational abilities and not as a position of products on the market or the applied marketing tactic. They see strategic decision-making within a process of strategic development as maybe the most important organizational ability for achieving competitive advantage. According to them, the way and speed in which the organization selects strategic decisions are shaping company's future.

The most significant part of managerial business is making and implementing decisions with the help of people. And this is why in this research the process of strategic development will be observed as a key part of the process of strategic management. Making decisions is the most significant job a manager does. It is being applied at all levels of the organization, both in regards to long-term decisions and everyday operational decisions. Every decision changes performances of a company.

A decision represents a choice from a collection of at least two options (alternative, action) that can achieve a desired goal (Pavličić, 2007, p. 1).

In his research (Markides, 1999) mentions a dynamic aspect of forming a strategy, where he says that a strategy is a company's choice about what the company wants to achieve in the future. What is emphasized here is company's role as an active participant in making a choice among more alternative directions. In this way, the company is a creator of its own destiny within possibilities and limitations imposed by this situation. Innovations are seen as an unlimited source of possibilities for active creation of the future and the position on the market.

Strategic decisions are always long-term decisions whose basic assignment is to adapt an organization to environment in a longer period of time and to establish the improvement of performances. They represent key managerial decisions of an organization and they define company's future. These are the decisions that refer to: choice of business, the way on which the company will compete with competitors on the market (business model) technology, capacity etc. They represent a group of integrated decisions that help the company to direct its business in a certain direction. That is why a company's future depends on the efficiency of the strategic decision-making system.

According to (Harison, 1996) the authors strive to make an integrated process out of the entire decision-making process, which follows a certain logical train of thoughts based on which the strategy is formed. In this way, they are trying to connect a strategic and operative level of planning. Assignments of the strategic decision-making process are:

- Setting goals for the company's management.
- Researching strategic alternatives.
- Comparison and evaluation of strategic alternatives.
- Making a choice among strategic alternatives and defining a strategy.
- Implementation of a chosen strategy as a collection of connected decisions.
- Monitoring and controlling the entire process.

In his researches Peter Drucker says that the greatest problem of applying the concept of strategic management lies in linking strategic and operative levels. In order to successfully connect strategic and operative management levels, it is necessary to integrate a large number of employees in its realization.

All strategic decisions have a string of their own specificities which makes them precedents. They are made in different circumstances, for different markets and within different time frames, they were adopted in different ways and they have different goals ready to be achieved. These decisions are highly complex. They are suggested by top managers at the top of an organization and for them to be carried out capital owner's consent is needed. After the company's owner gives consent, the realization of decisions is in top management's hands. Depending on the effect of these decisions in relation to company's performances, the efficiency of top management is also being evaluated.

Many authors think that we can define one general method of strategic decision-making whose parts or sequences can be realized this way or another. The aim of strategic decision-making process is creating and implementing strategies which will improve company's performances. A strategy can be defined as a result of a large number of business decisions during time (Stefanovic, Milosevic, 2012).

The process of making strategic decisions within organizations is one of the topics that have been getting the attention of both theoreticians and practitioners. This is not surprising given the fact that in the 1990s process of strategic decision-making was considered one of the key issues in strategic management (Eisenhardt, Zbaracki, 1992).

In practice, managers lack the amount of tools and techniques that would, in a more complex environment, help them make strategic decisions on which the company's destiny depends. Because of the complexity of a situation and a large number of variables which define it, it is necessary to carry out a certain generalization so as to gain simplified versions or models. These kind of rough models with a significant mistake represent tools strategic managers work with when making crucial long-term decisions. Literature shows that there is a great need for these, even rough, models that should help managers while making strategic decision.

When people bring complex decisions they carry out in their minds a certain simplification and recognition of patterns (models) created from past experiences. Lack of proper information, their complexity, and human limitation in dealing with complex problems reduce rationality of the one who brings decisions.

Decision maker can be an individual or a group of people. In situations when decisions should be made and carried out rapidly, the importance of including the employees in the process itself becomes even more significant. In this way, multiple positive effects, that can significantly improve the company's flexibility and results, can be achieved. In order to include a larger number of employees in the process of strategic management it is necessary to establish a basic or meta-process based on which the decisions would be made. By defining a meta-process for decision-making, a new space for formalizing interaction with the employees opens up. This way, we define who, what and when should do in that process.

This paper is a research on the conceptual framework and specificities of applying the decision-making theory in strategic management.

Strategic decision-making is the key activity in strategic management and, therefore, phases of strategic decision-making match the phases of strategic management. Because of the specificities of strategic decision-making and limitations that are present, we should first define a general process or a plan on how decisions will be brought in a certain company. When in a given situation, the following decisions are made: what activities will be carried out, in what order, their duration, who will carry them out etc. This is how meta-process of strategic decision-making is defined.

The aim of this research is to represent a rational meta-model for strategic decision-making which can be alternated depending on the type and speed of changes inside the environment. In this paper, strategic decision-making is observed in a wider context which, in addition to decision-making process, includes the process of their realization, i.e. implementation. The way strategic decisions are made defines the way the company will form its strategy.

In order to simplify this research, certain assumptions which should simplify the model are adopted. These assumptions are:

- Decision maker is rational in the process of decision-making.
- Decision makers have at their disposal relevant information necessary to make a decision.
- Decision maker makes decisions based on the application of the Decision Analysis methods.

- All effects of the strategy can be perceived in a relatively short period of time, period shorter than the one of strategic management cycle. This points out to the fact that all effects of the applied strategy can be immediately perceived and valued through company's performances. In reality, many effects of the strategy can be perceived after a longer period of time.

The application of the theory system and situational (or contingent) approach can help us understand relations between different systems, for example, company and its environment. Software packages IThink and Vensim are used as tools that could help us perceive and graphically show their relations.

Group of authors (Johnson, et al., 2005) says that, when making their crucial decisions, managers are expected to be rational in making strategic decisions with a general aim to carry out optimization of company's performances.

Even though in practice many managers would agree with a goal set like this, many decisions are not made rationally. There are different opinions on what rationality really means. One group of managers attaches rationality to an output optimization within a framework of given limitations a company is operating in. This behaviour is related to the term in economy referred to as "rational economic man". Other managers relate rationality to procedural rationality which refers to the existence of methods on which the decision refers to. These two approaches to rationality are often interconnected in the practice. Therefore in practice, in their wish to rationally make strategic decisions by forming methods of decision-making the managers actually indirectly want to achieve optimal economic results.

Time that is at one's disposal appears as a significantly limiting factor in this decision-making process. Lack of time for gathering information significantly reduces rationality effects in the decision-making process and directs us towards other methods based on which the decision that is crucial for organization's survival is made.

There is a significant delay between the moment in which the strategic decision is made and the moment in which we can see all the effects or outcomes of the decision in question. This is why the right corrective activity in management can be carried out after a serious delay, after going through all the effects a decision had on the performances of an organization. There is a possibility to reduce a time gap between the application of a decision and going through all the effects a decision had. In a great number of cases, partial effects of a made strategic decision are monitored in order to be able to react on time and carry out necessary corrections so as to achieve the wanted goal. This significantly reduces time but it doesn't give adequate information on how exactly a decision affected company's performances.

Lack of proper information, complexity of environment, time limitation for making decisions and subjective limitation of the one who makes decisions reduce a possibility of making rational decisions. Because managers lack information and because they don't know the real nature of a problem they are dealing with, they make decisions based on their previous experience and intuition.

Hill, Jones, (2013) say that a great amount and complexity of information as well as limited absorption possibility affect the strategic manager to look for ways to simplify problem solving. Because of a manager's limited power to process information and because being familiar with the complexity of a problem, a manager simplifies it and applies heuristic methods. As a result of human imperfection in processing a great number of complex information, errors in decision-making process occur as a result of cognitive biases. Cognitive biases represent systematic mistakes in human reasoning that come from the way people process information.

CHARACTERISTICS OF STRATEGIC DECISIONS

According to (Anil Kumar,Suresh, 2009) every decision has the following general characteristics, such as:

- Importance of the decision or planning time.
- Time and costs needed for decision-making.
- Complexity level of the decision.

According to (Anon, n.d.) strategic decision-making is „Chosen alternative that affects key factors which determine the success of an organization's strategy. In comparison, a tactical decision affects the day-to-day implementation of steps required to reach the goals of a strategy."

„Strategy is the direction and scope of an organisation over the long term, which achieves advantages in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations" (Johnson, et al., 2005, p. 9).

Mintzberg (1973) states that strategic decision-making process represents a process which defines a strategy of a certain organization or government politics in the public sector. Making decisions on a strategic level is the essence of forming and implementing a strategy.

According to (Johnson et al. 2005, p. 10) strategic decisions define:

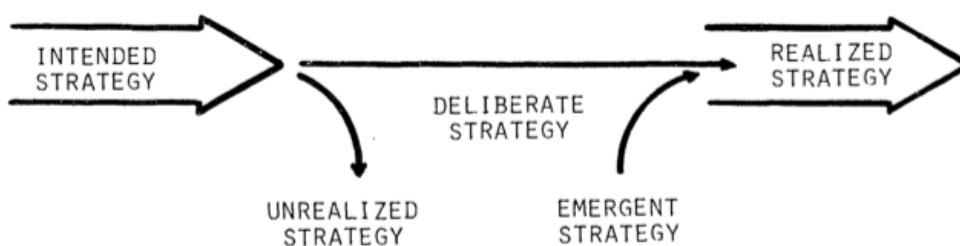
- Long-term direction of an organization.
- Space of an activity related to the organization's management.
- Gaining advantages in comparison to competitors on the market.
- Directing changes in business environment.
- Gaining organization's resources and competences.
- Values and expectations of key interest groups.

According to (Mintzberg, 1973) the process of making decisions is a collection of activities and dynamic factors which starts with the identification of the action stimulation and ends with a certain preferred action. Non-structural state implies a decision-making process which is not fully recorded in the same form, which is not defined in advance and represents a defined collection of certain answers which occur as a response to changes in environment.

Strategic decision-making represents the crucial part of the process of forming a strategy. By making a choice from different strategic alternative an organization is being directed and shaped in a certain direction. Strategic decisions represent key decisions related to the long-term management concept. Some of the decisions are a choice of activities, market, business model, capacity and technology types etc. With the growth of uncertainty in business environment and complexity of new technologies, needs and demands for a strategic decision-making are becoming more expressed.

According to the results of long-standing researches conducted by a group of eminent management authorities (Mintzberg, Waters, 1985) the intended strategy was gained as a sequence of decisions founded on the analysis of environment (image no. 1). During the realization and due to changes in environment, especially market changes, a part of intended strategy is being abandoned. This abandoned part of the intended strategy is defined as unrealized strategy. Therefore, that part of the strategy that should be realized is called deliberate strategy.

Good management will also try to exploit all chances on the market. As a reaction to changes in environment, a business model the organization is operating by also changes. In time this becomes the emergent strategy. Wrong use of resources or a bad judgement in duration of the activities can also lead to alterations in a strategy that was well planned. After the entire cycle ends, we have a realized strategy which includes the intended and emergent strategy.



Figurem1: Types of strategies

Source: Mintzberg, Waters, 1985

In his researches (Mintzberg et al., 1976) states that decision-making represents a focus towards an action which implies the involvement of resources. Strategic decision-making represents making and implementing decisions that are crucial for the survival of an organization. They are important because of the relevance of undertaken activities, values and relevance of chosen resources or set precedents. The same research shows that organizations mostly focus on defining everyday routines and don't pay enough attention to strategic decision-making. The reason for this kind of practice lies in the fact that it is much easier to quantify and define actions that are repeated on a daily basis, than it is to make decisions on a strategic level when each decision is a precedent for itself. The second, maybe more significant reason, is a large number and mutual interconnection of factors on which making successful strategic decisions depends. Result of this kind of

intentions is the existence of a large number of quantitative methods and routines which are applied to middle and lower management levels and still difficult to apply to the highest level of management.

According to (Pearce II, Robinson, 2011) characteristics of strategic decisions are problems related to strategic questions and decision-making. Their characteristics are that they:

- Demand decisions from top management.
- Engage a large amount of company's resources.
- Have influence on company's long-term prosperity.
- Are oriented towards the future.
- Demand consideration of company's external environment.

Other group of authors (Johnson et al. 2005, p. 11) states that characteristics of strategic decisions are:

- They are complex in practice.
- They were made in conditions of uncertainty.
- Their influences reflect on operative decisions.
- They demand one integral approach which unites an approach based on monitoring internal and external environment factors, different interests of interest groups.
- They include significant changes within an organization.

Even though a great number of researches and academic papers have been written on this subject, it still remains topical. Many researchers draw attention to the lack of practical solutions and tools that would help the management when making decisions of this kind. Because of the complexity of the process of forming a strategy and because of a large number of variables that affect the process, there is a difficulty in defining the process of strategic decision-making, at least in basic steps. This restricts researchers to define the process better and to offer tools that would make strategic decision-making easier. H. Mintzberg concludes that the most significant decisions for company's destiny are made based on a small number of tools and a great number of factors that affect the decision.

META-MODEL FOR THE STRATEGIC DECISION-MAKING PROCESS

According to (Pavličić, 2007) meta decision-making is specific because it precedes the decision-making process. It represents a choice amongst different processes of decision-making or deciding.

Wang states that meta decision-making is „the decision on how to make the practical decision required through the whole decision process.“ (Wang, 2000, p. 111). Wang states that the primary goal of meta decision-making is „to improve the quality of decision making in practice“ (Wang, 2000, p. 112).

The same source states that not only adequate information and techniques for problem-solving are necessary for decision-making, but also an ability of decision maker to recognize the problem. Recognizing a problem by a decision maker depends on his introspective abilities to be aware of his own limitations. During one's life, one is constantly learning, implementing one's knowledge into a personal decision-making process. Even when there is a solid base for defining the decision-making system, there are moments when radical environment changes seek radical changes in the way we think. An individual is rarely capable of recognizing inconsistency of the existing system with alternated circumstances only by using his or her ability of introspection. To sum up, new age often seeks new ways of thinking. There is no universal decision-making process that would give good results in all circumstances. Decision maker who is efficient in one environment can be highly inefficient in other circumstances.

As every decision, the process of forming meta decision-making succumbs to the process of analyzing a decision (Mintzberg et al, 1976). The same source states that in the process of defining the steps, practical steps consist of the following groups of activities:

1. Diagnosis of a context in which decision-making and problem assessment the decision maker is faced with are carried out.
2. Choosing and planning the strategy for making (meta) decisions.
3. Implementation of a chosen decision-making strategy.

According to (Pavličić, 2007) well made rational decisions don't necessary have to achieve good results. Also, bad decisions don't necessary have to lead to deterioration of company's performances. This gap between well made decisions and their effect on company's performances is a result of the influence of unpredictable environment changes. Every realized decision is a combination of a decision and environment factors. Environment changes can make well made rational decisions lead to bad results and vice versa.

We can judge on whether a strategic decision is good or bad after some period of time and after going through all its consequences (image no. 2). When we talk about strategic decision-making, there is an important time distance between the moment the decision was adopted and the moment of realizing all its consequences. Several years are sometimes needed to realize all the effects, i.e. overall consequences of the strategic decision.

The same source states that there are, in literature, two approaches of realizing what good decision means in conditions of uncertainty. According to one of these two approaches, a good decision is assessed based on realized results, i.e. outcomes.

The other approach states that the strategic decision-making process is crucial for making good decisions. It is a process that starts from recognizing and identifying problems, setting goals, gathering information, generating and analysing all available alternatives and it ends with making a choice amongst the alternative solutions and its application. In this way we can expect that, in a longer period of time and series of decisions, satisfying results will be achieved. This suggests that defining meta model should be the first step in the process of decision-making.

This approach may be better when it comes to making strategic decisions. It demands that every company constantly improves its decision-making system based on continuous learning. If we bear in mind that each strategic decision is a certain type of precedent than we can talk about defining meta process. In other words, meta process of decision-making in strategic management establishes the process that defines the way of making strategic decisions and forming a strategy of an organization in given circumstances.

Meta process of decision-making should help us define a control mechanism which is used to define the process of decision-making in regards to forming an optimal model of decision-making model from the standpoint of limitations and establishing set goals of the company. The aim is to perform an optimization of decision-making process with the aim of achieving the best possible results with the least amount of resources. This can be accomplished by choosing and planning a strategy of decision-making. Models of strategic decision-making lead to strategy creation. Models define assumptions, approaches and ways on which the strategy is defined. There is, in literature, a large number of theoretic models for making strategic decisions.

The widest definition of the term model, which will be used in this paper, says that the model is a simplified representation of a certain phenomenon. Even though by simplifying it we lose some information, the model reflects key characteristics and behaviour of a realistic phenomenon. So, by working with models, a research on complex phenomena in environment is carried out. Model error represents deviation of model behaviour from the realistic phenomenon.

According to (Nooraie, 2012) models for strategic decisions can be classified on:

- Rational models which are based on quantification and application of mathematical methods.
- Organizational models which represent a combination of quantitative and behaviouristic analyses.
- Political models which are based on behaviouristic analyses.

Mintzberg (1973) states that the choice of applied model of defining a strategy depends on multiple factors: size of an organization, type of leadership in an organization, environment factors such as complexity and speed of changes. Entrepreneurial model is characteristic for young and newly founded organizations, although recently we can see it within more developed and mature organizations. This model can be seen in organizations that don't have much to lose, so they are open for all options. On the other hand, adaptive model of strategy forming can be seen within organizations that conduct their business in an environment that changes rapidly and frequently. This is why it's difficult to set goals and to make an agreement with interested parties about their choice. Many interest groups defend their positions in large organizations by carrying out a dispersion of power in organizations. This situation is frequent in big corporations, universities and public institutions. In order to choose a rational approach and planned model, the organization has to be big enough to be able to meet the costs of making strategic plans. It also has to conduct businesses in an environment which is stable enough.

Needs for planning grow with the realization that environment is difficult to understand. This comes from organization's demand that with the growth of organization's size, the organization's need for planning its development also grows, and all this with the aim of controlling its efficiency. Even though they have their mutual characteristics which can sometimes be contradictory, it is difficult to find pure models in practice, rather their combinations. Most frequent combination can be found on a functional level where different functions can apply different combinations. Marketing function can converge towards entrepreneurial model, while for example production can converge towards planned model in the same organization. As one of possible combinations emerges the existence of a different strategy-defining model between higher and lower organizational units. Maybe the most frequent type of model combination is the change of model during the development phase of an organization. Entrepreneurial model is most frequent in the early stages of organization's development. Period of intense growth and development can be taken over by maturity phase, when an organization can converge towards bureaucratic organization and adaptive model. Entrepreneurial model can also be the final model, when an organization is desperately looking for new approaches in its development. Some organizations can change their models cyclically - adaptive model comes after entrepreneurial model and again the same combination which is repeated cyclically. Other organizations can from maturity phase converge towards planned model.

In his work (Mintzberg, et al. 1976) states that the process of strategic decision-making is not structured, i.e. it doesn't have one universal model which could define the sequence of activities in strategic decision-making. He talks about a map that consists of 25 strategic decision-making processes that can be classified in 7 types. Mentioned processes are carried out in 3 central phases with 3 collections of supporting routines and 6 dynamic factors. Characteristic of these 25 processes is that they are: newness, complex and imperfect. Process of decision-making starts with a slight understanding of the situation which should lead towards a solution or at least towards a general idea on how the solution should look like. It is then necessary to find ways to assess the solution when it is finally completed. Through its recursive and discontinuous process, with a lot of difficult phases and influences of dynamic factors, a group makes its decision in a certain period of time.

The same source states that normative models are most represented in operative researches. They have a great impact on the work of lower and middle organizational levels and almost no impact on the highest levels. Because decisions made by the top management have the greatest and most significant influence on an organization, the decision-making methods for the highest level of an organization are the most important. Conducted researches in practice show that many normative methods which are used in strategic decision making (organization models, cost-benefit analysis and other) actually have just a slight influence on decision-making process. All these applied methods and techniques failed to fit in the complexity of strategic decision-making.

Other group of authors thinks that strategic decision-making process, no matter how many specificities it has, consists of basic steps which come from the logic of rational decision-making process and implementing decision. This process is somewhat wider than mere decision-making, for the part which refers to implementing and evaluating effects the decision brought upon. This is why the process of making and applying decisions is often called the process of problem-solving. The process of problem-solving is considered to have a wider significance than the term decision-making. In this paper the process of decision-making will be observed in a wider sense.

A graph that best illustrates the way a decision is made is shown in image no. 2. Every made decision represents a combination of goals adopted by an organization, alternative solutions which lead to the achievement of goals (further on options) and combinations of environment factors (further on scenarios). Range or field of options are defined by company's abilities, they represent material and nonmaterial resources a company is operating with. Consequences or outcomes of every made decision change company's performances. Key scenario variables and key options that are to be chosen are often graphically illustrated by a decision tree.

Environment analysis can help define key variables which define scenarios and find the range of possible alternatives a company can generate. Environment analysis represent situation factors in which a certain business is conducted. It represents a merger of external and internal environment. Results of this kind of analysis are often shown in the form of SWOT or TOWS diagrams.

Every decision about sales will change more than one position in company's accounts department. The role of business model is to help different sectors in the company to make decision which are mutually harmonized.

"Business model rationally explains how an organization produces, delivers and creates value." (Osterwalder,Pigneur, Business Model Generation, 2009). Business model explains the essence of one company's business concept by analysing the course of all business activities a company is conducting. Business concept is shown in a form of a business model as its approximation. The role of business model is to integrate and optimize company's functions. Operative plans of functions and organizational parts can be further developed from the business model. Change of business model during time defines company's strategy (Stefanovic,Milosevic, 2012). When we want to analyse a competitor's strategy, we follow their change in business model in the past. Based on competitor's behaviour in the past, their resources and circumstances on the market, we can foresee the company's strategy in the future. Strategy is how a company performs during time and not what it declares about its missions, visions, goals etc.

Even though in some cases certain decisions will stand out, after some time we can find out the reason for their deviation. An example of this kind of decision is promo sales, when marketing service reduces prices which also reduce company's profit. After launching the new model in the 1980s, Xerox sold out the entire supply of typing machines and by doing that entered a new market, market of digital technology. Time showed that this was the right decision.

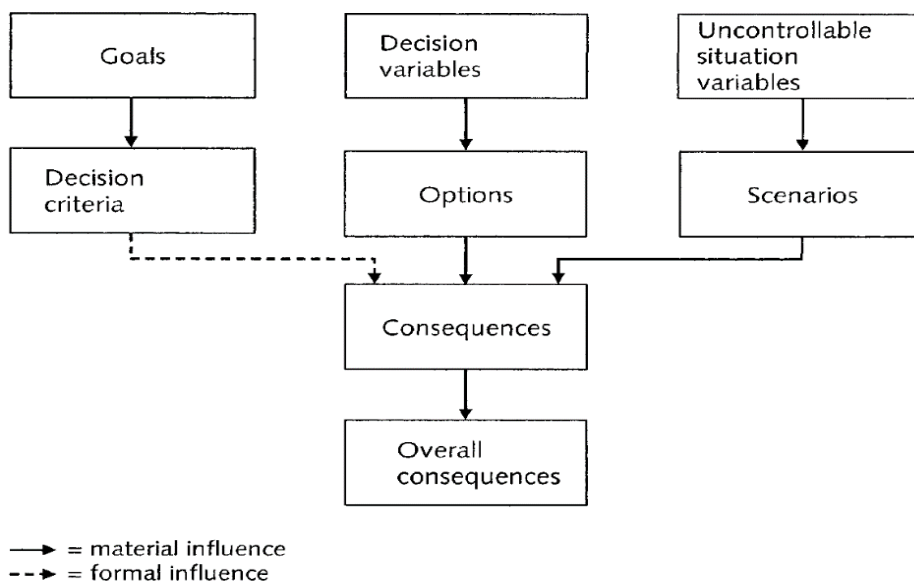


Figure 2: Central terms in decision methodology and relationships between them

Source: Gruning, Kuhn, 2005

Further in the text a method for how to conduct decision-making process is shown. As an example of a problem-solving process we can mention (Stoner et al., 2002) a process that was based on the model which was first introduced by H. Simon in 1972 and expanded in 1977. This is the model of rational problem-solving that includes the following steps (Stoner et al., 2002, p. 224):

1. Stage. Examining the situation.
 - 1.1. Defining the problem.
 - 1.2. Diagnosing the cause.
 - 1.3. Establishing the goal which is accomplished by making a decision.
2. Stage. Finding alternatives.
3. Stage. Assessment of alternatives and choosing the best one there is.
4. Stage. Implementing and monitoring the decision.

When stage 4 of the cycle ends, the model is repeated. If we compare these cycles with the cycles of strategic management, we can see that they coincide in great extent, both in their stages and in the names of stages and activities. The difference is that within strategic management stages of finding and assessing alternatives are most often merged with the stage of finding the best alternative.

The process of strategic management can have three or four stages depending on the group of authors. According to (Dess et al., 2007) the stages are:

1. Strategic analysis (or Environmental Scanning).
2. Formulating the strategy.
3. Implementing the strategy.

Similar model, but with four stages, is proposed by (Whelen, Hunger, 2012). The stages are:

1. Environmental Scanning.
2. Strategy Formulation.
3. Strategy Implementation.
4. Evaluation and Control.

The difference is only in stage three which, in the case of (Whelen, Hunger, 2012), is divided into stage three and stage four. Modern practice in the application of strategic management speaks in support of the model consisting of four stages. More thorough observation of stages point out to a similarity between the first two stages within both of the models. Each of the stages can have a different number of activities.

Model for strategic decision-making process in strategic management which is suggested by (Whelen, Hunger, 2012) shows the essence of the logic of problem-solving process and respects all specificities of the process of making and realizing a strategy. Two elements in this model should be specially highlighted. First one refers to the fact that the entire process is repeated cyclically. The second element is that, each time, the decision-making process is conducted under different circumstances. All realizations of the strategy can, more or less, be different from one another, and that lives an impression of one chaotic process. Realized strategy will consist of parts of planned and emergent strategy.

Considering that the entire process of strategic decision-making follows the model for decision-making, basic steps and stages within this process are defined in advance, only their realization differ from situation to situation. In some situations, when it is assessed that it is necessary to react quickly, new strategy will be formed without a previous thorough analysis of the environment. In other cases, implementation of the strategy will be accelerated as much as possible.

The role of meta model for strategic decision-making is to, based on the analysis of specificities in which the observed process of strategic decision-making process is carried out, define activities and stages which will be most suitable for the given situation and limitations. To completely simplify it, meta model for strategic decision-making is a process of deciding how the observed process of strategic decision-making and creation of the strategy will be carried out. It is a decision about establishing the process of strategic decision-making in given circumstances. Creation of the meta model represents a unique method for optimizing the process of strategic decision-making. Goals that could be achieved by an optimization are the increase in: efficiency, effectiveness but also in the speed of conducting the strategic decision-making process.

Meta model for strategic decision-making, which leads to planning and realizing the strategy, has the following steps:

1. First step in the strategy-planning process is the analysis of conditions, circumstances and limitations in which strategic decisions are made. What is estimated are time, available resources and people involved in the process.
2. Meta model for the cycle of strategic decision-making which will be used in strategic management will be formed in step two (example, images 3 and 4). Meta model for the strategic decision-making cycle is a modified problem-solving model (from the decision-making theory). Activities, sequence of stages, their duration etc are defined in the model. By using modern methodology of Project management, available resources, duration period and risks for every stage are estimated. In this way a process of planning a strategy for specific circumstances is defined.
3. Implementation of planned strategy i.e. made strategic decisions will be carried out in step three. There will be a blank space for possible alternations in the realization phase. This phase starts with detailed planning of activities and forming the system of reportage and control.

APPLICATION OF META-MODEL

Illustrations 3 and 4 show examples of forming the meta model for strategic management cycle in the form of a Gantt Graph. Diagram 3 shows a model that is suitable in situations when the environment changes slowly and can be used to predict the future. Diagram 4 shows the target model for strategic management for the turbulent environment where the future is uncertain. To form this model multivariate planning was used

The limitations a decision-maker is usually faced with in a turbulent environment are related to:

- the lack of an adequate level of information needed to make decisions.
- the time it takes to make and implement a decision. This criterion is externally imposed by the reactions of competitors in the market.
- Different interests of key groups on which the success of the company's strategy depend.
- The method and process of group decision-making in the company.

When the environment is stable and therefore predictable, we can use a single decision-making procedure for multiple repeated cycles. When the environment is very turbulent and therefore uncertain we must make a decision about how we shall make key decisions in the given circumstances and limitations. In this way we apply the method for meta decision-making.

Analysing the stages of the decision-making process we can apply the methods and techniques of project management. These four phases can be displayed through the Gantt Graph (illustration 3) except that after the fourth stage the cycle repeats.



Figure 3: Gantt's diagram of phases in the meta model for strategic management process according to (Whelen, Hunger, 2012)

Source: Author

According to the model of strategic management process suggested by (Whelen, Hunger, 2012) shown in Illustration 3, the first phase represents scanning or analysis of the company's environment. Environmental scanning is done continuously through the acquisition and analysis of information from various sources. Environmental analysis of the company consists of the external and internal analysis of the company. External analysis (or scanning) of the environment deals with the changes in the external environment by monitoring the competitive position of companies in the market. Data are obtained by monitoring global trends, macroeconomic trends, legislation and demographic changes and by monitoring what is happening in the market. There are various institutions in developed countries, which sell processed or unprocessed database. It can be chambers, stock exchanges, statistical institutes, specialized agencies, etc. which deliver data periodically or on request. Internal analysis (or scanning) of the company deals primarily with the analysis of key or core processes and resources with which to create added value and competitive position in the market. What is determined: the efficiency of the process, the state of tangible and intangible resources which are vital to maintain competitive position, opportunities for development and monitoring changes within organizations.

The second phase is the creation of strategies. It represents a choice between multiple options with associated risks offered by the market on the one hand and on the other side between their own possibilities and limitations to be able to use perceived chances. This is a dynamic process that must take into account environmental changes as well as the dynamics of its own potential for change. Individual capabilities (or capacity) to change are a dynamic characteristic which depends largely on the system of motivation, management style and organizational culture. Material resources are becoming less important in these circumstances, because they can be bought or rented. It is not necessary to own them to achieve a certain strategy. Based on the author's experience, the capacity to change is most often a limiting factor in defining the objectives and the selection of a successful strategy.

After the completion of scanning and strategy–formulation phase, the third phase begins – implementation of the strategy. The implementation phase begins with the making of operational plans i.e. a portfolio of projects that are later managed by the realization of the strategy implementation. There is a constant pressure from the owners and top management to shorten the activities and phases such as scanning the environment and formulating and planning the strategy. Shortening these phases leads to savings in time but it also often leads to the emergence of problems in the implementation of projects.

The fourth stage is the control and evaluation of the strategy. The role of control is to measure, compare with the target values and, if the deviation is higher than planned, to take corrective actions. Control should signal the situation when it comes to the appearance of events that destroy the economy of the business model of the company. It is then necessary to change business model, which over time leads to the formation of the new strategy. Such events or occurrences with their values that modify the business model and strategy are called “the triggers”. They represent threshold values of key variables in the business, under or over which business model is no longer economically justified. An example of this is an act of defining a turning point of profitability. It defines under which value of turnover, with the associated costs and revenues, the company works with a loss. That is why, when defining business model, the analysis of its robustness is also carried out, i.e. how changes in key variables affect the change of output values of the company. Because of its importance for the management of the company, control must be separated from planning. The evaluation of strategy is based on constant monitoring of company's performance. The objective is to evaluate strategy's impact on changes in company performance.

Each phase lasts approximately as planned and the next phase begins once the previous one ends. During the process of environmental analysis and strategy formation there is a constant pressure from the top management and ownership structure to shorten the time of these activities, so as to start the realization as soon as possible. A common reason for failure of the strategy may just be not enough dedicated time and effort in analysing the environment or too superficial planning. Phase of the implementation of strategy is usually considerably longer than the phase of analysis and strategy formation. It starts with the making of operational programs, projects, budgets, policies and procedures. After completion of the process, we approach the analysis of the obtained results and the new cycle of strategic management. The whole cycle of strategic management is done in the full planned duration.

This model shown in illustration no. 3, where the entire process of strategic management can be planned and at the same time there are no large deviations during the implementation, is called the model of a single loop. This model is characterized by the fact that phases are executed one after another and also by the fact that the evaluation of the strategy is carried out after the completion of all activities on the implementation of the strategy. Only after the evaluation of existing strategies we can approach the new cycle of strategic management. It has more theoretical than practical significance. It is very rare in practice. It may eventually be found in mature industries where changes are slow and therefore predictable.

The modern environment is characterized by rapid and frequent changes in the environment. We say that this kind of environment has a great uncertainty and that it is difficult to predict it. Since we cannot predict the future we are forced to make several versions of the plan for the different states of the business environment in the future. In doing so, the company has to be ready. If the situation in the business environment changes the company needs to adjust its business strategy to the newly created circumstances.

Due to changes in the key factors of the situation, which could not be predicted, it is necessary to change the strategy and make more variants of the plan. It is necessary to conduct the evaluation of the existing strategy so as the decision about changing the strategy would be based on facts. If the evaluation of the strategy shows that the implemented strategy doesn't produce the expected results, or the circumstances have changed, we approach the new strategy, even though the old one wasn't entirely realized. Because the cycle is interrupted before it is over and because a new cycle begins, this model is called a model of multiple loops (Figure 4).

In this way, duration of the cycle of strategic management process is significantly reduced. This forced managers to devise alternative strategies in advance, as well as possible variants of the implementation plan, so as to gain time (Figure 4).

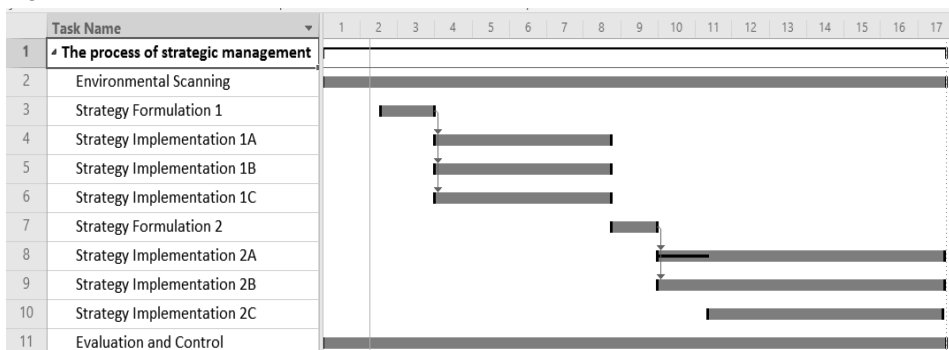


Figure 4: Gantt's diagram of the meta model for strategic management cycle with multivariate planning.

Source: Author

Key factors of the situation are those variables from the environment, which we cannot influence, and that have a dominant or major impact on the operations of the observed companies. They differ from company to company so it is necessary to know the factors that refer to a certain company. These are phenomena that define the main revenues and expenditures of the company. For the key factors of the situation three scenarios can be predicted. There is a pessimistic, realistic and optimistic scenario. For each of the scenarios, alternatives or options that the company may undertake are analysed.

Pessimistic scenario is a combination of factors that are not favourable for the company. Based on this kind of projection of environment in the future, company's options, as possible alternative responses or answers to future situation, are analysed. Then we analyse the optimistic scenario, which is a combination of favourable factors of the situation for the company and based on that, possible alternatives that the company may conduct if this scenario actually plays. By similar logic, we create a realistic scenario which is a combination of the factors of a situation which is estimated to have the highest probability of realization. For such a scenario options are further analysed, as in the previous two cases. By analysing the two extreme or limit scenarios, optimistic and pessimistic, the company receives a space in which it will probably be in the future.

To select the best option, based on multiple criteria, multi-criterion optimization can be applied. By using this method, solutions can be ranked. In situations where, for some unforeseen reason the best solution is abandoned, you may transfer to the second-ranked and so on. The advantage of this method of decision making is the preparation of solutions before the situation actually occurred. Decisions that are analysed for hypothetical situations are significantly better because they are not made under stress. This approach to decision making is called anticipatory decision-making.

Anticipatory decision-making is a term that arrived from the theory of artificial intelligence. It represents a concept according to which a decision-maker bases his decisions on prediction, expectation or belief about how the future will look like. More broadly, anticipation is a part of a complex human cognitive system. It is used to explain performed activities and decisions that precede a situation in which someone is going to be in the future. It is often used as a tool for multivariate planning.

Anticipatory decision-making, as a decision-making process, has its significant advantages, but it requires management training and a creative organizational culture for its implementation. As a disadvantage of this approach there is the possibility of going into too detailed analyses.

There are considerable savings in time; if the company's management has generally well-conceived concepts for several variants of the future that can be applied depending on which scenario will actually take place. Even transitions from one option to another are possible. This approach to decision-making gives much better solutions, because you are thinking about situations before they actually occurred. Multivariate planning only gives changes of the conceptual level and detailed planning takes place depending on which scenario actually happens.

Multivariate planning, when implemented in companies, enables all levels of management to better analyse possible future states and reactions of the company. Principle decisions are made in advance depending on possible conditions of environments in the future. Such analyses are useful to analyse the risks faced by certain options. Capital owners and investors want to hear alternative plans if a certain chosen strategy does not achieve the desired effect, or if demand is significantly above expectations.

In order to shorten the time for the completion of certain phases, but also to raise the efficiency of the management, various software packages are used. A large number of mostly large companies are implementing integrated information systems (Eng. Entrepreneur Resources Planning System - ERP). Although ERPs can be made for a particular company, there are finished packages like SAP, Navision, BAN, etc. In informatics sense, ERPs in combination with other forms of management information systems produce a large database that refers to environment and business activities of enterprises.

Large amounts of data obtained like this can be further processed in order to generate support for management decision-making. Their upgrades are a set of integrated tools for sophisticated graphical representation of data, tools for data mining, statistical analysis and prediction of time series. These tools are integrated into the software package called Business Intelligence (BI). Software package IBM COGNOS can serve as an example. The existence of management information systems (MIS) significantly shortens the time needed for obtaining and processing information.

The transition to new business model and options brings, as a rule, a part of the confusion among employees. Frequent changes of strategy may completely disorient a company. Parts of a company can operate under the old and the other parts under the new strategy, which can lead to confusion and failure of strategy.

Due to the uncertainty and the inability to predict changes within an environment it is necessary to analyse the robustness of the business model for a number of possible scenarios. A decision tree that can be complemented by the outcomes of certain options or alternatives is used as a tool to graphically display events and alternative solutions

In situations when the environment is turbulent and the future uncertain, it is necessary to make the meta model for strategic management, which offers faster adaptation to environment changes. The whole planning system is designed to detect changes in the environment to which the company must react. In order to quickly react to changes, it is necessary to do several versions of the plan and at the same time be ready to move quickly from one variant to another.

The advantages of this approach are in reviewing several possible scenarios for the future which offers better solution and saves time. For each scenario the most appropriate response is pre-selected in terms of relation of effects and spent resources. If primarily management and then employees involve in the phase of forming the strategy and later in the implementation of the strategy more benefits will be realized. Grasping the broader Figure of the possibilities of work development and dangers of individual solutions and an easy transition from one option to another can be seen as benefits.

CONCLUSION

The process of strategic decision-making in this paper involves defined order of activities and decisions that lead to the formation of a strategy.

According to (Rumelt, et al., 1991) perhaps the main organizational ability of gaining competitive advantage is strategic decision-making within the framework of the strategic management process. According to them, the way and speed in which the organization selects its strategic decisions tailors the future of the company.

If we present the importance of the strategic decision-making for the organization, from the above quotations and explanations of the term, we can state that strategic decision-making:

- Engages in its realization a great amount of company's resources.
- Defines a long-term business direction of the organization in the future.
- Influences whether certain chosen strategies are successful or not.
- They represent a type of anticipatory, sequential decision-making.
- Almost all models are implemented through iteration with the environment.

One approach of decision theory considers that decision-making under conditions of uncertainty should be observed in relation to the projected outcomes. In doing so, good decisions, due to changes in the environment, can lead to negative results or outcomes. In reverse, bad decisions, made due to changes in the environment, can provide positive outcomes.

The second approach of decision theory considers that the decision-making process is a key to making good decisions. It is necessary to have the appropriate information and procedures on which to make good decisions. Thus defined good decisions in a long sequence of repetitions or selections should lead to positive outcomes (Pavličić, 2007). In this approach, the decision making process is seen as the way the organization learns and adapts to its environment.

Group of authors (Hill, Jones, 2013) considers that even the best designed system for strategic planning will fail to produce the desired results if managers do not use the information in the right way to make decisions. It is essential that strategic managers learn to better use the information they have, and perhaps more importantly to understand them properly. The essence of the problem lies in the wrong treatment i.e. interpretation of complex information. Erroneous simplifications which lead to the wrong solutions generate from misinterpretation of the data. Some mistakes are part of the personal projections that reduce rationality of decision-makers. The question emerges – based on which simplification and procedures certain decisions are made. A characteristic is that, due to the repetition of the same processing of data, errors systematically repeat themselves. The practice shows that the majority of decisions are made based on an incomplete information and improvised process.

Decision-makers don't always make rational decisions. Research suggests that the decision-maker because of his limited capabilities, in an attempt to process a large amount of complex information, makes system errors.

For the request of rationality, one group of authors requires the existence of decision-making process, even in its basic steps. On the other hand, every decision is a precedent for itself. The adoption of the basic process of making strategic decisions, which is modified according to situation, is common in practice. Certain steps are shortened or even skipped. This is at least formally a compromise between the existence of the basic processes and flexibility for adapting to the new situation. The first step in this meta procedure is to define ways of decision-making for the specific situation and circumstances in which the decision is being made. In this case, meta proceeding means deciding how to vote. When it comes to making strategic decisions, meta process of decision-making projects the process of strategic decision-making, according to the situation analysis, problems and limitations in the process of decision-making.

The formation of the target model is a unique kind of optimization of the process of strategic decision-making. Goals to be achieved by optimizing are the increase in: efficiency, effectiveness and speed of the process of strategic decision-making.

Meta model for strategic decision-making that leads to the planning and implementation of the strategy has the following steps:

1. The first step in planning the strategy is to analyse the terms, conditions and restrictions in which strategic decisions are made. Time, available resources and people involved in the process are estimated.
2. In the second step, we shall form a meta model for the cycle of strategic decision-making which will be used in strategic management (eg illustrations 3 and 4). Meta model for strategic decision-making cycle is a modified model of problem-solving (from the decision theory). The model defines: activities, phase sequence, their duration, etc. Necessary resources, duration and risks for each phase are estimated using a project management methodology. In this way, a process of strategy-planning is defined for the specific circumstances.
3. In the third step will shall approach the implementation of the planned strategy i.e. adopted strategic decisions, leaving a space for possible changes in the implementation phase. This phase begins with detailed planning of activities and with a formation of a system of reporting and control.

Beside undoubted importance and consequences that are brought upon the future of the organization, there is not a large number of papers related to the research on the method of making strategic decisions. This stance is supported by a research conducted by (Nooraie, 2012) which states that the impact of situation factors on making strategic decisions remains largely not understood. Also a successful decision-making has in the management company, training managers for this kind of business skills is not enough.

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THE POTENTIAL CONTRIBUTION OF ECONOMIC DIPLOMACY TO SERBIA'S EXPORT GROWTH

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ABSTRACT

The level of Serbia's export is at a lower than is expected of the country of its size and level of development. Economic diplomacy is an effective tool for export increase, which is broadly used by developed countries, as well as by other developing countries. However, in Serbia the genuine importance of economic diplomacy has not been yet understood and there is a dilemma about the contribution economic diplomacy could have in Serbia. In order to address this important issue, we reviewed extensive literature on the topic of economic diplomacy. We analyzed barriers that Serbian exporting firms face in order to create a more powerful and complete understanding of the researched issue. We also compared the obstacles that Serbian exporters face with those that exist in other developing countries. Our analysis showed that economic diplomacy could potentially have a significant contribution to Serbia's export growth, but first the formal barriers would have to be reduced.

Key words: *Economic Diplomacy, Commercial Diplomacy, Export Barriers, Foreign Missions, Export Promotion Agencies*

JEL Classification: *F13, F23*

UDC: *339.9.012:338.1(497.11)*

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INTRODUCTION

Serbia is facing serious economic and financial crisis (Kovacevic, 2012). In the year 2014, the rate of GDP growth was negative and stood at -1.8% (Statistical pocketbook of Serbia, 2015, p. 42). Population employed is drastically decreasing and the unemployment rate in 2014 was 25.3% (Statistical pocketbook of Serbia, 2015, p. 45). Serbian export is at the lower level than it is expected for the country of that size and level of development. Serbia also exports less than the countries in its region (According to Dushko Vasilievic (2014), World bank expert „Serbia has to increase export significantly and by starting this engine of growth has to overcome the crisis and to achieve stable economy. It is necessary that Serbia increases its export to at least 50 per cents of GDP (from the current level of 40 per cent of GDP). The current level of Serbia’s export is still low in comparison with new EU member countries of similar size, which have the level of export higher than 50 per cent of GDP. Some countries, such as Slovenia, export about 80 per cent of their GDP.”) (Vasilievic, 2014). It is well-known that increase in exports has direct and positive macroeconomic outcomes, primarily on economic growth (Tyler, 1981, pp. 121-130), productivity and the creation of new jobs (Czinkota, 1994, pp. 91-101). In addition, it is proven that export contributes to capital accumulation and the allocation of resources as well as to improvement of production technology (Iqbal, Hameed & Davi, 2012, p. 454). These positive macroeconomic outcomes are the main reasons for government intervention in the field of export promotion. Economic diplomacy (ED) in developed countries as well as in the rest of developing world is a legitimate and recognized tool for export promotion and the achievement of national interests abroad. Nevertheless, ED has yet to gain a deserved recognition in Serbia. Despite the fact that this scientific field is drawing attention of scholars around the world (Bergeijk, 2009, p. 5), its genuine importance has not been yet understood. Aside from the fact that few scientific papers have been published in domestic journals, the lack of understanding the ED importance has been enunciated by several Serbian state representatives. Initially, the former minister of industry severely criticized Serbian export and investment promotion agency-SIEPA (Radulovic, 2013). Then the Ministry of industry decided to recall economic diplomats from abroad. In the year 2010 Serbia had appointed twenty eight economic diplomats who were located in twenty five countries but unfortunately they did not achieve expected results. After the analysis of their work, the number of economic diplomats abroad was almost halved. For the functioning of economic diplomatic mission Serbia spent more than 2 million euros per year (Vucicevic, 2015). Because of the poor performance of economic diplomats abroad experts and the ministry of industry decided to abandon this project and stated that companies have to make business contact with international partners on their own. They also claimed that the private sector is the one that has to bear the brunt of obtaining information about foreign markets (Radulovic, 2014).

We can conclude from the aforementioned that in Serbia there is a dilemma about the effectiveness of ED and its potential contribution on enhancing overall economic conditions. We will address this problem by reviewing extensive literature on this topic. Economic diplomacy has a wide range of uses and export

promotion is just one of its tasks. Because it is not possible to fully elaborate and analyze all of its activities in a single paper, we decided to focus our research on just one of the functions of ED, that is its impact on export growth.

The objective of this paper is to find out to what extent the use of ED and its instruments can contribute to the growth of Serbian exports. The deficit of budget funds (Serbia's external debt on December 31st, 2014 stood at 22.761.553.228 EUR, which is 70.9% of Serbia's GDP (The Ministry of finance of the Republic of Serbia, 2015)) does not allow the spending and squandering of already scarce budget resources, so it is of great importance to determine whether spending government money on ED is rational in current situation in Serbia. In addition, there is an intention to highlight the necessity of development of this scientific field in Serbia. Since there have been few studies in domestic literature, it is essential to provide adequate theoretic base which will serve as a firm foundation for future empirical research in the region of Serbia.

This is an important issue both theoretically and practically. Although in recent years a significant progress has been made in examination in the field of ED in Serbia, its impact on exports or other macroeconomic variables has not been analyzed in domestic articles so far. Practical significance of this study reflects in answering the question about justification of government spending on state funded ED. It also gives the insight in the results of using ED in other developing economies.

The main research question on which this paper will try to give a meaningful answer is:

To what extent can ED contribute to Serbia's export growth?

According to this question, the first hypothesis is defined as follows:

H1: Economic diplomacy can significantly contribute to the export growth of Serbia.

Export is a complex activity which is influenced by multitude of factors. Exporting companies or those that try to get involved in international trade are facing many obstacles. The magnitude of those obstacles increases as the level of country's development decreases (Arvis et. al., 2013, p. 7). Economic diplomacy, which in the narrow sense can be seen as the marketing for domestic products abroad, can eliminate just few of these obstacles. Economic diplomacy is the most effective in removing informational and cultural barriers. The questions that had to be answered are: With what kind of barriers are companies in Serbia faced? Are those barriers similar in intensity and nature to barriers faced by other developing countries? The answers to these questions are of key importance for the conformation or the rejection of the main hypothesis in this paper. Although in the 90's there was a heated debate about the effectiveness of ED in developing countries, today there are records about series of positive outcomes ED provided in developing countries. At the end of 20th century export promotion in developing economies failed to give expected outcomes because of a number of formal barriers that were hindering export activities. The circumstances in the world, as well as in developing countries, have changed since then and the economists state that today the significance of informal export barriers is much more pronounced (The fact that

informal barriers have become more prominent is one of the main reasons ED recently gained popularity. See: Veenstra, Yakop & Bergeijk (2010, p. 5) and Bergeijk (2009, p. 10)). Is this a case in Serbia as well? What is the magnitude of informal barriers in Serbia? These questions create the need for defining another hypothesis, so the second hypothesis which will be tested in this paper is:

H2: Serbian enterprises perceive export barriers in the same way enterprises in other developing countries do.

The method we will use for assessment of our hypothesis is literature review. The analysis of contents in articles published in renowned world magazines will be done as well as the overview of the relevant empirical studies published in the field of economic diplomacy. Deductive approach will be used to draw conclusions from the existing literature. Comparative method and generalization are our main tools in determining whether the hypothesis is confirmed or rejected. For the purposes of this paper we searched the Kobson and Scindeks electronic databases as well as internet using Google Scholar. In our search we used following keywords: economic diplomacy, commercial diplomacy, embassies, trade missions, consulates, export promotion and export promotion agencies. From collected papers we singled out only empirical studies whose main topic is the effect that economic diplomacy has on trade flows and that are related to developing countries. Relevant empirical papers in the Serbian language were not found nor were the studies conducted in the region of Serbia, that is in Balkan region an Eastern European region. We will address this gap in the literature by providing a comprehensive literature review which will show the potential contribution that ED could give to the growth of Serbian exports. To test the first hypothesis we observe macro-economic perspective of the impact of ED on export. To test the second hypothesis we analyze export barriers from the company's (micro) perspective. The analysis of the barriers is made by comparison of the empirical study on export barriers Serbian enterprises face with the similar empirical studies conducted in other developing countries. Taking into consideration both micro and macro perspective we wanted to create a more powerful and complete understanding of the researched issue.

This paper is structured as follows. First we define key concepts in the researched area. The section that follows explains how scholars justify government funding of ED. Then we test the first hypothesis by analyzing the contents of collected articles. The results of examined literature show that there is a significant and positive relationship between export promotion and export growth in developing countries. Based on the main characteristics of Serbia's economy we conclude that ED could potentially have a significant impact on export growth. In order to assert that those potential outcomes will indeed manifest themselves, we have to compare the similarities of export barriers Serbian exporters are facing with the export barriers enterprises in other developing countries face. This analysis is presented in the penultimate section of the paper. The last section concludes and offers suggestions for future research.

ECONOMIC DIPLOMACY: KEY CONCEPTS AND BASIC TERMS

Economic diplomacy is a relatively new concept. It is a discipline which has been developing intensively for the last 10 years, so there are still differences in opinions about terminology among researchers. Economic diplomacy is defined in broad terms by one group of authors (Woolcock, Bayne, 2011; Ruel, 2012; Kostecki, Naray, 2007; Rana, 2011; Saner, Yiu, 2003). For example, the definition provided by K.S. Rana (2011, p. 1) defines economic diplomacy as: "Economic diplomacy is a plural set of practices, all aimed at advancing the home country's external economic interests." Another group of authors consider the primary function of economic diplomacy to be export promotion and foreign direct investment attraction (Yakop, Bergeijk, 2009; Martincus, 2010). Woolcock, Bayne (2011, p. 4) prefer the term commercial diplomacy for the narrower scope of economic diplomacy. This paper will deal with one aspect of economic diplomacy only. Following Moons, Bergeijk (2013, p. 5), economic diplomacy in this paper will be defined as "the use of government relations and government influence in order to stimulate international trade and investment." In addition, the term commercial diplomacy is used by Kostecki (2007) and Naray (2008) when the problem is viewed from an organizational perspective. Therefore, we think that we can use the term economic diplomacy with consideration that only one of its aspects will be analyzed. According to Moons, Bergeijk (2011, p. 5), economic diplomacy covers a wide range of semi-permanent international representations (embassies, consulates and other public sector business support facilities), domestic institutions (investment and export promotion offices, and diplomatic bilateral activities (trade and state visits (For state visits and trade missions we did not find relevant empirical studies conducted in developing countries, so these instruments will be excluded from our analysis. The guidelines for future research can be the findings from the studies conducted by Nitsch (2007), Head & Ries (2010) and Creusen & Lejour (2013). According to these studies, the impact of trade missions on export increase ranges from 5% to 20%. The highest contribution was documented when trade missions were sent to a country with a lower level of development, while sending trade missions to a developed country did not show a significant correlation with export growth. Due to the fact that mentioned studies were conducted in developed countries, we consider them irrelevant for our analysis.)). Embassies and consulates are permanent diplomatic missions established in foreign countries (For details about the role of diplomatic representations and their tasks see Raicevic (2013, p. 34, p. 223)). Unlike these two, export promotion agencies (EPA) are established on the territory of exporters. Business activities conducted by EPA primarily refer to information gathering about exporting markets as well as providing help to potential exporters with finding markets for their products. Lederman (2010, p. 257) lists four EPA goals: 1) country image building (advertising, promotional events, but also advocacy); 2) export support services (exporter training, technical assistance, capacity building,

including logistics, packaging, pricing etc.); 3) marketing (trade fairs, exporter and importer missions, follow-up services offered by representatives abroad); and 4) market research and publications (such as market surveys, on-line information about export markets, publications encouraging firms to export, importer and exporter contact databases). When the promotion of exports is concerned, embassies and consulates contribute in different ways. The primary tasks of diplomatic missions are not only the protection of economic interests but also all thematic areas of diplomatic relations between two governments. These missions normally do not own a commercial department or experienced staff for performing specific tasks such as the promotion of export (Martincus, 2010, p. 164). Permanent missions as state representatives have the biggest influence on the promotion of exports by establishing friendly relationships abroad, signaling that trade will not face political resistance.

RATIONALE FOR STATE FINANCED ECONOMIC DIPLOMACY

Before the advent of the first empirical research in the field of economic diplomacy, there was an intensive debate about the rationale and effectiveness of export promotion. We will attempt to demonstrate the essence of this debate in a concise way (The explanation which is given in the paper is based on the articles of Bergeijk (2009, 2010) and Martincus (2010) but similar explanation is given by Veenstra (2010), Mc Kean (1994), Moons (2013) and others.).

Neoclassic economists have always had a negative attitude about this. Their theoretical argument against the intervention of the state is expected. For these economists, state financed economic diplomacy means an implicit subsidy to the exporting sector, which potentially can distort market outcomes. If an exporting company needs a financial aid that can mean its product is not competitive enough and that the money received from the government is wasted, as it is the case with classic exporting subsidy. Economic diplomacy means the transfer of public funds, while it is not known in advance whether the benefits that the public will have from the increase of exports will exceed the cost of providing public service.

The advocates of state financed promotion of export justify economic diplomacy as the response to market failures, primarily in the form of informational externalities. More precisely, since it is difficult to avoid a third party when the information is used and its use is non-rival (the use of information by one party does not exclude its use by another party), there is a possibility of “free ride”, that is companies who follow the pioneer firms can exploit successful information searches made by pioneers. This searches, as well as related transactions, reveal the information which can be used by followers without having the costs that the pioneers had to pay. As a result, the followers gain significant benefits from initial investments by those who enter the market first. This way, the value of the potential benefit of the pioneer companies is reduced. This is especially the case

when the company enters new markets or wants to launch a new product. Private returns from these activities would then be lower than corresponding public returns. Strictly speaking, these market failures are not a sufficient condition for the justification of public intervention since the cost of export promotion can be higher than the benefit. Even more precisely, there could be a justification for the promotion of trade if the social benefits generated by the intervention exceeded the corresponding social costs caused by this intervention (Lederman (2010, p. 258) states that the conducting of such analysis would be difficult if not impossible.). Whether these government interventions have been effective in the correcting of market failures and thus caused trade increase was the subject of intense debates.

Certain authors especially emphasize the importance of economic diplomacy for the developing economies. Yakop (2009, p. 46) claims that market failures are more evident in developing countries, which is why it is necessary to use economic diplomacy in the modern world. Martincus (2010, p. 10) singles out an important aspect related to information, which is the image of the exporting company: "Exporters intending to enter a new market or expand foreign sales within an already served market are preceded by their reputation, which, in absence of an identifiable brand name, largely depends on the perception of country of origin. This issue is especially relevant for firms from developing countries, whose products are more likely to be perceived as technologically less advanced and of poorer quality than those of companies from developed countries." On the other hand, Yakop & Bergeijk (2009, p. 9) emphasize the importance of economic diplomacy for developing countries in which there are established patterns from the planned production system. According to them, developing countries thus rely more on the state and consider it a natural partner in economic relations.

The debate from the beginning of the 90's had subsided and was partly neglected in the scientific community, but this issue became popular again 15 years later. An important breakthrough was done by Lederman (2006) and Rose (2007) in their first empirical studies about the impact of economic diplomacy on export. Subsequently, more detailed studies emerged, every time with more extensive data sets.

EMPIRICAL CONFIRMATION OF THE CONTRIBUTION OF ECONOMIC DIPLOMACY TO EXPORT OF THE DEVELOPING COUNTRIES

The pioneer in empirical research regarding the impact of ED instruments on export increase was Rose (2007). He discovered a positive correlation between opening an international representation (embassy or consulate) and export increase. Every newly opened representative office abroad, according to this study, increases export by six to two percent. In addition, this research provides evidence that the embassy has a more significant effect on export than does the consulate, while the effect of any additional representative body decreases. Subsequent studies rely on this research while expanding the sample.

Motivated by the criticizing of export promotion by his peers from the World Bank- Keesing, Singer (1990), Lederman (2010) empirically tests the efficiency of export promotion agencies. A study which encompassed 103 countries showed that the existence of EPA abroad increases export. He showed a correlation between the increase in EPA budget and export increase. It was shown that the increase in EPA budget by 10%, on average, raises export by 0.6% - 1%. He discovered the existence of diminishing returns to scale when the effects of EPA budget were concerned. That is, large expansions of EPA budget are not recommended, as well as the increase in the number of employees of EPA. After a certain point, EPA efficiency will eventually decrease so further investments would make little sense. In addition, he shows that the expansion of smaller agencies within a state leads to a less efficient outcome. He further establishes mechanisms through which EPA services promote export and shows that EPA are especially effective when they are most needed; namely, when exporters face serious barriers abroad, as well as when a significant part of export portfolio consists of heterogeneous products. Especially important for our analysis is the part of his research which deals with the financing of EPA. The study provides evidence that the agencies whose major sponsor is the state have had better results than those who have been financed privately. He emphasizes that the financing of EPA by private funds is not a good solution.

These two studies, which in later research have been referenced the most, resulted in other numerous studies. Afman i Maurel (2010) have studied the contribution of embassies at the initial stage of internationalization by observing the trade flows between transition countries and developed countries (EU15 and OECD countries). Following Rose (2007), they measure the intensity of ED by the number of permanent diplomatic missions abroad (including embassies only). The conclusion of the study is that the opening of an additional embassy has a positive effect on export, which is equivalent to a decrease of *ad valorem* tariff by two to eight per cent.

Yakop, Begeijk (2009) offer a more balanced and wider perspective which allows a deeper insight into the ED effects among countries of different income levels. They use Rose's (2007) empirical framework while expanding the sample, and include embassies and consulates as instruments. They cover more countries of lower and middle income levels. This study resulted in novelties for developed countries because it was shown that permanent missions have little effect on trade flow among countries with high levels of income. For developing countries (more precisely in this study the middle income countries), the previous results have been confirmed. It was concluded that the opening of an additional representation increases exports by six to sixteen per cent. Somewhat smaller but still significant result was shown for trade among countries of different levels of income (Trade that occurs between a developing country and an OECD country.).

The first empirical study which at the same time treats ED (The analysis was conducted on a sample which Bergeijk first created for the requirements of the research previously mentioned. This sample covers almost a half of the total world exports, more than 60 % of the total world GDP and nearly a quarter of the total world population.) instruments was conducted by Veenstra, Yakop, Bergeijk (2010). Prior to this study the instruments were treated separately. According to these researchers, this

is a logical assumption, for the influence of one instrument can be crowded out by the influence of other one. Namely, there is a possibility that the activities of the instruments overlap, which can cause a waste of government funds. They also assumed that considerable synergies could arise from using instruments together, so they generated hypothesis accordingly. Another assumption they have made is that because of strong barriers developing countries face, ED instrument are more important for them. They claim that the effectiveness of ED can be understood only if viewed in the context of development levels, because of stronger barriers the developing countries are doomed to. By contrast, commercial ties between OECD countries are strong enough and well established while the barriers among them less severe. In addition to the fact that the ED instruments have to be chosen according to the level of development of exporting country, they claim that the level of development of the importing country has to be taken into account.

They give empirical confirmation about the embassies and consulates having the biggest contribution in the middle income countries (The lowest impact ED has on export growth was documented when trade originated from a low income country. The impact is higher for developed countries but still smaller comparing to that of a middle income country.). When EPAs are concerned, they reveal that their contribution to developed countries are insignificant, but that EPAs provide a significant contribution to the export increase of the developing countries with lower and middle income levels. Their general conclusion is that the effect of ED instruments on exports is the biggest for developing countries with middle income levels. They reveal the interaction between ED instruments; that is, there is a rivalry among them, and when used together, there is a tendency that their effect will be diminished. The crowding-out effect is the most prominent in middle-income countries when both the EPA and foreign missions have a positive effect on export increase.

When they took into account the level of development of the importing country, they found that there was a positive and statistically significant effect which the EPA has on export in developing countries, regardless of the level of development of the trade partner. However, they found that the increase in the number of embassies and consulates does not result in a significant increase in export from a developing country if it increases the number of representative bodies in a developed country.

Moons, Bergeijk (2013) conducted a meta-analysis of the existing empirical studies in the field of economic diplomacy. Apart from the confirmation of a number of previous findings, this analysis showed that the impact of embassies and consulates on export differs significantly. They state that these two instruments have to be separated in future studies. Unlike consulates, embassies contributed to trade flows to a larger degree.

Studies conducted by Martincus (2010) and his colleagues go one step further in the analysis of the impact of instruments of ED on export. They apply gravity equations (The gravity model explains the patterns of international trade taking into account the economic size (GDP, population) of the countries engaged in trade and their economic distance (physical, cultural, institutional, political). According to this model, bilateral export increases with the economic size but decreases with the

economic distance. For details see Bergeijk & Brakman (2010).) as to assess the role of foreign posts and EPA in shaping the export patterns of Latin America and the Caribbean. Even though the number of countries in the sample is limited, we consider these studies relevant because they give the insight of the effects ED has on trade volumes (i.e. intensive trade margin) and the number of trade linkages i.e. opening new markets for existing products (i.e. extensive trade margin). The results revealed that foreign missions and EPA positively contribute to increase in export primarily along the extensive margin. However, these effects are not equal. They state that the establishment of EPA has a larger impact on export than embassies and consulates do. In addition, they claim that EPA contributes to a greater extent to increase in the number of export destinations for more differentiated products while foreign missions are more suitable for the promotion of homogenous goods. This is a legitimate claim due to the fact that foreign missions are not specialized for the export promotion and they are engaged in a wide range of activities unlike EPAs whose main task is export promotion. Particular information problems related to complex characteristics of differentiated product would be better solved by EPA while embassies could successfully promote homogenous goods whose trade does not require specific skills, information or knowledge about the product.

Moons, De Boer (2014) emphasize the importance of export diversification for developing countries and that is why they investigate the impact embassies and consulates have when the objective is increase in the number of trade linkages and export destinations. They confirm findings from the previous study conducted by Moons and Bergeijk (2013) that is that the contribution of embassies and consulates to export growth differs. They offered the results which are similar to the results of Rose (2007) who informs about the coefficient that ranges from 0.78 to 1.03 for embassies and from 0.06 to 0.11 for consulates (This coefficient has the following meaning: If the number of embassies is increased by 10%, the export will increase by 7.8%-10.3%. When consulates are concerned, export increase will be 6%-10%). Their conclusions, however, differ from the results proposed by Yakop and Bergeijk (2009) who stated that ED has significant and positive impact on the trade between developing countries. Yakop and Bergeijk did their calculations grouping embassies and consulates together but when they are examined separately different results are obtained. Foreign missions in this study proved to be effective only when trade occurs between countries of different level of development. In addition, they find out that foreign posts have a larger impact on the trade of differentiated products and referenced price goods than they have on the trade of homogenous goods (In their paper, the authors use the classification proposed by Rauch (1999). Rauch (1999, p. 10) divided products which are subject to trade on international markets into three categories: 1) homogenous products (which are sold at organized markets), 2) heterogeneous products (which are not sold at organized markets) and 3) those products which are not sold at organized markets but have reference price.). This is in contrast to the results proposed by Martincus (2010). Moons and De Boer claim that the trade of homogenous goods is in general fairly influenced by foreign missions. General conclusion of this study is that ED holds a very important function for developing countries which want to enter the market of industrialized countries and selling the product that has complex characteristics.

According to the World Bank report (World Bank, 2015), Serbia is classified as a developing country with the upper-middle level of income. Serbia's major trading partners are Italy, Germany, Bosnia and Herzegovina, Rumania, and the Russian Federation, while the level of external trade is the highest between Serbia and countries with whom Serbia signed free trade agreements (Statistical Office of the Republic of Serbia, 2015). Summarizing the finding of the studies mentioned above, we can conclude that the significance ED has for developing countries is indisputable. Thus, the dilemma about the effectiveness of ED, that may have existed is now been eliminated. The conducted analysis clearly demonstrates positive and significant contribution ED could potentially have by increasing the exports of Serbia. The question is to what extent it is possible to influence Serbian exports using ED. As we already stated, export is a complex activity influenced by a variety of factors. Therefore, it is necessary to understand and uncover what the major obstacles are which are discouraging Serbian enterprises from engaging in international trade or expanding the range of their operations abroad.

COMPARISON OF EXPORT BARRIERS (FROM MICRO-ECONOMIC PERSPECTIVE)

Theoretic arguments for using export promotion were dealt with in detail in Section 3. of this paper. Rationale for government intervention in this field rests upon the problem of gathering information about export markets and the problem of high cost for the single firm which is related to the gathering. Economic diplomacy is essential for finding new partners in foreign markets as well as for creation of a country's image. Meanwhile, country's image is strongly associated with the image of domestic products abroad. However, the reasons why firms do not engage in international trade, or why they are less active in international markets, could differ. Besides informal barriers (cultural differences, the lack of information, language barriers, the lack of confidence) with whom ED can successfully deal with, there are numerous formal barriers (tariffs, regulations, etc.) that exporters face. Those formal obstacles can be the result of disparity between domestic government policies and goals that the government wants to accomplish when it comes to export growth. In developed countries, informal export barriers gained primacy over formal barriers a long time ago (Anderson, Wincoop, 2004; Leonidou 2004, p.12). In developing countries, there is the same tendency. Martincus (2010, p. 8) claims: "Without denying the relevance of other obstacles, we argue that subtle but significant barrier to trade is lack of information". Recent studies conducted in developing countries show that tariffs today are significantly lower than they were 20 years ago, as a result of multilateral negotiations, trade policy reform and regional trade agreements (Arvis, 2010, p. 4). Owing to those global changes, ED produced significant positive effects in developing countries in recent years. Therefore, it is evident that ED will be more successful in increasing the exports when formal barriers are less prominent than informational barriers.

The comparison of export barriers will show to what extent the export barriers in Serbia differ from the export barriers which companies in other developing countries face. This analysis is essential because ED can successfully overcome informal barriers, but it is ineffective when formal barriers are strong. If the analysis shows similarity in the perception of barriers, we will be able to confirm the first hypothesis and to claim that ED will positively contribute to Serbia's export growth. If that is not the case, then we will not be able to make generalization and state that the spending of budget funds on ED will produce expected results.

Empirical research that already has been done on the topic of export barriers in Serbia has made our analysis rather easy. In a comprehensive study conducted by Sudarevic and Radojevic (2014) we found reliable information about the way Serbian exporters assess the importance of barriers they confront. They surveyed 137 exporting enterprises in Serbia and the results showed that the biggest obstacle Serbian exporters face is strong competition in foreign markets. They revealed the following rank for the barriers based on the magnitude of their impact on export:

1. competition on export markets
2. costs and procedures for obtaining loans for export
3. policy of exchange rate of domestic currency
4. government's policy toward exporters
5. lack of capital for export financing
6. achieving price competitiveness
7. promotion on export markets
8. absence of export branding national policy
9. collecting information about export markets
10. adjusting products for export market demands
11. export tariffs and sale cost on export markets

These results have to be compared to the results of similar studies conducted in other developing countries. In the following, we singled out articles based on these criteria: 1. that the research was conducted in a developing country (or countries), 2. that the research examines export barriers from the micro-economic perspective (from the enterprise perspective), 3. that the paper analyzes and presents empirically obtained results. In order to satisfy the first criterion a large number of articles were eliminated. Prior to the 2000's, there had been few studies on this issue. Therefore, our choice is rather limited and information gathered is scarce.

Milanzi (2012) in the research that covers 122 manufacturing firms engaged in export attained the results that are dissimilar to the results in Serbia. The lack of export knowledge and of information is the most significant barrier for the exporters, the infrastructure and problem of financing exports come right after.

Al-Hyari (2012) surveyed 250 Turkish (In the year 1999 Turkey was classified as a developing country.) small and medium-sized enterprises, both exporters and non-exporters. We can consider the results presented in his study partially consistent with the results from Serbia because the importance of informational barriers in this study is high-ranked, which is not the case in Serbia. The most

important export impediments for non-exporters are (1) obtaining product quality/standard expected on the export market, (2) the lack of resources for export financing and (3) the lack of information about export markets. The results for the exporters are somewhat different. Non-competitive price in foreign markets and high transport costs, according to this study, are the most substantial barriers exporters face.

Jalali (2012) isolates 18 types of obstacles that Greek firms face when they export to Iran. Non-competitive price, bureaucratic requirements and unfavorable exchange rate are the most significant barriers in this study. The lack of information is high-ranked and it comes on the fourth place out of 18 barriers that are included in the study.

Karakaya (1999) conducted the analysis on the sample of 277 Turkish enterprises which enter the foreign market for the first time. Results indicate strong impact of informational barriers. Non-adequate information about exporting markets are ranked as the second most influential barrier while the lack of financial resources has the strongest impact on the decision of firms to engage in international trade.

The research conducted by Ahmeda (2004) presented the results that are most consistent with the Serbian case. He lists 20 types of barriers that affect exports. The highest detected ranks have those barriers which could be reduced by government policies. The most important barriers are: the lack of government support in overcoming export obstacles, competition in foreign markets, the lack of capital for financing export expansion, and the necessity of adjusting the product for the requirements of foreign customers.

Although there is little information originating from developing countries we can conclude that there is a disparity in perception of export barriers by Serbian exporters and exporters from other developing countries. In only one of the collected studies there is a significant corresponding similarity with the results from Serbia. The differences, however, are not extreme, so we consider that the second hypothesis can be partially confirmed.

CONCLUSION

Summarizing the findings from the newest empirical studies conducted in developing countries, we discovered that instruments of ED (foreign missions and export promotion agencies) have a positive and significant impact on export growth. Economic diplomacy contributed to opening new markets for domestic products. This is especially important for developing countries that try to diversify exports and integrate themselves in the global trade chains. At the first sight, these are encouraging results, so we could have prematurely confirmed the first hypothesis- that ED can significantly contribute to export growth in Serbia. Even though there was a solid base for that conclusion, we decided to first develop the second hypothesis. The comparison of the barriers which companies in Serbia face

versus those existing in other developing countries showed significant disparity. Based on this, the second hypothesis has just partially been confirmed.

We consider that the problem in implementation of ED in Serbia is that the barriers which hinder companies to export have mainly been formal. Those obstacles are best tackled by macro-economic policies but ED in that case is powerless. Export promotion as a tool for eliminating informal barriers is neither effective nor can it provide expected outcomes if the government policies are not harmonized with the objectives of export promotion. Developing countries encountered the same problem at the end of the 20th century which caused a debate about the effectiveness of export promotion. McKean (1994, p. 56) underlines: "Sound macroeconomic policies and partial trade reform are preconditions for export success and, in turn, for effective use of subsidized export or investment promotion services. Without adequate policies in place, there is little to promote". Keesing and Singer (1990) showed that EPA did not produce expected outcomes because formal barriers were so strong that export promotion could not compensate the lack of competitiveness developing countries faced in international markets.

Based on the aforementioned, we consider that the first hypothesis can be partially confirmed. In this point in time in Serbia, the prospects for export expansion using ED are not promising. That is, there is little prospect for export expansion using ED. We cannot claim that ED will contribute to export increase significantly because formal barriers are still very prominent, which is not the case in other developing countries. We cannot be sure that ED will show the same positive outcomes, which it has showed in other developing countries. We state, however, that ED is essential for economic development through export growth and that ED is an indispensable component of a foreign policy. Even if we have not entirely confirmed defined hypotheses, our analysis has other important implications. Economic diplomacy proved to be an effective tool for increasing exports which is an important finding. This fact should not be neglected. Economic diplomacy can potentially be very advantageous for Serbian economy. Today, when ED is rapidly evolving in practice as well as a scientific field, Serbia must not straggle for too long. It is not that is pointless to invest in ED in Serbia, but it just has to be done carefully. Nevertheless, ED is not a magic bullet nor can it solve basic structural problems of the economy. Primarily, formal barriers should be overcome and ED can be evolved alongside. Without reconciliation of government policies and the objectives of export promotion, ED cannot provide expected outcomes.

LITERATURE

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HEALTH AND SAFETY AT WORK

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ABSTRACT

“Work has created a man!”

Indeed, from the very beginning of human civilization, a man has tried through different activities to improve the quality of life.

One of the main activities that also marked the development of the mankind was construction. Since ancient times, when people built the first dwellings, dugouts and pyramids, up to now when only “the sky is the limit” when it comes to modern constructions, a man has satisfied his elementary needs, and not only them, by creating structures for different purposes.

During construction works, there has always been the risk of injuries at a construction site or even injuries with death outcome. EU, back in 1994, adopted the Directive on which the investor is obligated to warn contractors during contracting process and require from them to conscientiously, responsibly and professionally implement health and safety measures at work. The adopted Directive established a framework for solving this problem, within the limits of which a solution was needed to be found.

In this respect, the “Plan of prevention measures” has been formed, which for the first time transfers the responsibility primarily to investors even before the commencement of works. Regulation of the European Union on health and safety on construction sites in Serbia has been officially applied since 2011 and already in the first years of implementation yielded results in reducing injuries at construction sites, both light and heavy casualties.

Key words: *Construction, Safety, Health , Regulation , Investor, Plan of Preventive Measures.*

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INTRODUCTION

Construction is a branch of technology in which, for a number of years, empirically gained knowledge went ahead of technical findings. The first builders used improvised materials that could be found in close proximity to the place of a certain activity, worked with them gaining basic experience at the same time. Later on, with the progress and development of knowledge, the application of new materials that were the fruit of technological development began. Also, construction has long been an area that did not require a high level of professional competence and qualifications and where the experience gained through the practice could replace the lack of basic technical skills.

However, today this is not the case. Modern machinery that is used for work, lifting, drilling the ground, various kinds of works, notably earthworks, preparation of materials, thanks to technical equipment, has contributed to reduce the share of human labour in the performance of hard work. The very execution of the unusual and demanding projects, which are by their content and mode increasingly present in practice, led to the fact that there has been an increase in the appearance of completely new risks. Generally, in the construction industry, in comparison to other branches of activity, the level of professional qualifications is still lower than the level that is required in similar production sectors. The share of unskilled labour is in a steady decline and it should not be less than the percentage of participation of qualified and highly qualified workforce. This tendency is present in a huge number of countries of Western Europe and the world and lately in our country. At no point it is disputed that this fact has to do with the large number of injuries, namely severe ones, occurring in the construction industry. The number of injuries has not been declining. On the contrary, it is constantly increasing. Construction activity is present throughout the world and in our county with more or less intensity. The construction activity development is accompanied with the development of technology of work and mechanization that always follows development. It is well-known that it is impossible to introduce full automatization in construction activity due to the nature of works. For a long time, there has been a tendency in construction that certain types of works are relocated to separate production plants. For the time being, it is approximately 30% of all types of works. The relocation improves both work and production considerably, but there is a phenomenon that the elements produced in a factory off-site often have significant drawbacks. One of the reasons for such a phenomenon is the complexity of the object. The bigger and more complex construction project is, the more experts and craftsmen of different kinds are needed for performing the works. On the other hand, the scope of activities and level of employment, especially in construction area, depends directly on local, national and international economic climate. Every type of work requires experience in performing different works. It is especially important and characteristic for construction area. The requirements for performing manual operations should be accompanied by the awareness of possible dangers. That means that workers in this sector are particularly vulnerable and that this category of workers needs adequate training on safety at work. In other words,

it is necessary to provide all necessary conditions for their training for performing operational activities in the implementation of rules on safety at work. In addition, the very way of hiring workforce, since it consists of mainly part-time or seasonal workers, contributes to an increase in risk factors in construction.

Injury reasons in construction are different. Injuries at work and construction workers' health damage happen primarily due to elemental disrespect of safety and health measures, poor and unsatisfactory relationship of workers to the prescribed measures, underestimation of risk, the lack of training and inexperience of workers, the lack of time for preventive measures, the lack of financial resources, as well as due to the tiredness of workers.

All construction works can be said to be risky and certain types of works are especially risky not only in our country, but throughout the world. According to the data of the European Agency for Safety and Health at Work, almost 13 of 100,000 workers in the EU are mortally hurt during construction every year, comparing to other activities where it is approximately 5 workers which is twice as much. These data are different for each country.

The most frequent reasons are falls from a height, electric shocks, accidents with vehicles, backfilling during excavation, careless operations, independent decisions without consulting the responsible for this type of work, falling objects from a height and others. These are only some of the most dominant reasons, but we also cannot neglect the fact that workers at construction sites are prone to other risks: the influence of asbestos, diseases of the spine due to manual load transfer, hearing loss due to work in conditions of increased noise, skin diseases arising from the use and work with cement, lime, bitumen, chemical materials, etc.

Construction is an industry which relies on or it is directly related to 60 types of activities. Due to these reasons, it can be freely said that construction is a generator, an engine and motor of development of each community. At the same time, construction, beside economy, presents culture, educational system, social and economic relationship between a state and its people. In that way, construction is regulated by appropriate laws and standards that basically contain and respect scientific and technological progress, quality system, rules, moral and ethics of the profession.

The rights and obligations of investors and contractors are always regulated by the contract which they conclude with each other. Therefore, rational approach to the choice of technical, technological solutions and work methods is of great importance. The very choice and the high quality of project documentation is the first prerequisite for meaningful and effective execution of works.

The central issue in execution is the quality of the works, the duration of the execution, price, safety and health at work. In all these domains, the key problem and the basis for resolving the issues is the question of liability. This is a very complex issue that has extraordinarily important practical implications for the realization of the project, which refers to the responsibility of investors and contractors from the moment of concluding the contract until the moment of the execution of works.

If their liability is at a high level, the chances for the emergence of potential damages and misunderstandings are minimal or there is almost no chance at all. The inevitable companion of any new construction is problems in implementing the project. All problems concerning the execution of the construction facility would be easier to solve if numerous experts in various fields for which there are different tasks in different areas and at different levels did not appear in the course of realisation. Until recently, all the liabilities and responsibilities of contractors under the contract on the construction were related to the construction of the facility and were the most important and most extensive part in the construction of the building. Since the construction of buildings is a complex and time-consuming process also followed by the problems of a smaller or greater intensity, practice imposed the need to the investor to assume an active and equal role in the realization of the process of construction. The final mutual aim of investors and contractors is the construction of an object. During realisation of the project mistakes can appear, but they should be kept to a minimum. They can be a result of a poor project, incorrectly selected organization and technology of works execution, poor quality of work and materials, non-compliance with contractual obligations and others. In practice, it is difficult to enforce the division of responsibility if it is not precisely defined in detail. That is why the legislator, as a step in the division of responsibilities, foreseen and in the execution of the work introduced project coordinators for the project and coordinators for works whose primary task is care and concern about measures of safety and health at work at temporary or mobile construction sites.

Regulations on safety and health at work at temporary or mobile construction sites prescribe minimal requirements that investor, i.e. representative of the investor for project realisation, coordinator for safety and health at work in the phase of project development, coordinator for safety and health at work in the phase of execution of construction works, employer and other persons are obliged to fulfill in providing preventive measures for temporary or mobile construction sites. Investor, i.e. representative of the investor is obliged to delegate one or more coordinators for project development, as well as one or more coordinators for the execution of works when two or more contractors execute or are determined to execute works at a construction site simultaneously. Investor or representative of the investor is obliged, before starting work on a site, to provide a plan of preventive measures. The Plan of preventive measures and technical documentation for construction objects in accordance with the regulations on planning and construction form the basis for assessing the risk of injury occurrence and damage to health in the workplace and in the working environment at a certain construction site.

PREVENTIVE MEASURES AT CONSTRUCTION SITE

Long ago it was found that ill-placed security system at the site, untimely taking security measures and procurement of personal protective equipment and inefficient implementation of the prescribed measures have the effect of occurrence of harmful events to health and ability to work of the employed, and as a side effect the occurrence of injuries and losses.

What burdens the business of each contractor on the site is certainly costs incurred due to the implementation of security measures. The application of security measures is an unavoidable obligation throughout the whole realisation of project. The starting point for the implementation of health and safety measures at the construction site is that the safety of all participants in the project has no price. Underestimating these obligations directly reflects on the success of the project.

On the other hand, the contractor is often at a disadvantage because in the calculations for the project in order to get a job at the tender defines a small amount dedicated for Safety and Health at Work. Therefore, by making such failure, he becomes handicapped with the price of works comparing to other bidders, which is not seen in the beginning of the project.

Otherwise, by dedicating normal and necessary funds for the programs of the security measures he becomes more expensive. In this way, the contractor is putting himself in a situation where he is uncompetitive when it comes to price. Even if he manages to get a job on the auction, in most cases, the contractor opts for a happy medium that does not satisfy the necessary conditions in connection with safety and health at work, hoping for the one "Hopefully, that will not happen."

Because of these failures starting with the preparation of project documentation, regardless of how it is thoroughly and professionally conducted, measures of health and safety at work are not only the obligation of contractors, but also of other participants in the project. This is not the only element for understanding the problems of security measures, which are reflected through the realization costs and time needed for the project realisation. The analysis has shown that the largest number of violations is recorded in construction industry and that all the violations are the consequence of negligence and disregard of safety and health at work.

The problem of safety measures and health has been known since the moment when a man began to create and work. There are historical data that even Hammurabi in ancient Babylon 3,000 years BC passed a law under which anyone who caused the accident by inadequate work was convicted. This law is known as Hammurabi's law, which was based on the principle "eye for an eye, a tooth for a tooth."

The following quotes suggest this conclusion: "If a worker loses a hand due to carelessness or negligence of his supervisor (and a supervisor is the one who takes care of the proper execution of the work), then the hand of the supervisor will be cut off." Another quotation says: "If a builder builds a house and the house is

insufficiently firm, falls down and causes the death of the owner, the life of the builder will be also taken." It is sure that such draconian settings in present conditions would not be able to exist, but can initiate a much greater responsibility and increase attention of all those who are in charge of security and implementation of security measures at work. Research in all countries has shown that injuries at work in most cases are the consequences of the failure to apply measures of safety and health at work. The losses and costs incurred due to injuries at work substantially burden the gross domestic product. There is evidence that up to 20% of national income refers to losses and costs.

The European Union back in 1994 adopted a Directive according to which the investor is obliged and bound to warn the contractor when negotiating and demand from him to implement measures of health and safety at work conscientiously, responsibly and professionally. The adopted Directive established a framework for addressing this issue and within its borders a solution should be found. A base was created, by which it was possible to regulate the obligation under which an investor is also obligated in preparation of project documentation together with the designer to coordinate the planning of health and safety measures at the construction site. Previous practice did not anticipate that. In this way, health and safety measures have also become the obligation of investors beside contractors to apply all necessary security measures during works at a construction site.

The plan of preventive measures gives a detailed list of all potential possibilities causing injury as well as risks during the construction and on that basis gives precise instructions for their control. These are instructions concerning the safe and secure machinery handling. It is generally known that during works machinery produced a huge number of injuries and accidents (earth moving equipment, cranes, separation machines, crushers, asphalt plants, belt conveyors, drills, mills, etc.). Technical requirements and guidelines for the safe execution of risky types of work and operations (digging works in tunnels and underground structures, welding, work on scaffolding, work on and in water; assembly works, asphalt paving, steel structures, etc.) should be respected and applied to prevent injuries and accidents. In addition, the Plan of preventive measures indicates the procedures in dealing with hazardous materials (explosives, flammable gases, paints, varnishes) and prescribes measures on the use of protective equipment, procedures and administrative measures for better control of work safety at a construction site.

Due to the fact that a good part of the national income in all countries goes to the losses caused by damages resulting from non-application or poor application of security measures at work, the current trend in the world is the standardization of rules requirements regarding safety on a construction site. The reason is also found and confirmed in the fact that everywhere in the world and in our country, practice, i.e experience has shown that the control of application of the law as a measure is not effective enough, and the sanctions for the offenders are minimal. Therefore, they are inadequate and inefficient. This suggests indirectly that the safety and health at work present a neglected area, and that this constitutes a serious obstacle to the successful engagement of construction operative.

We should not run away from the fact that the prescribed regulative in the field of safety at work has the effect of directly affecting the cost of the works and their duration.

On the other hand, practice has proved in numerous cases, that when the prescribed measures of safety and health at work are not respected, interruptions occur in the works that are the result of the administrative ban on state authorities or the investors.

The main responsibility for securing and control of safety and health on the construction site belongs to the accountable manager of works. His responsibility is based on the legal and regulatory requirements of the company that is implementing a project to clearly identify all his obligations. Everywhere in the world, legislation and professional procedures emphasize that the safety and health are the most important aspects of the construction. By definition, health and safety at work on the site should provide a safe working environment for each of the direct perpetrator of work, provide a safe work method which is conditioned by technology execution, that should be, at the same time, optimal for both the direct perpetrator and the other participants in the labor process, in order to eliminate in the course of work the possibility of damage or destruction of property at and around the construction site and to enable that work processes are carried out so that there is no risk of injuries and accidents to passers-by and visitors to the site.

If the key Figure for security and safety control of works on the building site is the accountable manager, then the bare minimum of his duties is the following: securing measures for safe and secure operation at the construction site, preparing and initiating programs or projects before and during the execution of works in order to ensure measures for safe and secure operation, controlling the application of regulatory documents prescribed and enacted by the state authorities and the company that is performing the work, analysing potential deviations that were obtained during the project implementation and violation of all security measures. He makes decisions on concrete actions related to improving occupational safety and communication with contractors during the construction as well as with local organizations that are responsible for controlling the execution of works.

The legislation and the existence of regulations and rules for safety at work can not by themselves ensure the implementation and enforcement of security measures. Every construction site is a special case and a separate issue to be tackled from all angles and at all levels of implementation. There is no universal solution for safety and health at work. As a rule, and it is recommended that for each building and the concrete case an analysis, program or project on Safety and Health at Work should be done. This means that the existence of a project that ensures the safe operation on the building site creates a basis for a complete definition of the individual responsibilities of all participants in the project and provides a basis for the timely planning and designing preventive measures.

For the realization of the project of safety and health at work at each construction site we should designate a person who will be responsible for the implementation and control of the security measures contained in the daily check to control whether all the operations, defined by the project of execution and safety, are properly performed in a safe and secure manner. The person should perform

analysis and study of security measures regarding security of operations performed at the site, record and warn all participants in the realization of the project who violate prescribed safety rules at work or deviate from the prescribed proper performance, organize training, working meetings at the site with the aim of learn, revise and rehearse safety measures, inspect the condition of protective equipment, and to ensure the obligations of workers for the planned work operations, organize training, implementation and knowledge of the basic techniques of first aid to the injured, fully apply the rules and regulations of safety and health at the site, write reports on the state of security measures at the site and check the condition and maintenance of medical supplies and first aid at a construction site.

CONCLUSION

Comparing current data on the type and number of injuries in the construction industry with the period before the start of the entry into force of the Regulation on Safety and Health at Work at construction sites, it is obvious that there are positive effects of regulations in the construction industry in Serbia. This is reflected in all types of injury - mild, severe, severe fatal and collective. However, much more can be improved, both in the text of the Regulation and in its implementation.

In this sense, constant monitoring is needed to make this, already positive initiative of the legislation, constantly improved, primarily to protect the safety and health of participants in the production process at construction sites.

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APPLICATION OF DATA WAREHOUSE AND OLAP TECHNOLOGIES IN BUSINESS DECISION MAKING

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ABSTRACT

Basic aim of this paper is application of data warehouse and OLAP (On-Line Analytical Processing) technology in advancement of decision-making process based on knowledge, which is hidden in transaction systems, unstructured and raw data. Competition, high complexity and dynamics of business environment demand more efficient management and more quality in decision making. Faster, aggregated and visually accessible information become an important managerial resource at all levels of decision making, which also depends on the abilities and knowledge of using modern information technologies. Data warehouse is subjectively oriented, integrated and timely dimensioned collection of data for decision- making support, because they give a unique Figure of business reality and help understanding the whole business system. They enable managerial decisions made in business systems, provide their competitive advantage, liberate decision makers of subjective impressions and create conditions for decision making to be based on knowledge. Data warehouse represents the foundation for implementation of business intelligence system, integration of data and support to business decision making. For data warehouses usually dimension model is made, which obtains better possibility of visualization of data. Data warehouse architecture implies definitions of basic elements of data warehouse and describes how these elements were made and connected. Having in mind the area and the goal of research, which will be used in this research, we will use the following: inductive and deductive method, basic logic method, which enable to draw certain conclusions on the research subject, comparative method in procedure of comparing information obtained in a classic way and by using data warehouses and OLAP technologies. The contribution of this paper can be seen in application of data warehouses and OLAP technology, while monitoring and advancing the teaching processes, improving their standards, advancement of scientific and research work, more quality decision making and management in education processes.

Key words: *Data Warehouse, Analytic On-Line Processing (OLAP), Multidimensional Analysis*

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INTRODUCTION

Quality management of a business system and its processes represents a critical factor of success in business. Making the right decision directly and indirectly depends on the quality and time frame of the information which the decision maker has. For obtaining such information it is necessary to, at every moment, have appropriate data. Collection of raw data does not represent the solution to the problem of decision making, nor the quality management. Large amount of unstructured and raw data can represent a difficulty while making decisions, because it can lead to fading of the essence of the problem and „losing in the sea of data which do not have a purpose“ (Balaban, 2006).

Nowadays more than ever, managers need easily available and consistent data represented that in the same time; precisely give a summarized overview of the organization as a whole as well as its environment. However, complex conditions of business generate every day more and more business events in the business system and outside of it, and the data obtained are usually stored in operational data bases. Due to a large number of those data bases, they are impossible to search in real time, and when one gets a final answer to the inquiry, usually those are reports in two-dimensional form on a large number of pages and represent selective copying of data from the data base.

Since timely obtaining of quality information is essential for gaining advantage with the competition, manager has to obtain them as soon as possible and in the form adjusted to his needs. This is why today's information systems are expected to provide information whose content, speed of access and the way of overview are adapted to current needs of managers in the decision-making process. While for the needs of operational business management one uses classic data bases, based on relational model, which keep an updated, real condition of business system, and certain data are lost after updating, for making a business decision one needs to have in mind the time frame of business events, so that is why these data bases do not represent an appropriate solution. This is why we have to find new forms of organized data in computer memories of information systems. A new generation of computer systems has been developed which is founded on the concept of data warehousing.

Data warehouse contains data gathered from different sources, historic, on business management of a company as well as data from the business environment, and it is designed in such a way that it enables searching of data, on-line analytic processing, reporting and providing support to the decision-making process. New generation of computer systems is comprised of two parts, operational (transaction) and data warehouse (analytic), and it separates the processes of generating information which are different by nature from the operational processes.

Content of such a large amount of data has to be quickly available in real time. This is why the data in the warehouse are modelled to be redundant. Every company builds data warehouse according to their business. Data redundancy is not a problem because it predicts that data warehouse will be large in scope. The speed

of request is essential. Data are not inserted into data warehouses they are loaded. Loading is defined as writing line by line in the table while data filling is writing more lines at once, i.e. input of more data at once. Data warehouse has to provide the following goals (Kimball, Ross, 2002):

DATA WAREHOUSE GOALS

Data warehousing i.e. building the warehouse has its reason and justification. The reason for setting in motion such an important and complex project lies in the fact that if that project is made well and professionally, it enables to his users obtaining of quality information in the moment which is in today's business conditions necessary. Project of building data warehouse, has to satisfy the goals set. Some of the goals data warehouse has to meet i.e. obtain the set goals. Some of the aims data warehouse should achieve or enable are:

1. Data warehouse has to enable access to data important to an organization or a company;
 - Managers and analytics have to have access to data relevant for the organization. That access should be direct, quick, at the users' request and has to provide high performances. All of this, users have to achieve by using their own computer.
2. Data in data warehouse have to be consistent;
 - Consistency means that if two users are searching for the same data they have to get the same answer even though they searched for it at different times. It also means that if yesterday's data have not yet been loaded fully, the user has to be warned.
3. Data in data warehouse can be combined in all possible ways (*Dice and slice requirement*);
 - This is enabled by the dimension model.
4. Data warehouse are not just data, but also the collection of tools for making queries (*Query tools*), tools for analysis and presenting of information;
 - It is considered that 60% of necessary things for success of data warehouse are contained in data themselves, and 40% relates to analysis software.
5. Data warehouse is a place where used data are published;
6. Data quality in the warehouse is the instigator of business restructuring.

DEFINITIONS

According to the definition set by William H. Inmon data warehouse represents a subjectively oriented, integrated, time frame connected and content wise changeable collection of data and the ultimate goal is the support to management in decision making process (Inmon,1995):

- *subjective orientation*, turned towards certain organizational activity or processes of decision making instead of current operations,
- *integration*, centralized data base which contains the data from different sources internal, external, personal,
- *immutability*, data warehouse is not changing permanently, but periodically filled with new data depending on the business needs,
- *time immutability*, we can say that key characteristics of DW are time dimension and possibility of quality transformation of business, operational and other data in data warehouse.

The notion itself "data warehouse" implies collection of data isolated from the operational data bases and packed into special bases i.e. data warehouses. Ralph Kimball in his book "*The Data Warehouse Toolkit: Practical Techniques for Building Dimensional Data Warehouses*" defines data warehouse as a copy of transaction data specifically structured for queries and analyses (Kimball, 1996).

Data warehouse is structured repository of subject-oriented, timely defined, historic data of the entire company, which provide business information which enable making of business decisions (Oracle University, 2002).

Warehousing of data represents infrastructure and architecture which provides a successful, quality and from company's point of view, comprehensive system of business intelligence. So data warehousing is not new technology, but the architecture, which needs some of existing technologies to be implemented (Inmon, 2002).

RESEARCH METHODS

Theoretic part of the paper is based on overviewing the professional literature. Literature which represents secondary information i.e. existing data from various sources. Scientific method is a collection of various procedures which the science uses in scientific and research paper, in order to research and display results of the scientific research, so that is why every way of scientific research, which provides safe, arranged, systematic and actual knowledge, is called that. In making of theoretical and practical parts of this paper we used the following methods of scientific and research work, adapted to theoretical framework:

- *inductive – deductive method*, which includes the way of making conclusions from general assumptions to actual individual conclusions, and concluding on general assumptions based on individual or specific facts,
- *method of analysis and synthesis*, which include division of complex notions, opinions and conclusions into more simple parts and then studying the parts individually, in relation to other parts or elements in relation to the whole,
- *method of abstraction and concretization*, is the thought process, which separates irrelevant, and emphasise relevant elements and characteristics. Together with abstraction, the method of concretization is used – opposed to abstraction,
- *method of proof and refutations*, whose purpose is determining whether certain knowledge is true by incorporating almost all methods and vice versa,
- *method of description*, procedure of simple description or reading the facts, empirical affirmation of their connections and relations,
- *method of comparison*, which represents the procedure of forming own attitudes and conclusions, we used comparative methods in the procedure of comparing of obtaining of information by a classic information and usage of data warehouses processing and OLAP technology.

SUBJECT OF RESEARCH

Nowadays business systems pay more attention to quality of data, way of thinking and doing business. That is, their decisions are led by data. Needs in respect of data grow significantly, companies demand more and more of quality and diverse data, with the goal of expanding their analysis and gaining a wider view of their consumers. So a question imposes itself: is it possible to obtain quality data which can contribute to decision making in modern business? The contribution will be analysed through application of technological and economic approach. We will analyse the possibilities of data warehousing technology which enable these analyses, creation of models for semantic analysis and selection of optimal usage for the needs of business decision making.

Most business organizations are familiar with business analytics and its power during making decisions, and many of them want their own business analysis to be expanded to the next level. Considering that we are talking about relatively new technology i.e. technologies, there is a great lack of staff able to work with data warehouses, so these companies are usually forced to improvise.

There is also usually the lack of support by the managers which opens a question: Whether data warehouse is a characteristic problem for an organization? 25% of interviewees answered that they consider data warehouse a problem, and one of the key reasons they state the company's capacity. However, on the other hand 75% of interviewees see an opportunity in data warehouse technology (R. Russom, 2011).

Statistical data show that 45% of interviewees use some forms of advanced analytics, but not using the data warehouse, 35% works with data warehouse, 20% does not own any form of advanced analytics. When they were asked if they have enough quality staff to use the data they own, 63% said no, which again emphasises to what extent people are actually important for realization of modern business concept (Harris et al. 2013).

KEY RESULTS

We can understand data warehouse as arranged data organization, which is optimized for searching large amount of data and creation of reports. The fact is that today's companies which most often use data warehouses, although there is a concept of acceptance even with small companies, generate large amounts of data. Data as such have no meaning, until someone puts them into certain context, or compare them to some other data, and then they obtain purpose and become information. These information are key at all management levels, but especially in top management for successful business of the company.

As we know, transaction systems follow business processes, and they monitor all changes, they are the ones who generate mass amounts of data on company's activities. This is where a problem arises. Even though those data are all stored and evidenced in data bases, how one can manage to find his way in all that? How one can obtain aggregated data at the level of entire enterprise, if for example the production department entered their data in one base, and HR department in another producer's base who was, at the moment of supply, cheaper. What if accounting uses application which writes dated in one form (mm / dd / yy), and in department of marketing they write it in another (dd / mm / yy). And the problems do not end there. What if certain employees do not use data bases at all for data warehousing, but simply collect them in excel or word documents and they are relevant to decision-making process.

The solution of the stated problems is data warehouse. Warehouse is not filled with data by entering them like in transaction systems; process of filling of data warehouse is called ETL (Extract, Transform, Load). From its name we can see that this process is comprised of three parts. The first step is extracting of data from the operational systems, here we do not imply only the transaction systems, but also all sources of data, i.e. where the data are written: data bases, various tables, text documents etc. then we have transformation of those "extracted" data, in order to set parameters for how the data should look like after the transformation. This is the key part of ELT process, because there we remove all differences of various data sources, i.e. they are "standardized". The final step is loading the data warehouse by these transformed or cleaned data. When the warehouse is loaded, we can use all the advantages of data warehouse, especially in respect of conducting of complex analyses under huge amounts of standardized data.

ARCHITECTURE OF DATA WAREHOUSE

The procedure of data warehousing represents a continuous process of planning, building and collecting of data from various sources, their usage, maintenance, management and constant advancement. Among many steps in this complex continuous process it is important to emphasise the significance of having a vision of what we want to achieve by creating of data warehouse. One of the roles of data warehouse is for example development and using of data-based knowledge.

With data warehouse architecture it is necessary to point out that there are two i.e. three types of data warehouse architecture. Those are really two directions in the area of data warehousing, where each has its own advantages and disadvantages. The first one is *Inmon Corporate Information Factory*, where all data at the level of an enterprise are consolidated in the central repository named *Enterprise Data Warehouse*, and it is characterised by data being in (3. Normal form). This means that relational technology is used, so the queries are set directly in that central repository. It is used only as a base for *Data Marts*, which we can understand as mini data warehouses, specialized for a specific segment of an enterprise, which is connected to repository, i.e. used as data source, and they use dimensional design. These data marts are adjusted to certain segments of an enterprise (accounting, production, marketing...) and queries are done on them.

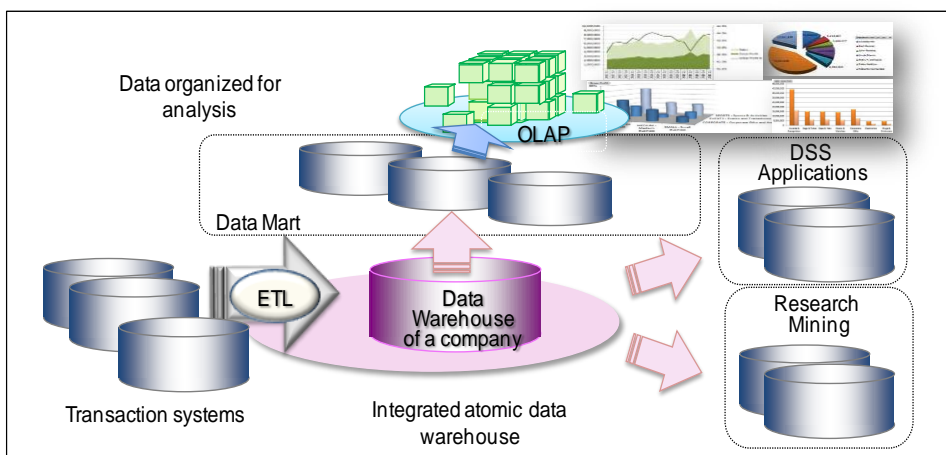


Figure 1: Inmon's architecture of Corporate Information Factory

Source: Authors

Another type of architecture is connected to *Kimball*, and it is called *Dimensional Data Warehouse*. From the name we can see that here relational technology is not used, but dimensional design is. This architecture also has a central repository, where data at the level of entire company can be found, but the queries are done directly at it, data Mart here is unnecessary, since the repository itself is organized at the dimensional design.

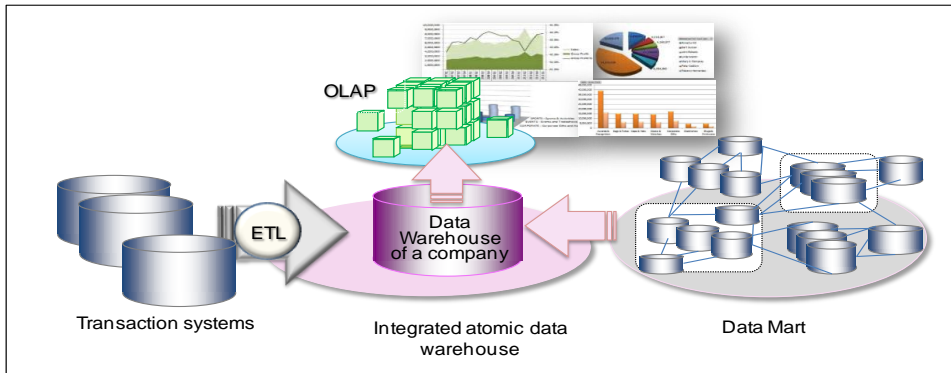


Figure 2: Kimball's architecture of Dimensional Data Warehouse

Source: Authors

Third architecture, even though it is problematic can it be called data warehouse, is individual Data Mart, which is specialized for narrow area of the department in an organization, so it does not hold data of the entire organization, nor can it perform analyses on that level. It can be realized on dimensional design and other technologies.

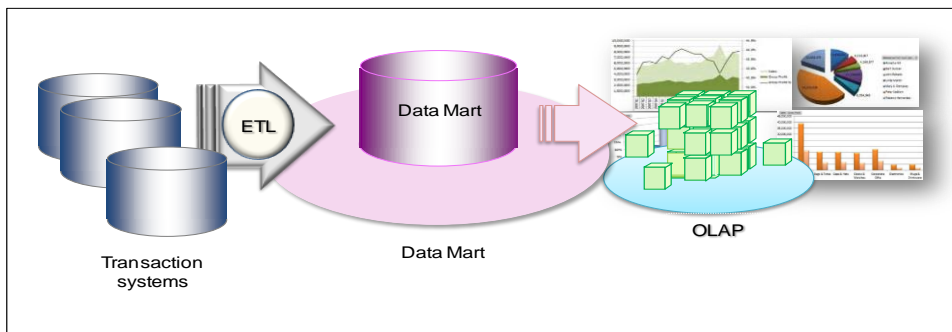


Figure 3: Individual Data Mart

Source: Authors

Regardless of the data warehouse architecture, they all use, or can use fully or partly dimensional design. Dimensional design implemented at the relational base is called *Star Pattern* – (*ROLAP*), and the same one implemented in the multidimensional base is called *Cube* (*MOLAP*).

ROLE OF DATA WAREHOUSE

Data warehouse is shaped to enable the users of various levels solving of various analytic tasks. It enables:

- reporting and monitoring of business processes,
- analysis and diagnosing, finding information in an interactive way by setting queries and analysing the obtained data,
- planning and simulation, creation and execution of model of plan or simulation,
- access to a large number of data for the end user,
- creating and requesting of various reports on trends,
- extracting, transformation and storing of large amount of data.

Main purpose of data warehouse is:

- providing users with access to data,
- provide one version of truth,
- mark precisely past events,
- efficient data research,
- separating analytic and operational processes,
- providing support to decision-making system (Nagabhushani 2008).

MULTIDIMENSIONAL DISPLAY OF DATA (OLAP) SYSTEMS

As we already mentioned, data warehouse is filled from sources inside an organization (transactional bases) or outside data sources. Through processes of extraction, transformation and loading, which enable data loading from internal and external sources, we get basic data from the warehouse. By application of data management system one obtains aggregated, multidimensional data which by using different analytic methods of processing enable obtaining of different forms of information necessary to the managers in decision-making process. The greatest advantage of dimensional structure is the possibility of visual presentation of information. OLAP systems support complex analyses done by analytics and enable data analysis from various perspectives (business dimensions). Connecting of data warehouses with the user interface, along with determining the way of setting queries and display of query results, enables managers simple and quick queries as well as appropriate display of results of the queries according to their needs (text, Figure, chars etc.).

Data warehouse most often uses dimensional structure of data which is based on elements of relational data base i.e. relational tables. OLAP systems as data warehouses use multidimensionality and renormalisation. Connecting element

which unifies all elements is central relational table. It stores elements of primary codes of every relational table which participates in the structure, those numeric variables that we wish to analyse.

Interface of OLAP systems should enable the user comfortable work, individual conducting of analytic operations and obtaining the overview and business graphics, without the knowledge of programming and data base structure. For the visual overview of dimensional data model we use star pattern, because a diagram has a shape of a star, which represents, as previously stated, one central great relational table, which is also called the fact table, as well as the collection of smaller tables. Fact table is the largest table in data warehouse, and its size depends on the level of business process that is being monitored. It is the only table connected to the other dimensional tables in data model. Dimensional tables own certain attributes, i.e. dimension positions and represent possibilities which show certain action e.g. sale of certain product. The Figure 4 gives the overview of the dimensional data model of the star pattern.

Demands that OLAP has to fulfil:

- ability to work with large data sets and large number of users,
- short response time on query,
- the ability to work with data from different levels of detail,
- the ability of calculating complex mathematical functions,
- support for what-if analysis, modelling and planning,
- ease of implementation and maintenance of the system,
- data protection,
- the ability to work with a large number of tools which will be used to access data, perform analysis and display data.

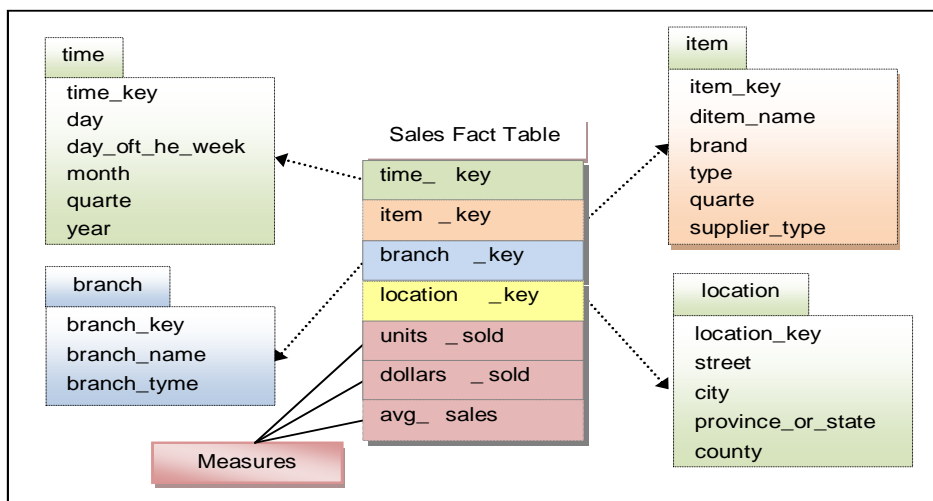


Figure 4: Star pattern dimensional model

Source: Authors

Fact table as the central part of the scheme, represents the middle part of the coordination, which together with basic data on codes of relational tables unified in a structure, can contain other segments of information.

There are the following architectures of OLAP systems:

- multidimensional OLAP (MOLAP),
- relational OLAP (ROLAP),
- hybrid OLAP (HOLAP).
- elastic OLAP (EOLAP)

The advantage of MOLAP system is that it provides excellent performances of the system when one works on already calculated data (*aggregations*) and mining (*drill up, drill down, drill through*), cross tabulation, selection, cutting, separating and combining of all dimensions (*slice and dice requirement*) rotation i.e. emphasis of one dimension while others are in the background (*pivoting*), forecasting, modelling, Graphing statistical analyses (*trend, cluster*) etc.

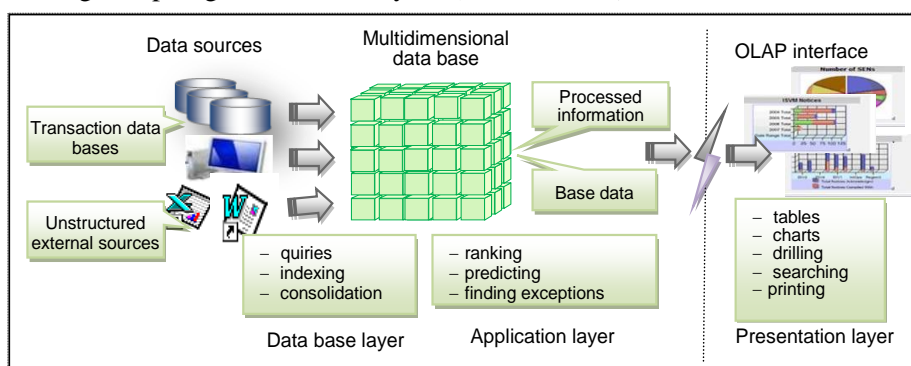


Figure 5: MOLAP system architecture

Source: Authors

Lack is the difficulty of providing new dimensions and in order to do any analysis, it is necessary to first load the data into multidimensional structures. Many calculations are done in order to create aggregations and load the data, which can last relatively long time. After the process is completed the user can start analysis.

MOLAP and ROLAP are different in the way of physical storing of data. With MOLAP systems data are kept in multidimensional structure and with ROLAP systems data are kept in relational data bases.

The lack of MOLAP system is the difficulty to add new dimensions. Therefore MOLAP systems are good to use in cases when it is possible to divide a large collection of data into smaller data sets (Tot, 2009).

Data from various transactional systems are loaded into multidimensional data base by using batch routines. When loading the data of atomic level is done, aggregations are created, after which data base is ready to work. The users give their queries for OLAP reports via interface shown in the Figure 5.

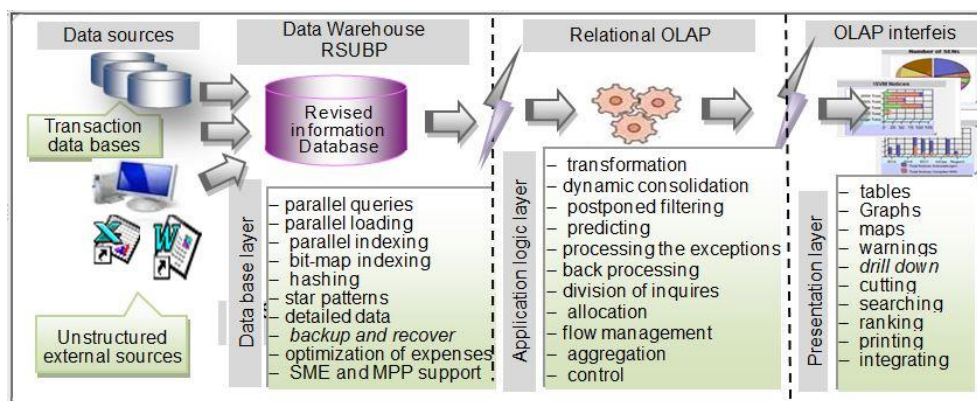


Figure 6: ROLAP system architecture

Source: Authors

ROLAP systems access data directly from data warehouse and they work with relational data bases, like in the Figure 6. ROLAP systems can work with large data sets. As soon as the data source is determined, the user can start an analysis. Considering that the work is being done directly over a data base, the current data are always at users' disposal. With ROLAP systems there are no limitations when it comes to the number of dimensions existing, as is the case with MOLAP systems.

HOLAP tools can access relational and multidimensional data bases. The goal of using HOLAP tools is using the advantages of MOLAP tools.

- short response times and analytical capabilities, and ROLAP tools,
- dynamic data access.

We cannot say that HOLAP is a simple combination of MOLAP and ROLAP systems. It is actually ROLAP which has possibilities of executing of very complex SQL orders. The goal was to keep all advantages of ROLAP, but to also add some new possibilities for working with multidimensional data bases.

Users' needs when using EOLAP are:

- multi-dimensional view of the data - this possibility is given by both OLAP and ROLAP tools,
- excellent system performances - this option is given by MOLAP tools,
- analytical flexibility (for simulation) - this option is given by MOLAP tools,
- access to data in real time - this option is given by ROLAP tools,
- large data capacity - this option is given by ROLAP tools.

EXAMPLE OF APPLICATION OF DATA WAREHOUSE IN EDUCATION

Base for the decision-making system is analytic data base Data Warehouse (DW), whose primary function is maintenance of the processes and rules of business activities of the entire organization (Balaban,2006). As effective and efficient management support, DW purifies and aggregates data from the operation systems and places them in so-called dimensional data bases, which represent a repository of the consistent historic data, easily accessible and subject to effective manipulation. This organized data are used for evaluation of condition of business situation.

DESIGN OF DATA WAREHOUSE

“*Planning*”, the first activity collects queries by interview with users and planning is done from the data warehouse by defining project plan, technical conditions and prototype creation.

“*Analysis*”, the second activity does modelling of data by logical and dimensional modelling, data transformation and extraction and loading of data.

“*Design*” builds the data warehouse and creates users views.

“*Implementation*” introduces data warehouse as well as maintenance and data protection (Medić Z. 2013). Figure 7. Shows the tree of activities of data warehouse development.

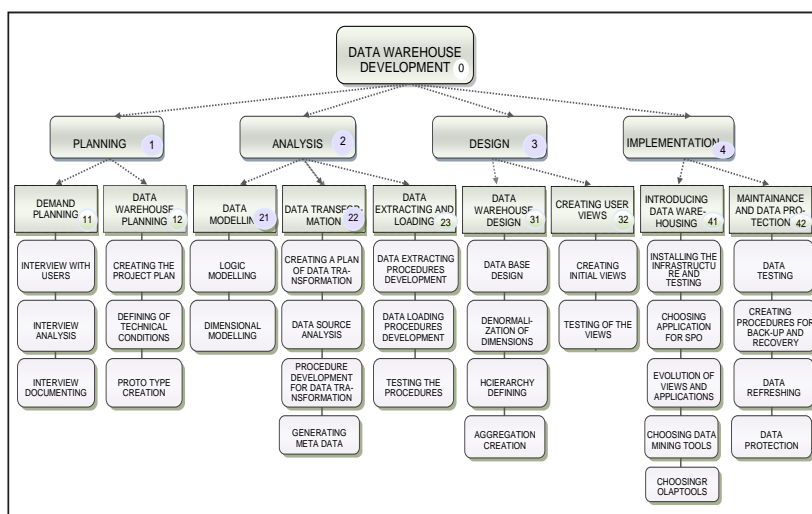


Figure 7: Tree of activities of data warehouse development

Source: Authors

DIMENSIONAL MODELLING

Dimensional modelling is a technique of logical design whose aim is data presentation in standard form which provides high system performances (Kimball,1996). The result of dimensional modelling is a dimensional data model which comprises defining dimensions, hierarchy and connections.

In dimensional model, data are organized in such a way that they define dimensions and measures. Dimension represents a data element which characterizes every part in data collection. Basic function of dimensions is to provide filtering, grouping and labelling. For example, if every person has a gender characterized as male, female or unknown, the user will be able to filter data based on gender. Dimensions define every transaction and are kept in tables which are connected with the fact table. Measures are numeric data kept in the fact table. This is how a data model is created which uses multidimensional strings to obtain data view which leaders, managers, analytics and planners have. Users usually review and analyse data according to time framework, field, buyer type or some similar dimension.

Star pattern stores all data on dimension in one table. Every level of hierarchy is represented by a column or more columns together in the dimension table. Dimensional object can be used for defining of hierarchical relation between two columns (or collection of columns). Without the dimensional objects, hierarchical relations are defined only in Metadata. Attributes are found in columns of dimensional tables. Attributes are found in columns of dimension tables.

Dimensional tables contain description, textual information. Attributes of dimensional tables are used as limitations while setting queries. Every dimensional table has its own primary key, and all of them participate in creating of primary key of fact table.

Fact tables are used for keeping measures and contain data which are most often of numerical type and can contain large amount of inputs. Fact tables contain composite primary key, which consists of several external keys (one for each dimension of tables) and columns for every measure which uses these dimensions.

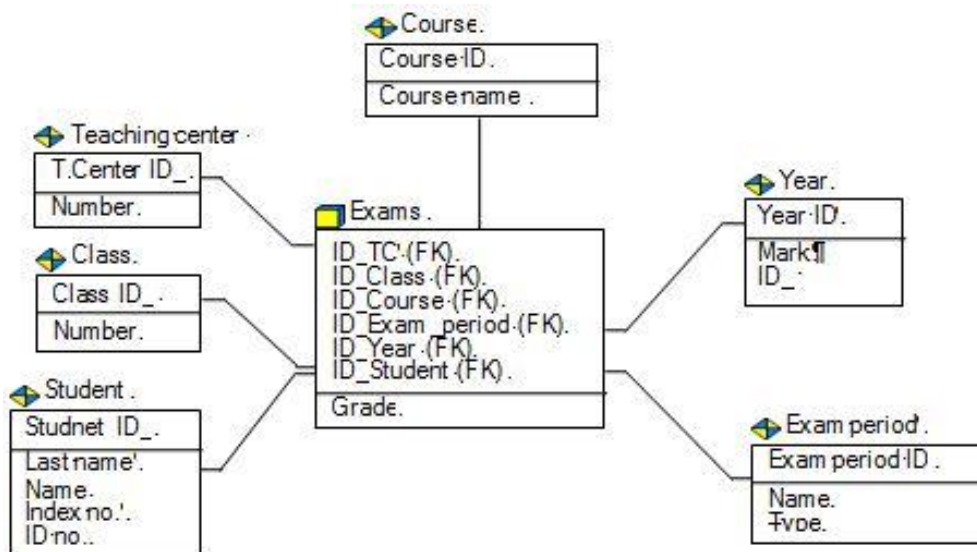


Figure 8: Example of star pattern

Source: Authors

Dimensions can often be organized into hierarchies, like EXAM --> EXAM PERIOD --> SEMESTER. They enable the user to view data with more or less details.

Star pattern is typical structure by which multidimensional data are implemented by using the relational systems for data base management.

Star pattern has two types of tables – dimension tables and fact tables. Fact tables contain quantitative data on business operations i.e. data that the users analyse and they are called measures. These data are most often numerical type and can contain several million lines and columns.

OLAP SYSTEMS FOR STUDENT SUCCESS ANALYSIS

OLAP or multidimensional analysis signifies analytic data processing done in real time, interactively. Information technologies of data warehouse and OLAP systems enable analytics and management to gain insight into business indicators through quick, consistent and interactive approach to analyses. Through analyses, from different points of view of the business context information are seen, and they are obtained by data transformation from operational sources.

Information technologies of data warehouse and OLAP systems enable tracking and analysis of students' success by a consistent and interactive approach. The purpose of these systems is to monitor the number of students who:

- had the right to take an exam,
- apply for an exam,
- take exam,
- pass exam,
- fail exam,

As well as perceptual reports on these parameters like took/passed an exam, on the level of:

- one exam period,
- semester,
- year (or more years),
- for every subject, or
- cumulatively, according to departments and on the level of the entire School,
- undergraduate and graduate studies.

	Sum of Izasao	Sum of Pao	Sum of Polozio	Sum of Prijavilo	
114	58	56	184		
347	83	264	-419		
76	13	63	86		
49	18	31	71		
66	40	26	103		
1	0	1	5		
68	22	46	117		
105	59	46	125		
1	0	1	1		
81	31	50	113		
237					
Grand Total	348	461	241	320	703

Figure 9: Report on the number of students who passed exams per semester, course and exam periods (cumulatively)

Source: Authors

These reports are analysed at the end of every exam period, semester and year. Without OLAP system for obtaining these reports it would be unnecessary to create dozens of complex queries over the data base, which is mostly flexible, so that the slightest change in queries causes creation of new queries.

Additional problem is that data, necessary for creating of new queries, are stored in various places. That is why data warehouse is created and it unifies all extracted data and automatizes flows for transfer and integration of data in the warehouse.

Further on, we showed the way in which the demanded reports are obtained, with the help of OLAP cube. As a software tool for reading data from the cube we used *Microsoft Excel*. If there are only three dimensions according to which the data are analysed, OLAP structure can be graphically represented as three-dimensional cube (Figure 10).

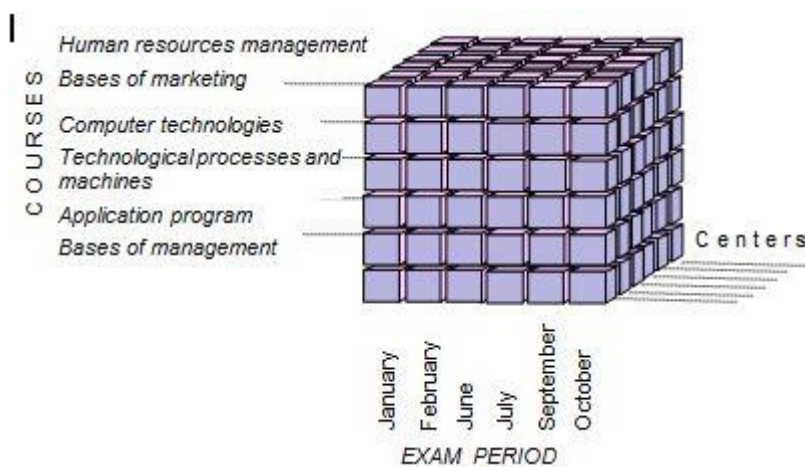


Figure 10: Three-dimansional OLAP cube for monitoring the number of students who passed the exams

Source: Authors

In the case shown in the Figure 10, every cube presents selected course from the certain accredited centre of the School, number of the students who passed an exam from a certain course in certain exam period.

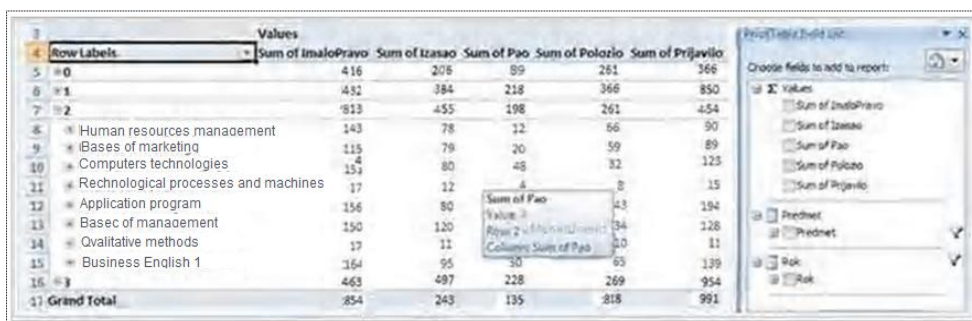


Figure 11: Report on the number of students who passed the exams per semester and course on the level of a year

Source: Authors

The Figure 11 shows the report on basic parameters of the number who passed according to the courses of one semester in 2014. These reports can be very important to the decision-makers in analysing the results of the number that took and the number that passed certain exams, according to the exams themselves, then according to the number of applied exams, comparison of results according to courses, semesters etc.

Because we wanted to keep things concise and short we did not give overview of the other subjects in semesters, but one can obtain those data by clicking on the desired semester. In this case the parameters refer to all students who took exams and for all exam periods entered in the OLAP system.

However it is often necessary to analyse the number of students who passed the exams, but only those who enrolled in a certain year. It is achieved by dragging the dimension *Student* in the field for filtering data. If it is necessary to obtain a report only for certain exam periods the dimension *Exam Period* is dragged in the field for filtering and the desired exam periods are chosen.

By introducing the dimension *Group* in the columns of the report, one would get the report which shows the number of students who passed the exams according to the department and every course, while selecting various parameters of dimensions like *Year* and *Exam Period*, one can obtain different reports (for one or more exam periods). It is generally possible to create a large number of reports which are different according to the structure, as well as values of parameters, without the expert knowledge in the area of information technologies.

The advantage of *Microsoft Excel* as a tool for creating the report from the OLAP cube is the fact that it shows the desired reports in formats good for presentation, and it is possible to further format view of the data as well as calculating of the obtained values based on data got in the report.

Further in the paper we showed pivot table which is connected to the exam analysis, which is made for the needs of this paper.

Figure 12 gives a pivot table which shows an average grade at the exams according to the year of study (2011, 2012, 2013 and 2014) for each course, Computer technologies (Comp. tech.), Application programmes (App. prog.), Communication technologies (Comm. tech.), Information systems (Info. sys.) and Internet business (Int. buss.).

Table 1: Pivot table which shows an average grade for the selected courses

Courses and average grade per year of study	2011	2012	2013	2014
Computer technologies (Comp. tech.)	7.52	7.63	7.72	8.07
Application programmes (App. prog.)	7.12	7.37	7.41	7.75
Communication technologies (Comm. tech.)	6.89	7.34	7.68	7.54
Information systems (Info. sys.)	7.06	7.14	7.36	7.54
Internet business (Int. buss.)	7.11	7.34	7.48	7.53

Source: Authors

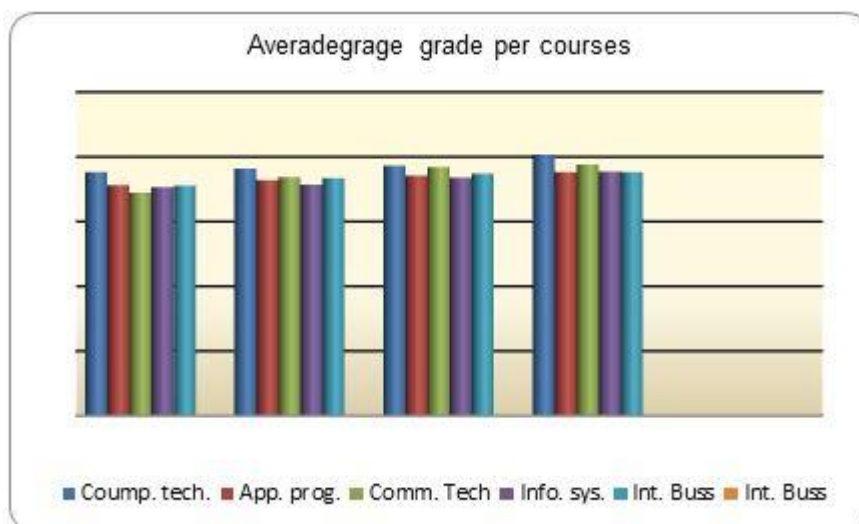


Figure 12: Gives a graphic overview of data from the pivot table, Table 1.

Source: Authors

Pivot tables and Graphs enable discovering of the movement trends of certain values as is shown in table 1 and Figure 12, which creates a possibility to predict results for the following period. One can see the growth trend of the average number of passed exams from selected courses, so it can be assumed that in the following year that average will be better. For the decision-makers this can be a signal for special monitoring of the teaching process realization in courses with this trend, in order to use that as a positive experience. Certainly, for the decision-makers it is even more important to see the falling trend of average number of passed exams, in order for them to, with certain measures, fix the teaching processes in time.

Generally it is possible to create a large number of reports which are different in structure, as well as in values of parameters, without the expert knowledge in the field of information technologies. Results of this paper are developed technologies of data warehouse, OLAP cube and appropriate pivot table for the needs of obtaining information in the short period of time, where the end users can conduct on-line data analyses and make reports which are the support to business decision-making. OLAP cubes and pivot tables enable the analysis of exams to be done in many dimensions, with different level of details and depending on the current need.

CONCLUSION

Battle with competition demands more innovative ways of realizing market advantages. Creating the long-term business policy with the possibility of adjusting to the unexpected events, demands huge amount of quality information on the condition in the business system, at the market, trends in government policy, international tendencies etc. That is the huge amount of various and non-consistent data. In data warehouse those information are separated, transformed, at the same time favourable and aggregated, processed in the form which is suitable for the user and available in real time.

Data warehouse is a unique Figure of the business reality and it ensures the simplicity of the whole business system, and scope of external and internal data is the base for defining of business strategy. Data warehouse advances the business of business systems by enriching of the business processes and their participants with information necessary for business decision-making. It forces the rightly defining and description of business processes and as an information and knowledge warehouse enables faster recognition and selection of business processes which must be dropped, introduced or advanced.

Statistics say that between 50 and 60% of the projects of building data warehouse does not accomplish the set goals, which is proof enough that a significant attention should be paid to this problematic of project management. Considering that the process of building data warehouse which is of interactive character can lead to changes or adjustments of business processes, selection of methodology for project management is essential for the overall project success.

Fast, accurate, aggregated and visually accessible information are found in data warehouse, which contain a time dimension, which represents an important managerial resource. Data warehousing is the process which finds new information connected to a certain problem and by that a much clearer way of solving it.

By establishing data warehouse we separate transaction system from the decision support system, so the operational bases stop being burdened by complex transactions of queries and this advances their operational function. Even though information system is made of two parts, operational part (transactional system) and data warehouse, it becomes more flexible. Data warehousing is an information technology which is simply imposed by cooperation, team work of professional informatics and economists, i.e. it connects technical and economic world. Maybe that will lead to better cooperation of designers and users of information systems and also to larger success of projects of company's information system building

This paper describes the advantages of application of information technologies of data warehouse and OLAP system for the analysis of students' success in higher education institution. With that purpose a shortened procedure of implementation of OLAP system is presented, by using the methodology of object-oriented development of information systems on the example of analysis of students' exams. As a starting point for building of OLAP system we used OLTP information system which is implemented in the School, defined the OLAP cube

(Figure 10) and done creation of user applications as pivot tables and graphs (table 1 and Figure 12). Pivot tables enable analysis and comparison of data according to various criteria. It is also possible to create a large number of reports which are different according to structure as well as parameters value.

Created user interface provided, via OLAP system, more detailed analysis of success of student according to the selected courses, measures and comparisons of achievement of success according to the semesters and years of study, which enables an adequate analysis of all educational processes, and comparison of performance in all education systems in the environment. Information obtained by process analysis in the School, are a foundation for efficient work of School's management.

By applying technologies of data warehouse and OLAP systems, one provides taking corrective measures in case of not achieving the set goals, which enables the decision-makers optimal control of all processes in education in all scientific areas and is applicable in all educational institutions.

Applied models of data warehouse and OLAP technologies, provide faster, more precise and flexible reporting, which enables fast and quality decision making of all interested decision makers. Optimized OLTP systems applied to the business analysis of work of higher education institution enabled the decision making process to be shorter and decisions better and more rational. Application of data warehouses and OLAP technologies contributed to understanding of necessity for using the knowledge, as the most important resource in fast and efficient decision making in the process of successful business systems management. It is our belief that data warehouse technology and OLAP systems will find a much wider application than it is today.

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DEVELOPMENT PROGRAMMES OF CROATIA: REALITY OR ILLUSION

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ABSTRACT

Entering the European Union Republic of Croatia gained an entire variety of funds and possibilities to finance and actively concentrate its development and growth. How well did Croatian institutions meet the demands necessary to provide assistance and manage that process? And how well did Croatia use the given opportunities so far and what kinds of problems were met across that development path? In order to maximize the usage of funds provided to the members of EU it is of high importance to identify not only the possibilities but also the threats we encountered and problems that caused contra-effect in this development era we imagined to arrive with the European Union membership. In the paper it will be analysed what sort of support development programmes of EU are offered to Croatia and what effect they can have on the future development in each problematic field in the country economy. On the other hand a review of the problems met in application and project implementation will be presented. Among all stated issues significance was also given to the importance of information and communication in all levels and between all subjects. In specific that same issue was presented also through the role of the national development strategies that combine all the subjects and their objectives into one long-term action plan and the effects of that document in further activities.

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A EUROPEAN STRATEGY FOR SMART, SUSTAINABLE AND INCLUSIVE GROWTH 2020

Europe faces a moment of transformation. The crisis has wiped out years of economic and social progress and exposed structural weaknesses in Europe's economy. In the meantime, the world is moving fast and long-term challenges – globalisation, pressure on resources, ageing – intensify. The EU must now take charge of its future. Europe can succeed if it acts collectively, as a Union. We need a strategy to help us come out stronger from the crisis and turn the EU into a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion. Europe 2020 (EUROPE 2020 A strategy for smart, sustainable and inclusive growth, pp. 5-6) sets out a vision of Europe's social market economy for the 21st century.

Europe 2020 puts forward three mutually 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 territorial cohesion.

The EU needs to define where it wants to be by 2020. To this end, the Commission proposes the following EU headline targets:

- 75 % of the population aged 20-64 should be employed.
- 3% of the EU's GDP should be invested in R&D.

The "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right). The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree. 20 million less people should be at risk of poverty. The targets are representative of the three priorities of smart, sustainable and inclusive growth but they are not exhaustive: a wide range of actions at national, EU and international levels will be necessary to underpin them. The Commission is putting forward seven flagship initiatives to catalyse progress under each priority theme:

- "Innovation Union" to improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs.
- "Youth on the move" to enhance the performance of education systems and to facilitate the entry of young people to the labour market.
- "A digital agenda for Europe" to speed up the roll-out of high-speed internet and reap the benefits of a digital single market for households and firms.
- "Resource efficient Europe" to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the

use of renewable energy sources, modernise our transport sector and promote energy efficiency.

- "An industrial policy for the globalisation era" to improve the business environment, notably for SMEs, and to support the development of a strong and sustainable industrial base able to compete globally.
- "An agenda for new skills and jobs" to modernise labour markets and empower people by developing their skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand, including through labour mobility.
- "European platform against poverty" to ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society.

Three priorities should be the heart of Europe 2020:

- 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 economic, social and territorial cohesion.

To guide our efforts and steer progress, there is a large consensus that the EU should commonly agree on a limited number of headline targets for 2020. These targets should be representative of the theme of smart, sustainable and inclusive growth. They must be measurable, capable of reflecting the diversity of Member States situations and based on sufficiently reliable data for purposes of comparison. The following targets have been selected on this basis – meeting them will be critical to our success by 2020 (EUROPE 2020 A strategy for smart, sustainable and inclusive growth, pp. 10-11):

- The employment rate of the population aged 20-64 should increase from the current 69% to at least 75%, including through the greater involvement of women, older workers and the better integration of migrants in the work force;
- The EU currently has a target of investing 3% of GDP in R&D. The target has succeeded in focusing attention on the need for both the public and private sectors to invest in R&D but it focuses on input rather than impact. There is a clear need to improve the conditions for private R&D in the EU and many of the measures proposed in this strategy will do this. It is also clear that by looking at R&D and innovation together we would get a broader range of expenditure which would be more relevant for business operations and for productivity drivers. The Commission proposes to keep the 3% target while developing an indicator which would reflect R&D and innovation intensity;
- Reduce greenhouse gas emissions by at least 20% compared to 1990 levels or by 30%, if the conditions² are right; increase the share of renewable energy sources in our final energy consumption to 20%; and a 20% increase in energy efficiency;

- A target on educational attainment which tackles the problem of early school leavers by reducing the dropout rate to 10% from the current 15%, whilst increasing the share of the population aged 30-34 having completed tertiary education from 31% to at least 40% in 2020;
- The number of Europeans living below the national poverty lines should be reduced by 25%, lifting over 20 million people out of poverty.

These targets are interrelated. For instance, better educational levels help employability and progress in increasing the employment rate helps to reduce poverty. A greater capacity for research and development as well as innovation across all sectors of the economy, combined with increased resource efficiency will improve competitiveness and foster job creation. Investing in cleaner, low carbon technologies will help our environment, contribute to fighting climate change and create new business and employment opportunities. Meeting these targets should mobilise our collective attention. It will take strong leadership, commitment and an effective delivery mechanism to change attitudes and practices in the EU to deliver the results which are summarised in these targets. These targets are representative, not exhaustive. They represent an overall view of where the Commission would like to see the EU on key parameters by 2020. They do not represent a "one size fits all" approach. Each Member State is different and the EU of 27 is more diverse than it was a decade ago. Despite disparities in levels of development and standards of living the Commission considers that the proposed targets are relevant to all Member States, old and newer alike. Investing in research and development as well as innovation, in education and in resource efficient technologies will benefit traditional sectors, rural areas as well as high skill, service economies.

Smart growth means strengthening knowledge and innovation as drivers of our future growth. This requires improving the quality of our education, strengthening our research performance, promoting innovation and knowledge transfer throughout the Union, making full use of information and communication technologies and ensuring that innovative ideas can be turned into new products and services that create growth, quality jobs and help address European and global societal challenges. But, to succeed, this must be combined with entrepreneurship, finance, and a focus on user needs and market opportunities.

Sustainable growth means building a resource efficient, sustainable and competitive economy, exploiting Europe's leadership in the race to develop new processes and technologies, including green technologies, accelerating the roll out of smart grids using ICTs, exploiting EU-scale networks, and reinforcing the competitive advantages of our businesses, particularly in manufacturing and within our SMEs, as well through assisting consumers to value resource efficiency. Such an approach will help the EU to prosper in a low-carbon, resource constrained world while preventing environmental degradation, biodiversity loss and unsustainable use of resources. It will also underpin economic, social and territorial cohesion.

Inclusive growth means empowering people through high levels of employment, investing in skills, fighting poverty and modernising labour markets, training and social protection systems so as to help people anticipate and manage

change, and build a cohesive society. It is also essential that the benefits of economic growth spread to all parts of the Union, including its outermost regions, thus strengthening territorial cohesion. It is about ensuring access and opportunities for all throughout the lifecycle. Europe needs to make full use of its labour potential to face the challenges of an ageing population and rising global competition. Policies to promote gender equality will be needed to increase labour force participation thus adding to growth and social cohesion.

PARTNERSHIP AGREEMENT OF CROATIA AND EUROPEAN UNION

Partnership Agreement of Croatia and European Union was accepted in 2014. This strategic document enables Croatia access to over 10 billion Euros of European funds. After year 2008 Croatia suffered a sudden blockage in economical development and is yet to recover from that situation and its consequences. The economic crisis of autumn 2008 has an impact on innovative investment in almost all EU countries, but the catch-up countries are the most affected, leading to increasing divergence. The danger of growing disparities in innovative capabilities may lead to divergence also in income and well-being (Archibugi, Filippetti, 2011, pp. 1153). Serious problems, including high and continuous unemployment rate (which doubled since 2008 and reached 17, 3 % in 2013), descending competition and regional differences in the means of income and life standard mostly as a consequence of war, poor connectivity and low economical activity, as well as high rate of under privileged citizens (21, 1 % in 2011) are all significant challenges Croatia needs to resolve to be able to contribute to the goals of Europe 2020.

SIGNIFICANCE OF DEVELOPMENT PROGRAMMES FOR CROATIA

Operational Programme Competitiveness and Cohesion 2014-2020 is co-financed from the European Regional Development Fund (ERDF) and Cohesion Fund (CF), while its strategy is based on the concentration of investments into 9 thematic objectives of the Common Strategic Framework and their respective investment priorities (IPs), with further focus on specific objectives (SOs) to be achieved. Those objectives are (Operational Programme Competitiveness and Cohesion 2014 – 2020, pp. 21-36):

- 01 - Strengthening research, technological development and innovation: It is a fact that Croatia possesses a high potential in scientific areas with on its own creates an excellent base for development and grown in the area. But due to restricting capacity of the research community to undertake research, lack of resources and underperformance of knowledge that development and

grown potential is unable to be achieved. Those problems not only block the further development but also affect the quality and competitiveness of Croatia among other EU countries, placing Croatia at the moment under EU average. Regarding R&D activities of enterprises and in the context of EU 2020 Strategy, it is aimed to minimize and solve low quality and availability of RDI infrastructure in enterprises, weak environment for cooperation in R&D and promotion of R&D works results and innovations among enterprises and insufficient application of new technologies in the business sector.

- 02 - Enhancing access to, and use and quality of, information and communication technologies: Information and communication technologies sector in Croatia represents 4,2% of the total GDP, and employs 2,2% of the active population. Concerning this specific sector Croatia is struggling with the broadband penetration (in Croatia 21, 7% in 2014 comparing EU average of 29, 8% in 2013) and NGN coverage levels which are both under the average EU levels. Although Croatia has already achieved good basic broadband coverage (97% of population in 2013), total NGA network coverage in Croatia amounted to only 33% in 2013, which positioned Croatia far behind EU's average NGA coverage of 62% in the same year. Study on funding models and support for investment in broadband infrastructure indicates that, in order to reach 100% national NGA broadband coverage and close the existing and foreseen coverage gap in unprofitable areas by 2020, investments of up to €1.286 million are needed. At least 29.8% of this amount is foreseen to be covered by private investments from operators, while remaining share of 70.2% shall be covered by public support, due to unprofitability of commercial NGN investments in suburban and rural areas. Public Private Partnership (PPP) investment model will be as well supported for deployment of NGA broadband networks, where ERDF funds will supplement private operators' funds, in order to leverage private operators' investment in commercially unprofitable areas (closing of profitability gap).
- 03 - Enhancing the competitiveness of small and medium sized enterprises, the agricultural sector (for the EAFRD) and the fisheries and aquaculture sector (for the EMFF): Further related concern is the status of entrepreneurship in Croatian society and the overall lack of entrepreneurial skills. The percentage of 18-24 year old employees involved in education and training is only 5.9% (2011) while the EU 27 average is 35.8%. Only 2.3% of total number of employed persons is engaged in continuous training and learning processes (EU27 average is 8.9%). According to the SBA, in 2013 Croatia was lagging behind the EU average in the status given to successful entrepreneurship (Croatia: 43.1; EU average: 65.5). The need for improving entrepreneurial skills and the status of entrepreneurship will be addressed not only through promotional activities, but also through support offered to SMEs, creation of advanced business infrastructure and associated services offered to businesses (e.g. through incubators, industrial parks).

- 04 - Supporting the shift towards a low carbon economy in all sectors: As regards Croatian energy system its weaknesses and opportunities have been recognized and incorporated in detail in Croatian national Energy Strategy until 2020. In line with the latter and the EU 2020 strategy, one main goal is to increase the use of renewable energy sources (RES) and energy efficiency (EE), especially in final energy consumption, thus providing multiple benefits such as reduction of emissions, decrease in consumption and related expenses and increasing the security of supply; and provide opportunity for “green jobs” and technological /manufacturing development.
- 05 - Promoting climate change adaptation, risk prevention and management: Signs of climate change can be traced in Croatia as well: a) average air temperature raised steadily with 2001-2010 decade being the warmest in the recorded history, as well as increase in the number of extremely warm days, b) less intensive but steadily trend of reduction in the annual precipitation level, c) trend of evaporation compared to the air temperature and c) increased occurrence rate of extreme weather events. Having in mind the possible effects and its natural and economic environment, Croatia can be considered as highly endangered by the climate change.
- 06 - Preserving and protecting the environment and promoting resource efficiency: Existing waste management system can be assessed as ecologically unacceptable and unsustainable, characterised by the insufficient waste management facilities, high proportion of municipal / biodegradable waste being land filled and low proportion of recycling of municipal waste (MW). In parallel, Croatia needs to tackle the legacy of inadequate WM in the past by remediation of municipal landfills, unofficial dumpsites and “hot spots”. All of these needs are clearly linked with the transitional periods for compliance with the EU waste directives set in the Accession treaty related to gradual reduction of a) share of BMW deposited on landfills and b) waste land filled in existing non-compliant landfills. Nevertheless, it must be mentioned that the opposite situation, i.e. over/inadequate exploitation of cultural heritage for economic purposes, mainly tourism, can be observed in limited number of sites. Therefore usage/revitalisation of cultural heritage will ensure the valorisation of the cultural heritage potential in a sustainable manner with the scope of providing economic benefits by enabling the creation of innovative services and products in relation to the cultural heritage, thus accomplishing the development and employment benefits as well as the social cohesion in the regions.
- 07 - Promoting sustainable transport and removing bottlenecks in key network infrastructures: The competitiveness of the Croatian economy is also negatively influenced by poor quality and maintenance of public transport options, a lack of comfortable and reliable EN 15 EN transport connections between and within regions, as well as an absence of multi-modal transport options and hence more environmentally friendly and safe means of transport. The limited capacity and lack of standardised management

systems across Croatia's inland waterways results in a low level of utilisation of this transport mode and low levels of safety, with interconnectivity hampered by deficiencies in maritime ports and maritime carriers especially with regard to access to the islands.

- 09 - Promoting social inclusion, combating poverty and any discrimination: Croatia has one of the highest rates of people at risk of poverty or social exclusion in the EU, which was 1,370,000 in 2012 and Croatia's goal is to decrease this number by 150,000 by 2020 in line with the NRP. The Strategy for Combating Poverty and Social Exclusion 2014-2020 defines "vulnerable groups" i.e. those at the highest risk of poverty and social exclusion, which throughout OPCC imply groups as defined in this strategy. In order to ensure the maximum accessibility to social services in the community across the whole country and to support process of deinstitutionalisation, there is a parallel ongoing process of social planning on county level with County social plans being prepared. On the other hand, problems of poverty and social exclusion suffered by marginal communities such as Roma are specific and need to be tackled in an integrated manner.
- 10 - Investing in education, training and vocational training for skills and lifelong learning: Structural reforms in education and training should aim at modernizing outcome-based curricula and development of key and transversal competences as a pre-requisite for the participation in lifelong learning strategic objectives from Education and Training 2020. Therefore, further investments in educational infrastructure are imperative. 70.7% of regular secondary education students (ISCED 3 and 4) in 2011 were enrolled in one of the VET programmes.

The Operational Programme Efficient Human Resources 2014-2020 (OPEHR) identified Country Specific Recommendations 2014 (CSR) to be addressed through its priority axes in order to contribute to the achievement of set objectives and to the overall improvement of Croatian socio-economic performance (The Operational Programme Efficient Human Resources 2014-2020, pp. 1-2):

- Employment and activity rates are amongst the lowest in the EU, and are particularly low for young and older people;
- High unemployment and low labour market participation have led to a deterioration of the social situation in Croatia;
- The health sector achieves reasonably good health outcomes and, with some regional variation, services are accessible, but the system contributes significantly to pressure on the public finances.
- Despite a number of past initiatives to improve the ongoing process of the public administration reform and the effectiveness of the justice system, further substantial investments in HRD and business processes are needed.

OPEHR is based on the concentration of investments in 4 thematic objectives (TO) of the Common Strategic Framework and their specific investment priorities

(The Operational Programme Efficient Human Resources 2014-2020, pp. 2): 1. High employment and labour mobility; 2. Social inclusion; 3. Education and lifelong learning; 4. Good governance. One of the key priorities of the Croatian Government is to reduce unemployment (the national headline target is to achieve employment rate of 62.9% by 2020) and address the skills mismatches and shortages, preserve jobs and prevent further unemployment, enhance flexibilization and mobility on the labour market (LM), linking education and the LM through Croatian qualification framework (CROQF) and improving effectiveness of LM institutions. The employment rate is not equally unfavourable for all segments of population. Employment rate gap is most prominent among youth below 25 and persons over 50. Employment rate of women in 2013 was 49.7% and considerably lower than 58.3% employment rate of men. Employment rate is very low for persons without upper secondary education (35.7% in 2013), modest for numerous population with upper secondary education (53.8%), and substantially better for persons with tertiary education (74.2%). The unemployment rate has been increasing from 8.4% in 2008 to 17.2% in 2013 (a total of 345,112 persons were registered as unemployed). A particular problem is long-term unemployment, which accounted for 11.0% of active population (two thirds of all unemployed) in 2013. This risk is especially high among unemployed with less than upper secondary education, older population and unemployed persons with no prior employment experience.

Apart from extensive early active LM policy interventions (ALMP) targeting NEETs through YEI, the main areas in tackling high youth unemployment rate are curricula and apprenticeship reform, CES capacity building and setting up of a unified system of tracking school-leavers, enabling early outreach towards inactive youth. Croatia will allocate YEI funds on ALMPs, return to education and support for entrepreneurship aimed at young people aged 15-29 years old. ESF funds will be used for strengthening LM institutions, CSOs, social partners and chamber associations in order to secure their efficient work with young people, but also for measures supporting categories of young people who require further support and assistance, with particular focus on long-term unemployed youth. ESF will be also used for the continuation of YEI activities after the YEI eligible period.

The national goal for 2020 is to decrease the number of persons at risk of poverty and social exclusion by 150,000, from 1,370,000 to 1,220,000. This target is set in the Strategy for combating poverty and social exclusion 2014-2020. Actions to combat poverty and social exclusion will be focused on three priorities: 1. Ensuring conditions for successful poverty reduction through measures targeting long-term unemployed and other vulnerable groups, increasing adequacy of social benefits in social welfare system, equal access to public services; 2. Ensuring conditions for prevention of new categories of poverty as well as the reduction of number of persons at risk of poverty and social exclusion by ensuring access to early childhood services and equal access to social, health and other services, increasing employability of working active population, especially vulnerable groups; 3. Establishing a coordinated system of support to groups in risk of poverty and social exclusion. Measures regarding long term unemployed and other vulnerable groups, access to health and social services and improving system of

support will be tackled through ESF interventions. In general persons at the risk of poverty and social exclusion are also facing various aspects of discrimination. Although the regulatory framework is in place, the fight against discrimination and the implementation of anti-discrimination measures remains rather limited. Ombudsperson's reports for 2013 stated ethnic origin as the most common cause for discrimination.

Rural Development Programme 2014-2020 aims to fulfil 25 listed needs in order to enable rural development and growth. Starting with the low educational level in the agriculture, food industry, forestry (privately owned forests) sectors and rural areas, although there is a well-developed system of educational institutions in Croatia, in rural areas, the proportion of adults with only primary education ranges from 20-35 % and 95 % of farmers have no vocational agricultural education whatsoever; furthermore there is a lack of informal education programmes and appropriate vocational training for farmers, employees in the agricultural and food processing sectors and the private forestry owners. There is a still insufficiently developed system for knowledge transfer that would, through workshops, seminars, demonstration activities and exchange of peer experiences and practices, continuously and fully acquaint farmers and producers with the best and latest solutions and experiences to foster the take-up of 114 innovation, but also of the necessity of managing agricultural and forest ecosystems in a sustainable and environmentally acceptable manner, also enabling adaptation to climate change. This shall include awareness-raising and training in the agricultural sector on the reduction of GHG and ammonia emissions (Rural Development Programme of the Republic of Croatia for the Period 2014-2020, pp. 94-95). All this has a direct negative impact on the development and improvement of agriculture, the rural economy and the quality of rural life. It weakens their economic and environmental effectiveness and represents the limit of their adaptation to the EU market. New requirements lie before farmers and forest owners in Croatia thereby widening the role of Advisory Services such as the reduction in pesticide use in accordance with the National Action Plan, the protection of soil and water, animal health and welfare, the implementation of agri-environmental measures, reducing air pollution, management of Natura 2000 areas, etc.

Cooperation between researchers, entrepreneurs, non-governmental organizations to innovate methods and processes and develop new products for the market is necessary. Cooperation will ensure the 116 exchange of knowledge and information on innovative technologies, production and processing unfamiliar in the Croatian rural sector and in practice ensure increased productivity, economic viability, sustainability and resource efficiency in the agriculture sector. Furthermore, cooperation will provide the platform for the exchange and dissemination of actions targeted to address the impact of climate change and foster the adoption of mitigating practices, such as the reduction of GHG emissions. In Croatia, 60 % of private forests do not have forest management plans, which are the basic prerequisite for their sustainable management. By developing forest management plans to ensure revenue stability and ecologically and socially responsible forest management while preserving and enhancing biodiversity, the

forest shall function for the public benefit and the long-term economic value of forest ecosystems. Only a small number of private forests have sustainable management certification (FSC) and a low number of wood and non-wood forest products (mushrooms, herbs, forest fruits, etc.) are certified as organic. Thus, 117 on the basis of quality, a professional background conversion process need to be initiated, converting degraded forests into stable forest ecosystems with richer biodiversity and public benefit and long-term economic functions, more resistant to biotic and abiotic influences while providing maximum protection and responding to the needs of forest owners.

Due to the lack of a process for joining agricultural holdings together into higher organizational forms, there is only one producer group registered in Croatia. The high proportion of intermediary sales significantly affects the economic viability of the agricultural economy that is already poor. Likewise, it is necessary to encourage the cooperation of relevant actors for the development of short supply chains in order to reduce the number of intermediaries between the producer and the final consumer.

Only a small volume of production of organic products and products have quality marks, a due to the fact that members of groups and associations do not have the financial means to initiate the certification process, and they do not have sufficient resources for marketing and promotional activities in order to achieve a better placement of these products on the market, and consequently the interests of consumers to purchase the products. The abovementioned reasons have been the main obstacle to the development of quality systems modelled on the developed EU countries despite the potential in Croatia.

LIMITATIONS OF DEVELOPMENT BASED ON EU FUNDS

That EU countries have only poorly and slowly absorbed EU funds is not a new argument. Different types of absorption problems have been identified. On the demand side, national authorities have been unable to put together a sufficient number of projects eligible for EU funding. On the supply side, the co-financing principle has at times constrained countries that have weak fiscal planning capacity. Moreover, poor administrative capacity has delayed or even impeded the execution of already approved projects (Marzinotto, 2011, pp. 6). In the following text the authors stated the most common problems encountered in project management based on professional experiences in both applying for projects and implementation of projects. The statements will also be accompanied with several supporting references.

NONEXISTENT STRATEGY OF REGIONAL DEVELOPMENT IN CROATIA

The regional development strategy is a document created from a consultation process on a national and regional level. This document carries an important role in a vision and acting plan in order to raise the wellbeing of all Croatian regions and minimising the delay in development and standing up to EU standards and average. With those objectives, we also note that the European Union has set itself the goal of promoting economic and social cohesion by reducing disparities between the levels of development of its various regions, however defined, and the backwardness of the least-favored regions (ed. Funck, Pizzati, 2003, pp. 3). Strategy determines the development goals turned to social and economical development of Croatia, reducing the regional development differences and empowering the regional potential of the areas that are undeveloped in order to be more competitive. Such a document is also a guideline to all the regional and local documents that counties, cities and municipalities bring to set their development goals. Where public expenditure is to be used as a policy tool it must be used effectively and efficiently if it is not to be wasted. EU actions which appear to offer value-added and ostensibly use the appropriate policy instrument are a waste of resources if they do not meet the objectives set for them. (Adelle, Pallemarts, Baldock, 2008, pp. 35). The fact that after 2014 Croatia has not yet made the strategy of regional development automatically creates a problematic of acting not accordingly to the actual needs, as well as inconsistency in actions for regional growth and development, as well as the missing grown floor, a base, for the regions to set their development strategies.

NONEXISTENT STRATEGY OF DEVELOPMENT OF COUNTIES, CITIES AND MUNICIPALITIES

As previously stated, without the national leading strategies, Croatian counties, cities and municipalities have no base to make their own development documents. The missing link in the chain of planning results with insufficient data for performing actions as well as no insight in the present condition and needed focus in development goals. Concerning that such documents in every level are used to analyse problems and also prioritize the fields of action, which is of high importance because of the limited financial means, this problem also affects the distribution of investments and smart budgeting. In order to even apply for financial support of the EU funds, these documents are used to insure the necessity of the proposed actions and the validation of application and the idea itself. Without the strategy of development, the development itself stays without progress, and even without the possibility of such.

DELAYS IN THE OPERATIVE PROGRAMMES PREPARATION

As previously mentioned, the Cohesion fund with the total of 350 billion Euros for 2014-2020, is a key tool in enabling achievement of goal for member states within the “Europe 2020” strategy. The programme is a promising funding option to all in need of financing source for research and innovation, competitiveness forming in small and medium businesses and energetic sustainability growth as well as information and communication technologies. But, the promising implementation of cohesion policy is found to be threatened by dramatic delays in the preparation of operative programmes. Those delays in preparation are disabling the concentrated and quality usage of sources in time and in order to fulfil the objectives of the policies and strategies of European Union and also national objectives. The delay itself makes it impossible to prepare and to implement a well based project and all necessary adaptation, administration demands and especially self financing means that will be needed to start the upcoming project. Even though those consequences alone have a high impact on the total efficiency of the programme, the problem becomes even wider when taken in consideration that the means are unused and thus the objective itself is minimized. Croatia, due to such cases, still has not even began to properly use the funds from 2014, and the end of 2015 is already coming up close. With that in consideration it is obvious how much of the funds that were planned to be invested in development were completely unused and what effect it has on already low usage of the fund that shows that so far Croatia used only 70% of contracted funds, and less than half was payed of from the fund.

DELAYS IN THE PUBLICATION OF CALLS FOR PROPOSAL FOR PROJECT FINANCING

The above mentioned problem is directly connected to problematic of project proposals delay. The national agencies and ministries in charge of distribution of funds into calls for proposals with the delay of the calls not only create a void in the usage of means, but also result with the lack of quality in the process of project application but also implementation. If we take in consideration that every programme has a deadline when it needs to be implemented and generate visible results, it is simple to foresee what effect delay later has. If a programme and projects within it were meant to be implemented within 3 years, if a call for proposals is in delay of 1 year, the implementation loses time to be conducted properly, the project beneficiaries are struggling to perform all planned and the activities are rushed and the results are not as planned. And if we also take in consideration that many infrastructural projects have limited expiration dates for the documentation submitted and needed for architecture plans and building it is obvious that those delays not only prevent and minimise the usage of funds but also produce and lead to financial losses for the applicants and beneficiaries.

COMPLEX CRITERIA IN THE SELECTION OF PROJECTS

The criteria of the selection for projects is also one of the major problems applicants are faced with during the preparation of documentation within the project. Although the idea of the project itself can be well planned and considered in detail, fulfilling all objectives and making a real visible contribution for the community in general, it might not pass the selection for a simple based administration flaw. The demands within the submission are often not clear and not well thought off. The subject behind the rules for submission often do not take in consideration many factors such as the cost of certain documents that many institutions or organisation (especially non-profit organisations) nowadays cannot afford. Also, the stated lines in the instructions for tenders are often written in such way that they are simply not understandable at all. The bodies in charge often do not answer the questions submitted about tenders or call upon the same article the question was about in the first place. As in every other action within this field, information is crucial and the quality of submitted documentation directly depends on the quality of the stated demands in the call for proposal.

INSUFFICIENT COMMUNICATION IN PRIORITISING OF FINANCING FROM EU FUNDS

To continue on the previous mentioned importance of the information between all subjects in the process of the funds usage and implementation of activities in order to meet the objectives we can state that another problem on its own is exactly the insufficient communication, but with a special set of effects in prioritising of financing from EU funds. It has already been said that the improper and not evenly distributed and non prioritized usage of European funds is useless. In order to enable and ensure the higher objectives in development and growth all countries must approach the funds with clear distribution of means based on their strategies, taking in consideration which areas and which fields need the support, which need to be strengthened and which need to be built from the base. By neglecting a certain priority and putting extensive concentration on another, the development cannot be achieved, because in general, when we observe development we allude to a proportional situation. Development does not elude high levels of one sector and minimal in another, it alludes prioritising in such way to maintain the well developed sectors but primarily concentrating on the problematic ones. Insufficient communication in that matter makes that impossible. To determine those priorities it is necessary that all subjects are in synchronisation, that they provide facts, statistical data to support the priority and to list it in their strategies, plans and policy. That same documents need to follow higher levels and the project calls for proposals need to be provided for those prioritized areas in order to connect it all in

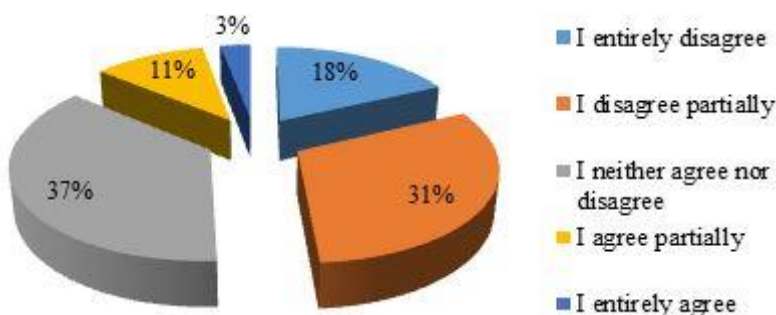
a wider concept and make development possible. Without that we are providing no results but just raising the current values in the same distribution when in fact the point of it all is the evening of that distribution in values. Based on those facts, it is important that ministries take in consideration the true needs of the potential applicants while preparing the programmes and calls. Otherwise the investments put into the documentation and analysis to support the project needs will go to waste, as well as the means reserved to be invested in development. Making restrictions in calls for proposals are often excluding many applicants no matter of the real need for their field of application which is in many cases completely unnecessary because it is not uncommon to have much less applications within the call than planned, exactly for that reason. And that fact alone shows and proves that the call was not according to the need.

UNQUALIFIED PROJECT REVIEWERS

In particular, adjustment programmes negotiated with financially assisted countries should include precise references to the types of projects that need to be financed, taking account of the target countries' structural weaknesses and of short-term needs recognising the funds' countercyclical function (Marzinotto, 2011, pp. 10). The project reviewers are often underpaid and in general not qualified enough for the wide area of project application subjects. Thus, it happens in practice that projects are graded low not for the quality of the application, but for the inadequate understanding of the subject from the perception of the reviewer. Many projects are complex and enter a deeper aspect of a certain problem. To gain a full vision of the source of the problem, its surroundings and origin, as well as the proposed solution, it is necessary for the reviewer to be connected to the field of application and know it well. Lack of that experience and knowledge results with approval of simpler project while those complex ones that maybe seem farfetched are being refused or graded low just for the lack of the expertise and motivation from the reviewer.

LEVEL OF INFORMING AND KNOWLEDGE IN APPLYING EU PROJECTS IN CROATIA

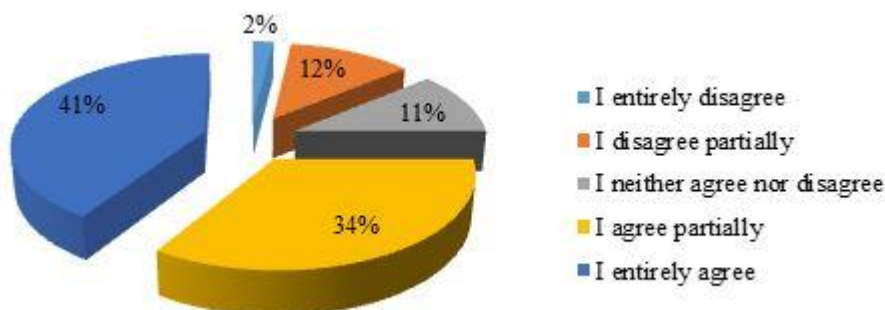
The importance of information, experience and knowledge is known to be the starting base in every process, especially such long-term and high effective processes as EU projects are. In this field, the level of information and background knowledge of the function, means, regulations and possibilities will eventually determine the level of success in the funding projects from the EU funds.



Graph 1: Existing level of education of people to work on project applications for EU funds is satisfactory

Source: Sostar, 2013, pp.275

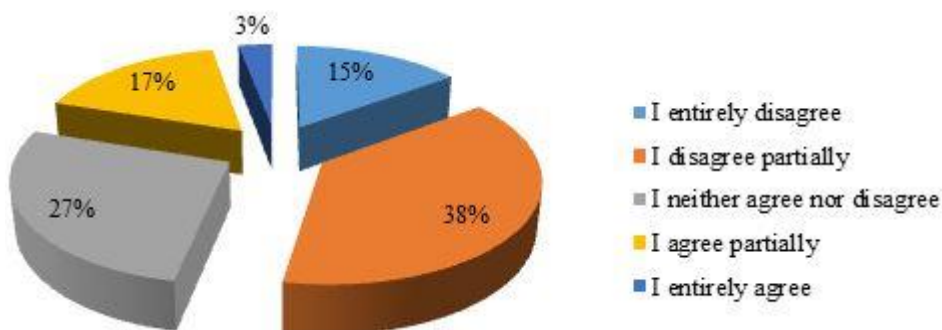
Graph 1 shows the perception of the participants in the survey about the level of people to work on project applications for EU funds. The highest number of people partially agrees with the stated claim, 31% of them. Only 3% of people stated the claim is according to their opinion. In order to approach the financing from the European Union, it is necessary to start from the empowering of human resources that will be involved in the process and creating a starting line in the chain of information distribution and exchange. The coordination of information will later on be either an advantage or a disadvantage for the applicant, not only for him as an individual subject, but as well on a local, regional and national level.



Graph 2: Potential project applicants to EU funds do not have enough knowledge to prepare projects

Source: Sostar, 2013, pp.277

Graph 2 shows the opinions of participants in the research about a statement that potential project applicants to EU funds do not have enough knowledge to prepare projects. With that statement 41% of people agree entirely, and only 2% disagree entirely. The logic behind the statement is simple, supporting the fact that the gained results are equivalent to the invested in the staff that will work on the applications of projects, their knowledge and experiences.



Graph 3: Level of informing about possibilities of financing projects from EU funds is satisfactory

Source: Sostar, 2013, pp.279

Graph 3 shows the claim that the level of informing about possibilities of financing projects from EU funds is satisfactory, and the range of people who agreed/disagreed with that statement. While 38% of people stated they partially disagree and 27% they neither agree nor disagree, making the most common opinions in the research, on the contrary, only 3% of people entirely agreed. In Croatia, the level of information circulation is problematic. The upper channels constructed to disseminate information are mostly is lack of information on their own, which is well obvious later in the lower level information subjects of the chain. The feedback received from the institution to the applicants is often weak, with no explanations or implications on the projects, as in project applications, as well as in the field of project implementation. Thus, many subjects in Croatia, especially in non-profit sector and citizens, as well as medium and smaller enterprises and agriculturists are insecure and sceptical to even try to apply for financing through EU projects. The information they need to approach this system are not easily available to them, they do not know who to turn to, and once they ask for instruction from institutions, those institutions are often not informed themselves. To approach EU funds in a distributed, all inclusive way, on all levels and in all goals it is crucial to set up an informing system, distribute knowledge and exchange examples of good practices, inform through workshops and seminars and support the ground of project applications in the common goal of general wellbeing.

CONCLUSION

Concerning the globalisation, modernisation and fast moving and innovating surroundings which we are encountered with, it is of great importance to develop and follow the world trends. By entering European Union all member states gained the opportunity to finance their growth and development, but not all are prepared and not all countries have a starting line to build on. The opportunity of financing projects and ideas does not come on its own, new standards have been placed and a wider competition is set. Croatia is one of those member countries that still needs to validate its current position, define its strengths and potential, create an informing and educating system and establish a policy to gain that funding. The current system on which projects are applied through and implemented as well shows a severe lack of connections, balance and quality. Even though the funds are being used and that is visible around the country in many sectors, which is still not enough. In order to show true development it is necessary to merge and connect all subjects of the process, starting with the head institutions who are the links to European commission, through project beneficiaries and to citizens. The problems that are encountered in those processes need to be resolved and worked on, the feedback needs to be received and cumulated into better result or the funds will show no progress concerning general development at all. The main issue that demands attention is the national development strategy. By defining main problems, objectives and creating a plan of action through various activities, lower stages will also have a base to do the same. The national strategy is the ground floor of regional and local strategies; it is a starting point Croatia needs to evaluate to even start to apply for resources. Without such a plan, all resources will not create an effect that will be seen or considered as development because it will act as growth in one section but a loss in another. The main principle of development in economical standards is levelling and equalizing all sectors by maintaining and putting in use all advantages and strong points and at the same time building and reviving weak ones. In order to develop it is obligatory to form a system which is frequent in its growth, without heavy fluctuations and sudden falls. Time also matters and needs to be kept in mind. Delays in such high investments and million Euros worth projects are unacceptable. With the start of the project in delay the quality of the result and the fulfilment of the objective are automatically put in jeopardy. With a formation of constant and reliable communication of all involved subjects problems like these stated above can be avoided and managed. In such coordination and cooperation the development is not only a theoretical illusion but a realistic possibility.

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PART II.
INVESTMENT POLICIES, FINANCE
AND INSURANCE INDUSTRIES



PERFORMANCES OF DIFFERENT INVESTMENT POLICIES OF OPEN-END INVESTMENT FUNDS: COMPARATIVE ANALYSIS OF SERBIA AND THE COUNTRIES OF THE REGION

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Dragica Jovancevic PhD¹³

ABSTRACT

The existence and development of investment funds and other institutional investors is of great importance for the development of financial markets and the overall economy of a country. Investment funds sector is a relatively new category in the developing markets, so in the future, it is necessary to create the conditions in respect of legislation and market aspects which will enable faster development of these financial institutions.

In the countries of the region there are no extensive opportunities for investments and large number of quality securities. Therefore the investment strategies are partly limited if the law does not approve investing in foreign markets. This is why the largest number of open-end investment funds invests in less risky securities, so the largest amount of assets is managed by capital preservation funds. This paper will show investment policies of open-end investment funds in Serbia, Montenegro, Macedonia and Bosnia and Herzegovina.

Key words: *Open-End Investment Funds, Investment Policy, Investment Strategies, Portfolio Management, Countries In Transition*

JEL Classification: *G23*

UDC: *339.727.2(497.11:497)*

338.2

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INTRODUCTION

Investment funds are a type of financial intermediary who gathers the financial means from a large number of investors and invests them in a collection of securities and other financial assets. Based on the investment in the fund, investors get stocks or shares of the fund and become shareholders. Every share owned by a shareholder represents a proportional part in the portfolio of the investment fund, so the shareholders take all the business risk. Shareholders of investment funds are mostly small shareholders like individuals, families but also smaller enterprises. Investment funds transform means, they emit the shares of smaller denominations and they buy big packages of securities. In this way they can obtain a discount because of the amount bought, lower broker's commission and buy diversified portfolio of securities. Through the diversified portfolio of securities, investment funds do dispersion, i.e. lowering the risk.

Investment funds appear as a consequence of a very fast development of the securities market in the developed countries, but also because of inability of the classic banking system to respond to all the needs of investors and users (Bogojević Arsić, 2011, p.15) the first investment fund, which represents the origin of today's, was formed in 1800 by Robert Fleming. He collected the money from his associates in Scotland and travelled to the USA where he invested the money in enterprises, succeeded greatly and after that he divided the earned money to the other investors. First official investment funds (The Massachusetts Investors Trust and State Street Research Investment Trust) were established in 1924 (Brzaković, 2007, p.124). Nowadays, there are many investment funds worldwide and they represent the most significant way to mobilize the capital.

Investment funds gained significance and market share in 1980, which is connected to the bloom of the shares market. Another factor of development is the appearance of investment funds which are specialized in debt instruments in 1970s and since then they have invested mostly in common shares. The growing importance of institutional investors was pointed also by the fact that they control more than 50% of shares at the territory of the USA. More than 75% of total daily trade at the share markets is done because of institutional investors. (Mishkin, 2004, p.298) At the beginning of XXI century around 75% of shares in Great Britain is in the hands of institutional investors, while in 1957 they owned less than 20% (Brzaković, 2007, p.123).

Total world assets which were managed by the investment funds, at the end of 2014, were 33.4tn dollars, and the largest part of net assets relates to open-end investment funds. The share of American investment funds was 53%, European investment funds 29%, and the share of institutional funds from the rest of the world was only 18% of the total assets. A total net asset of all investment companies in America is 18.2tn, where around 15.9tn belongs to open-end investment funds. In September of 2014, there were 79,669 open-end investment funds, which points to their huge significance at the world financial market (Reid, et al., 2015, pp.8-10, p.238).

INVESTMENT STRATEGIES IN SECURITIES PORTFOLIO MANAGEMENT

Analysts and investors who make decisions on the selection and percentage shares of certain securities that are in securities portfolio, should first do an analysis of the general condition of the economy, condition in which certain economic branches and sectors are, financial and legal position of the companies whose securities can be included in the portfolio. In portfolio management, managers can use passive and active management strategies.

Passive strategies. Investors who want to possess securities in their portfolio for a longer period of time, because of realizing the interest return, prices growth and realizing dividends, opt for a passive strategy i.e. passive long-term investments, based on the principle of “buy and hold”.

Since they are not risk prone, all investors usually invest in specialized funds, like index funds. Some examples of index funds are iShares NYSE 100 and iShares NYSE Composite, which were created in 2004 by Barclay’s Global Investors, which is actually the first index fund based on New York’s stock market indexes (Brzaković, 2007, pp.292-294).

Active strategies. Active investment strategy implies the strategy where investments use the price inefficiency of financial markets to realize profit. Active investors buy securities when the prices are low, and sell them when the prices are high. They base their strategy on being more informed and superior in relation to other investors at the market.

Active investors apply two styles in their strategy. First style - “top to bottom” implies the analysis of general economic conditions, selection and analysis of the economic branch and a direct choice of securities. Another style – “bottom to top” implies using the technical analysis and the analysis of individual issuers (Kaličanin, 2010, p.198).

The following are the strategies used by active investors:

1. Stock picker – investors are more prone to choose “winning shares” than diversified portfolio;
2. Time picker – investors assess the right moment to enter and exit a market, instead of holding the securities for a long time;
3. Manager picker – investors buy securities managed by managers, who have a tendency to realize success in the future based on past results;
4. Stile picker – investors identify whose investment style stands best chances to realize best results (Brzaković, 2007, p.198).

INVESTMENT POLICY

Investment policy of a fund is a collection of economic, investment and administrative decisions and measures which the Management association takes in order to increase the total returns for the members of a certain fund. Principles for creating the investment policy, which are applied by the majority of funds, are:

1. Principle of funds' assets safety (in the structure of fund's portfolio there are securities of the issuers with high credit rating);
2. Principle of portfolio diversification (in the structure of fund's portfolio there are securities which are different by the type and issuers, as well as other characteristics);
3. Principle of sustaining of appropriate liquidity (in the structure of fund's portfolio there are securities which can be bought and sold quickly and efficiently, for a relatively equal and stable price).

Investment policy implies clear definition of securities which the fund can keep in its portfolio and under which conditions, as well as if the fund is allowed, and to what extent and purpose, to enter trading with warranties, forwards, futures and options. Portfolio manager of a certain fund makes and conducts investment decisions. Investment decisions are made based on qualitative and quantitative analyses of capital market, which should be in accordance with the defined principles of fund's asset investment and defined strategy. When making the investment decisions, investment funds combine three goals: minimizing the risk, liquidity of portfolio and profitability of the investment.

The concept of performances of the portfolio has at least two dimensions:

1. The ability of portfolio managers or analytics to increase the returns of the defined portfolio through successful foreseeing of the future prices,
2. The ability of portfolio managers to minimize the risk that every factor of portfolio has, through optimal diversification (Jensen, 2012, p.389).

While realizing the diversification of the portfolio and doing the dispersion of risk, investment funds invest in various types of assets – shares, bonds, real estate, and money. However, the investments within the same type of assets are also different.

Depending on the investment policy, investment funds can be divided into diversified and undiversified investment funds. Diversified investment funds are funds which fulfil the following assumptions with more than 75% of their assets:

1. Securities of any issuer cannot make up more than 5% of the total value of the portfolio fund;
2. Securities of any kind cannot have more than 10% of the issue in circulation (Brzaković, 2007, p.133).

Funds which do not fulfil these assumptions are undiversified funds. These funds are usually invested in by the investors who are trying to provide expertise in one narrow field, and in that field they have a large number of securities.

According to the opinion of participants in fund management, three main trends have developed in the previous period, which will determine the structure of the portfolio:

1. The acceleration of the trend towards products that maximize the total revenue,
2. The transition from niche products to the basic products,
3. The transition from investing in the local market to the global level of investment (Dostanić, 2006, p.83).

„Total return“ investing, based on the total revenue, has a consequence of asset diversification and long-term directing of the capital with high income, shares from the developing market, alternatives such as hedge funds, private shares and real estate. Fund managers are forced to restructure the sources, processes of investments and product lines, in order to achieve success at the low revenue market, which is expected in the following period.

TYPES OF OPEN-END INVESTMENT FUNDS ACCORDING TO THE INVESTMENT POLICY

Every open-end investment fund has a defined policy of investing which is described in the fund's prospectus. Investment policy determines risk, to a certain degree, that the investment fund faces during its business. Most significant types of open-end funds according to the investment policy are:

1. Money market funds – invest in money market instruments. Net value of the assets is fixed at 1 dollar per share, so there are no tax influences like capital gains or capital losses in connection with the purchase of shares.
2. Share funds – invest mostly in shares, but in their portfolio they can also have other forms of securities. Around 5% of assets are invested in short-term securities which provide liquidity related to possible share purchase. Share funds are divided into income funds (hold shares which provide regular high dividends) and growth funds (invest in shares expected to realize high incomes based on capital gains). Besides the purpose of the investments, these two types of share funds are different by the degree of the business risk; the growth funds bear much more risk.
3. Specialized sector funds – invest in securities of the companies from one sector only, and often only at one market.
4. Bond funds – invest in securities with fixed income. However, these funds also are divided into ones that invest in certain bonds only, like for example only in corporate, long-term state bonds, mortgage bonds and municipal bonds. Some funds are specialized for bonds with specific maturity, and some invest in securities of certain risk level.

5. Balanced and income funds – specialized for the entire investment portfolio of the individual, so they invest in various securities. According to the Wiesenberger Investment Companies Services, income funds invest in securities that can provide safety of the principal with the highest growth of the current income, and the balanced funds are directed to long-term growth and the current income with the decrease of risk.
6. Funds with an active asset allocation – invest in shares and bonds. Funds with an active asset allocation have a portfolio of high risk, which is formed based on the market timing, i.e. foreseeing the prices movement.
7. Index funds – try to realize the performances of a certain index, by buying shares within a certain index and according to their share in that index. These funds use simple and cheap way of passive investment strategy application, the investment without doing the financial analyses. Index funds can be connected to the non-equity indices, for example to the index bond funds and index real estate funds.
8. International funds – invest in securities at the international level. Global funds invest in securities worldwide, international in securities outside the market where they usually do business, regional are specialized for investment in a certain part of the world and developing market funds invest in companies from the developing countries. (Marcus, Kane, & Bodie, 2007, pp.103-105)

INVESTMENT FUND PORTFOLIO MANAGEMENT IN COUNTRIES IN TRANSITION

Investment funds are a kind of institutional investors with whom the countries in transition did not face during their socialist period. This means that the funds represent a totally new thing for all ex-socialist countries. Investment funds, their creation and development in the countries in transition should be observed in the context of overall economic reforms, which are necessary for these countries in order for them to come out of decades-long stagnation and poverty and create conditions for establishing the open market economy. Only within the financial reforms and overall economic system, can portfolio management and the investment companies provide their significant contribution to betterment and healing of the national economies of the countries in transition.

Portfolio management represents the management of investments in various securities of individual and institutional investors. Investment funds are created mainly in order to fulfil this function, which means that it is their main area of activities. Along with their managers' knowledge and the scope of means they own they can do things that an individual cannot – do a quality and expert market analysis and disperse risk by investing in various securities. The essence of portfolio management lies in the ability to find the opportunities and use them with a maximum result, with the selected level of risk.

Basic precondition for the appearance and development of portfolio management is the existence of a large number of risky securities and their active flow. Still, there has to exist a developed financial market in order to create this precondition which leads to the development of portfolio management. In order to create efficient financial market in economies in transition, first the following needs to happen:

1. Privatization – a clear and efficient ownership structure has to be established, state and private, with the accent on the private structure, because it represents the right atmosphere for efficient functioning of the financial system.
2. Education of employees – people who understand the significance and the mechanisms of the developed financial market are essential for their development and the development of all their elements, especially portfolio management (Šoškić, 2013, pp.385-390).

Serbian financial system represented a specific issue in the past. Even though the banking system since 2000 has mostly been recovered and privatized, the money still flows outside legal economic flows, which points to the presence of grey economy. Because of the past distrust in the banking system, the population still saves and keeps money in their homes, which means that there are great means unused and trapped outside the banking system. In this situation, the investment funds can have great significance for additional directing of means from the hands of savers to investors.

Investment funds along with attractive interest rates at the market, could gather significant financial means, raise the level of saving, encourage investments, influence the decrease of the existing interest rates and raise the level of awareness of all community members on investments in securities. Regulating legal framework which defines relations between investment funds and connected institutions has a very important part in creating these conditions in countries in transition (Šoškić, 2013, p.400).

PROBLEMS AND PERSPECTIVES OF INVESTMENT FUNDS DEVELOPMENT IN COUNTRIES IN TRANSITION

One year before the appearance of the crisis, in 2007, investment policies of many investment funds were directed towards investing with high returns, which led to creation of highly risky portfolio. Returns of these funds in Serbia had a positive correlation with the movement of Belex15 index. As the crisis continued, there were more and more funds with conservative investment portfolios. Investors, who had optimistic expectations in respect of stock market recovery, chose balanced open-end funds which in their portfolio had also state securities with fixed returns (Korenak, Miletić, Ivaniš, 2013, p.533).

At the end of 2008, all the stock markets of the region had a significant fall in trade and rates of financial instruments which are ranked at these stock markets. All indices that show the movement of stock and bond prices were falling, which continued throughout 2009. Stock markets of the countries in transition, i.e. in the region met the problem of liquidity and withdrawal of foreign banks' deposits. In this situation, policy of investment funds is to opt for withdrawal of means from these markets and their placement at more secure markets. Certain number of investors went to other parts of the world and some of them postponed their investments. Direct impact of the economic crisis can clearly be seen in construction, export, metal industry, and tourism and service sector. One of the consequences of the crisis is weakening of national currencies in relation to dollar and euro, as well as the growth of interest rates as one of the measures of monetary policy for sustaining the stability of the national currency (Kaličanin, 2010, p.226).

Countries in the region are much behind the highly developed countries when it comes to investment funds. Basic reasons for that are the following:

1. Underdeveloped capital market,
2. Bank domination, loans as the source of financing,
3. Low level of investment culture – weak awareness of the population and insufficient knowledge of business actions of investment funds (Leković, 2014, p.72).

Perspectives of the investment funds in countries in transition are generally high. Banking sector in these countries lost the trust of the savers, so the role of collecting the household savings can be very important. Investment funds offer investors potentially higher returns with great liquidity of the means, so that they are generally more attractive than the banks.

ROLE OF INVESTMENT FUNDS IN DEVELOPMENT OF CAPITAL MARKET IN SERBIA

Investment funds in Serbia appeared in 2007. They had positive return rates until the world economic crisis in October 2008. Investors in Serbia expected returns similar to the ones in Croatia when the funds appeared, and they were between 20 and 30%. However the effects of the world crisis affected the market in Serbia, as well as all the countries in the region. In that period the demand and the prices of securities fell at the stock market, which influenced the fall of investment units of funds and negative returns during the following few years. The negative return rates were up to 75%. After that it was suggested to change the legislation of investment funds in the direction of higher protection of investors, preventing of the suspicious transactions and increase in transparency of information (Ćirić & Njegomir, 2012, pp.129-130).

Basic precondition for the increased scope of trade at the capital market is the existence of the supply and demand. Serbia emitted a significant amount of securities, but still there are no satisfying supplies or demand for the securities. There are many reasons which provoke weak demand for securities in Serbia. Lack of knowledge of local investors in business with securities, lack of information on prices and transactions discourages the investments in securities. Low standard of living and the lack of middle class are not good preconditions for savings and investments. Political instability, inflation, lack of tax reliefs are the second reason which contributes to this situation. Until the establishing of the domestic investment funds is postponed, foreign investment funds become the owners of a large number of best companies. This is proven by examples of the following companies: Salford, Midland, FPP Balkan Limited (Maksimović, Marčetić, 2014, p.125).

Investment funds should have few important roles in the development of capital market:

1. Generating domestic savings providing the investors higher return rates and greater security than the business banks,
2. Diversification of placement and lowering the risk,
3. Providing of adequate liquidity of investments,
4. Improvement of standard of living, through providing of regular return rates to the investors,
5. Enabling the reinvestment of dividends and realized capital gains,
6. Providing tax benefits, because they include funds and investors,
7. Enabling the purchase of shares to small investors,
8. Providing new sources of financing for corporations and doing allocative function, when investing in shares of top quality subjects,
9. Fixing maturity of sources of corporate financing,
10. Encouraging the business quality of financial institutions, through the increase the bank competition,
11. Encouraging the turnover at the financial market, because the investment funds are both buyers and sellers of securities (Brzaković, 2007, pp.549-550).

ASSUMPTIONS FOR APPLICATION OF INVESTMENT STRATEGIES IN SERBIA

First step towards the development of the capital market in Serbia was the beginning of trade with shares emitted in the process of privatization. All joint-stock companies were open-end by legislation, which means that the trading with their shares has to be done through stock market. Application of investment strategies is conditioned by long-term and short-term factors which define the movements of prices of securities.

There are many specific characteristics at the capital market. One of them is that the largest number of investors were created through free acquiring of shares in the process of ownership transformation or conversion of old foreign currency savings into bonds. One part of these investors applies the passive strategy of holding the securities long-term, because they expect returns from them in the future. Still, usually the securities are not liquid enough, so this strategy is imposed in a large number of cases, and it is not the investor's choice. On the other hand, there are possibilities for application of active strategy by purchasing the shares which are underrated in that moment, and by selling them when the prices go up, i.e. when the internal value of the shares and their market price get close.

In the future we can expect to have the fall in passive and rise in number of active investors, which will be conditioned by the development of capital market. When assessing the movements of future prices of securities at the capital market, we must first look into the assessment of basic macroeconomic factors. Further movements at the capital market in Serbia will depend on macroeconomic stability, movement of gross domestic product, stability of exchange rate, trade balance, movement of gains, price of raw materials and energy, interest rate movements, inflation and unemployment rates. This means that further movements at the capital market depend on the success of the started transition process, entering the phase of expansion and its sustainability in the future.

OVERVIEW OF INVESTMENT FUNDS SECTOR IN SERBIA AND THE REGION

Investment funds in Serbia are a relatively new thing, since the Law on investment funds was brought in 2006 and started to be applied at the beginning of 2007, when the first fund started working. The first fund in Serbia, Delta Plus, was established in 2007 and since then it has had a growth of investment unit of over 30%. In 2012 this fund changed its name in Ilirika Plus, and in 2013 it was merged with Ilirika Balanced fund. The next fund was Fima ProActiv, it started working at the beginning of May 2007 (PS Group, 2009).

If we look at the countries of the region, i.e. the countries of former Yugoslavia, we can see that Serbia is at the very beginning and is behind with development of investment fund sector. First investment funds appeared in Croatia and Slovenia in the second half of 90s, after privatization was done. Slovenia has the largest number of investment funds, so at the end of 2010 it had over 130 different funds (97 share funds, 16 mixed funds, 11 bond funds and 2 money funds). Investing in foreign stocks dominates the structure of their portfolios (Ćirić, Njegomir, 2012, pp.128-131)

Similar situation is in Croatia with 111 funds. (Croatian Agency for Supervision of Financial Services, 2015) The potential of investment funds is shown by the data that Ilirika JIE had the highest growth in 2007 in Croatia, by creating the growth of investment unit of 58.15%. (PS Group, 2009) open-end

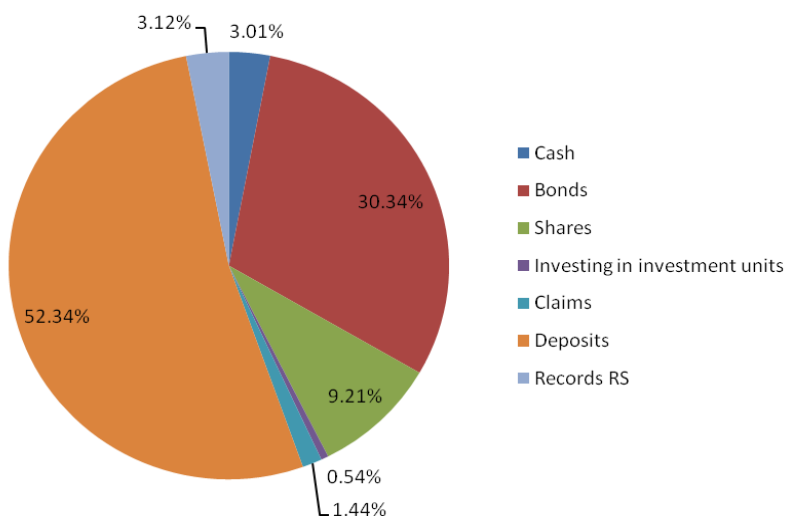
investment funds dominate in Croatia, mostly those that invest in money market, then the ones that invest in shares, hybrid funds, and the lower amount of funds' assets is invested in bonds. In Serbian Republic there are 3 open-end and 14 closed-end investment funds. Open-end funds are mixed funds.

As financial market needs new investments, and also there are significant endowments in banks without greater possibility for alternative investment, it is real to expect a strong development of the investment funds sector in the future period.

Investment policy, structure and the number and types of open-end investment funds in Serbia, Montenegro, Macedonia and Bosnia and Herzegovina are presented further in this paper.

COMPARATIVE ANALYSIS OF OPEN-END INVESTMENT FUNDS OF SERBIA, MONTENEGRO, BOSNIA AND HERZEGOVINA AND MACEDONIA

According to the Law on investment funds (2015), investment funds can be divided according to the investment goal to equity funds, income funds, balanced funds and capital preservation funds. Currently in Serbia there are 12 open-end investment funds, where six of them are capital preservation funds, one balanced investment fund and five equity funds.



Graph 1: Total investment of all means of open-end investment funds in Serbia

Source: Author

Investment structure of the overall means of open-end investment funds in Serbia shows that the largest amount of means is invested in deposits – 52.34% and bonds – 30.34%. This situation is expected, considering the fact that the Serbian market is underdeveloped, that there is an insufficient number of diverse securities and that the investment funds sector is starting to develop.

So we can conclude that the capital preservation funds are the most attractive for the investors in Serbia, i.e. that they have majority of assets at their disposal. In the future we can expect the increase of significance of equity funds, and this can happen when the law allows investing in shares at foreign markets.

Table 1: Share of every open-end investment fund in the total assets of open-end investment funds in Serbia

Name of the fund	Type of the fund	Share
ILIRIKA Balanced	Balanced fund	1.45%
ILIRIKA Cash Dinar	capital preservation fund	4.79%
ILIRIKA Cash Euro	capital preservation fund	0.28%
Raiffeisen CASH	capital preservation fund	42.60%
Raiffeisen EURO CASH	capital preservation fund	37.27%
KomBank NOVČANI FOND	capital preservation fund	2.94%
KomBank foreign currency fund	capital preservation fund	0.34%
ILIRIKA Dynamic	equity fund	0.28%
TRIUMPH	equity fund	0.19%
FIMA ProActive	equity fund	1.44%
Kombank IN Fond	equity fund	0.68%
Raiffeisen WORLD	equity fund	7.73%
TOTAL	Open-end investment funds	100%

Source: Author

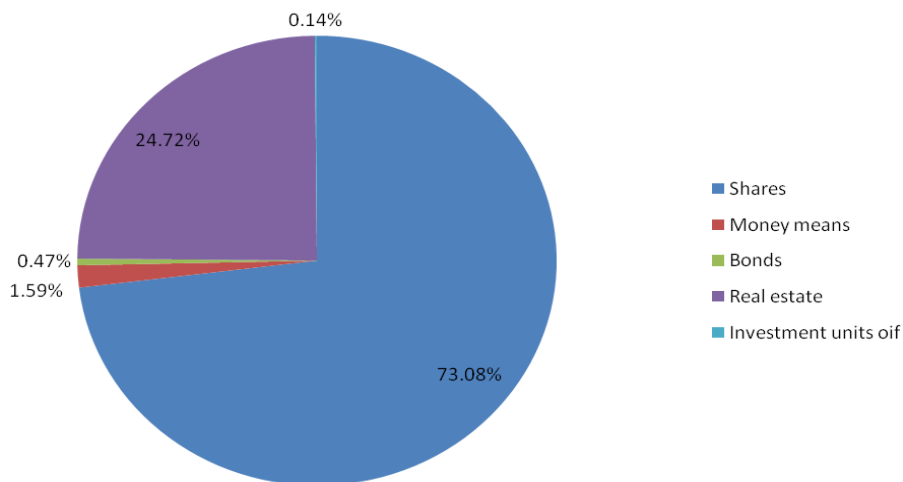
This table shows the share of every open-end investment fund in relation to the total assets that are at their disposal. Raiffeisen CASH and Raiffeisen EURO CASH have the largest amount of assets at their disposal, and they are both capital preservation funds.

Table 2: Share of every fund type in the total assets of open-end investment funds in Serbia

Type of the fund	Share
Balanced fund	1.45%
Capital preservation fund	88.22%
Equity fund	10.33%
TOTAL	100%

Source: Author

This table shows the share of every fund type in the total assets of open-end investment funds. In Serbia the largest share belongs to capital preservation funds – 88.22%, then to the equity funds – 10.33% and finally the smallest share belongs to the balanced funds – 1.45% which is expected considering that there is only one balanced fund at our market.



Graph 2: Investment of total means of all open-end investment funds in Montenegro

Source: Author

Open-end investment funds in Montenegro are characterized by the large investments in equity securities. All open-end investment funds in Montenegro can be classified as equity funds, which can be seen at the graph, which shows that over 73% of total assets are shares. Important part of the assets of these funds is real estate, so clearly there is a great difference in investment policies of Serbia and Montenegro.

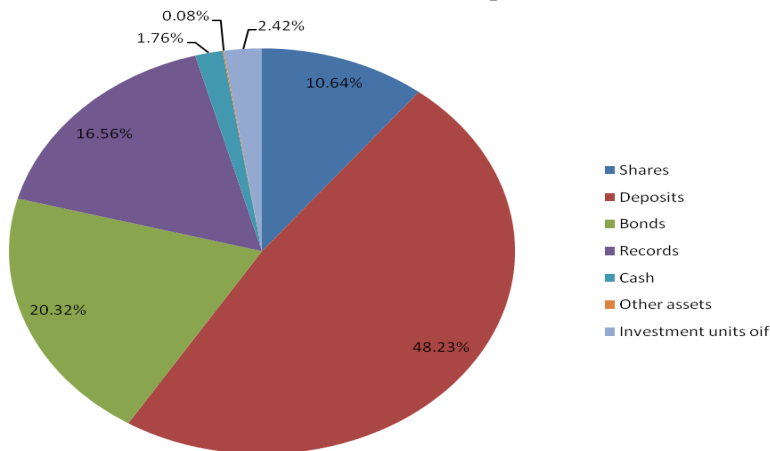
Table 3: Share of every fund in the total assets of open-end funds in Montenegro

Name of the fund	Share
Open-end investment fund "Atlas Mont" in transformation	15.02%
Open-end investment fund "Trend" in transformation	67.35%
Open-end investment fund "Eurofond" in transformation	2.05%
Open-end investment fund "HLT fond" in transformation	6.02%
Open-end investment fund "Moneta" in transformation	9.56%
TOTAL	100%

Source: Author

Open-end investment funds of Montenegro are currently in the process of transformation, which means that in the future the structure of investing of these

funds may change. This table shows the share of every fund in the total assets of open-end investment funds, so that the assets of “Trend” investment fund are most significant in terms of total assets that are at its disposal.



Graph 3: Investment structure of the total assets of open-end investment funds in Bosnia and Herzegovina

Source: Author

Open-end investment funds in Bosnia and Herzegovina are characterized by more diversified portfolio in relation to Serbia and Montenegro, larger total assets than the ones in Serbia, and lower than the ones in Montenegro. Funds in Bosnia and Herzegovina invest mostly in deposits, bonds, shares and other assets.

Table 4: Share of every fund in the total assets of open-end funds in Bosnia and Herzegovina

Name of the fund	Share
Raiffeisen CASH	79.83%
Raiffeisen BALANCE	3.75%
LILIUM CASH	1.79%
LILIUM BALANCED	6.10%
LILIUM GLOBAL	5.38%
HYPO BH EQUITY	3.16%
TOTAL	100%

Source: Author

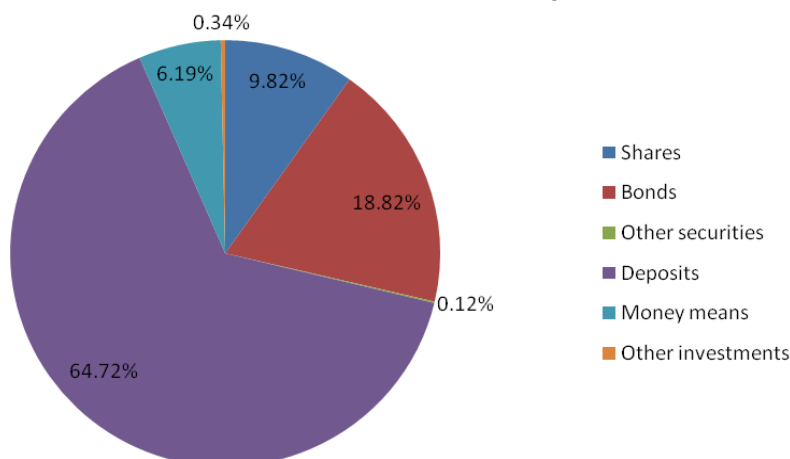
With 56.5% of its assets invested in deposits, capital preservation fund Raiffeisen CASH has the largest assets of all open-end investment funds in Bosnia and Herzegovina. Besides these funds in Bosnia and Herzegovina, there are capital preservation funds and balanced funds, but with a significantly lower assets and importance.

Table 5: Share of every fund in total means of open-end funds in Macedonia

Name of the fund	Share
Iirika Jugoistočna Evropa	1.18%
Iirika Global Rastečki Pazari	1.75%
Iirika Cash fund	5.58%
Inovo Status Akcii	2.29%
KD BRIK	2.12%
KD Nova EU	1.38%
KD Cash Deposit	15.03%
KD Top Brands	1.43%
KB Publikum - Balanced	4.14%
KB Publikum - Payers	11.39%
KB Publikum Paričen	47.21%
VFP Premium Invest	1.91%
VFP Cash Deposit	4.60%
TOTAL	100%

Source: Author

Largest amount of assets of open-end investment funds in Macedonia is in hands of capital preservation funds, with KB Publikum Paričen fund owning a share of 47.21% of the total assets of all open-end investment funds. Primary reason is underdeveloped capital market in Macedonia and the lack of quality shares at the domestic market. Currently in Macedonia, 13 various types of open-end investment funds are in operation. Compared to the analysed countries of the region Macedonian funds mostly invest in shares, usually foreign shares. The precondition for this is legislation which allows investing in shares at foreign markets. The most representative example of this investment is Iirika South East Europa, equity fund, which invests 94.42% in shares where over 66% are foreign shares.



Graph 9: Investment structure of the total means of all open-end investment funds in Macedonia Source: Author

This graph shows the investment structure of the total means of all open-end investment funds in Macedonia, so we can notice that the situation is similar here as well as in other countries of the region, except in the case of Montenegro. The largest scope of funds' means is invested in deposits – almost 65%, then in bonds, a bit less in shares, and the rest of the assets are money means and investments in other forms of assets. Even though the investment funds in Macedonia can invest in foreign market shares, still largest number of funds invests its means at the money market, i.e. deposits. The fund which has the largest share in total assets of all open-end investment funds in Macedonia, KB Publikum Paričen, invests over 72% of its means in deposits. This investment structure of open-end investment funds in Macedonia can be connected to insufficiently developed financial market, non-existence of wide range of different domestic shares, uncompleted privatization process, distrust in financial sector, which is characteristic for all post-socialist countries which are going through the process of transition.

CONCLUSION

Investment funds are essential for underdeveloped financial markets and the entire economy should feel the benefits of emerging investment funds. Countries with defined legislation concerning investment funds and which support founding of investment funds will have a more developed financial infrastructure and potential for attracting foreign investments. In the future we can expect foreign management companies to found specialized funds for investing at markets of countries in transition. This inflow of additional capital will be more noticeable in countries which are adopting reforms, develop capital market, support liberalization of the market and encourage the role of investment funds in privatization processes.

Open-end investment funds in Serbia and in the countries of the region represent a new way of investing; they do business for several years at those markets, but still have good perspectives in the future. Majority of the funds in these countries, except Montenegro, are capital preservation funds, which invest mostly in deposits and securities which are characterized by low level of risk, i.e. bonds. All open-end funds in Montenegro are equity funds, so they invest mostly in shares. Differences in investment policies of open-end funds of the countries of the region usually come from legislation which, in certain countries, limits the investments in certain securities. After the process of transition, through the development of capital market, by establishing an open market economy and favourable laws for funds' functioning, it can be expected that these institutional investors will increase its significance and obtain their place in the financial system.

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INVESTING INTO BUNKRUPT COMPANIES

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ABSTRACT

The subject of this paper are investments into bankrupt companies (corporations) with the basic aim to explain investing, main causes of bankruptcies, incorporation of factors of the possible bankruptcy into basic criteria for investments, as well as the concept of corporate bankruptcy, principal subjects of this process and bankruptcy as a corporate strategy. The method used in the research is desk research of the relevant literature and data collected from the competent institutions. The starting hypothesis of the paper is the increasing number of corporate bankruptcies through which companies continue operations with the aim to save corporations from the total ruin relative to the number of bankruptcies which precede liquid of assets.

An increasing number of owners of corporations and financial institutions (banks) proposes and introduces bankruptcy of corporations, while bankruptcy of individuals may become possible in future. The expected results and contributions of this paper are confirmations of the significance of introducing bankruptcy and potential recovery due to investments.

Key words: *Investments, Bankruptcy, Corporations, Incorporation*

JEL Classification: *M21, G11, G29*

UDC: *658.1:347.736
330.322*

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INTRODUCTION

For company managers – commonly very competitive people- there is nothing harder than bankruptcy of the company they managed, losing control over it or admitting failure. They invested years into building it and it is not pleasant at all to give up on it. Their companies fail not because of deliberate harmful measures and neglected business, but most frequently because of a series of unfortunate occurrences and unawareness of the strategies that should have been undertaken on time. In other words, bankruptcies are the consequences of fatal mistakes which are made with the best of intentions.

Society in general rewards business success. However, it is very focused on corporate failures, and generally bad news. Failures dominate business news, business people's conversations and business communities. Company managers, whether in large or small companies, are aware that failure may be only a few wrong steps away. If that thin line is crossed at the expense of business, corporate takeovers and vultures are waiting around the corner. During the last big wave of corporate bankruptcies at the end of the 20th and the beginning of the 21st century, a large number of companies worldwide declared bankruptcy, and at the time many started wondering about the reasons of these fails.

The difference between economically profitable and troubled companies with bad outlooks plays key role in every economy. Since the resources used in production are limited, sometimes it is justified to sell out and find a more productive purpose for them than the existing one within so-called *troubled companies*. However, this is very frequently not simple since the key stakeholders (managers, investors, national regulatory agencies etc.) have asymmetric information regarding future profit prospects of the company, or simply have different interests.

At the time of the Great Depression at the end of 1920s and the beginning of 1930s, after experiencing substantial corporate failures, businesspersons would rather choose suicide than filing bankruptcy petition. However, during the last decades, this attitude fundamentally changed and nowadays bankruptcy is seen as a regular phase in development cycle of a business entity. In cases of insolvency, filing bankruptcy petition is not completely free from risks for owners and creditors, but this rarely makes the existing situation worse, and most frequently it helps.

THEORETICAL OVERVIEW, GOVERNING POSITIONS AND LITERATURE

The word investment comes from the Latin word *vestis*, which means item of (textile) clothing, and refers to the act of putting items (money or other valuable resources) into (somebody else's) pockets. When we say investing, this term denotes investing of assets (resources) in expectation of increasing (adding) value over the initial value of assets invested in future. When a natural person or an

organization decide to invest, they take into account a series of questions and criteria which may help them choose a particular investment project. Some of the criteria are financial feasibility of the project (earnings and expenses) capability of the management of the market participant into which they invest, effects of the investment, support of the environment etc.

Until recently, effects of the possible bankruptcy on behavior of investment subjects have not been properly elaborated in the literature. One of the turning points was made by J. K. Wald with his paper *Adding Bankruptcy to Models of Investment*, in which he empirically proved that bankruptcy risk is a significant determinant of investment in statistical and economic sense (Miller, Modiglian, 1958). Kirchesch (2004) came to the same conclusion. He empirically confirmed that bankruptcy risk is an important determinant in evaluation of investment behavior of companies. He also confronted his findings with the dominant and traditional notion that financial structure of companies does not influence their investment decisions. (Miller, Modigliani, 1958., pp. 261-297 and Financial Risks, Bankruptcy Probabilities, and the Investment Behavior of Enterprises, 2004, pp 299). Because of this traditional investment theories came to the conclusion that demand for new capital is exclusively conditioned by price of the factors of production and technologies. Cash flows, debt level and other financial variables should be ignored in the process of making decisions of investment quantum since companies will always be able to borrow in the market at risk free interest rate - with an assumption that capital markets are perfect and that frictions do not appear.

In some studies bankruptcy risk is contained in theoretical models of investments similarly to so-called *external finance premium* in the form of function of agency costs (Pratap, Rendon, 2003, pp. 513-545). Under the usual assumption that risk of insolvency will increase with the quantity of accumulated debt and that it will decrease with the increase of own assets; specification of investment function does not differ significantly from the models which include external finance premium. Still, those studies do not take into account the risk that the company in future may not be able to create income as the result of the possible bankruptcy. S. Bond and C. Meghir are among the rare authors who included risk premium and potential bankruptcy risk into their model of investment behavior, and both of these variables depend on debt to own capital ratio (Review of Economic Studies 61, 1994, pp. 197-222).

However, the first author who included the possibility of bankruptcy as the factor of profit maximization in order to obtain as real as possible indication on the influence of risk on investment was J. K. Wald (Working Paper, 2004., www.ssrn.com 29.11.20079). His approach contributed to creation of so-called *investment equation*, which contains the survival probability. In addition, according to Wald, bankruptcy risk increases the value of the company's investments, which renders some large investment projects unprofitable (which would otherwise have been profitable without including bankruptcy risk). Rising of bankruptcy probability will decrease expenses of postponing investment decision for future, which results in making some investment projects unprofitable.

The conclusion which imposes itself is that until recently risk factor from potential bankruptcy was included into investment behavior model predominantly in *ad hoc* manner. Only several studies, including the studies of Waldo and Bond and Maghire, explicitly included this determinant into profit calculation and determining optimum investment level. However, only Waldo's study covers complete effects of bankruptcy risk on company's investment decisions (Review of Economic Studies 61, 1994., str. 197-222.).

The debate regarding the nature of bankruptcy risk is also very important. The debates as to whether bankruptcy risk is a systemic risk last for more than two decades in literature. Systemic risk is only the risk susceptible to reduction through diversification of investment. L. Lang and R. Stulz and D. J. Denis and D. Denis find that ratio of book value to market value is under the influence of insolvency risk (Lang, Stulz, 1992, pp. 45-60.; Denis, Denis 1995, pp. 411-418). Some authors found that similarly described risk factor is an important determinant for explanation of return on corporate stocks (Fama, French 1993, pp. 3-56).

REASONING AND METHODOLOGY

This paper is based on researches and analyses, findings of authors from around the world, relevant literature, recommendations. The following methods will be used: logical research, interdisciplinary approaches, indicative methods, general methods of research compatible with economic and social sciences with empirical and theoretical approaches, deduction, subjective methods, comparative methods and discrimination methods, statistical data and practice.

When we say that a market participant is insolvent, we actually think of the actual position of the business entity, which reflects through the fact that it cannot settle its debts on due date, i.e. pay its debts. Those debts appeared in the course of regular operations and under some circumstances (failed investment projects, management mistakes, market conjuncture etc.), and the company is not capable to settle them in timely and adequate manner. Insolvency, therefore, is the financial status of an individual or an organization in which debts are higher than assets and the debtor is no longer in the objective position to settle his creditors.

The term bankruptcy has some common elements with insolvency, but it is a separate term and has a different meaning. Bankruptcy is a legal institute which was created in different legal systems in order to deal with the problem of insolvent market subjects, and its aim is optimal resolving of insolvency problem. Therefore, bankruptcy is legally declared inability of individuals and legal entities to pay legal and due obligations. In that sense, the "insolvent" entity is the entity not capable of paying debts, while the "bankrupt" entity is the subject undergoing the institutional process of bankruptcy.

Since bankruptcy and insolvency are two different terms with some common elements, market subjects may be insolvent, but not necessarily undergoing bankruptcy process. Opposite situation is also possible, as well as the situation in

which the subject is in the bankruptcy process without being insolvent. There are some other interesting cases in practice such as situations in which after liquidation of debtors' assets it turns out that the debtor was solvent. Therefore, insolvency is not even the necessary precondition for filing bankruptcy and vice versa.

Our Law on Insolvency defines bankruptcy as "... settling creditors by selling all the assets of the debtor" ("Official Gazette of the Republic of Serbia", No. 104/2009, 99/2011). Financial dictionary explains bankruptcy as a legal procedure initiated by individuals or the company which is unable to settle its debts. Bankruptcy may liquidate debts, or tend to come up with the plan of reorganization and settling debts or parts of them. On the other hand, the same source defines insolvency as „Terms under which somebody is unable to settle due debts.“.

Unlike legal and economic theories, socio-political theories of bankruptcy are oriented towards studying of what really happens in the processes of corporate bankruptcies. They point out that the rules determined by previously presented theories very frequently are not observed and that reorganization processes and corporation liquidations are susceptible to extensive negotiations, which can cause significant differences in redistribution of bankruptcy estate relative to the rule of absolute priority. For example, one class of creditors may renounce some share of their investment in favor of others if the other class of creditors supports the plan proposed by the first group. In that case, negotiation power of some creditor classes is evident. This exactly is the main flaw of economic and legal theories of bankruptcy: neither of them explored the role of social and financial power in the processes of corporate bankruptcies.

BASIC CAUSES OF ENTREPRENEURIAL BANKRUPTCIES

The term bankruptcy denotes settling creditors (all the subjects who invested into company assets) by selling out all the assets of the company in the bankruptcy process. Bankruptcy of the bankruptcy debtor occurs when he is no longer able to pay his debts. The bankruptcy debtor is considered to be unable to settle debts when:

1. He is unable to pay debts;
2. He stopped paying debts;
3. If he demonstrates the likelihood that when he will be unable to settle his debts as they fall due - there is a prospect of the company being unable to pay its debts – (Law on Insolvency, "Official Gazette of the Republic of Serbia", No. 104/2009, 99/2011).

Bankruptcy is the most radical measure of company restructuring. A company undergoes bankruptcy procedure only when there is no other convenient solution for it. Management of the company this way admits that they were unable to reach the goals set and that they are unable to manage the company in a profitable manner in future.

The number of companies which have undergone the bankruptcy proceedings is definitely large. However, what additionally concerns is the large number of companies which used to operate very successfully and then failed. Not many people expected such developments at the end of the last and the beginning of this century.

Management of companies offers various excuses for corporate failures. Poor economic conditions, recession, market disturbances, overrated domestic currency, natural disasters, *force majeure* and other factors out of their control are very often offered as excuses. However, numerous studies show that management failures are the key factors of failure of most companies. Although industrial and general economic factors play an important role in this, management actions ultimately determine outcome of some company. The word failure does not denote only company bankruptcy. Important corporate failures regarding production-service portfolio, finances or relationship with the key stakeholders also qualify for this category. During the market recession stages in the world so far similar tendencies have not been recorded, nor has the speed at which companies failed in the latest wave of corporate bankruptcies ever been recorded. It was not a rare case to see seemingly financially sound companies knock on the hell's door in a short time.

In the course of studying the causes of corporate or entrepreneurial failures, researchers came to conclusion that failures in majority of cases do not occur by chance and that they do have some history. Managers rarely sit in the dark rooms and plot in advance to cheat stakeholders. Instead of that, there is in place what analytics call *incremental decline into bad judgment*. This means that modern, complex and „winning“ cultures, unrealistic high goals and giving advantage to form over the essence when it comes to business models, create business environment in which managers slowly slip into domain of breaking ethical rules and regulations. Breaking the standards lasts for one period and usually investors as public do not receive timely information on actual state of affairs within company until the collapse occurs, when all the facts come to surface and it becomes clear what has actually happened.

So-called turnaround specialists, people in charge of revitalizing business, in the process of its recovery discover that the basic cause of the company failure was actually of human nature. The reasons found are reasoning not based on real assumptions, denying facts, *hubris*, complexes, ineffective control, greed, deceit etc. One of the key goals of securitization is to make unmarketable corporate securities, even of the companies at the verge of bankruptcy, MARKETABLE, which saves the corporation from bankruptcy since through the marketable securities it can reach new capital, which is necessary for the life of corporation.

CAUSES OF BANKRUPTCY ACCORDING TO SOME AUTHORS

M. Ingebretsen in his book *Why Companies Fail – The 10 Big Reasons Businesses Crumble, and How to Keep Yours Strong and Solid* gives rounded approach to ten basic reasons because of which businesses fail – and those failures frequently turn into bankruptcies (Crown Business, New York, 2003). His findings are based on literature and conversations with managers of various companies and experts for business revitalization. Those ten reasons are:

1. Allowing share price to dictate strategy
2. Too fast company growth
3. Ignoring consumers
4. Ignoring paradigmatic changes
5. Leading exhausting wars
6. Ignoring duties, threats and crises
7. Over-innovation
8. Bad succession planning
9. Failed synergies
10. Manager arrogance.

Just as companies in some period of time may change their strategy, investors and investment analysts may change their own perception of what is good at different stages. In other words, they can change the strategy of evaluation of some investment projects. Closer history has shown that in the periods of economic booms investors usually give advantage to company growth and sale volume, while in the periods of recession the key goal is increasing economic efficiency, i.e. reduction of costs.

As stock market grows, entrepreneurs' motive to develop business which will effectuate in the long run gradually declines as they can simply win investors by new „superior technical-technological businesses“ in the same, or even more effective manner. Therefore, entrepreneurs, depending on the historic period and prevailing technical-technological paradigms, develop businesses which will reward their owners in a short run, taking advantage of insufficient knowledge on the technology and its potentials for creating value.

GREED AND ARROGANCE OF MANAGEMENT

The last wave of corporate scandals and bankruptcies brought into focus arrogance and greed of the heads of large corporations worldwide. History shows that management arrogance is nothing new and that it has its longer genesis. However, dimensions of the last wave of corporate scandals have shown a new quality in respect to boundaries and the richness of spectrum of corporate abuses, which ultimately started resembling *Hollywood* more than *Wall Street* (Crown Business, New York, 2003, p. 65).

In addition, their treatment in financial reports suited managers, but it was harmful for stockholders. A series of corporate scandals in the beginning of this century inspired researchers to search for connection between those events and unnaturally high compensations of company management. There was also a question whether the companies changed compensation systems of their management as the reaction to those events after that wave. Answers to this question show that from 1994 to 2003 companies significantly decreased compensations based on options, but that they have not completely canceled them. Therefore, the fall is evident, whether we measure it by the number of options, or by the value of their settlements (American Finance Association, 2006). All this supports the thesis that compensations of company managers were high. Those compensations were insufficiently transparent, so that the market started to punish the companies with systems of high compensations for management, which left room for financial abuses and was not clear enough.

However, the behaviors which can be depicted as unethical – apart from greed and management arrogance – can be explained by strong and ruthless competition between companies and its influence on behavior of managers. Pressures of unfair competition can lead to unethical behavior, which can have harmful influence in the company itself (object of the events), as well as in its surrounding. Still, unethical actions can sometimes be justified in the circumstances of unreasonable regulation in the legal and social systems, which limit development of business. Anyhow, in the surrounding in which unethical behavior is a precondition for commercial survival, it is hard to persuade managers and boards of directors to act morally and ethically since of their behavior- more or less ethical and moral – depends their survival in the market. Competition positively influences ethics in the long run, since it promotes corporate growth and growth of income. Higher income increases the desire to pay for ethical behavior, but it can also lead to improving and a higher level of what people perceive as ethical behavior.

It is frequently heard that people often choose illegal and unethical behavior because of the fact that risks are not so high – at least they are not high in comparison to potential rewards. On the other hand, catching and sentencing managers which followed such ambitions is demanding- it requires time, efforts and resources. Apart from that, legal and ethical boundaries are rather fluid and frequently insufficiently defined, so that skillful individuals can avoid them and achieve unethical and illegal benefits. Skilled financial managers may disclose false financial information which are not in discord with generally accepted financial and accounting standards. Courts face big problems when they try to prove guilt of top managers since they are educated and well advised, and their cases are usually so complex that average juror cannot understand them without thorough education and preparation. Internal control mechanisms are not strong enough and monitored, they are usually run by a small group of people (two to three men) who are subordinated to the chief and thus afraid, and whose actions are then reexamined. In situation like that one rationalization of unethical and illegal behavior may start a spiral of business scandals.

Speculations that market itself has its control mechanisms effective enough to discipline management structures may often be heard. There are also assertions that other market participants will stop doing business with companies which broke laws and standards, and that investors will avoid their stocks. However, the fact is that those control mechanisms have been in place for a while, and that in a number of cases they have not done their job properly. Market rewards unethical and illegal practices as long as they are not discovered. Until then the company has gained considerable competitive advantage, its managers made fortune, and new operation standards – based on cheating and manipulations - are rooted and have become generally accepted, making way for the spiral of similar behavior. Long-term behavior as this necessarily leads to a scandal, illiquidity, insolvency and bankruptcy. Therefore, greed is one of the causes of bankruptcy.

INCORPORATING FACTOR OF POTENTIAL BANKRUPTCY INTO BASIC CRITERIA FOR INVESTING

When we say investing, this term denotes investing of assets (resources) in expectation of increasing (adding) value over the initial value of assets invested in future. When a natural person or an organization decide to invest, they take into account a series of questions and criteria which may help them choose a particular investment project.

Under the usual assumption that risk of insolvency will increase with the quantity of accumulated debt and that it will decrease with the increase of own assets; specification of investment function does not differ significantly from the models which include external finance premium. However, the first author who included the possibility of bankruptcy as the factor of profit maximization in order to obtain as real as possible indication on the influence of risk on investment was J. K. Wald. In addition, according to Waldo, bankruptcy risk increases the value of the company's investments, which renders some large investment projects unprofitable (which would otherwise have been profitable without including bankruptcy risk).

This finding is important since systemic risk is presented by weighted subsequent share returns. However, a recent paper of I. D. Dichev suggests that higher current bankruptcy risk of a company is not accompanied by appropriate higher returns. Because of that, the author denies previous thesis that risk of insolvency influences book-to-market value ratio. The same author also declares that companies with a prominent bankruptcy risk have returns under average, which means that investors are not adequately compensated for taking higher risks (caused by increased risk of the possible insolvency of the company). The conclusion is that insolvency, i.e. bankruptcy risk cannot be considered to be a systemic risk.

BANKRUPTCY AS ENTREPRENEURIAL STRATEGY

The idea of bankruptcy as a possible strategy which corporations may employ in some circumstances was frequently present in the American literature of 1980s and 1990s. More frequently was the process of bankruptcy and the subsequent reorganization of corporations put in the context of politics and conflict of interests of various stakeholders. Until recently, the courts in which destinies of the bankrupt companies were decided were reserved for lawyers, judges, bankers, financial managers and other similar persons. Nowadays, those courts are turning into places in which some of the most important social issues of our times are resolved (such as destinies and compensation of consumers who experienced health issues and illnesses because of the products and services of bankrupt companies, the issues of wages of union and other workers, the issues of fair market competition etc.) (Bradley, Rosenzweig, 1992, p. 1043-1089)

Nowadays people are slowly beginning to understand that to be bankrupt does not imply only being broke. The function of Chapter 11 bankruptcy of the American Bankruptcy Code does not protect only the weak and financially distressed subjects anymore. It can be a very powerful tool in hands of financially developed companies. This is particularly important nowadays since the subjects in this domain gained unprecedented social and financial power.

Although some academics and bankruptcy experts still claim that bankruptcy is in connection with poor management and poor financial status of the company, the perception of bankruptcy slowly changes and the stakeholders involved into those processes begin to learn on its use for strategic purposes. Corporate bankruptcies slowly exit the frame of renegotiation of debts between debtors and creditors and they are more frequently used for achieving some other goals unavailable in the regular business operations.

Until recently, the first thought of average managers when bankruptcy and insolvency were mentioned was „the status to be avoided at any cost“. However, as the result of deep structural changes in economy, politics, law and organizational policy, bankruptcy gains a more pronounced strategic and political role – the advantages and results of which are gathered by large corporations and powerful creditors. Today's company managers in the developed West no longer perceive bankruptcy as something unpleasant and something one should stay away from. Instead of that, it becomes one of the strategies for achieving predetermined goals in the corporate arsenal of modern economic societies.

Debates on the role of bankruptcy and reorganization of companies and their implications on the welfare of economy still last. There are even some authors who believe that reorganization of firms in the context of Chapter 11 of American Bankruptcy Code should be abrogated, or at least restructured because of frequent abuses and frequently unnecessary filing for bankruptcy of some companies, as well as the fact that reorganized firms upon reorganization is completed still have very high debts in their balance sheets (Bradley, Rosenzweig, 1992, p. 1043-1089).

Anyhow, redefinition of bankruptcy term as a legitimate corporate strategy is becoming more and more accepted by the important controllers of financial soundness of companies, such as commercial and investment banks, insurance companies and credit rating agencies. From the historic role of reaction of companies to events in their surrounding, bankruptcy slowly gains proactive role, and companies file for it when they wish to achieve some financial and political goals, while bankruptcy arena is getting deeper and some of the most important social issues, which definitely exceed the limits of simple settling creditors by debtors, are being solved in it. This has gone so far that some strategic consultants suggest their clients bankruptcy as a strategic option for running financially healthy business.

CORPORATE BANKRUPTCY CONCEPT

Financial difficulties, unsettled debts and bankruptcies are fundamental phases in life cycle of corporations which cause changes in ownership of residual roles and allocation of the rights to manage corporate resources. Companies in different degrees of financial distress either are restructured, or they experience insolvency and bankruptcy. Just like a forest fire which leaves more productive soil by burning dead trees and plants, liquidation of a company frequently opens market and provides capital and skilled workforce for other market participants, who can use those resources in a more effective and efficient way. Companies or individuals can buy property of the bankrupt firms, take over favorable contracts, merger with a debtor and that way preserve taxable income, speculate with the debt, use compensations, capital gains etc. Bankruptcies and corporate failures, therefore, offer a large and to a great extent unused potentials (especially in our region) for making profit for those who do realize opportunities and chances in those circumstances.

Nowadays, bankruptcies are seen almost as a regular phase in the cycle of development of business entities. In insolvency cases, filing for bankruptcy, is not completely risk free for owners and creditors, but this filing rarely makes the current status worse, and in most cases it actually helps.

CONCEPTUALIZATION OF STRATEGIC BANKRUPTCIES OF COMPANIES

Two logical questions impose themselves here. What is strategic bankruptcy of corporations and what is the difference between strategic bankruptcies and other ones, i.e. which bankruptcies are strategic, and which are normal?

Strategic bankruptcy in literature has to satisfy at least two basic criteria. First, the petition has to be filed by one of the stakeholders at expense of others. Second,

strategic bankruptcy is used for solving one of the problems which is most convenient for solving, e.g. postponing and preventing litigations and some financial obligations (Moulton and Thomas, 1993, p. 125-135). C. M. Daily defines strategic bankruptcies as "...a proactive attempt of firms' management to contend with some threat posed by a stakeholder group" (Journal of Management, 1994, p. 263-295).

Therefore, the point in strategic bankruptcies of corporations is promoting interests of one group of stakeholders at expense (loss) of another and shifting risk from the more powerful ones to the weaker ones.

REORGANIZATION AS BANKRUPTCY INSTITUTE

A number of legal systems which incorporate reorganization as an institute into their corporate bankruptcy legislation are said to be "leaning" in favor of debtor, or that they are pro-debtor oriented. Still, managers do not get into the process of reorganization that easily, unless, of course, if they have sufficient social and financial power to turn the procedure into their favor until they are forced to do so, which mainly happens in cases when they need protection from creditors' requests to settle debts. Therefore, management generally files for bankruptcy reorganization only when it is the only way to preserve company, and when they deem that the company is potentially prosperous and that it could create value in the future. When they choose reorganization, management gets to run the company and try again to create profitable business out of it.

Management chooses bankruptcy reorganization when the company is in financial distress, but it is essential for it to keep doing business since its management estimated that the company has a future as a business entity. Legal systems which support business reorganization use this procedure as the best means to recover and revitalize business, using this procedure as a *defense mechanism* for preserving debtor's position in the market until the debtor resolves its financial problems. Therefore, the point of reorganization is in providing time and space for the debtor to solve the problems which caused bankruptcy, to recapitalize itself and suggest reorganization plan to creditors. This plan has to be a coordinate schedule for settling all creditors – consistently with their hierarchy, i.e. the *absolute priority rule* – and other demands according to the bankruptcy regulations.

Filing for bankruptcy automatically halts all actions by creditors to collect debts, and the debts may be collected only after the plan of reorganization is approved. If secured creditors cannot take possession of the collateral while debtor is undergoing reorganization, the debtor has to have agreements with them on exploitation of assets in course of his operations – usually with an agreement on monthly payments to creditors. The debtor also has to file statement of financial affairs, schedules of assets and liabilities and other specialized reports.

Since bankruptcy reorganization is a process based on mutual agreement and consensus of stakeholders (debtor and creditors), judges are not very much involved into the process, except when their intensive engagement is necessary for settling disputes. This implies that all the subjects have to look after their own interests as nobody else is going to do it for them. The only solution for small creditors who are not interested in the process enough and who are not very powerful is the creditors' committee in expectation to maximize recovery of assets.

PLAN OF BANKRUPTCY REORGANIZATION

After distress and serious financial issues - at the discretion of the company or its creditors, the company files for reorganization. The bodies conducting bankruptcy proceedings are bankruptcy panel, bankruptcy judge, bankruptcy administrator, creditors' assembly and creditors' committee. They draw up reorganization plan as basic guidelines for continuance of operation of the company. The plan should set out the basic measures aiming at reaching minimum standards of profitability for an undisturbed continuance of business activities. It should be approved by all the creditors and shareholders. The plan is considered to be approved if one half of the number of owners and two-thirds of owners according to the amounts approve it. Upon approval of the plan, the plan becomes a binding document, even for those who disagree with it. If the plan proves to be inefficient, the company undergoes liquidation, and the assets are sold in order to settle the debts.

Upon approval of the reorganization plan, the debtor is relieved from all the debts incurred prior to the plan approval. This does not imply that the company undergoing reorganization is relieved from all the debts to third parties. The company shall have new debts, typical for the companies undergoing reorganization. Upon successful reorganization, the company should have capital structure and liquidity ratios which are sufficient for settling all its debts and for undisturbed future operations.

ECONOMIC THEORIES OF BANKRUPTCY

Economists and lawyers have researched the phenomenon of corporate bankruptcies and its implications for key stakeholders more than other researchers have. However, until recently, as far as economic literature is concerned, the issue of bankruptcy was covered by one (or more rarely two!) chapters in textbooks on corporate finances in Serbia (Vukosavljevic 2012,p.90-107).

The main reason for which studying the phenomenon of corporate bankruptcies did not attract greater attention was that most researchers saw bankruptcy as a technical issue of the company having more debt than assets. All

that needs to be done is reorganization or liquidation of the company, distributing assets to the secured and unsecured creditors and shareholders (if anything is left for them), and here stop all the reasons for further research and all the mystery.

As far as microeconomic theories are concerned, (Vukosavljevic, 2012, p. 107-128) they see bankruptcy as the last phase in life of any company, just like any individual's death. Companies in their phase existence go through phases of establishing, rise, stability, distress and liquidation. Microeconomic theories underline the positive role of bankruptcy as a discriminant mechanism for separation between profitable and unprofitable companies. According to them, the market mechanism increases systemic efficiency of a market and economy as a whole, contributing to taking over of places of less successful companies by more successful ones. Here the organic parallels with natural selection of living organisms and the principle of survival of the strongest is obvious. General flaw of those theories is that bankruptcy is seen only as exit of the companies from their own markets, while liquidation process and reorganization as operation in the bankruptcy proceedings is not the subject of their interests.

Current bankruptcy practice supports the thesis that - apart from purely economic-financial causes - organizational and political factors play very important role in the process of decision making on whether a business should undergo bankruptcy or not. In addition, the same factors decide to a great extent whether a business shall be liquidated or it should be given a second chance through reorganization and restructuring process.

Unlike microeconomic theories, macroeconomic theories have far more considered the problem of corporate bankruptcies, which resulted in a significantly larger number of scientific papers and books. In the center of those theories was prediction of a company bankruptcy depending on changing different macroeconomic variables. Multivariate and discriminant analyses were used in an attempt to answer the question whether company bankruptcy can be predicted and how. In a recent research of the phenomenon of corporate bankruptcies in respect to the key macroeconomic aggregates, the paper studies interdependence of corporate bankruptcies and five key macroeconomic variables: economic growth, loan availability or activity of money market, activity of capital market or expectations of investors, characteristics of business population and price changes. The conclusion of the research was that the number of bankruptcies on macro level rises under the influence of cumulative effects of decrease of economic growth, capital market, money offer and business formation. Aggregate changes in prices indirectly, but significantly and in the long-term influence the rate of bankruptcies. (Vukosavljevic, 2012, p.107-128)

SUBJECTS IN BANKRUPTCY PROCEEDINGS

According to the current Law on Insolvency, the bodies of the bankruptcy proceeding shall be the bankruptcy judge, the bankruptcy administrator, the creditors assembly and the creditors committee. ("Official Gazette of the Republic of Serbia", No. 105/2009, 99/2011). Since the subject of this paper is the phenomenon of corporate bankruptcies in developed markets of the West as they have reached the highest level of development and sophistication, the following part of the paper will be a short description of key characteristics of the main subjects of bankruptcy proceedings in those markets. Subjects of the proceedings in our region do not differ significantly from the subjects in those countries. The principal participants in the corporate bankruptcy proceedings are:

1. *Bankruptcy judge* - the judge appointed by the court, who rules in a case of corporate bankruptcy. His main duties are taking care of settling all the debts of key stakeholders; approval of reorganization plan of the debtor; surveillance over debtor's operations; approving budget and bankruptcy estate from which creditors will be settled etc.
2. *Debtor* - a market entity which files bankruptcy petition, asking from the court temporary protection from creditors and their claims to settle debts. Debtors from the aspect of keeping control over business undergoing bankruptcy proceedings can be divided into debtors who keep control over company after filing bankruptcy petition - so-called *debtors in possession* - and those who lose that control.
3. *Creditors* - they are owed money by debtor, they are subjects who invested into debtor's assets - whether in form of financial and other assets or rights, patents licenses etc. From the aspect of priority of creditors in collecting debts, there are *secured* creditors (an appropriate public record of the property claimed as collateral is established), *preferential creditors* (creditors receiving preferential right to payment), and *unsecured creditors* (creditors who do not have the benefit of any security in the assets of the debtor).
4. The principle of subordination further diversifies types of creditors and within every class of creditors there are several types of creditors who must be precisely subordinated. It is also important to mention the class of suppliers who do business with the debtor with deferred payments, i.e. credit (*trade creditors*) since they, too, belong to the creditors. Our Law on Insolvency makes the distinction between creditors with title over property (*exempt creditors*) and creditors with rights to separate settlement (*secured creditors*).
5. *Trustee* - is an entity with the appropriate qualifications who is in charge of administering a bankruptcy estate, and in some cases is appointed for reorganizations. He is appointed by the Department of Justice.⁸
6. *Shareholders* - company is owned by its shareholders and it exists because of them. Their responsibility for operations of the company is limited by their investments into it, which means that, as a rule, bankruptcy does not put the personal assets of shareholders at risk, unless otherwise stipulated.

7. *Management* – managing body of a company in charge of running its business. Very often inadequate management is the key cause of a large number of corporate bankruptcies.
8. *Employees* – they are the key resource of every company and the most sensitive subject of the bankruptcy proceedings. One of the most complex tasks of the management is to keep employees during serious financial distresses and strategic problems in the company.
9. *Suppliers* – external stakeholders in charge of supplying inventories. In case of bankruptcy, their claims are frequently at risk.
10. *Consumers* – customers of the bankrupt company. Management has to put huge effort into conveying them that the current insolvency will not put the business at risk in the long run and they have to keep quality standards in order to keep the consumers and prevent them from choosing the competitors.

CONCLUSION

In summary, sometimes bankruptcy is not a neutral market mechanism for compensations of debts – the one that could be suggested by previously mentioned economic and legal theories. Bankruptcy is the most radical measure of company restructuring. It is used only when no other appropriate solution can be found for a specific company. By filing for bankruptcy, management of a company admits that they have failed to reach the goals set and that they are unable to manage the company profitably in future.

Many economists believe that market prices have a good role in allocation of capital resources between production companies. They also believe that capital market and share market as its most important segment are means of capital allocation to the most productive users. However, this traditional approach was questioned at the end of 1990s when all the corporate scandals and speculative share price bubble bursts occurred. Inadequate pricing of investment projects led to overinvesting into the companies of the internet and communication sector. Overrated stocks decrease discount rates which are used in formulas for testing feasibility of investment projects. Managers led by the logics of profit invest into such projects because of high returns, and the capital ends up in the sub-optimal place and is used inefficiently.

Decision regarding alternative model of financing by debtors' or own funds is a very important decision for every company. Finally, this has consequences for the capital structure of a company presented as *debt-to-equity* ratio. Companies have several substitutes in this respect. They can issue equity instruments (stocks) or debt financial instruments (bonds) in financial markets, or they may use services of financial intermediaries (banks). It is important to bear in mind the effects of so-called *signaling phenomenon* – increased debt increases financial risk and probability of bankruptcy since in case of dropping of debt service coverage ratio

and possible not settling debts the company will be punished by its creditors. This sends implicit message on confidence of management and their self-assuredness that the company can settle principal and interest of the debt.

Because of this, investors perceive that financial position and future prospects of the company look far better than it is reflected in prices of stocks and demand for them increases. Prices of stocks increase with the increase of demand. Thus, indebtedness is frequently seen as the positive sign by the financial market and investors. On the other hand, issuing stocks is usually not approved. "The same applies to cases of financially sound companies with good outlooks. Of course, companies which have experienced financial distress will not be granted approval of investors for issuing new debt instruments." (*Corporate Financing and Investment*, 1984, p. 187-221).

In order to act so as to avoid possible bankruptcy, one of the most frequent measures that requires negotiations and which is still very popular is due date extension. This way creditors prolong the due date, providing the debtor with time to solve the problems and settle his debts. When they do not insist on filing for bankruptcy, creditors wish to avoid expensive bankruptcy proceedings and possible decreasing of asset value. Since all the creditors have to agree, they usually have creditors' commission. The commission sets up a plan in the best interest of all parties involved.

The second important measure is composition of debts which refers to restructuring of the original debts, which enables debtor to settle them by paying in periodic payments with extension of the original due date. This measure is valid if all the creditors agree with it. The creditors who do not agree have to be fully settled without delay.

The third measure is liquidations, which may be a voluntary private liquidation of the company without participation of courts. Since this way a great share of bankruptcy proceedings expenses is avoided, creditors usually support the choice of this measure as it allows for better compensations. However, just like in previous cases, the company and creditors do not have to agree with such a liquidation. Because of that, benefits of voluntary liquidation can only be used by companies with a small number of creditors.

The fourth and the last measure is exchange of debt for predetermined amount of equity, i.e. debt/equity swap. This way creditors become owners of the company, and the company is not obliged to settle fixed debts with predetermined due date.

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CONTEMPORARY TRENDS IN THE FINANCIAL SECTOR - DEREGULATION AND THE NEED FOR REGULATION OF THE FINANCIAL SYSTEM

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ABSTRACT

Global changes occurring in financial systems and in the financial flows in general, introduced major changes in the forms and functions that financial institutions perform. The main change is the tendency towards rapid convergence of all institutions that provide financial services and acceptance of each other's innovations. This tendency is often accompanied by a change of the legal framework in the field of finance and opening the possibility of various financial institutions to offer financial services that previously were not inherent in them. Such changes which create conditions for increasing the number of competitors in the financial system are associated with periods of strong regulation, periods of deregulation and re-regulation of financial institutions in the system.

The paper elaborates also some other innovations of the financial markets associated with the regulation (the ability to avoid regulation) or which indicates the need for further regulation (financial innovations, financial engineering, derivative securities, securitization etc.). There is a discussion about disintermediation as one of the modern tendencies in conditions of crisis disorders. In any case, disintermediation as the tendency is to some extent one of the forms of regulation of the financial markets. In any case, the paper found the perfect complexity of the financial system that further increases with the rise of modern financial innovations and the deregulation and regulation of the financial system which derives from such phenomena.

Key words: Regulation - Deregulation, Financial System, Competition, Disintermediation, Securitization

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INTRODUCTION

The financial system because of its peculiarities is one of most regulated segments of any national economy. The most important purpose and justification for such a complex and strict regulation of financial institutions is the need to prevent the erosion of public confidence in the sector, and considering that behind "fiduciary" money and institutions that operate with them is standing only the public trust (fiduciary - trust). Basically, there are three main reasons for the strict regulation of the financial sector: (1) to increase the information available to investors, (2) to ensure stability of the financial system, (3) to increase control over the implementation of monetary policy.

The first reason is determined by the problem of adverse selection and moral hazard that may arise in financial markets and thereby reduce their effectiveness. When it occurs, the main problem comes from the participation of the risk subjects on the market, as well as undercover speculators who can easily mislead careless customers. This is the main reason which may limit the functioning of financial markets. Hence, the role of state regulation refers to simply reduce these problems by increasing the quantity and quality of information available to investors.

On the other hand, asymmetric information can lead to the collapse of financial intermediaries leading to *financial panic*. It is one of the anomalies in financial markets arising from the fact that financial transactions are based on investors' *confidence* that the promise will be fulfilled at a future date. Any doubt in the financial institution and suddenly withdrawal of funds from multiple investors causes financial panic regardless of solvency or insolvency of the institution. The outcome is clearly much damage to the overall economy materializes through the emergence of negative externalities. This is another reason why states consider they need strong regulation of financial markets.

The laws that regulated financial activities regardless of the national economy in which they are adopted, a few key segments or areas that need to be regulated are differentiated. Primary area that is legally determined is determining the organizational forms of entities eligible to participate in the execution of the activity, and the conditions they must meet to obtain a work permit. Legally are also regulated activities that entities are entitled to pursue and the way of conducting the financial activities. In the same time the regulation can refer to certain prohibitions with respect to the performance of activities of financial institutions.

The provisions determine the establishment of the entity, capital it should have, the management bodies and their responsibilities, rights and duties of the management bodies, how the subject can start and stop working, and the reasons why it can happen etc.

In this sense restrictions usually refer to:

- Limiting the entry on financial markets (through strict rules imposed strong criteria about who and under which conditions may found a financial institution);
- Information disclosure (formalized procedure of posting basic indicators of performance in public and occasional supervision of their work);
- Limiting investments and operations (setting legal limits on the types of activities that may perform, and on the types of securities in which they may invest and hold);
- Deposit insurance (mandatory legal requirement for depository institutions for insurance the deposits in the appropriate state agency or fund);
- Restriction of the market competition (setting numerous restrictive work rules that limit competition because of the "public" nature of the activity, and so on.

LITERATURE REVIEW

There is a large body of literature referring to the contemporary trends in the financial system and the regulation – deregulation – regulation process. Today still run a wide debate about whether there is a really need for other regulations pertaining to commercial banks and their competitors in the field of financial services. Some authors pay attention to the importance of the regulation of the financial system in conditions of market economy and free competition. According to Benston (1983), "It is time to recognize that financial institutions are simply only firms with few special features that require regulation", (Benston, 1983, pp.216-244). In it he argued that deposit institutions for example, should not be regulated differently from any other corporation that has not tax facilities or other special privileges. As one of the main reasons for the regulation of financial markets is their specificity in relation to the markets for physical goods. In that sense, Petkovski (2002) point out that financial markets are not like markets for physical goods where the goods traded are delivered immediately. In the financial transaction, the buyer gets a promise that he would be paid on a future date, so these transactions are based on investor confidence that the promise will be fulfilled. Because financial instruments incorporate in themselves future obligations, which may be or not be met, the financial markets are susceptible to various anomalies, such as fraud or panic, that are not typical for other types of markets. For this reason, countries find they need tight regulation of financial markets (Petkovski, 2002, pp. 65).

However, the regulatory rules are not immutable and given once and for all: they are changing under the influence of several factors. First, financial crises often cause significant changes in the scope and focus of regulation. There are many examples in this regard (Petkovski, 2002, pp.69). A second reason for the recent reforms in the regulatory structures in many countries is exactly the emergence of financial

innovations. In the last twenty years we have created a number of new financial instruments, forcing authorities to introduce new regulations for trading with these products. Rapid expansion of derivative products (options, futures, swaps), for example, required the creation of completely new or extensively revising old regulations for these innovative financial instruments (Petkovski, 2002, pp. 70).

The theory that has long been set by George Stigler argues that the institutions of the areas under regulation actually by themselves seek to be regulated because under such conditions they have some kind of monopoly, because of the fact the regulatory rules prohibiting entry into the area which is under regulation, (Stigler, 1971, pp.3-21). So, banks and other financial institutions may have a loss if the regulation has been abolished because they will no longer have a monopoly protected rights which are affecting on the increase of their profits. Samuel Peltzman believes that regulation protects the institution from the changes in demand and prices and reduces the risk of such changes, (Peltzman, 1976, pp.211-240). More recently, Edward Kane argues that regulation can increase the confidence of customers and they will become more loyal to banks or other financial institutions, (Kane, 1983, pp.49-64). Thus, he believes that regulatory agencies are actually competing with each other in offering regulatory services and in a bid to expand their influence under the institutions that are subject of regulation and under the public in general. Kane also believes that the regulation is an incentive for institutions with weaker regulations to try to distract customers from the institutions that are under greater regulation. Indeed such processes occur in the financial system in recent years, when investment funds, financial conglomerates and other institutions under weaker regulations discourage many of the best customers of the banks.

THE ROLE OF THE STATE IN THE FINANCIAL MARKETS

Issues of regulation and deregulation of relations in the financial sphere constantly emphasize the role of the state in financial flows and institutions. Their "public" character and the danger of their collapse on major segments of the economy are the most common arguments "for" state interference in the financial system in order to overcome the market anomalies and the chaotic ex - post market actions. Increased competition in the financial sector is another argument in direction of important and specific role of the state in the world of finance, with great specificity compared to other parts of the economy. The state as the most important regulator of the financial system determines laws for the position and functioning of the banking and credit system, realization of the activities of other financial institutions, the conditions for Securities broadcasting, functioning of the financial markets and so on, and sets the framework within which financial transactions can take place on the basis of respecting market principles.

State also exercised control over the functioning of the financial system through monetary control and central bank policy, as well as prudential control by one or more

state control organizations. However, the state control is in constant interaction with the market control and selection in all sectors, and in the financial system also. Financial entities perform their activity in terms of developed market structure and in national economies which in contemporary conditions accept the market mechanism as the primary regulator of the economic movements. In terms of integrated market, financial institutions exercise activities in all its segments such as: on the market of goods and services - offering their services; on the Labor market – conceptualize its organizational structure; and on the money and capital market - through financial transactions which are the essential integral part of their activities. In such circumstances, the management of financial institutions has an important task to ensure the realization of the principles of safety, efficiency and profitability. However, the exercise of the financial institutions activities and the results of their operations simultaneously are under the control of the market mechanism and under the control of the state supervisory institutions. This means that financial institutions need to maximize business results in conditions when they are trapped between two types of control limits. Such their position could be summarized as follows:

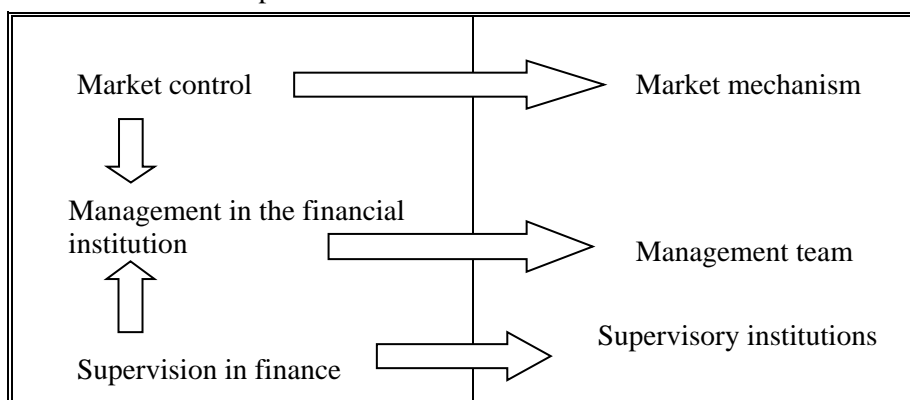


Figure 1: The structure of the control mechanism in the contemporary financial system

The management of financial institutions must respect the market mechanism and the market control both in regard to the quality of services offered and in terms of the prices at which they are offered, otherwise it will be punished by the competition that exists on it. A significant segment of the market that performs significant impact on the financial institutions operations and forces them to discipline behavior is a financial market. Namely, financial institutions as important mobilizers of free financial funds necessarily are addressed to the need for their placing in various forms on the market, and to the need for temporary borrowing of money from it. In such conditions, the management of the institutions must keep an eye on its market rating, which in turn determines the conditions under which they can be marketed or borrow funds. Also control conducted by the market mechanism is reflected through the impact it has on capital prices and the change in the value of the institution by changing market prices of securities they own or issued. The state control under the functioning of financial institutions and markets has already been mentioned.

On the other hand, the public sector itself, actively and directly participate in the financial markets by borrowing funds from it for its own needs. Because of the most common inability to sell treasury shares, the state is limited to borrowing money in the case of budget deficits. Considering the devastating mechanisms of printing money and inflationary consequences that arise from it, the simplest way to finance the needs of the state apparatus is through its participation on the financial markets that allow direct connection with surplus sector of the economy and using a policy of public debt. The state has a distinct advantage in taking the loan funds, primarily because of its high credibility, which in turn derives from the state fiscal power. Precisely because of this the country has the possibility to borrow with the lowest rates. In most developed market economies in the world, up to 4/5 of the state liabilities accounted on government securities. Government securities form the basis of any developed financial market and they are the foundation for the construction of the structure of the financial asset of any investor. Their interest rates, yields and prices represent the indicator and reference rates on the money market and on the capital market. This activity gives to the state a dual role on the financial markets - despite the regulatory role that accomplished, accomplished and active role without specific rights, whether it occurs as a debtor or investor. The success of fundraising primarily depends on the conditions under which it offers its financial instruments to potential investors.

REGULATION - DEREGULATION – REGULATION

This overview of the basic areas of state regulation not exhausted all possible questions that state authorities may set conditions and restrictions in the financial system. Issues of areas that are regulated vary from country to country and in the same country in different periods and depend on a number of factors and circumstances. Crucial position among them have: the level of economic development, the level of financial system development, the phase of the economic cycle, the development of financial markets and other constituent elements of the economic system and economic policy in the national economy. In modern conditions must be mentioned the areas of regulation in terms of harmonization of regulations in the financial sector between regions and broader territorial areas within economic associations between countries, like the EU and similar forms of creating a common market, and in order to create free flow of money and information through the process of internationalization of the financial systems.

Control over monetary policy as control over the money supply is imperative for every national economy. In this sense, major part of it relates to control of the multiplier role of banks and their ability to create money supply. Basic regulatory instrument in this regard is the obligatory reserve, (Karadjova, 2012, pp.28).

State control of the financial system in modern conditions is conducted through two basic approaches: antitrust legislation and regulation. *Antitrust legislation* focuses on maintaining the competition, while *regulation* involves the application of specific

standards of performance in financial entities. The main sweep of antitrust legislation is to reduce monopoly power, to focus on preventing from secret agreements and to resist fusions that lead to excessive concentration, and thus weaken the market power. The theory of antitrust policy is that if the governments prevent monopoly and unfair competition, the competition that will remain will result in the common good for all. Regulation from that point as the direct involvement of the state in the economy and in the activities of business entities typically consists of two types of activities undertaken by the state through its agencies: by restricting market entry (usually because competition is considered as hard to achieve and divisive, but because of some other reasons also) and by controlling the prices in order to interfere business entities not to achieve excessive profits. In some sense, regulation replaces competition in activities that are considered as natural monopolies or have great importance because of its size, impact and public interest.

Numerous rules for the regulation of complex financial systems of developed countries are designed to fulfill a few basic categories of goals, (Petkovski, 2002, pp.65):

1. to stop issuers of financial instruments to fool investors, hiding relevant information (information regulation);
2. to promote competition and fairness in the trade with financial instruments (regulation of financial activities);
3. to promote the stability of financial institutions (regulation of financial institutions);
4. to restrict the activities of foreign participants in domestic financial systems (regulation of foreign participants);
5. to control the level of economic activity (monetary regulation).

Changing the regulatory framework from strict regulation through deregulation of the financial system in the 80s of the last century, and re-regulation in accordance with modern trends it is a continuous process. Starting from the financial crisis as one the reasons for regulation, through financial innovations, integration and globalization the need and the extent of regulation is imposed. Although there are many models of regulation, basically they differ in the degree of specialization of financial institutions to perform banking operations and activities with securities. Another essential difference in regulatory systems is a form of deposit insurance and the access to supervision implementation (integrated financial supervision or specialized supervision for certain financial entities - banks, insurance companies, pension funds, investment funds, etc.). The functioning of integrated financial supervision can be seen on the example of Scandinavian countries (Norway, Sweden, Finland), and Hungary and the UK which have initiated this process by creating a single regulatory body - the Financial Services Agency.

ARGUMENTS FOR AND AGAINST FINANCIAL SYSTEM REGULATION

The arguments for and against regulation of the financial system are in a constant battle. Although the arguments in favor of regulation of banks and other similar financial institutions are well known, yet all the possible consequences that regulation can bring are not exposed so much. The theory that has long been set by George Stigler argues that the institutions of the areas under regulation actually by themselves seek to be regulated because under such conditions they have some kind of monopoly, because of the fact the regulatory rules prohibiting entry into the area which is under regulation, (Stigler, 1971, pp.3-21). So, banks and other financial institutions may have a loss if the regulation has been abolished because they will no longer have a monopoly protected rights which are affecting on the increase of their profits. Samuel Peltzman believes that regulation protects the institution from the changes in demand and prices and reduces the risk of such changes, (Peltzman, 1976, pp.211-240). If this is true, then suspension of the regulations would contribute to an increased risk for some financial institutions and probably as a consequence there would be an increased number of bankruptcies among them. More recently, Edward Kane argues that regulation can increase the confidence of customers and they will become more loyal to banks or other financial institutions, (Kane, 1983, pp.49-64). Thus, he believes that regulatory agencies are actually competing with each other in offering regulatory services and in a bid to expand their influence under the institutions that are subject of regulation and under the public in general. He argues that there is a constant struggle between institutions which are subject of regulation and the regulatory bodies themselves and that fight he called *regulatory dialectic*. The comparison which is often used in this direction is the determination of rules of behavior and their compliance or non-compliance in relation such as parents - children. Once the rules are established, the management of banks and other financial institutions inevitably begin to look for ways to circumvent these rules by way of innovation, and in order to increase the quality of the work.

If the process of deregulation starts in this way, i.e. by mitigation of the existing rules, it is likely that again will start the process of regulation through the establishment of new rules that will be an incentive for banks and other financial institutions to continue to search for innovations in terms of services offered and in methods of operation. This means that the regulation does not stop, but that regulation is replaced through a set of rules to another, i.e. regulation gets other features. This is the way on which the battle between the institutions under regulations and regulatory bodies continues indefinitely and institutions under the regulations as to never grow "children" age. Kane also believes that the regulation is an incentive for institutions with weaker regulations to try to distract customers from the institutions that are under greater regulation. Indeed such processes occur in the financial system in recent years, when investment funds, financial conglomerates and other institutions under weaker regulations discourage many of the best customers of the banks.

REDUCING THE ROLE OF FINANCIAL INTERMEDIARIES – DISINTERMEDIATION

Despite the essential participation of indirect financing in developed financial systems because of the advantages it offers in relation to direct and semi-direct financing, there were reversed processes too, as one of the modern tendencies in this area. Dis (des) intermediation as the phenomenon of resettlement of the monetary funds from the direct to the indirect market, and thus bypassing the intermediation of financial institutions occurs in specific circumstances and because of different reasons, but it is mostly typical for crisis situations and situations of impaired trust in financial intermediaries. One of the reasons for the intensification of this phenomenon is the legal regulation by limiting the interest rates that depository institutions may calculate on deposits received from the public. Such a restriction may simply cause "removal" of the surplus funds on the direct credit market through their investment in securities with market set interest rate (i.e. the rate that is outside the scope of the depository institutions regulation) and by that it is higher than the one which is legal limited. Such a difference in interest rates can be an incentive for submitting increased information costs in a direct versus indirect financing. Another reason for the increased use of direct or at least semi-direct channel of financing versus indirect financing arises from the ratio between solvency of the deficient sector and solvency of financial intermediaries. If circumstances arise in which some large and powerful economic entities have higher solvency of the most financial intermediaries, to a level where monetary claims against them on a financial markets are accepted unreservedly, financial intermediaries can be circumvent. This action can contribute to cheaper direct borrowing on the financial markets, than to do it by raising bank loans.

Although disintermediation is a modern phenomenon, the size in which it is arising cannot nearly jeopardize the participation of indirect financing. Eventually the presence of this phenomenon may be intensified by moving the cash funds from financial intermediaries with limited interest rate (usually banks), to those whose work is not a subject to such restrictions (mostly non-banking financial institutions). So speaking of intermediation as a *gross intermediation* is another argument towards a relative increase of the share of non-banking financial institutions in the financial system.

Disintermediation as a byproduct of the crisis disorders is evident in the United States during the debt crisis in the 80's of last century, at the same time supported by the crisis on banks and savings institutions at the time. Then the process of disintermediation reduces the intensity, primarily due to deregulation and mitigation of interest restrictions for depository institutions, but it start again its strengthening in conditions of the latest financial crisis. However, we can talk about reducing or increasing the intensity of this phenomenon, but modern financial systems are dominated by indirect financing with about 70% to 85% of the external funding that goes through financial intermediaries.

FINANCIAL INNOVATIONS

Financial innovation monitored as new products (various combinations of securities and their characteristics, financial futures, options, swaps, etc.) or new processes (ATM, POS terminals, automated clearing, electronic banking, 24 - hour trading on the world financial markets etc.), more than thirty years have been extremely dynamic category in the world of finance. Financial engineering as a process of creating financial innovation is caused by a number of reasons, primarily from increased competition in the financial markets and the need to increase or at least retaining market share. Changes in the economic environment, threats to the efficiency and complexity of the market and the profit as the final financial institutions motive are leading attractive forces to creativity and innovation. Among the main factors in the change of the economic environment can be specified, (Petkovski, 2002, pp.17): (1) changes in tax regulations; (2) technology advances; (3) changes in interest rates and foreign exchange rates; (4) changes in the level of economic activity; (5) changes in regulatory rules; (6) progress in financial theory.

Some of the financial innovations that have developed or are developing have extraordinary complexity, and because of that they are available only to professionals on the financial markets, and some have very simple and broad application. As any production creates needs, thus producing new financial services produces stakeholders and potential users, and on the other hand increased profits for publishers. The large number of new financial products developed in recent decades is the best response to the perceived opportunities for profit generation, accomplished by the high demand for securities with special characteristics of risk, earnings, income, tax and maturity. Preference solely to "verified" securities (shares and bonds) and "safe" games without great risk in every sector, especially in finance mean giving up the participation in potential increased profits. It requires rapid detection and acceptance of new securities, while the most of them occur through splitting and repackaging again some of the basic types of securities.

Exactly in regard of innovations on financial markets, securities which are traded receive categorization of simple and derivative securities. *Simple securities* offering earnings that are based only on the status of its publisher (interest on bonds or dividends on shares in accordance to the profitability and solvency of the issuer). In contrast, *derivative securities* depend on additional factors relating to prices of other assets which in fact they are based (the payment of shares options depends on the price of the basic shares package etc.).

In modern conditions, financial derivatives as financial contracts whose payment is based on the performance of a previously agreed action are an integral part of the economic environment. May be issued on the basis of money, goods, government debt, company debt, mortgaged housing, stocks, interest, and also based on a combination of any of these items or similar ones. Their general categorization distinguishes (a) optional and (b) forward contracts. They can be listed on stock exchanges or privately traded with them. The options give to buyers

the right, but not the obligation, within a certain period to buy or sell a specific asset at a predetermined price, while the price is determined as (usually small) percentage of the basic value of the assets which are subject to the option. Forward contracts from its side oblige contractual parties (buyer and seller) to trade with certain assets at some future date at a predefined fixed price. Such fixity determines price risk as for a seller and for the buyer of the assets, depending on the movement of prices in that interval. Speculations arising from such activities in respect of potential earnings for the one side, i.e. the subject with more detailed analytical assessment (i.e. one that will "guess" market trends) are just one aspect of the use of derivatives. The more significant aspect of their use refers to the ability to use them as an instrument for hedging (risk protection).

All changes in the financial markets will produce new, intuitive forms of financial derivatives that have a specific purpose for their appearance and survival in the market. Many of them are "normal market reaction" to the unmet needs of consumers on the one hand, or constant play between the state and investors on taxes and legislation. A number of financial innovations are aligned exactly to the needs of the state to regulate or to tax different types of investments. The emergence of euro-dollar market and zero coupon bonds are just specific examples that confirm the previous attitude. Whatever the immediate cause of some financial innovation, the final outcome of their application leads to greater competitiveness and efficiency of financial markets, reducing the margin of financial intermediation and cheaper financial services.

SECURITISATION

Securitisation is a typical example of a crucial financial innovation inserted in the functioning of financial markets in the 70s years of the last century. The term *securitisation* derived from English word *security*, in its broadest sense is used in order to indicate the occurrence of borrowing on the open market using the securities as credit instruments, unlike the usual borrowing through loans from banks and other financial intermediaries. In a narrow sense, the term is used to refer to the practice of creating securities that can be traded (debt securities) based on some form of asset. Such financing is marked as "funding based on assets" (asset - back financing), while the securities deriving from it - securities insured by assets (asset - backed securities) has as its essence borrowing through the issue of securities that can be traded and which are issued based on parts of assets that generally cannot be traded. This technique of securitization of assets, unlike traditional securitization of liabilities is performed off-balance. Securitisation is developed by financial institutions and large corporations in order to dispose the balances from the demands which are subject to changes in interest rates, to credit risk or when they have adverse and risk characteristics. That means unviable and "frozen" demands as part of the assets are converted to debt instruments that can be traded, and by which new funds can be collect needed for the operation or liquidity maintenance.

The sum of demands (pool) through the process of securitization stands out as a separate property is entrusted to a third entity for storage and management (trust, trustee). Thus, the demands are "discharged" from the balance of the bank or other financial institution, thus improving the liquidity position of the institution, and realized earnings from fees and the difference among active and passive interest rates. The inclusion of the third entity (investment intermediary) in the process means a calculation and collection of fees for services which it performs. In the whole procedure that is going transformation of the demands into obligations which will be fulfilled in amounts, maturity, schedule of payment of the principal and interest and with all other features that the securitization original demand have.

Thus established system of securitization reduces the traditional role of banking services. It actually replaces the process of "denominated mediation" i.e. one of the basic functions of commercial banks to lend large amounts (denominations) and to offer to the investors investments with smaller denominations. Securitization achieves this denominated mediation directly mediating between borrowers and investors, largely bypassing commercial banks. In such circumstances, banks are no longer forced to mobilize funds from the public that would finance their lending, but thus reducing their basic and the most quality source of funds - short-term deposits of the population and enterprises, (Petkovski, 2002, pp.19). In this process it can be included as banks and other financial institutions - financial companies or financial subsidiaries of major industrial corporations.

Although the securitization begins by issuing securities based on residential mortgage loans in 1970 in the United States, the process extends to many other countries and a number of other loans. Besides the mortgage, the largest securities secured by assets are used for debts on credit cards, car loans, student loans, leasing claims, claims from the sale of vessels of credit, loans of small and medium-sized enterprises, consumer loans, export credits, agricultural loans etc. Some US banks use the securitization also to release their portfolios of insecure loans to countries in development. For a specific type of securitization may be considered converting of etc. "frozen deposits" that occurred in the Republic of Macedonia as a legacy of a decayed banking system of Yugoslavia, in the bonds issued by the Macedonian state in 2000, and on a that way after a long break and uncertainty the debt of households which saved in foreign currency was serviced.

Among the most used benefits from the application of the technique of securitization as a financial innovation may be stated, (Leko, 2004, pp.111):

- Illiquid assets are converted into liquid;
- Engaged funds are released for new lending or working;
- Providing new and cheaper sources of funds;
- Improving balance sheet structure;
- Improvement of risk management because the credit and interest rate risk are transferred to some third party;
- Creditor becomes a "servicer" of the loan, but realizes earning commission for the service and the difference in interest rates;

- Creditors retain customers, unlike ordinary credits selling when they lose them;
- Banks more easily maintain capital adequacy, because they get free from risky credits;
- Provides funding of "public interest" by obtaining funds from the private credit market etc.

The application of this financial innovation requires the use of modern accounting technology, precise records and electronic connection. Through it cost reduction is enabled and "tailoring" of the various demands assemblies, also there is a needed and possible involvement of the state through purchases or guarantees of mortgage loans, and the corresponding tax policy. It creates broad opportunities for investment and continuous adjustment of the liabilities and assets to their own motives and market conditions.

FINANCIAL ENGINEERING

Financial engineering as one of the modern trends in the financial sector is strongly correlated with financial innovations and increasingly gaining momentum. The competitive struggle of the financial markets and efforts to dominate them through the maximization of profits, impose structural considerations leading to the emergence of numerous new derivative securities. Financial engineering refers to the creation of new securities by the way of *separation* - break and allocating cash flows from one security to create more new securities, or by the way of *merger* - combining more than one security in one mixed security. Such creative financial engineering leads to new, hybrid securities with multiple features and risk, which in turn provides new investment opportunities. It may occur that the creation of an attractive security to require separation of property, for example mortgage intermediary certificates which are split into categories (the first receives only the repayment of the principal of mortgage credit; and the second receives only the interest).

Financial engineering implies the process of merger and separation of securities, and refers to the development and shaping of securities with specific characteristics, which were often in the area of exposure to various sources of risk. Financial engineers see the securities as a blend of (risky) cash flows that can be remixed according to the needs and desires of the demand side of the securities market. A number of financial engineering products i.e. derivative financial instruments are the part of financial institutions portfolio and a part of their strategies for managing different risk types.

CONTEMPORARY TRENDS IN THE FINANCIAL SECTOR (EXAMPLE OF MACEDONIA)

The regulation is a process that changes the rules and that takes place in the most developed systems and on international level and mainly applies to banks and savings houses in order to more freely operating, and in accordance with market conditions and successful competition with other financial institutions. It is widely accepted attitude that the state can more help to the national economy by providing a stable, fair, efficient and transparent financial system, rather than by providing cheap loans through the regulation of interest rates, prohibiting the payment of interest on transaction accounts and so on. Therefore, new regulatory rules pay close attention to protective mechanisms and preventive action, on the organizational aspects, and on so called *prudent control*, with particular emphasis on the protection of small savers and investors. In less developed systems are still present forms of loans regulation (liabilities to direct to small, private, new enterprises, prohibition of financing public companies with losses, etc.), interest rates regulation, priority setting and similar non-commercial criteria in the banks and other financial institutions.

Macedonia, as a country with less developed financial system has fewer regulatory institutions than usually have developed countries. However, considering the small scope of the economy and the low level of income per capita, it has an adequate network of such institutions, shown in the following table, (Petkovski, 2002, pp.70).

Regulatory institution	Subjects of regulation	Nature of regulation
National Bank of Macedonia (NBRM)	All depository institutions	Supervision of commercial banks and savings houses, determining the reserve requirement ratio for all banks and savings houses, sets limits on funds that they can hold
Fund for deposits Insurance	All depository institutions	Control the premiums role of the depository institutions in the fund
Securities Commission	Macedonian Securities Exchange, brokerage houses, banks	Requires information submission and approves the emission of securities
Ministry of finance	Insurance companies and insurance brokerage houses	Supervision of insurance companies and insurance brokerage houses, gives work permits
Agency for Pension Funds Supervision	Private pension funds	Controls the operation of private pension funds and set restrictions on assets they may hold
Insurance Supervision Agency	Insurance undertakings, insurance brokerage companies, insurance agencies, insurance brokers and agents, all the related parties defined by the Insurance Supervision Law, National Insurance Bureau (the Green Card Bureau)	Requires information submission, Controls the operation of insurance companies, sets standards and codes of practice, issue and withdraw licenses, consents, issue measures and sanctions, adopt secondary insurance regulation and propose amendments of the primary insurance regulation

Figure 2: The main regulatory institutions in Macedonia financial system

Despite everything, today still run a wide debate about whether there is a really need for other regulations pertaining to commercial banks and their competitors in the field of financial services. One important name in this area as George Benston is, suggests: "It is time to recognize that financial institutions are simply only firms with few special features that require regulation", (Benston, 1983, pp.216-244). In it he argued that deposit institutions for example, should not be regulated differently from any other corporation that has not tax facilities or other special privileges. This claim stems from his belief that the historical reasons for the adoption of regulations in the financial sector - taxation as monopolies in the money supply, preventing the centralization of power, preservation of solvency in order to reduce the impact of bankrupt enterprises on the economy and the achievement of social goals (such as providing an adequate supply of financial services, construction of a family residences and prevent discrimination and unfair business) – today are not longer relevant.

Moreover, the regulations are not "free", they are spending in the form of taxation of the money user, production inefficiencies and reduced competition. Hence the trend in world, banks and other institutions that provides financial services to get rid of the strict regulatory framework. However, there are still outstanding issues that must be reorganized in an effort to develop the advantages of free competition for financial institutions and entities to which they are needed.

CONCLUSION

The financial system of any national economy, as a subsystem of the economic system is a complex and heterogeneous unity composed of mutually conditioned and connected segments. As such, the financial system is a dynamic category constantly in movement, changes and improvement in accordance with the general changes of the economic system. Through the functioning of this system numerous tasks are realized in the financial area and financial relations between the commercial subjects or between the commercial subjects and individuals, i.e. through the mediation of financial institutions the financial component of society is regulated. Thus, the financial system contributes to the financial and economic stability of separate economic institutions and of the national economy in general. Financial system is an element of the total macroeconomic balance, depends of and depending on it in the same time. Because of that, passing through periods of strict regulation, partial deregulation and again periods of strong regulation is the most regulated systems of the economic system.

Moreover, the financial sector has a key role in the functioning of each market economy, by providing transfer of capital between the real sectors of the economy (enterprises, households and state), as well as in projects and programmes through which the resources are utilized in the most rational and efficient manner. In this sense, financial institutions are important institutional investors, inciting and directing the development of the national economy. The increase of the level of economic activities and the growth of the real income result in the growth of the volume of resources

transfer through the financial system and not only in absolute terms, but also as a GNP, which in itself imposes the need of developing a more complex network of financial institutions and greater diversification of the financial instruments for financial transfer. In this sense, the financial institutions, apart from their intermediary function, realizes also developmental component through collecting the resources into a depositary or non-depositary form and their placement in the financial markets. Naturally, this requires a developed integral market, especially a developed market of capital.

In such conditions the financial institutions cannot stay immune to the general and quite dynamic changes in the financial structure. As a result of numerous factors, including the development of science, technology, internationalization and globalization, the expansion of international trade, automation and information technology etc., serious changes occur in the structure of the financial system and in the relative position of separate types of financial institutions. Hence, the greater part of the newly formed savings of the population is attracted by the speedy development of the pension and investment funds, as well as by insurance institutions, contributing to significant changes in the capital flow channels. In that sense, we have the development of the so-called financial conglomerates and "financial supermarkets". Having in mind the rapid progress of financial markets and the introduction of more and more differentiated financial instruments, as well as the efforts of preserving the position in the financial market and the extension of one's activities with the final aim of increasing the profit, there has been a pronounced strengthening of the competition among financial institutions. That is another great reason for the need of strong regulation in the financial sector.

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THE PROBLEMS OF LIQUIDITY AND SOLVENCY OF THE REPUBLIC OF SERBIA

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ABSTRACT

The indebtedness of an economy abroad is today a significant term. Indebtedness of every economy towards foreign countries, as well as, the amount and structure of imported capital are of strategic long-term economic, financial and political significance. Foreign capital has a stimulating role as the initiator of economic growth, but it can suffocate the national economy with high liabilities (repayments and interest). The operation of foreign capital on domestic savings potential can be seen in two ways: positively, through the increase in the accumulation; negative, the high repayment and interest as well as the unfavorable structure of the use of these funds.

The burden of interest burden on national accumulation and contributing to brain a significant part of accumulation abroad. This is evident from year to year. Faster growth of paid interest on external debt of the increase in net national accumulation is especially pronounced in recent years. All of the above are significant and numerous reasons for the selected strategy of economic development must be given much more attention, not only when it comes to the amount of debt, but also its structure and efficiency of use.

This paper analyzes the main indicators used for the evaluation of the debt, known as indicators of overall debt. Some of them are related to the composition of the debt, ie, the amount of external and domestic liabilities, fixed, variable rate of liabilities, the amount of short-term, medium-term and long-term debt, as well as indicators of external liquidity and external solvency. These are useful indicators to define the evolution of the debt and ability to pay, they provide certain signals about the worsening or improvement of the situation.

Key words: *Foreign Capital, Economic Growth, Interest, National Accumulation, Indicators of Overall Debt*

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INTRODUCTION

Debts of the state grow increasingly and more countries sinking into a debt crisis. The most owe the richest and most powerful world economies, which now hard to find a way out of the chasm caused by uncontrolled spending, while a small country makes it into debt crisis. In many countries, public debt grew enormously on road to democracy, as it has conditioned expensive, and often imposed harmful reforms. Public debt of the rich countries has been further increased via financial companies, that have had an impact on the national economy and citizens who have used the maximum availability of all types of loans. The debt crisis, in which the world sinks deeper is not a consequence of the moment, but has been developing for decades because the economy is subordinate to politics. After the crisis of 2008, the growth of debt in the world has accelerated because the country had to rescue its faltered economy and banking system. According to some estimates, saving the world from the effects of a recession is costing about 15 billion euros, which was mainly increased the debts of industrialized countries, but the effects felt by the less developed countries.

Public debt of the Republic of Serbia is covered by issuing bonds, ie. borrowing from financial institutions or foreign governments. Instead of investing in infrastructure, reforms and long-term projects, the government borrows to finance public spending and buy social peace. For the past five years, Serbia's public debt has doubled, and in 2011 was exceeded the statutory limit of 45% of GDP and accounted for 45.4% of GDP, public debt continues to grow at above 70% of GDP . Analysis of the Fiscal Council shows that the growing trajectory of public debt will not reverse prior to 2018, when the public debt will reach around 83% of GDP (http://fiskalnisavet.rs/images/izvestaji/rezime_misljenje_na_nacrt_fs_2015-2017.pdf 08.05.2015).

The Republic of Serbia has the largest public expenditure in the region and a huge budget deficit, but the Serbian economy also characterized by decline in public revenues, the underground economy and tax evasion. Because of these unfavorable fiscal developments Serbian government has decided to implement austerity measures that will lead to real cost reductions:

- limitation of the growth of pensions and salaries in the public sector over the next year and a half, and
- structural reforms - restructuring of SOEs and the turnaround in the management of public enterprises, and reducing unrealistically large subsidies.

What is encouraging is better control of public expenditure, high growth of exports and a slight increase in production.

CAUSES AND REASONS FOR IMPORT OF CAPITAL

There is no a closed economy that is self-sufficient, autarchic. Contemporary economies are more or less open to the world market (goods, money, labor and capital). The presence of foreign capital in each country is bigger or smaller, but inevitable. Excessive caution in borrowing is not good, but neither uncontrolled borrowing has no justification. Where is the limit in the control of foreign capital in the national economy, it is a job of great responsibility of those who devised the concept of growth and development of a country?

In order to function and economy must take into account the growth factors and through their optimization, about the development of the economy and the country in general. In the long run, the goal of economic growth is defined as all components increase of consumption, so the optimum rate of accumulation is expected to contribute to achieving this objective, and that the human and material resources are not overstrain, and this means that the next big economic problem-the problem of optimization of relations: personal consumption- general consumption (Kvrgić, Nikolić, 2013, p. 163).

In addition to addressing these major economic problems, which independently do not contribute much to achieving optimum economic growth, especially in economic development, there remains the problem of technological progress (technological quality).

Investing, in order to achieve competitive advantages, can provide rapid development. Terms of exploiting comparative advantages are limited to the achieved level of economic development of a country. From the history of economic development of the world economy it is well known that developing countries strapped in all production resources, which is why they are forced to import technology that already been developed by other countries. In this way, the effects of investment in developing countries in the initial stage of their development is quite high (comparative advantages problem they usually solve their own exports of raw materials).

The Indebtedness of every economy towards foreign countries as well as the amount and structure of imported capital are of strategic long-term economic, financial and political significance. Foreign capital has a stimulating role as the initiator of economic growth, but it can suffocates the national economy with high liabilities (repayments and interest). Macroeconomic theory suggests that the costs of the public sector should have a positive impact on economic growth if they are productive and if the majority of government expenditure directed towards unproductive expenditures (subsidies, and pensions), it can cause a drop in economic growth (Teles, Mussolini, 2014, p.1-15).

Questions such as: amount of indebtedness, conditions of foreign loans (deadline, interest ...) types of credit (financial, commodities ...) and credit providers (public, private, international financial organizations, ...) are very important, especially are important effects and quality of use of these loans.

The pace and quality of economic growth depends on these issues, also of the possibility of over-indebtedness, cumulating debts and creating debt traps and the crisis of external indebtedness. The economy, which wants to accelerated economic growth and quality usually resorts to deficit in the balance of payments and net capital imports (external debt amounts).

„Accumulation is the basis of self-development of the economy and every business entity in particular (Sokić, 2011. pp. 311.)” Insufficient domestic accumulation, lack of efficient use of domestic accumulation, lack of quality factors of development (especially technology and capital) defines an emerging economy to a stable import of foreign capital due to:

- maintain high rates of economic growth and reduce the development gap in relative to developed countries;
- to cover gaps in the required high investments and domestic accumulation (savings). Also known is the case when the domestic investment higher than saving $I > S$, imports must be larger than exports $M > X$ according to the equation $S - I = X - M$,
- technological and developmental dependence on the developed economies (chronic need for new technology, import of equipment, spare parts, raw materials, energy, etc.).

Theoretically it is proved that a certain economy, the greater the degree of underdevelopment, the greater the share of real import and significance of accumulation, which is the level of development achieved higher it is the greater importance of financial resources (capital) in the structure of foreign debts. What is the development of more disproportionate (imports to exports, savings and investments, production and consumption) and the importance of the share capital is growing, because there is the balance of payments barrier that can not be overcome domestic accumulation. Low exports relative to imports creates a hunger for foreign accumulation.

The rapid and balanced growth at the same time allow larger share of real accumulation and a higher degree of technological integration of the country with the world, then the need for a high rate of accumulation significantly reduced. The need to import accumulation can be created through economic and development policy in which the primary meaning gives the rate of growth, full employment and stability but at the sacrifice of balance of payments equilibrium and chronically high external debt. Both of these ways of creating additional accumulation are politically possible, but it depends on several factors:

- the the achieved development level and possibilities of compression of domestic consumption,
- the political and social situation in the country,
- high rates of inflation and overall economic instability,
- the existing relations in the balance of payments,
- relations and developments on the international capital market

In the economy which forces the growth rate along with satisfying stability and high levels of employment at some point comes the next phase, when the accumulated problems of balance of payments (high external debt, lagging development and weak exports, a growing balance of trade deficit, high and accumulated obligations under debt), interest and repayment, melting of foreign currency reserves, followed by interventionism in the economy, this leads to the fact that the economy is entering into new debts to repay old debt into new debt for the formation of foreign exchange reserves and the preservation of any such external liquidity of the economy. The debt now becomes an impediment to development, it becomes a contradiction in relation to the beneficiary country. External debt is increasingly taking the form of financially, has to balance the economy, but only to be immediately drawn off. It makes their way to the recipient country and back, leaving behind only the interest and repayment obligations. Creates a debt due to the debt but with the constant expansion of such formed circles.

In this way, obligations under debt absorb the increase in GDP, leading to bankruptcy of debtor of the country. The main objective of capital imports is not increase in personal and general consumption and increase in living standards, but enhancing and maintaining high rates of investment, increase in income and employment, and increase in savings and investment spending. The economy of a country requires a certain level of capital to generate production in order to sustain economic growth (Mankiw, 2013. p. 87). Economic theory suggests that a reasonable level of indebtedness of the country is likely to increase economic growth, because it accelerates the pace of infrastructure development. Therefore, it is essential height imports of capital and its structure and efficiency of use.

“The main purpose of import of capital is to be in the national economy ensuring such process of economic growth, which will continue to be able to be maintained without external financial support, meaning that changed the economic structure should provide the domestic economy such capability (Mrkušić, 1974, p. 8).”

Development can not be imported from abroad because foreign funds only the initial, will enable the growth and then they need their own power that will accept and ensure the continued growth and that based on domestic factors. Imports of capital has the function of rapid change in production structure, the structure of imports and exports by delaying the payment of the required imports of goods and equipment (payment on the loan for example.), As it will do later when with the help of foreign capital change its economic structure and exchange relations.

From all of this raises the question of how the national economy is, at a certain level of development, able to achieve such savings and development structure that will ensure combined self-sustaining growth with only additional funding, as required by technology and international connections of its economy.

FUNCTIONING OF IMPORT CAPITAL TO FINANCE POTENTIAL OF SERBIAN ECONOMY

Functioning of foreign capital on domestic savings potential can be seen in two ways: positively, through the increase in the accumulation; negative, the high repayment and interest, as well as the unfavorable structure of the use of these funds.

The burden of interest burden on national accumulation and contributing to brain a significant part of accumulation abroad. This is evident from year to year. Faster growth of paid interest on external debt of the increase in net national accumulation is especially pronounced in recent years. Through the interest, a significant part of the income and internal accumulation is poured abroad instead of increasing the funds available to accumulation and investment. This tendency is due to the following factors:

- Carelessly borrowing abroad;
- sudden increase in the cost of capital in the financial markets;
- irrational and unproductive use of foreign funds;
- uncontrolled implemented policy appreciation of the dinar exchange rate;
- deteriorated conditions and caution in the financial markets (financial crisis, the collapse of the banks' liquidity, the crisis on the stock markets), but also a great caution in granting new loans.

All of the above are significant and numerous reasons for the chosen strategy of economic development must be given much more attention, not only when it comes to the amount of debt, but also its structure and efficiency of use. The negative consequences are manifested through the accumulation of foreign debt, inefficient use of resources and numerous long-term negative effects that will be rectified for years, because it is not a crisis of liquidity in the economy, but about fundamental disturbances in the economic development of our country.

THE EFFECTS OF CAPITAL IMPORTS ON BALANCE OF PAYMENTS AND FOREIGN TRADE DEFICIT

The deficit of the balance of payments occurs most often under the influence of a number of factors caused by the movement of the national economy. Constantly high import demand is one of the basic characteristics of the modern economy and is linked to three factors in the local economy:

- high inflation rate (above the world price);
- strong growth of in demand for products for the current reproduction, and other forms

- of consumption (in relation to the production and supply of the commodity funds); a high income elasticity of imports (import dependency).

All three factors have led to discrepancy of import and exports and a deficit of the trade balance. The imbalance of the balance of payment is due not only lagging exports to imports, but also unfavorable long-term flows and short-term capital. Indebtedness of an economy abroad is today an important notion if one looks at the form and manner of use of funds, routing directions (allocations), the effects of which are obtained using these resources, time availability (deadlines), the dynamics of maturity of liabilities, connectivity and quality of resources, conditions of use and more.

Today, all countries are trying to take a conscious policy of deficit in the current account, in particular developing countries. Imports of capital and deficit allow you to maintain a higher current rate of economic growth. These imports means indirect increase in national disposable income and consumption in the period of borrowing. Imports of capital temporarily pushed in the second plan necessary corrective moves of economic policy, and change the parity of the national currency (devaluation).

Question, what can be the maximum current-account deficit, and that does not negatively affect on stability, economic growth and employment in the country. Maximum deficit must be seen in the development and faster structural changes of production, economic and social structure, which is present in all countries, especially in developing countries. Maximum deficit must be put into function:

- achieved level of external indebtedness;
- structure of the debt and its maturity;
- the possibilities for faster or slower change of production structure and creating greater
- independence from foreign capital;
- the production or non-productive use of capital;
- the supply of raw materials and energy (structural characteristics of the economy);
- The structure of exports and imports and its importance on the world market etc.

Balance of payments deficit is the result primarily of the current situation and trends in the national economy, relations between national income and consumption, and the involvement of the economy in the world economic developments and activity of crisis processes in the world economy on export restrictions. The flow of domestic expenditure is functionally linked to the trends in mutual economic relations of each country in particular in developing countries.

ANALYSIS OF THE PUBLIC DEBT OF THE REPUBLIC OF SERBIA

Serbia is one of the countries in transition and has a budget deficit in recent decades. When there is a budget deficit, the government can borrow in the domestic and international markets to finance government expenditures and domestic investment, and therefore the accumulation of past borrowing becomes debt, the burden of government.

Greater inequality in income and expenditures will increase pressure on politicians to shift the fiscal burden from present to future generations, i.e. this pressure will result in a portion of government spending financed by issuing public debt, which can lead to a higher debt-to-gross domestic product in the long run (Arawatar, Tetsuo, 2015, p. 2).

Public debt management requires a risk analysis of public debt or public debt structure. Portfolio of public debt is exposed to numerous risks, of which the most important are highlighted in the following table.

Table 1: The risks in public debt management

Risk	Description
Market risk	Refers to the risk of increases in the cost of the debt arising from changes in market variables, such as interest rates and exchange rates. The most common types of market risk are the interest rate risk and exchange rate risk.
Interest rate risk	Refers to the risk of increases in the cost of the debt arising from changes in interest rates.
Exchange Rate Risk	Refers to the risk of increases in the cost of the debt arising from changes in exchange rates.
Refinancing Risk	Refers to the risk that debt will have to be refinanced at an unusually high cost or, in extreme cases, cannot be refinanced at all.
Liquidity risk	Refers (in the context of debt management) to a situation where the volume of liquid assets diminishes quickly as a result of unanticipated cash flow obligations and/or a possible difficulty in raising cash through borrowing in a short period of time.
Credit risk	Refers to the risk of non-performance by borrowers on loans or other financial assets, or by a counterparty on financial contracts. This risk is particularly relevant in cases where debt management includes the management of liquid assets.
Settlement	Refers to the risk that a counterparty does not deliver a security as agreed in a contract, after the country (other counterparty) has already made the payment according to the agreement.
Operational risk	Refers to a range of different types of risks, including transaction errors in the various stages of executing and recording transactions; inadequacies or failures in internal controls, or in systems and services; reputation risk; legal risk; security breaches; or natural disasters.

Source: <http://www.imf.org/external/np/pp/eng/2014/040114.pdf> pp. 12-13.

The main risks faced by the portfolio of public debt refers to market risk, which includes interest rate risk and exchange rate risk, refinancing risk, liquidity risk, credit risk and operational risk. The risk exposure of a portfolio of public debt determine the composition of the debt portfolio, including the share of short-term debt to long term debt in the portfolio, variable rate debt to fixed rate debt and debt denominated in foreign currency.

SUSTAINABILITY OF THE PUBLIC DEBT OF SERBIA

During the recession around the world, nearly all countries lend huge sums of money for public spending and social programs. However, according to the IMF, the reason why the state fall into the growing indebtedness is a rapid decline in public revenues.

The largest public debt for years has Japan, even 226,10% of GDP at the end of 2013, followed by Zimbabwe, Greece, Italy, and in the place number 47 is the Republic of Serbia, and the lowest public debt among developed countries has Estonia with 6% of GDP (<https://www.cia.gov/library/publications/the-world>, 20.05.2015.).

The main guidelines for the management of the public debt policy, defined by the Public Debt Management Strategy, which is an integral part of the economic and fiscal program of the Republic of Serbia. According to the Strategy, the primary objective of the borrowing and public debt management is to provide the funds needed to finance the budget, with minimal financing costs in the medium and long term, with an acceptable level of risk (<http://mf.gov.rs/UserFiles/File/dokumenti/2015/Fiskalna%20strategija%202015-2017.pdf> p. 72.).

The indicator, which is mainly used in the literature is an indicator of share of debt in GDP. This indicator measures the level of indebtedness that relates to economic activity in the country. It implicitly assumes that all GDP resources are available to finance the debt burden, which is not necessarily true. However, this indicator is recognized as one of the most important for measuring the level of indebtedness, highlighting the ability of government solvency. Also, several other indicators have been established using the criterion of debt to GDP. The main indicators of using this concept for debt assessment are known as indicators of overall debt. Some of them are related to the composition of the debt, that is, the amount of external and domestic liabilities, fixed, variable rate liabilities, the amount of short-term, medium-term and long-term debt (Tagkalakis, Athanasios, 2014. p. 163.).

These are useful indicators to define the evolution of the debt and ability to pay, they provide certain signals about the worsening or improvement of the position of the government.

According to the Public Debt Law, public debt is: (Zakon o javnom dugu, Zakon je objavljen u "Službenom glasniku RS", br. 61/2005,107/2009 i 78/2011, Član 2.)

1. debt of Republic arising under the contract concluded by the Republic,
2. debt of Republic on the basis of securities,
3. debt of Republic based on contracts and agreements are reprogrammed obligations took
4. over by the Republic, under previously signed contracts, as well as securities issued by special laws,
5. debt of Republic arising on the basis of given guarantees of the Republic, or on the basis of of direct undertaking in the capacity of the debtor to pay the debt on the basis of assurances given, or on the basis of counter guarantee, which gives the Republic,
6. debt of local authorities, as well as legal entities referred to in Article 1 of this law for which the Republic has given its guarantee.

Public debt of the Republic of Serbia is divided into direct liabilities (loans) and indirect liabilities are obligations arising from the issued guarantees. Depending on the lenders they are classified as internal debt and external debt.

1. Domestic debt consists of obligations from the previous period and obligation on base of emissions of short-term treasury bills. The largest part of the internal debt refers to the old foreign currency savings, which represents the largest individual debt in the total public debt of Serbia.
2. External debt consists of rescheduled old debt and new borrowings.
Rescheduled debts are:

- Debt to the International Bank for Reconstruction and Development (IBRD A, B, C)
- Debt to Paris Club creditors,
- Debt to the London Club of creditors,
- Debt to the Development Bank of the Council of Europe (CEB).

Serbia's public debt at the end of 2014 amounted to 23 billion of EUR. The amount shown is the sum of the total balance of external and internal debt and non-guaranteed debt of local authorities shown in the following table.

Table 2: Public Debt of the Republic of Serbia on 31.12.2014.

A. Direct liabilities	In thousands		In millions	BDP%
	EUR	USD	RSD	
Internal debt	8.225.160	10.002.618	994.901	25,6
External debt	11.986.805	14.577.155	1.449.904	37,3
Direct liabilities-total	20.211.965	24.579.773	2.444.805	62,9
B. Indirect liabilities	EUR	USD	RSD	
Internal debt	703.819	855.914	85.133	2,2
External debt	1.841.154	2.239.028	222.703	5,7
Indirect liabilities-total	2.544.973	3.094.941	307.836	7,9
C. Unguaranteed debt of local authorities	EUR	USD	RSD	
Internal debt	320.616	389.901	38.781	1,0
External debt	115.324	140.245	13.949	0,4
Unguaranteed debt of local authorities-total	435.940	530.146	52.731	1,4
Total public debt of central level of government (A + B)	22.756.938	27.674.714	2.752.641	70,9
Total public debt of the general government level (A + B + C)	23.192.878	28.204.860	2.805.371	72,2

Source: Ministry of Finance of the Republic of Serbia - Public Debt Administration, December 2014. <http://www.javnidug.gov.rs/upload/Bilteni/Bilten%20CIR/2014/Mesecni%20izvestaj%20Uprave%20za%20javni%20dug%20CIR-%20DECEMBAR.pdf>

The Republic of Serbia has a specific debt, because it includes the old foreign currency savings, social liabilities, public and private companies and banks, borrowing to the current liquidity. The most important reason for the existence and financing of public debt in most countries in the world is usually only the last one.

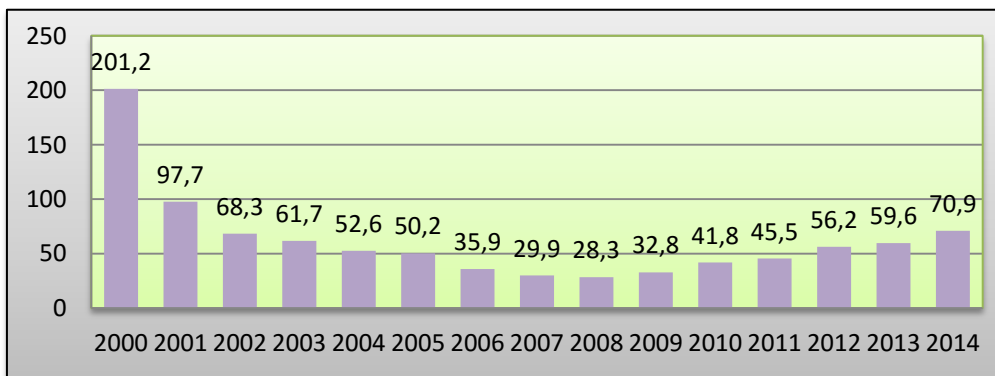
Table 3: Public debt of Serbia (central level of authority) for a period 2004- 2014. in millions of €

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
DIRECT LIABILITIES											
INTERNAL DEBT	4.064	4.255	3.837	3.413	3.162	4.050	4.572	5.441	6.496	7.055	8.225
EXTERNAL DEBT	5.267	5.364	4.746	4.616	4.691	4.409	5.873	7.239	8.621	10.245	11.987
TOTAL	9.331	9.620	8.583	8.029	7.853	8.459	10.444	12.679	15.117	17.299	20.212
INDIRECT LIABILITIES											
INTERNAL DEBT						135	340	536	723	857	704
EXTERNAL DEBT	344	663	769	846	929	1.257	1.372	1.574	1.878	1.985	1.841
TOTAL	344	663	769	846	929	1.392	1.712	2.110	2.600	2.842	2.545
PUBLIC DEBT OF SERBIA	9.676	10.283	9.352	8.875	8.781	9.851	12.157	14.789	17.717	20.141	22.757

Source: Ministry of Finance of the Republic of Serbia - Public Debt Administration, December 2014. <http://www.javnidug.gov.rs/upload/Stanje%20i%20struktura/Stanje%20i%20struktur%20-%20SRB%20LATINICA.pdf>

Serbia is at the end of 2000 had a debt of 14,167 million euros, which consisted of the inner part, amounting to 4,108 million and external of 10.059 million, there was no indirect liabilities. Both debts represented the socialization of debts of enterprises and banks in the nineties, because the state was not in a position to borrow at home or abroad (<http://www.makroekonomija.org/0-miroslav-zdravkovic/javni-dug-republike-srbije> 08.03.2015.).

Debt decreased to the outbreak of the economic crisis in 2008, partly because of write-off of debts, and due to regular repayments. Domestic debt is largely represented obligations under the old foreign currency savings, including savings in private banks, while the external debt represented liabilities to the clubs of creditors and other debts that the government has taken on himself. Obligations to the London and Paris Club creditors have been reduced, while the debt to the World Bank recognized in its entirety. Total debt to all creditors included the interest and penalty interest loans since 1992, despite the fact that Serbia was prevented to service its obligations. From 2000 to 2008, and the outbreak of the crisis, Serbia's public debt was reduced by 5,386 million euros. During the first decade of the 21st century, our country had a relatively low share of public debt in GDP, which in 2008 amounted to 28.3%. The financial crisis that erupted in 2008 in the US and Western Europe, has not missed Serbia. To maintain economic activity and prevent a decline in gross domestic product, the government decided to increase the budget deficit and public debt since 2009 begins to grow rapidly (<http://www.javnidug.gov.rs/upload/bilteni/bilten%20lat/2014/mesecni%20izvestaj%20Uprave%20za%20javni%20dug%20-%20avgust%20lat.pdf>)



Graph 1: Percentage share of public debt in GDP of the Republic of Serbia: central level of authority

Source: Ministry of Finance - Public Debt Monthly Report Analysis of public debt and debt of the general government, 2014

Besides the high level of debt, must be analyzed and its structure. "In order to finance the budget deficit in 2011 intensified the issue of local currency securities, which increased the share of public debt in dinars from 16.4% at end-2011 to 19.5% at the end of 2012. yr., And the end of 2013 . the dinar debt

accounted for 20.5% of the public debt of the Republic of Serbia. Striving to reduce exposure to currency risk, extending the maturity and development of new borrowing instruments in the domestic financial market during 2014 continued the trend of growth of the national currency in the portfolio of public debt (<http://www.javnidug.gov.rs/upload/Strategija/Strategija%20cir/20152017/Strategija%20upravljanja%20javnim%20dugom%202015%20-2017.pdf>)."

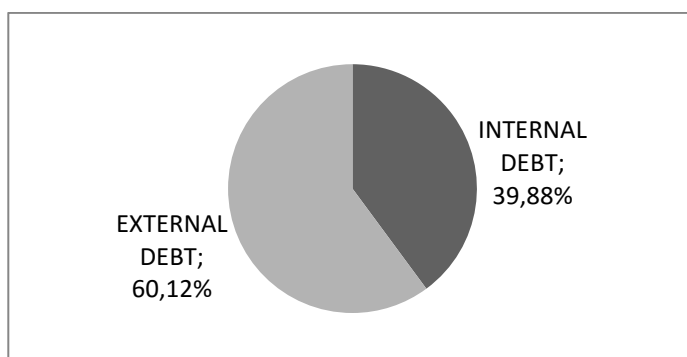
Table 4: Currency structure of public debt (central level of authority and general government debt)

Central level of authority		
Currency	By the middle exchange rate	Share
RSD	588.567.193.663	21,38%
EUR	1.148.230.448.621	41,71%
USD	866.628.236.381	31,48%
CHF	20.021.229.969	0,73%
SDR	115.416.956.322	4,19%
Others	13.776.452.305	0,50%
Total	2.752.640.517.261	100%
General government debt		
Currency	By the middle exchange rate	Share
RSD	605.977.661.282	21,60%
EUR	1.183.283.258.006	42,18%
USD	866.628.236.381	30,89%
CHF	20.288.484.348	0,72%
SDR	115.416.956.322	4,11%
Others	13.776.452.305	0,49%
Total	2.805.371.048.645	100%

Source: Ministry of Finance - Public Debt Monthly Report Analysis of public debt and debt of the general government, 2014

Currency structure of our debt is unfavorable because it is only 21.60% in local currency (RSD). The largest part of the public debt of Serbia is still in foreign currencies, of which the majority are EUR 42.18%, 26.47% US Dollars (USD), special drawing rights 4.11% (SDR), CHF 0.72% (CHF) and other currencies 0.49%.

"The currency structure of public debt, as a share of external public debt in total, show the extent to which the exchange rate affects the size of the public debt (Đorđević, Stoiljković, 2012., p. 252.)."



Graph 2: The share of external and internal debt in the public debt of the Republic of Serbia

This analysis clearly shows that the public debt (total) is sensitive to exchange rate risk, as well as to the amount of debt affects the mood of investors, with the knowledge that non-residents hold a significant portion of the debt.

Interest structure of public debt of the Republic of Serbia towards interest rates is favorable, because most of debt tied to fixed interest rates.

Table 5: The structure of interest rates debt of general government in the period 2011 – 2014

	2011	2012	2013	2014
Variable interest rate	31,8%	29,0%	26,9%	23,7%
Fixed interest rate	68,2%	71,0%	73,14%	76,3%

Source: Ministry of Finance - Public Debt Monthly Report, Analysis of public debt and debt of the general government, December 2014. "Public Debt Management Strategy from 2015 to 2017."

Table 6: Structure variable interest rates debt of general government in the period 2011 – 2014

	2011	2012	2013	2014
EURIBOR and LIBOR - EUR	73,1%	72,9%	70,3%	64,1%
LIBOR - USD	11,4%	11,0%	9,7%	10,3%
LIBOR - CHF	2,1%	1,9%	1,7%	1,7%
Others	13,5%	14,2%	18,3%	23,9%

Source: Same as above table.

"Most of the public debt of the Republic of Serbia 76.3% is at fixed interest rates, while the public debt with variable interest rates of 23.7% of total public debt. Among the variable interest rates are in most cases Euribor and Libor on euro representing a total of 64.1% of the total public debt at variable interest rates, while 12.9% refers to the obligations related to the NBS reference interest rate, 10.3% were the obligations related

to the US dollar Libor, while other liabilities related to other types of floating rate applies 12,7% (mostly the variable interest rate for special drawing rights) (<http://www.javnidug.gov.rs/upload/Strategija/Strategija%20cir/20152017/Strategija%20upravljanja%20javnim%20dugom%202015%20-2017.pdf>)."

Table 7: Indicators of Serbia's external position from 2005 to 2014

	2005.	2006.	2007.	2008.	2009.	2010.	2011.	2012.	2013.	2014.
The indicator of external liquidity (in%)										
Foreign exchange reserves / imports of goods and services	6,1	9,0	7,5	5,4	9,7	8,4	8,8	7,7	7,5	6,6 ²⁾
Foreign exchange reserves / short-term debt	177,0	265,1	250,6	162,6	220,6	193,0	299,6	242,6	289,8	285,7
Foreign exchange reserves / GDP	23,3	36,9	32,7	24,2	34,6	33,6	36,1	34,5	32,7	29,8
Repayment of the debt / GDP	5,0	10,3	10,3	10,7	12,8	12,0	12,5	13,1	13,4	17,5
Debt service / exports of goods and services	19,8	36,2	37,5	37,5	48,8	37,4	37,5	36,2	32,9	41,1
External solvency indicator (in%)										
External debt / GDP	59,3	58,5	59,0	62,3	72,7	79,0	72,2	80,9	75,2	78,3
Short-term debt / GDP	13,2	13,9	13,1	14,9	15,7	17,4	12,0	14,2	11,3	10,4
External debt / exports of goods and services	234,9	205,7	214,2	219,1	277,0	246,9	216,4	223,0	184,5	180,2

Source: National Bank of Serbia, statistics,

<http://www.nbs.rs/internet/latinica/80/index.html>, 19.02.2015.

External solvency indicators have improved compared to last year .. The most important is the improvement of external debt to exports of goods and services for which it is often said that the most important among the indicators. "Export is the basis of sustainable servicing of external debt (Vaggi, Gianni, Prizzon, 2014, p. 1159).

This indicator is reduced not only by reducing the external debt but also by increasing exports. From the year 2005. brought down by 54.7 percentage points to 180.2%, which is below the limit of sustainability, according to criteria of the World Bank (up 220%)(Herzberg, Angélique, 2015, pp. 235-289.). Compared to the 2012 year. continued reduction of foreign debt to GDP ratio to 78.3%. In addition to the indicators of external solvency indicators are favorable external liquidity compared to the previous period. The indicators of public debt sustainability are exacerbated, in addition to indicators that it considered in relation to exports.

Bad debt management and high debt levels could increase inflation expectations and affect the increase in the level of interest rates and / or currency depreciation. Exchange rate and interest rates policy, limits the amount of foreign currency debt and debt that can be emitted by the variable interest rate. The bad debt structure could jeopardize the ability of central banks to keep interest rates under control (Kvrđić, Čolić, Vujović, 2011, p. 36).

Public debt will continue to grow and is estimated by the end of 2017. to 76.8% of GDP. Due to the recession the population consumes less, foreign investors and the state does not invest, so that economic growth can be stimulated only instrument of monetary policy, ie reducing the reference interest rate and encouraging consumption and investment. The National Bank of Serbia emphasizes the stability of prices and the exchange rate of the domestic currency to its target, but the Central Bank of the leading economic powers have announced a shift in its monetary policy. Instead of the focus on the inflation rate, emphasis is placed on efforts to increase employment and stimulate economic growth. In line with the global and Serbian monetary policy should be changed as soon as possible and to react, rather than in emergency situations recession economy Serbian market left to self-regulation. It is more than obvious that the stable dinar exchange rate means a high price for the increased current account deficit, and the effect that has on exports and production.

METHODS OF FINANCING PUBLIC DEBT

Public debt can be financed using a variety of sources: domestic and foreign, official and commercial. The difference between domestic and foreign sources based on their origin, in the country or outside its borders, and this classification can be used as a basis to identify the source of financing public debt (Dabrowski, Marek, 2015, p. 21).

Unlike companies when they can not service their debts or go bankrupt, extinguish and be with them and their obligations, states can not cease to exist as a result of their indebtedness. Their capacity to repay debts is unlimited, regardless of the consequences for them and their inhabitants. State's unlimited duration, have many different types of assets, from those who have companies, and most importantly, have a tax mechanisms which may force their citizens to (indirectly) to help restore the state debts (<http://www.makroekonomija.org/1-nebojsa-katic/pravo-pravda-i-drzavni-dugovi/> 20.01.2015.). Also, the budgeted crisis affects many more people and affects them much harder than the crisis may hit corporations and its employees.

Public debt returns of the funds that are generated from public funds, and to the key role played by the fiscal policy of the state (<http://www.investopedia.com/articles/economics/11/successful-ways-government-reduces-debt.asp> 7.12.2014.).

Fiscal policy is one area where everyone has an opinion, but few economists can agree on any single idea. While a smaller public debt and stimulating the economy overall objectives of most governments in the developed economies, the achievement of these goals often involves tactics that appear to be mutually exclusive and sometimes very contradictory.

In the case of servicing the public debt the state has several options: (Beslać, 2014, pp. 153-158.).

1. To increase the fiscal burden - The first action of the Government in the context of fiscal consolidation was increasing the rate of most buoyant taxes - VAT

from 18 to 20%, from 1 October 2012. It is planned progressive taxation on the model of developed countries, as well as the introduction of a solidarity tax on earnings most favored in the state administration. The effects of this measure would be more symbolic than they would be able to influence the level of public debt. Options that Serbian government is still considering raising and special VAT rate, from 8 to 9%, and the taxation of certain types of goods that have so far had less income, the general rate of 20%. After first raising the general VAT rate, there has been a reduction in economic activity and the fall in trade turnover.

2. To increase the level of public revenue - to reduce the the informal economy by developing the fiscal awareness, change the way the fiscal payments and fiscal burden. Not paying taxes leads to socially entropy, encourages corruption and disruptive market relations. Were announced decisive action Serbian Tax Administration in the fight against the gray economy and improving of tax discipline, but this action can not in the short term to provide sufficient revenues to increase significantly assist the public debt. Translation of the black market in legal businesses would still for Serbia was the biggest chance and impetus for overcoming the crisis, because it is estimated that the informal economy comprises around 30% of gross domestic product.

3. To reduce expenses to the level of income - is a complex process because the budget revision brings the same procedures as the budget itself. Reducing expenses is also realized by reducing public spending. Canada in 1990 was faced with an almost double-digit budget deficit. The introduction of deep budget cuts (20% or more within a period of four years), the government reduced the budget deficit to zero within three years and reduce the public debt by a third within five years. They did it without raising taxes. In theory, other countries may follow her example. But in reality, state assistance in basic sectors of the economy, especially in the sector of investment, employment and the social sector, especially in times of crisis is essential. Options for reducing costs, which are available to the government are small and rare.

Adopting the savings program will unload Serbian budget deficit reduction, which increases public debt, abolishing subsidies and quenching incompetent firms. Restructuring of former social enterprises that can generate annual cost of up to one billion euros, would prevent further spending of the state about their maintenance and loss of their suppliers and customers because these companies do not meet their liabilities.

4. To provide funds from other sources - borrowing from domestic and foreign creditors. By increasing taxes, the debt burden borne by the present generation, thus reducing the economic power and the borrowing burden shifted to future generations that will feel the consequences of the past.

The indebtedness due to investment is good, because in the future the money come back and make more profit. Indebtedness for the construction of infrastructural facilities is also economically justified because they bring general benefit. But the indebtedness due to expenditure - public spending, which will bring income in the future is harmful.

Indebtedness can be done with short-term bank loans and short-term borrowings, loans of commercial banks from savings funds, foreign loans and credits, funds of new public borrowing funds from the primary issue.

Eventually borrowing from foreign creditors usually goes with some major political or economic conditions, which would make this option should be used carefully. Therefore, in Serbia occurs issuance of government debt (Kvrgić, Nikolić, 2014, p. 261)

The central bank often issues bonds to generate income. This allows to avoid tax increases and provides money to stimulate the economy. For debt securities issued by the government, the risk is very small. For this reason, the interest rate on government securities tends to be relatively low. This approach is often used during the last ten years, but at some point the borrowed money must be repaid and the government must pay interest to its creditors. In this year will, for the financing of public debt and deficit, the budget need to be five billion euros, and only the interest goes to 100 billion dinars from the budget.

At the time of the sale of government bonds, moves to household savings, which instead of investing in real estate, stocks or bonds of companies, goes into government bonds. In this way, the public debt of the lowering of production, wages and income.

Manipulation of interest rates - the maintenance of low interest rates is another way that the government is trying to stimulate the economy by increasing consumption, and thus tax revenues and ultimately reduce public debt. Low interest rates make it easier for individuals and businesses to obtain loans that they will continue to spend on goods, services, or further investment, which creates jobs and tax revenues. Low interest rates have introduced the United States of America (interest rate since 2008 is 0.25%)(,Central banks - summary of current interest rates“ <http://www.global-rates.com/interest-rates/central-banks/central-banks.aspx>, 03.07.2013), European Union (since 05.02.2013. Amounted to 0.5%, before that, was 0.75% from 2005) Great Britain (from 2009's 0.5%) and other nations with a certain amount of success. The National Bank of Serbia obviously does not implement this measure because it is 2013 years. reference interest rate was 11.25%.

Then it decreased from 11.75%, explaining that thanks to the measures taken of the monetary policy significantly weaken inflationary pressures (Jovović, http://www.danas.rs/dodaci/biznis/kuda_ide_precejani_dinar.27.html?news_id=26180, 2.6.2014.). And since 13/11/2014. is 8%.

- 1) **Forgiveness of debt** - States that were not able to regularly pay off the debts were allowed to be partially write off or reprogrammed. These unwritten rules are adopted and apply to the global economic scene last three decades. Reprogram has never been easy, had its own hidden political dimension, but the country managed to after the write-off of debts again function normally. The strategy that the country that owes other wealthy creditors forgive the debts or provide irrevocably the money is used only in certain severe cases - for example, many countries in Africa are beneficiaries of debt forgiveness. Unfortunately, even this strategy has its

flaws. In the late 80's indebtedness of Ghana significantly reduced debt forgiveness. But in 2011 the country was again deep in debt. Greece, which has received billions of dollars in resources to get out of the crisis in the period 2010-2011, was not much better after the initial round of cash infusions.

- 2) **The debt crisis (default)** - when the state is unable to repay the debt, may declare bankruptcy or restructure debt to creditors. This is a common and often successful strategy to reduce debt. North Korea, Russia and Argentina have successfully used this strategy.

There are controversies for each method, the arguments for and against. Although the different methods used in different times and with varying degrees of success, there is no magic formula that works equally well for each state in each instance.

CONSLUSION

Theoretically it is proved that a certain economy, the greater the degree of underdevelopment, the greater the share of real import and significance of accumulation, which is the level of development achieved higher it is the greater importance of financial resources (capital) in the structure of foreign debts. What is the development of more disproportionate (imports to exports, savings and investments, production and consumption) and the importance of the share capital is growing, because there is the balance of payments barrier that can not be overcome domestic accumulation. Low exports relative to imports creates a hunger for foreign accumulation.

In the economy which forces the growth rate along with satisfying stability and high levels of employment at some point comes the next phase, when the accumulated problems of balance of payments (high external debt, lagging development and weak exports, a growing balance of trade deficit, high and accumulated obligations under debt), interest and repayment, melting of foreign currency reserves, followed by interventionism in the economy, this leads to the fact that the economy is entering into new debts to repay old debt into new debt for the formation of foreign exchange reserves and the preservation of any such external liquidity of the economy. The debt now becomes an impediment to development, it becomes a contradiction in relation to the beneficiary country. External debt is increasingly taking the form of financially, has to balance the economy, but only to be immediately drawn off. It makes their way to the recipient country and back, leaving behind only the interest and repayment obligations. Creates a debt due to the debt but with the constant expansion of such formed circles.

In this way, obligations under debt absorb the increase in GDP, leading to bankruptcy of debtor of the country. The main objective of capital imports is not increase in personal and general consumption and increase in living standards, but enhancing and maintaining high rates of investment, increase in income and employment, and increase in savings and investment spending. Economic theory

suggests that a reasonable level of indebtedness of the country is likely to increase economic growth, because it accelerates the pace of infrastructure development. Therefore, it is essential height imports of capital and its structure and efficiency of use.

From all of this raises the question of how the national economy is, at a certain level of development, able to achieve such savings and development structure that will ensure combined self-sustaining growth with only additional funding, as required by technology and international connections of its economy.

The Republic of Serbia has a specific debt, because it includes the old foreign currency savings, social liabilities, public and private companies and banks, borrowing to the current liquidity. The most important reason for the existence and financing of public debt in most countries in the world is usually only the last one.

Currency structure of our debt is unfavorable because it is only 21.60% in local currency (RSD). The largest part of the public debt of Serbia is still in foreign currencies, of which the majority are EUR 42.18%, 26.47% US Dollars (USD), special drawing rights 4.11% (SDR), CHF 0.72% (CHF) and other currencies 0.49%.

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EFFECTS OF FISCAL SYSTEM CONSOLIDATION AND INFLATION AS A MONETARY PHENOMENON ON THE DEVELOPMENT OF BOSNIA AND HERZEGOVINA

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APSTRACT

Successful functioning of monetary and fiscal policies is a prerequisite for economic growth of any economy. This paper is designed in a way that, among other things, analyzes two very important points of these policies, namely the budget on the one hand and inflation on the other. Also, the adoption of economic reform agenda, and the entry into force of the Stabilization and Association Agreement, Bosnia and Herzegovina (B&H) show serious intention to join the European Union. We determine the directions which must guide the consolidation of B&H fiscal system in order to create conditions for economic growth. Emphasis is placed on the importance of fiscal consolidation in B&H, and the consequences that may result if the implementation of fiscal consolidation is not done. This paper includes a comparison of the Croatian example as a neighbouring country in the period when it was a candidate for the membership in the EU, before the accession on 1 July 2013, because the reforms that Croatia had to undertake as a candidate country will also await B&H as a potential candidate for EU membership. The comparison established that the fiscal situation on the territory of B&H is identical to the status of neighbouring countries, so equal fiscal consolidation could be done. It indicates the reforms that authorities would need to undertake in the area of consolidation of the fiscal system. On the other hand, inflation is a monetary phenomenon that has preoccupied economists for decades. In this paper we analyze the inflation as a monetary phenomenon, and point out results of inflation and economic growth correlation. Due to the negative correlation between high inflation and economic growth, driven by these postulates, we analyze the level of inflation in B&H and the region to assess the success of the Central bank of Bosnia and Herzegovina. Also, this paper analyzes the fulfilment of Maastricht criteria relating to inflation, and the result obtained confirms that at this aspect Bosnia and Herzegovina fulfils this criterion.

Key words: *Fiscal Consolidation, Economic Growth, Inflation, Economic Reform Agenda, The Stabilization and Association Agreement*

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INTRODUCTION

The aim of fiscal consolidation is revenue growth on the one hand and the decline in expenditure on the other hand, that is, the creation of budget surpluses that would eventually service the public debt. The budget surplus is generated by the growth of government savings or decline of government investments. In the example of neighbouring countries, weak fiscal reputation is defined as the cause of the public debt in neighbouring Croatia, which is higher than 50% of GDP. Therefore Croatian analysts believe that it is necessary to reduce budget expenditures due to high taxes, introduce responsible fiscal behaviour, and some fiscal rules. Beside this, it is necessary to reduce direct taxes and compensate them by increasing indirect taxes. It is also believed that due to accession to EU membership, it is necessary to implement the long-term fiscal consolidation whose importance will come to expression by permanent membership in the EU. When it comes to fiscal consolidation alone, Performance Budgeting can be very useful and constructive, and it represents the ratio of assets with which the public entities are financed and the results of their operations. In fiscal consolidation great importance should be given to budgetary expenditures compared to budget revenues. In the case of Bosnia and Herzegovina, with the signing of the Stabilization and Association Agreement and its coming into force on 1 June 2015, it committed itself to becoming an EU member. Therefore, Bosnia and Herzegovina undertook certain structural reforms. Confirmation of that is provided by the fact that the economic reform agenda adopted by the B&H government is associated with elementary goals of the new approach to EU membership. One of these reforms is the consolidation of the fiscal system in order to accommodate the existing fiscal system of the EU. On the other hand, a complex fiscal system in Bosnia and Herzegovina presents an obstacle to structural reform of consolidation of financial system and the economic growth in B&H (Jusufović, 2011; Anić, 2013). Another obstacle to structural reform of consolidation of financial system and economic growth of B&H is lack of responsibility and authority in B&H. The third obstacle that has arisen as a result of irresponsibility and arrogance of our government is the existence of so-called gap between rich and poor. From the aspect of monetary policy, maintaining price stability became the main goal of almost every world economy. Due to oil shocks and frequent fluctuations of the financial markets, central banks around the world adopt the inflation targeting monetary policy as their primary objective. Many empirical studies of economists point to a negative correlation between inflation and economic growth, which largely confirms the reasons for the formation of such objectives of central banks. Since its founding in 1998, organized by the model of the Currency Board, Central Bank of B&H does not have access to all monetary policy instruments, respectively, only has access to the determination of the required reserves rate. However, independence and accountability ensured by the Law of the Central bank of B&H largely helps meeting the objectives of this institution, and one of the most important is the maintenance of price stability.

FISCAL CONSOLIDATION OF THE BUDGET

Fiscal consolidation of the budget is based on two diametrically opposite goals: the increase of revenue and the reduction of expenditure. From mutual cooperation and agreement of other participants in the creation of fiscal policy (trade unions, businessmen, etc.) and international financial institutions (International Monetary Fund - IMF, World Bank - WB) in the case of developing countries depends the efficiency of implementation of fiscal consolidation. Given that fiscal consolidation may go on a short and long term, in its application it requires a huge analysis, knowledge and experience. If in the consolidation of the fiscal system it has been decided to reduce expenditures, it would create a certain savings. With such consolidation of the fiscal system, and actual reduction of public expenditures, it means, first of all, that the salaries in the public sector should be reduced, but also public investments, social insurances, transfer payments, pensions, various fees, reduction of various subsidies and the cost of a variety of materials and services and so on. If the consolidation of the fiscal system committed itself to the growth of budget revenues, it would be achieved by increasing the rate of the different property tax, income tax, VAT, all the way to the excise tax, tolls, duties and other revenue sources. As previously stated, fiscal consolidation is used to service the public debt, which to be generally serviceable, the government should have excess, actually, a surplus of funds which can be realized at the excess of government savings that remain after financing domestic investments. Respectively, the total national savings must be greater than the total government investment and the difference is directed to servicing the public debt. The elimination of the budget deficit by consolidating of the fiscal system is done in a way that the inefficient expenditures are reduced and removed from the items of budget expenditures. From all this it follows that the budget deficit is eliminated by the growth of government savings or decline in government investments.

MODELS OF THE FISCAL CONSOLIDATION OF BUDGET IN NEIGHBOURING COUNTRIES

The text that was published in the Croatian Banking Association (CBA) entitled "A sustainable fiscal policy and public debt: never again as before" Velimir Šonje indicates that the cause of the Croatian public debt exceeding 50% of GDP is actually weak fiscal reputation suffered as a result of poorly managed restrictive fiscal policy in times of prosperity. He considers that it is necessary to introduce a well-balanced fiscal policy that will ensure long-term sustainability of the fiscal policy as soon as possible to achieve a fiscal surplus and stop the growth and preferably reduce the ratio of public debt in GDP (HUB, 2010).

In the case of Bosnia and Herzegovina, the IMF representative in B&H Ruben Atoyan made a statement about the alarming data that shows that public debt in B&H in 2015 reached 45% of GDP (SEEbiz, 2015).

Katarina Ott believes that for high-quality fiscal reputation it is necessary to have responsible fiscal behavior that will balance revenues and expenditures, and thus lead to a lower deficit and public debt. Due to the excessive tax burden only thing left is reduction of budget expenditures. Since wages and social transfers are amounted to 70% of expenditures, primarily the required reforms of the public sector are necessary, as well as pension and health care system (Ott, 2010).

In his interview published by the Croatian National Bank (CNB) for magazine " Bank " then Governor of the CNB dr. Željko Rohatinski indicated in February of 2012 that in addition to better collection of existing taxes and contributions, fiscal consolidation, which is geared towards increasing revenues, is limited. Rohatinski stated that it is the result of a high level of total fiscal and quasi-fiscal burdens on the Croatian market. In addition, he believes that, when it comes to consolidation of the fiscal system in Croatia, it should be focused on the redistribution of tax burdens, that is, compensation between direct and indirect taxes which would reduce direct taxes and the deficit would be compensated with an increase in indirect taxes. This would enhance the competitiveness (CNB, 2012). Rohatinski's remarks are important for the reason of comparative review of Croatia which at that time was in the stages of numerous reforms of various systems, including the fiscal system. Croatia, at the time, by carrying out numerous reforms meet the requirements for the EU membership. The reforms through which Croatia then passed through are the ones that today Bosnia and Herzegovina must also undergo.

Rohatinski even then considered, and which was confirmed after the Croatian accession to the EU, that it was necessary to make high-quality fiscal consolidation, even higher than predicted by their legislation in order eliminate the primary deficit. Because of the Croatian accession to the EU, fiscal rules of the EU will be more strict and thus adapting to them would be much more difficult, given that in 1 June 2013 was envisaged for Croatia to become a full member of the EU and that it was necessary to get this done before its accession to the EU (CNB, 2012).

Such claims of Rohatinski, stated more than three years ago, proved to be correct.

In another interview Rohatinski said that the Croatian government needed to implement long-term and sustainable fiscal policies that would only gain in importance after the 1 July 2013 and Croatian accession to the EU. He indicated that "[i]t is important that the necessary fiscal consolidation is realized by measures of a permanent nature, not only short-term waiver of certain expenses", and added that "[t]his requires radical structural reforms, including the reduction of certain rights, which are yet mentioned a little". Rohatinski believed that Croatian citizens are aware of such structural reforms, and that there will be no great resistance (SEEbiz, 2012).

At the Public Expenditure Management Peer Assisted Learning (PEM PAL) meeting held in Bohinj, Slovenia, on March 2012, Brian Olden, then regional advisor of the IMF's public finance management (PFM), said that Performance Budgeting, which is defined as procedures that strengthen the link between the funds used for financing public subjects and their results, can have a positive impact on fiscal consolidation in three cases. First, any consolidation of the fiscal system as a result of excessive consumption requires difficult political decisions about public priorities. In this case the performance information can help to create the necessary support for those decisions. Second, public support for the program of fiscal consolidation system depends on the government's ability to define the non-priority sectors, and protect sensitive areas. Third, the administration must embrace ambitious consolidation measures without unacceptable consequences for the delivery of public services. Brian Olden stated that the European Commission has registered and connected Performance Budgeting with the success of fiscal consolidation.

He also states that Redick (2003, cited from *PEMPAL*, 2012) and Crain and O'Roark (2004, cited from *PEMPAL*, 2012) found a positive impact of performance budgeting on aggregate fiscal performance. Perotti (1998, cited in *PEMPAL*, 2012), Wagchal and Wenzelburger (2008, cited in *PEMPAL*, 2012) emphasize the importance of protecting the delicate social spending for venture sustainability of fiscal consolidation (PEM PAL, 2012).

PEM PAL helps create a network of experts in the field of public finance management in different countries of the Europe region and Central Asia (ECA).

These experts have the opportunity to mutually compare their systems of public finance management and explore opportunities for peer learning, as well as to increasingly expand and improve the transfer of knowledge. PEM PAL has three professional communities: Budget, Internal Audit and Treasury.

Given that the above status indicators on the Croatian market mainly coincide with the situation on the market of Bosnia and Herzegovina, the above suggestions could be applied in the case of fiscal consolidation of Bosnia and Herzegovina. The following tables, that indicate the fiscal consolidation of countries in the region, show that we have a nearly identical situation, with the exception of Croatia in some cases.

Table 1: Power of fiscal institutions by countries

Budget institutions	SEE Average	SEE countries							
		Alb	B&H	Cro	Kos	Mac	CG	Srb	Bug
A Understanding fiscal challenges	C	C	C	C	C	C	D	D	C
1 Fiscal reporting	C	B	B	B	B	C	C	C	C
2 Macrofiscal predictions	C	C	D	C	C	D	C	C	C
3 Managing fiscal risk	D	D	C	D	D	C	D	D	C
B Development of the plan of consolidation.	C	C	D	B	C	D	D	C	C
4 Medium-term fiscal goals	C	C	E	C	B	C	D	B	B
5 Medium-term budget framework	C	B	B	B	B	C	E	C	B
6 Independent fiscal agencies	E	F	E	C	F	F	F	B	F
7 Orientation effect	C	B	D	A	C	C	C	E	B
C Implementation of the strategy of consolidation	C	D	D	C	C	C	D	D	C
8 Budgeting from top to bottom	C	C	B	A	C	C	D	C	B
9 Parliamentary approval of the budget	D	D	F	D	E	B	D	D	C
10 Budget Implementation	C	C	C	C	B	C	C	C	C
TOTAL SCORE	C	C	D	C	C	C	D	C	C

Legend: A - largest power, F- lowest power

Source: http://www.pempal.org/data/upload/files/2012/04/presentation_brian-olden-imf_bos.pdf - accessed 10.08.2015.

As is evident from the table above, Albania, Bulgaria, Croatia and Kosovo apply programs as the legal basis for the appropriation of consumption, while all other countries include program classification of expenditure in its budget documentation. All of the above countries except Serbia fix their performance targets for some of the spending, except Croatia, which regularly conducts comprehensive inspections of program performance. Moreover, Croatia is the only country mentioned that has a comprehensive system of program budgeting that combines all of the elements mentioned above.

Table 2: Performance Budgeting in SEE - role in venture consolidation

The development of the plan of consolidation	SEE Average	SEE countries							
		Alb	BiH	Hrv	Kos	Mak	CG	Srb	Bug
4 Medium-term fiscal goals	C	C	E	C	B	C	D	B	B
a.The goals are precise and transparent	B	Fully	Not	Partly	Fully	Partly	Partly	Fully	Fully
b.The goals are comprehensive	B	Fully	Not	Fully	Fully	Partly	Partly	Fully	Fully
c.Reporting on performance towards the goals	B	Fully	Partly	Fully	Fully	Fully	Partly	Fully	Fully
d.Constant fiscal rule	D	Partly	Not	Not	Not	Not	Not	Partly	Fully
e.Supranational policies and methods of application.	C	Not	Not	Fully	Fully	Partly	Partly	Fully	Not
5 Medium-term budget framework	C	B	B	C	B	C	E	C	B
a.Multi-year forecasts of consumption and income	B	Fully	Fully	Fully	Fully	Fully	Partly	Fully	Fully
b.The binding limits on multiannual spending	C	Partly	Partly	Partly	Partly	Partly	Not	Partly	Partly
c.A clear statement of sectoral priorities	D	Partly	Partly	Partly	Fully	Partly	Not	Not	Partly
d.Covers most of the central government	B	Fully	Fully	Fully	Fully	Partly	Not	Partly	Fully
6 Independent fiscal agencies	E	F	E	C	F	F	F	B	F
a.Preparation of macro and fiscal forecasts	E	Not	Partly	Partly	Not	Not	Not	Partly	Not
b. Ex ante evaluation of fiscal policy		Not	Not	Fully	Not	Not	Not	Fully	Not
c.Ex post evaluation of the fiscal impact	E	Not	Not	Partly	Not	Not	Not	Fully	Not
7 Orientation effect	C	B	D	A	C	C	C	E	B
a.Classification and appropriation of the program	C	Fully	Partly	Fully	Fully	Partly	Partly	Partly	Fully
b.Regular monitoring of the goals - target	C	Fully	Partly	Fully	Partly	Partly	Partly	Not	Fully
c.Regular Spending Review	C	Partly	Not	Fully	Partly	Partly	Partly	Not	Partly

Source: http://www.pempal.org/data/upload/files/2012/04/presentation_brian-olden-imf_bos.pdf - accessed 10.08.2015.

Performance information should be effectively integrated into the budget process in most of the SEE countries in order to have a more effective impact. The table shows that some countries have been appropriating its budget on a program basis. The table indicates that the key performance indicators for the main programs have been developed in most countries, but they represent a rarity for performance information of budget planning. Only a few countries carried out regular monitoring and evaluation of programs to ensure that the information on the impact of the program are used to improve allocative and operational efficiency of spending.

APPLICATION OF THE FISCAL CONSOLIDATION OF THE B&H BUDGET

By signing the Stabilization and Association Agreement in 2008, Bosnia and Herzegovina is determined to become an EU member. With the entry into force of the said Agreement on 1 June 2015 and the commitment to a full EU membership, B&H has taken on certain obligatory reforms of many systems. One of these reforms is the consolidation of the fiscal system in order to adapt the EU fiscal system which is based on a document called Maastricht convergence criteria. However, malignant problems that occur in the process of the reforms were created by the Dayton Agreement by which Bosnia and Herzegovina consists of the Federation of B&H (10 cantons), the Republic of Srpska and District Brčko where each of them has a separate fiscal policy that are different from each other and are carried out on their territories. The consequence of this is that according to analyst estimates, about 65% of GDP is allocated to funding public sector, which will result in restrictive moves by the sheer cost and number of employees. Thus complex fiscal system in B&H creates certain complications in the consolidation of the fiscal system in order to achieve economic growth.

Analyzing fiscal policy is done by simulating the Maastricht criteria that must be met before accession to the EU. This simulation is performed using a model of differential equations which can be explained by the following example: If the trend of growth of GDP is $a\%$ and the average share of the deficit in GDP $b\%$ then the balance of debt will move in this order $b\% + b\%/a\%$. The Maastricht Treaty, which contains the criteria that must be met to be able to join the European Monetary Union (EMU) requires that the maximum level of debt to GDP is 60%, the maximum share of the budget deficit 3% of GDP, and inflation must not exceed a maximum of 1.5% the inflation rate in the three member states of EMU which have the lowest rates of inflation. Long-term interest rates should not exceed more than 2% of long-term interest rates in the countries with the three lowest inflation rates and the exchange rate should be stable in the previous two years (Kraft, Stručka, 2002).

B&H is trapped by its political leadership. Government is irresponsible; every day grows a number of extremely poor. Monthly income of our politicians in the legislative and executive authorities on various grounds exceeds more than 10,000 BAM, while on the other hand, average net wage paid in May this year reported by

B&H Statistics Agency (BHAS, 2015) amounts 830.00 BAM, the minimum pension in July the same year, according to the report of the Federal Bureau PIOMIO (FZMIOPIO, 2015) in the FB&H amounted to 326.17 BAM, with the rate of registered unemployment in the first quarter of 2015, according to the reports of the Agency for Labour and Employment (ARZ, 2015) amounted to 43,6%, while the unemployment rate unregistered according to some estimates exceeds 50%. In the case of Bosnia and Herzegovina there is a big difference between rich and poor and there is no necessary balance. The existence of the imbalance between rich and poor is one of the causes of instability and economic stagnation, which is one of the causes of the crisis in the market.

Reducing the fiscal deficit, which is implemented by fiscal consolidation, is very important for macroeconomic stability of Bosnia and Herzegovina towards the economic growth of Bosnia and Herzegovina. According to Babić, each type of reform affects the person's acquired rights, so certain privileged groups provide resistance to certain reforms. If these groups are politically influential then the probability of delaying necessary reforms increases (Babić, 2007).

Consolidation of the fiscal system on which the government committed itself in B&H is presented through the reform agenda, a document signed by the Prime Ministers of B&H and entity governments, in mid-2015. The reform agenda came after the IMF refused to pay the instalment of the loan because the governments of the entities did not fulfil the conditions of borrowing set by the IMF. The adoption of the reform agenda means a continuation of the financial arrangements between B&H and international financial institutions. The reform agenda includes savings in the public sector on the basis of wage cuts in the administration and staff reductions, an increase in taxes, excise, etc. If this would not satisfy the revenue side of the reform agenda, within a further period it would involve an increase in VAT from 17% to 20% or in the worst case up to 23%. Moreover, the other side of the reform agenda represents a latent emphasis on privatization of state-owned public companies in both entities, primarily referring to the electric power industry and telecom operators, the only companies that generate enormous profits annually. We have to emphasize that all of these reforms under Agenda will not be realized without monitoring by the international community. This means that the absolute supervision and control of the economic system of Bosnia and Herzegovina will be handed over to the international community. Moreover, approval of the budget on all levels of government will be strictly controlled by the international community in whose competence will be setting specific austerity measures. By this, B&H will lose independence in decision making policies.

To repeat, consolidation of the fiscal system can be run in the direction of tax increases in order to increase budget revenues, and in the direction of reducing the budget expenditures. This means that it is necessary to consider the overall situation of budgetary expenditures which do not create any advantage and on the other hand need to check the real state of taxes that are applied. Consideration must be based on the levels of taxes, are they too high, whether they create a large burden on taxpayers, and would possible increase of some of those taxes create an unexpected occurrence, that is, would this kind of fiscal consolidation have its

desired effect. In today's economic situation, in B&H is somehow more logical to consider reducing unnecessary budget expenditures referring primarily to the monthly income of members of the government and entity parliaments and other legislative bodies, fees for membership in the committees of the legislative and executive authorities, who already have an enormously high salaries. On the other hand, the question is, would increase of tax rates led to the closure of small, family businesses, which in the current situation on the market are barely surviving? Will such moves like the consolidation of the fiscal system jeopardize already unstable social situation that is on the verge of collapse?

In the Report entitled "Reform of tax policies and fiscal consolidation" from 2010, the Organization for Economic Cooperation and Development (OECD) has given specific instructions and recommendations which were related to the growth of tax revenues that would not have a negative impact on the economic growth of the state.

OECD believes that taxpayers must consider the reform and consolidation to be realistic and correct for every layer of society. An explicit example which they state is that the poor strata of society should be reclaiming additional income. In addition, they have made a recommendation that there should be a balance between the growth of tax revenues, which can have a negative impact on economic growth and the reduction of budget expenditures. The solution of these problems, OECD experts see in the change of overall tax system, which would increase taxes on luxury, respectively, property taxes, apartments, houses, etc. and reducing taxes on personal incomes and revenues of the companies. OECD experts believe that all citizens must bear an equal burden of taxes, and that the government should introduce the so-called. "Environmental taxes" to protect the environment.

Table 3: The state can correct market failures

The failure of the market economy	Government intervention	The current example the government policy
Inefficiency: Monopoly Externalities Public goods	Encouraging competition Market Interventions Encouraging beneficial activities	Antitrust laws, deregulation Law on pollution, non smoking commands Construction of the guidance system, providing public education community
Inequality: Unacceptable inequality of income and wealth	Income redistribution	Progressive taxation of income and wealth Income support programs or transfer programs (eg. Food stamps)
Macroeconomic problems: Business cycles (high unemployment and inflation) Slow economic growth	The stabilization through macroeconomic policies Encouraging growth	Monetary policy (changes in the money supply and interest rates) Fiscal policy (taxes and spending programs) Improving the efficiency of the tax system Raising national savings rate by reducing the budget deficit or increasing the budget surplus

Source: Samuelson, Nordhaus, 2007

The table above indicates the economic role of today's countries. The table indicates the government functions on promoting efficiency, achieving an equitable distribution of income and achieving macroeconomic objectives, economic growth and stability (Samuelson, Nordhaus, 2007).

The country whose government does not have the courage to take the necessary structural reforms by itself addresses the IMF for a Stand-By Arrangement (Babić, 2007).

Such is the case with Bosnia and Herzegovina where the authorities in Bosnia and Herzegovina addressed the IMF with the new requirements for the tranches of the loan in order to fill holes in the entity budgets in order to patch the budget deficits, which are primarily due to their expensive administration, where most of the budget belongs to them.

Stand-by arrangements enable members of the IMF to by (from them) additional specific amount of foreign currency to cover temporary deficits in their balance of payments. These are so-called credit standing that the recipient can use as and when it suits him, usually one year from the date of validity of the arrangements. The interest on this loan (or part of the loan) is due a just starting use, and used part of the loan must be paid back within 3-5 years. Request for concluding the Stand-by arrangement initiates a member of the IMF, which on this occasion drafts "A letter of intention" with the help of IMF experts. In this letter country exposes the assessment of the current situation in its economy and the economic policy which it intends to take in order to (so-called ironing) imbalance in the course of the loan. Economic measures must comply with the criteria of the IMF on economic policy, without deviation during that period. Stand-by arrangement will certainly lead to a new fiscal consolidation and austerity measures on the state and entity levels, creating new pressures on the overall economy. B&H authorities will have to implement new austerity measures, reducing salaries and number of employees in the public sector, which will create additional pressure on domestic consumption. At the same time, government investments will have a significant reduction, which will a positive GDP growth make even harder. An important part of economic growth of Bosnia and Herzegovina will be influenced by fiscal consolidation.

INFLATION AS A MONETARY PHENOMENON

One of the most important but also the most carefully monitored monetary phenomenon is inflation. The best example is the fact that the maintenance of price stability is one of the most important goals of nearly every economy. Also, since the early 1990s and the monetary policy of inflation targeting as the primary objective of New Zealand, many economies of the world have tried to do the same in order to curb this phenomenon (Petursson, 2005). Inflation has always meant something negative, and the very definition of inflation is that "inflation means a general rise in price levels" (Samuelson, Nordhaus, 2007, pp. 551). How much negative effect inflation is in the minds of the people confirms the work of Nobel Prize winner Robert Shiller (1997) "Why do people dislike inflation" in which the author analyzing the attitudes of citizens of the United States, Germany and Brazil came to the conclusion that 84% of Americans completely or somewhat agree with the statement "inflation control is one of the most important missions of US economic policy", while in Germany 94% of respondents agreed with a similar statement.

However, in addition to the impact on people's consciousness in this paper we present the works of economists who analyzed the causation of inflation and economic growth. In this paper we show that inflation is linked to economic growth in the sense that higher inflation affects economic growth. If we use this fact, then we can lead thus that lower inflation actually leads to economic growth, and we will present an analysis of the level of inflation in B&H and the region and give our comment.

Also, extremely significant fact is the signing of Stabilization and Association Agreement, which was signed by B&H 1 June 2015 and in this paper, will analyze the fulfilment of Maastricht criteria in terms of rate of inflation in B&H in relation to the inflation rate in the three EU countries with the lowest inflation.

CORRELATION BETWEEN THE RATE OF INFLATION AND ECONOMIC GROWTH

Since the beginning of the 1970s prevailing opinion worldwide is that inflation has a negative impact on economic growth. Although some empirical analyses have been made of relationships between inflation and economic growth, we will present some of the most important analysis that occurs after the 1990s. In this title, we will introduce a number of important works, and we will present them chronologically from 1993 to 2012.

Fisher (1993) in his article „The role of macroeconomic factors in growth“ using cross-section and panel data analyzes correlation of inflation and economic growth in developed countries and developing countries, analyzing the relationship in the long run. Fisher came to the result that stable macroeconomic policy, low inflation, and smaller budget deficits are suitable for sustainable economic growth. Also, Fisher quotes concrete ways the impact of inflation on economic growth in a way that "inflation reduces growth by reducing investment, and by reducing the rate of productivity growth." (Fisher, 1993, pp. 23).

Barro (1995) in his article „Inflation and Economic Growth“ analyzes the connection between inflation and economic growth in almost 100 countries in the period of 1960-1990. In his work Barro comes to the conclusion that an increase in the average inflation rate by 10 percentage points per year is estimated to lower the growth rate of real per capita GDP (on impact) by 0.2-0.3 percentage points per year. Although this effect of inflation does not seem significant Barro (1995, pp. 107) it explains the negative effect of this level of inflation „a reduction in the growth rate by 0.2-0.3 percentage points per year (produced on impact by 10 percentage points more of average inflation) means that the level of real gross domestic product would be lowered after 30 years by 4-7%. In mid 1995, the U.S. gross domestic product was over \$7 trillion; 4-7% of this amount is \$300-500 billion, more than enough to justify a keen interest in price stability“.

Khan and Senhadji (2001) in their article „Threshold Effects in the Relationship Between Inflation and Growth“ model a large panel-dataset of the

data cover 140 developing and industrialized countries for the period 1960–1998. In their paper, the authors come to the conclusion that the empirical results strongly suggest the existence of a threshold beyond which inflation exerts a negative effect on growth. The threshold is lower for industrial countries (1-3 percent) than for developing countries (11-12 percent). Also, using yearly data yields threshold levels that are close to the estimates from the five-year-averaged data (12 percent for developing countries and 3 percent for industrial countries) and a stronger negative relationship between inflation and growth. In their conclusion Khan and Senhadji (2001, pp. 20) say that „policymakers around the world during the last decade or so have recognized that lowering inflation is conducive to improved growth performance. The goal has become one of bringing inflation down to single digits, or close to single digits, and keeping it there.“ The results in their paper provide strong empirical support for the indicated view.

Bick et. al (2009) extend the model from Khan and Senhadji (2001) modelling a large panel-dataset of 124 industrialized and developing countries over the period from 1950 to 2004. In their paper they say that the targeted inflation of developed countries is around 2%, while developing countries 17%. The authors come to the conclusion that if inflation is below 17%, the impact on economic growth is insignificant, although they fail to support the results of increased inflation in the non-industrialized countries.

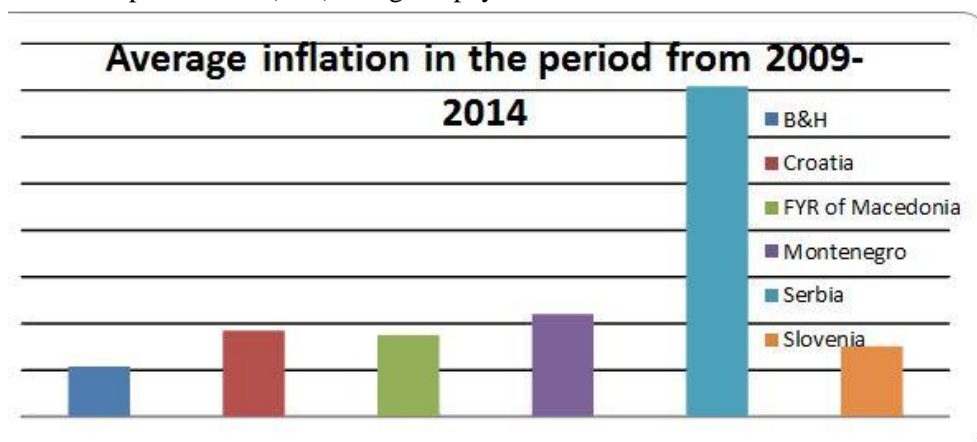
THE ANALYSIS OF INFLATION IN BOSNIA AND HERZEGOVINA AND THE REGION

According to the analysis from the previous titles we can safely conclude that inflation has a negative impact on the economic growth of the country. Guided by the previous title, in the next section we will use the postulate that lower inflation rates have a positive effect on economic growth.

The monetary policy of Bosnia and Herzegovina is in many ways characteristic compared to other countries of the world and the region because of using Currency Board organizing model. In this sense, the B&H monetary policy, so to speak, does not exist, because Currency Board, which is an organized model by the Central bank of Bosnia and Herzegovina (CBBH), cannot use the exchange rate as a tool to redress the economic shocks, cannot create money without coverage and cannot give loans to the Government. Also, it cannot act as "last resort ", or lend money to banks, and cannot directly finance economic development. The only monetary instrument that can be used by CBBH is required reserve rate. Also, it is important to emphasize the independence of the CBBH, which is provided through the Law on the Central Bank of Bosnia and Herzegovina (1997) which aims to prevent the negative impact of government on the economy because of the current political motives. Although some authors believe that there should be a modification of the Currency Board in Bosnia and Herzegovina due to defects, which are reflected in the high interest rate spread (the difference between

lending and deposit interest rates, active charged on the basis of loans and passive underlying the calculation of interest for collected deposits and other funds) (Savić, Savić, 2011), CBBH fully meets the planned objective which is defined by the *Law on the Central Bank of Bosnia and Herzegovina (1997)* in Article 2, paragraph 1, which is to "attain and maintain the stability of the domestic currency (BAM) ...".

In Graph 1 we show the average inflation rate in the period from 2009 to 2014 in countries of the ex-Yugoslavia. As a base for data collection was used the official statistics of the World Bank, as a measure of inflation that takes the consumer price index (CPI) using Laspeyres formula.



Graph 1: Average inflation in the period from 2009- 2014 in countries of the former Yugoslavia

Source: <http://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>, accessed 13.08.2015

According to Graph 1 we can see that the average inflation during the period from 2009 - 2014 was the lowest in Bosnia and Herzegovina in the amount of 1.08%. B&H is followed by Republic of Slovenia with 1.51% and The former Yugoslav Republic of Macedonia with an average of 1.74% in this period. Somewhat higher inflation during the period of 2009 - 2014 had the Republic of Croatia 1.85%, and Montenegro 2.20%, while by far the highest inflation rate of all countries in the region had the Republic of Serbia with the average amount of 7.08%.

Table 4 presents a detailed analysis of each of the above countries of the former Yugoslavia from 2010 to 2014. In this table it is possible to see annual average inflation for each year respectively.

Table 4: The average annual inflation rate for the period from 2010 – 2014

Country	2010	2011	2012	2013	2014
B&H	2,19	3,68	2,05	-0,09	-0,93
Croatia	1,04	2,25	3,42	2,21	-0,21
Serbia	6,14	11,14	7,33	7,69	2,08
Montenegro	0,65	3,45	4,15	2,21	-0,71
Slovenia	1,84	1,81	2,60	1,76	0,20
FYR of Macedonia	1,51	3,90	3,32	2,78	-0,28

Source: <http://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>, accessed 13.08.2015

As we can assume, according to this analysis Bosnia and Herzegovina has the best results in relation to the average annual inflation rate. Although in 2010 B&H compared to other countries, had the second largest rate of inflation after the Republic of Serbia, in the next 3 years in other countries of the former Yugoslavia, the annual inflation rate increased a lot more than in B&H. While Bosnia and Herzegovina has the lowest inflation rate in the countries of former Yugoslavia, the Republic of Serbia has the highest.

Based on the previous two analyzes, Graph 1 and Table 4 we can conclude that the CBBH more than satisfactorily carries out its work relating to the maintenance of low levels of inflation, which is still the lowest compared to other countries in the region. The work of CBBH is facilitated by the required coverage of BAM in relation to euro; however, this in no way diminishes the work of this institution.

If we consider that Stabilization and Association Agreement entered into force for Bosnia and Herzegovina on 1 June 2015, one of the main economic conditions is that inflation must not exceed a maximum of 1.5% inflation rate in the three member states of EMU which have the lowest rates of inflation (Kraft, Stručka, 2002). When we take into account the year 2014, according to World Bank data, the three countries with the lowest inflation rate or negative inflation rates are Bulgaria (-1.4%), Cyprus (-1.4%) and Greece (-1,3%). In the same year, the inflation rate in B&H was -0.9%, and if we add 1,5% of the average of these three countries ($-1,36\% + 1,5\% = 0,14\%$), then B&H meets this point of Maastricht criteria. Of course, to gain access to the European Monetary Union, it is necessary to meet the other 3 criteria also (deficit, external debt and interest rates) in order to fully complete this process.

Table 5: Inflation rates in selected countries and Bosnia and Herzegovina in 2014

Country	Inflation rate in 2014
Bulgaria	-1,6%
Greece	-1,4%
Cyprus	-0,3%
Bosnia and Herzegovina	-0,9%

Source: <http://data.worldbank.org/indicator/FP.CPI.TOTL.ZG>, accessed 13.08.2015.

We can say that the CBBH is one of the few institutions that do its job extremely well, and perhaps one of the main reasons is precisely the political independence. Although the CBBH is "crippled" by inability to use other monetary policy instruments, this analysis shows that it is not economically unjustified in view of the results achieved so far. Of course, after joining the European Union, one day, the CBBH will probably have to modify its model of organization; however, it will have to be done in a quality manner and with great caution in order to avoid a sudden increase in inflation, interest rates or other economic indicators.

CONCLUSION

Due to the detailed analysis that was made in this paper, and concerning the consolidation of the fiscal system and inflation as a monetary phenomenon we confirm that monetary policy is in much better position compared to fiscal policy in B&H. Fiscal consolidation of B&H should go in the direction of creating the conditions and scope for capital investments, rationalization of consumption, and protection of the poorest population of B&H. In this regard, the special importance should be given to the ongoing maintenance of fiscal discipline and making a package of economic programs. Protection of the financial sector to boost investment and business environment is a very important factor for the macroeconomic stability and economic growth in B&H. Due to the Currency Board arrangement, which expresses its importance in developing countries, such as in this case, with a view of macroeconomic stability and economic growth, it is important that the legislative and executive authorities further strengthen and stabilize relations with the Central Bank of Bosnia and Herzegovina, and other relevant banking institutions. Because of the complex and different fiscal system in B&H, created as a result of the constitutional structure of Bosnia and Herzegovina under the Dayton Agreement, legislative and executive authorities of B&H must strengthen fiscal consolidation in B&H, with constructive structural reforms, with a greater contribution and importance of the Fiscal Council of B&H, in order to eliminate existing problems. When cutting unnecessary expenditure in the budget is necessary to establish which state institutions financed from the budget justify the work efficiently and effectively in expenditures, and which state institutions do not justify the money allocated from the budget. In reforming the fiscal system, the authorities in Bosnia and Herzegovina should be aware of the fact that they themselves must be part of the reform process that they should abolish certain of their privileges in order to reduce budget expenditures, due to the high share of GDP that goes on their wages and other fees. And finally, if we take into account the fact that the reform agenda adopted by the authorities in Bosnia and Herzegovina means losing any autonomy in decision-making, and provide complete control and monitoring of the decision-making process to the international community, we get the impression that B&H gave their fate into the hands of the international community, on mercy, to get it out of the large public debt, or disfavour, to experience the so called "Greek scenario" in Bosnian way. It

is worrying, as evidenced by numerous world experiences that countries that have opened their doors and accepted the recommendations of the IMF (Argentina) experienced total bankruptcy, as opposed to countries which have not adopted the recommendations of the IMF, that have emerged from the crisis and achieved rapid economic growth (China, India). Central Bank of Bosnia and Herzegovina, on the other hand, meets the objectives that are placed in front of her. Bosnia and Herzegovina has the lowest rate of inflation in the region, and the current situation meets the Maastricht criteria maintaining price stability. As one of the main reasons of such results is the independence of the CBBH which does not allow political malfeasance which we normally see in other state institutions. Although organized on the principles of the Currency Board, given the current political situation in the country, it is probably the best to keep this model of organization before the changes become inevitable.

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THE INFLUENCE OF TAX RATES AND INCENTIVES ON FOREIGN DIRECT INVESTMENTS INTO SERBIA

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ABSTRACT

Economic growth of transition countries depends on capital inflow, while stable and competitive tax system apart from independent and efficient institutions, stable judicial system, market economy and developed infrastructure are considered to be the factors influencing investment inflow and economic growth of a country.

Foreign direct investments considerably influenced global economic development and integration during 1990s. Numerous researches have shown that foreign direct investments in transition economies stimulate economic growth, technical innovations and speed up restructuring of companies. Economic growth of Serbia began from the year 2000 after two decades of negative growth. According to the World Bank data, until the beginning of the world economic crisis in 2008, GNP of Serbia grew by 5.5% annually on average, and it was on the level of other transition countries. The growth was boosted by the inflow of foreign capital and a significant regulatory reform, the aim of which was improvement of business environment.

The regulatory reform, which undoubtedly contributed to the economic growth, was the reform of the tax system, which simplified tax procedures and considerably harmonized domestic regulations with the EU legislation.

An increasing number of countries puts serious efforts into attracting foreign direct investments. Since tax rates and tax incentives are perceived as a major drive in location decision making, various investment incentives as a global trend have found their place in domestic legislation, too.

Foreign direct investment inflow into Serbia was among the highest ones in the region. As the World Economic Forum identifies tax rates and tax legislation to be among the key causes of Serbia's low competitiveness, this paper researches whether and to what extent the tax rates and incentives may have contributed to the foreign direct investment inflow.

Key words: *Foreign Direct Investments, Taxes*

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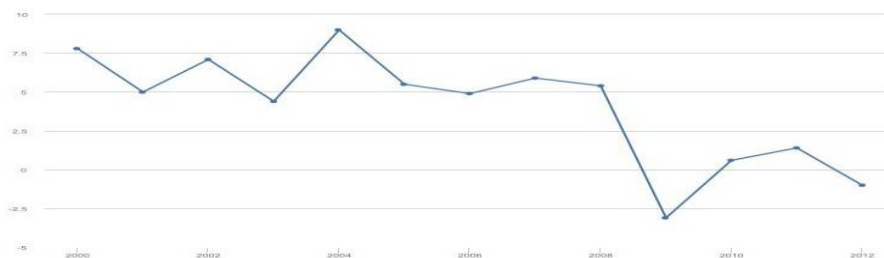
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INTRODUCTION

Economic growth of transition countries depends on capital inflow, while stable and competitive tax system apart from independent and efficient institutions, stable judicial system, market economy and developed infrastructure are considered to be the factors influencing investment inflow and economic growth of a country (Carstensen & Toubal, 2003). Foreign direct investments (FDI) have influenced global economic development and integration considerably during 1990s. Simultaneously with the FDI inflow, the process of transition from socialism to capitalism and integration of the countries of Central and Eastern Europe into the global economy and capital flows took place. Numerous researches have shown that foreign direct investments in transition economies stimulate economic growth, promote technical innovations and speed up restructuring of companies (Bevan, Estrin, 2004, pp. 775).

Foreign direct investment inflows worldwide in 2014 dropped by 8% to an estimated US\$1.26 trillion due to instability of the global economy, geopolitical risks and policy uncertainty. Lowered investments in the United States influenced the drop of the level of FDI flows in the world. Foreign direct investments to developed countries declined by 14% to an estimated US\$511 billion, as the consequence of the drop in investments in the United States. Flows of foreign direct investments to the European Union reached an estimated US\$267 billion, which is a 13% increase on 2013, but is still only one-third of the 2007 highest level. Flows of foreign direct investments to transition economies of US\$ 45 billion were more than halved as the consequence of regional conflict, sanctions against Russia over Ukraine crisis, and unfavorable prospects for growth, which discouraged foreign investors to invest in them, especially investors from developed countries. FDI of developing economies reached a new high of more than US\$ 700 billion, which is 4% higher than 2013, and a global share of FDI of 56%. A stable foreign direct investment rise remains is not expected soon. Global economic prospects, volatility in currency and commodity markets and increased geopolitical risks will influence FDI flows negatively. On the other hand, according to research of the United Nations Conference on Trade and Development (UNCTAD) on global investment trends in 2015, stable economic growth in the USA, lower oil prices that increase demand and proactive monetary policy in the Eurozone together with increased liberalization and promotion measures, will favorably affect FDI flows (Global Investment Trends Monitor, 3/10/2015).

Economic growth of Serbia began from the year 2000 after two decades of negative growth. According to the World Bank data, until the beginning of the world economic crisis in 2008, GNP of Serbia grew by 5.5% annually on average, and it was on the level of other transition countries. The highest growth of 9% was recorded in the period from 2000 to 2012 in the year 2004, while in 2009 negative growth of -3.1% was recorded (Graph 1, Table 1) (World Development Indicators, 5/18/15).



Graph 1: Annual GNP in Serbia in %

Source: World Bank, World Development Indicators

The average growth of Serbia in the period from 2000-2008 is approximately of the average economic growth of other transition countries (World Development Indicators, 2015).

Table 1: GNP growth from 2000-2012

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7.76	4.99	7.12	4.42	9.05	5.54	4.90	5.89	5.37	-3.12	0.58	1.40	-1.02

Source: World Bank, World Development Indicators

Economic growth in this period was encouraged by inflow of foreign capital and considerable reform with the aim to improve business environment. This trend was interrupted by global economic crisis.

The regulatory reform which undoubtedly contributed to the economic growth was introducing of value added tax (VAT) in 2005, which simplified tax procedures, strengthened budget incomes and significantly harmonized regulations with the EU legislation. Thorough restructuring of the banking system contributed to improvement of allocation of capital and simplified loan procedures, privatization of 1,800 companies revived business activities of some of them and strengthened the base of Serbian market economy (United Nations Conference on Trade and Development Voluntary Peer Review of Competition Law and Policy: Serbia Full Report, 5/18/15).

During the last two decades, economy of European countries has significantly changed. Among the factors which positively influenced this change is integration of ten countries which had been behind the „Iron Curtain“ into European Union after radical reforms of economy. Until the mid-1990s, GNP of most countries recorded significant decline, while business activities subsequently became much more dynamic. Dynamic economic activity and EU membership candidate status attracted considerable foreign direct investments. As tax rates of the new member states were relatively low, political debates were held in the EU on the influence of tax rates and tax incentives on the foreign direct investments flows (Wolff, 2007, pp. 327).

The fact is that FDI of multinational companies grew noticeably faster than other international transactions, especially among different countries. This trend led to the increased interest of global economic literature for empiric researches of the basic motives for FDI. Blonigen explained that two principal motives for FDI are distribution of different phases of production to the countries in which expenses of production are lowest through vertical FDI, while horizontal FDI are replication of the entire production process in different country in order to approach a foreign market. Thus empirical studies explain FDI by factors which are in connection with company itself and external factors, i.e. the size of the market in case of horizontal FDI and labor price and tax policy in case of vertical FDI (Blonigen, 2005, pp. 383).

An increasing number of countries puts serious efforts into attracting multinational companies. Since in the literature lower tax rates and tax incentives are considered to be the motive for investment location decision, fiscal incentives as global trend have found their place in Serbian regulations. The main aims and guidelines of the Government of the Republic of Serbia in the forthcoming period based on the Fiscal Strategy for 2015 with projections for 2016 and 2017 are economic policy focused on creating stable and predictable business environment necessary for growth of economic activity and increasing of share of private sector in production, employment and investments. For the purpose of achieving these goals, so far a number of reform regulations has been adopted with the aim to neutralize structural weaknesses of economy and to create the basis for growth which is sustainable on the long run (Fiscal Strategy for 2015 with Projections for 2016 and 2017, 5/18/15).

Recession and crisis in the Eurozone have influenced flow of foreign direct investments in Europe. Despite of them, investors still see Western Europe as the second most desirable destination for investments, while Central and Eastern Europe is in the second place globally (Ernst,Young's 2012 European attractiveness survey, 5/18/15). Foreign investments are optimal source of capital because of the poor economic performances and lack of domestic capital for decreasing foreign trade deficit, encouraging export and economic expansion, whether they should come from companies, acquiring of ownership or investments into shares in the existing business entities, special forms of foreign investments such as concessions or Build-Operate-Transfer activities.

Inflow of foreign direct investments in Serbia according to the World Bank report for the period from 2009-2013 relative to the countries of the region, i.e. to Bosnia and Herzegovina, Croatia, FYR Macedonia, Montenegro and Slovenia, has varied considerably (Table 2). However, in 2010, 2011 and 2013 in respect to the observed countries in the region, Serbia had the largest inflow of foreign direct investments.

Table 2: Net inflow of FDI in US \$ in former SFRY countries

	2009	2010	2011	2012	2013
<i>BH</i>	138,511,020	443,840,207	471,610,992	334,821,080	315,018,539
<i>Croatia</i>	3,400,982,324	845,077,448	1,242,601,505	1,336,488,216	588,376,068
<i>Macedonia</i>	259,530,321	301,441,682	507,920,733	332,587,282	376,454,351
<i>Montenegro</i>	1,549,312,935	758,407,500	556,257,883	618,367,296	446,490,330
<i>Serbia</i>	1,935,601,654	1,340,194,855	2,700,435,377	1,185,768,461	1,974,338,182
<i>Slovenia</i>	-354,386,861	634,417,624	816,502,676	-227,373,077	-418,664,939

Source: World Bank, World Development Indicators

The principal aims of a tax system as an element of macroeconomic system are, among other, collecting revenues in the amount sufficient to cover public expenditures as the fiscal goal, but also fulfillment of some other extra-fiscal goals, such as stability of prices, full employment, equilibrium in the balance of payments, sustainable economic growth, which requires foreign investments. Serbia as a transition country in the status of candidate for European Union membership is obliged to pay special attention to competitiveness as the central problem in creating policy of economic growth and economic development. According to the last Global Competitiveness Report 2014-2015 of the World Economic Forum, Serbia holds the last place among five former SFRY countries (Table 3), and the 94th position of 144 countries which were analyzed for the Report, which represents advancement by one position relative to the 95th position which Serbia held according to the Global Competitiveness Report 2012-2013 (Global Competitiveness Report, 5/18/15).

Table 3: The global competitiveness index of former SFRY countries rankings

	<i>Montenegro</i>	<i>Croatia</i>	<i>FYR Macedonia</i>	<i>Serbia</i>	<i>Slovenia</i>
2014-2015	67.	77.	63.	94.	70.
2012-2013	72.	81.	80.	95.	56.

Source: World Economic Forum, Global Competitiveness Report

The most challenging factors and causes of low competitiveness of Serbia according to this Report are inefficient bureaucracy, approach to finance, corruption, political instability, government instability, tax rates, tax regulations, criminal and theft, inadequate infrastructure, restrictive labor regulations, foreign currency regulations, poor labor ethics of the national workforce, inflation, inadequately educated workforce, inadequate capacity for innovations and poor public health.

In spite of this poor position according to the observed criteria, Serbia was constantly between first two countries according to the net inflow of investments in the period from 2009-2013.

Tax regulations and legal and economic literature define tax as the most significant part of public income of the contemporary states which provides funding of public expenditures. Tax is an instrument of public income by which a state collects money from subjects under its tax authority without direct counter service in order to cover its financial needs and achieve other social and economic goals. Participation of taxes on income and property in the structure of public income is higher in the developed countries, while in the developing countries value added tax and excise duty participate in higher percentage.

TAXATION IN SERBIA

Tax system in Serbia is made up of three objects of taxation: income (which includes personal income tax and corporate income tax); property (which includes real estate property tax, inheritance and gift tax and transfer and usage tax); consumption (which includes value added tax and excise duty, as well as taxation of consumption of some goods).

PERSONAL INCOME TAX

The personal income tax rate in Serbia is 12% on salaries. Other personal income apart from salaries is taxed at the rate of 20% in most cases. Personal income tax is payable by individuals on various sources of income, such as salaries, income from self-employment, income from forestry and agriculture, income from capital, income from real estate, income from industrial property rights and royalties, and other income. As for the personal income tax on salaries, the employer is obliged to calculate and pay personal income tax on behalf of his employees, while the person taxed is the employee. The gross salary is taxable base, and it includes the net salary and social security contributions (Personal Income Tax Law, 5/19/15).

Serbia's personal income tax regime is very attractive. Taxpayers are the persons with a residence or business premises in Serbia, or the persons who spend at least 183 days over a period of 12 months in Serbia. As for the non-residents in Serbia, only their income generated in Serbia is taxed.

If annual income exceeds the amount of threefold the average annual salary in Serbia, it is taxed. The annual income of up to six times average annual salary in Serbia is taxed by 10%, and the annual income exceeding six times average annual salary in Serbia by 15% (Individual Income Tax Law, 5/19/15).

PROPERTY TAX

The rate of the property tax varies depending on maintaining business accounts by taxpayers. For taxpayers who maintain business accounts, the tax rate is 0.40%. The rate for other taxpayers is progressive. The property tax in Serbia applies to real estate on which individuals have rights of ownership, residence, utilization, usufruct, a lease for a period longer than 1 year, and utilization of city building land with an area of more than 10 acres. Real estate are residential and commercial buildings, office spaces, garages, buildings and recreational space (Property Tax Law, 5/19/15).

As far as the tax rates on transfer of ownership rights are concerned, the tax rates are as follows:

- A 5% tax rate in case of transfer of ownership rights
- The tax rate for transfer of rights over agricultural, forest land and used motor vehicles is 2.5%

Tax rates on transfer of absolute rights are proportional:

- For transfer of shares in legal entity and stocks and bonds tax rate is 0.3%
- For transfer of other absolute rights tax rate is 5% (Property Tax Law, 5/19/15).

CORPORATE INCOME TAX

Corporate income tax is imposed on profits of a company (joint-stock company, limited liability company, general partnership, limited partnership, state owned enterprises, cooperative, etc.). Taxable income is usually comprised of business income and capital gains.

As far as tax base and taxable income are concerned, resident companies are responsible for paying taxes on their worldwide income, whereas non-resident legal entities are responsible for paying taxes on income generated within the territory of Serbia. Taxable income is calculated in accordance with the tax balance sheet, which is specially prepared for that purposes. For tax purposes, the branch and the head office of a foreign company are treated as separate entities. Generally, the corporate income tax is self-assessed by the taxpayer. Both corporate income and capital gains are taxed at the rate of 15%. However, capital gains are subjected to a 20% rate for a non-resident taxpayer (e.g. branch office). Other related withholding taxes (e.g. interests, dividends, royalties) are taxed at rates between 15% and 25 %, nevertheless, different rates may be stipulated in Double Taxation Avoidance Treaties (Corporate Income Tax Law, 5/20/15).

Serbia has concluded more than fifty Treaties, including those with Cyprus, Greece, Russia and Germany.

VALUE ADDED TAX

Value Added Tax is charged on supplies of goods and on services provided by a company, AN entrepreneur or individual in the course of pursuing business activities within the territory of THE Republic of Serbia, as well as on the import of goods in Serbia, whereas export is exempt from taxation. The standard VAT rate in Serbia is 20%, whereas the reduced rate of 10% is applied to supplies of certain products of public interest, including but not limited to: basic food products (e.g. sugar, cooking sunflower oil, bread, milk, flour, edible fats; fruits, vegetables, meat, fish, eggs); human and animal medicines, orthopedic and prosthetic appliances; text books and teaching aids, natural gas, etc. VAT Law provides an extensive list of exemptions with the right to deduct input tax (so called “zero rated supply”) and ordinary exemptions without such right. Separately, VAT Law provides for exemptions applicable to the import of certain goods (Value Added Tax Law, 5/21/15).

VAT Law provides for exceptional treatment of small taxpayers the annual turnover of which does not exceed RSD 8,000,000 or is not estimated to exceed this amount. These taxpayers are not subjected to VAT unless they choose to be taxed.

If the taxable income exceeds the amount of RSD 50,000,000, the taxpayer is obligated to submit a monthly VAT return, otherwise VAT return shall be filed quarterly.

EXCISE DUTY

Petroleum products, tobacco products, alcoholic beverages, coffee, bio-fuels and bio-liquids products are taxed in accordance with the excise regime in the Republic of Serbia according to the Excise Duty Law. The obligation to pay excise duty occurs when these products are produced in the Republic of Serbia or imported (Excise Tax Law, 5/22/15).

TAX INCENTIVES

CORPORATE PROFIT TAX HOLIDAY

If companies invest an amount exceeding €9 million in fixed assets and employ at least 100 additional employees during the investment period, they are exempt from Corporate Profit Tax for a period of 10 years. The tax exemption right applies from the first year in which companies report taxable profit.

CARRYING FORWARD OF LOSSES

The tax loss reported on a tax return may be carried forward and tax liability during up to five high-earning years may be reduced.

AVOIDING DOUBLE TAXATION

Taxpayers are entitled to a Corporate Profit Tax credit in Serbia if they have paid tax on the profit generated abroad. Taxpayers who earn revenue and pay Personal Income Tax in another country have the same rights in case of existence of a double taxation treaty.

REDUCED SALARY LOAD

Employers are entitled to a significant tax and contributions on net salary since July 1st, 2014, until June 30, 2016. The reduction depends on the number of new jobs created:

- 1-9 new jobs: 65% reduction;
- 10-99 new jobs: 70% reduction;
- 100+ new jobs: 75% reduction.

This tax relief is aimed at decreasing the overall salary load to 20%, which is considered a competitive salary load.

ANNUAL INCOME TAX DEDUCTIONS

If the annual income of non-residents exceeds the amount of three average annual salaries in Serbia it is taxed at the rate of 10% in case of the annual income below six average annual salaries in Serbia, and 15% in case of the annual income above six average annual salaries in Serbia. The taxable income may be reduced by up to 50% - by 40% of an average annual salary for the taxpayer and by 15% for dependent family members.

FREE ECONOMIC ZONES

Income generated through commercial activities in the Free Zones in Serbia is exempted from Value Added Tax. There are twelve active free zones, currently operating in the country. Foreign companies can establish a privately owned free zone based on the project approved by the government. Free zones are ring-fenced enclaves exempt from national import and export duties and formally operating outside the customs area of their host country. The free economic zones offer not only customs exemptions, but an entirely separate regulatory environment from the rest of the economy.

Free Economic Zones can be established and managed by foreign and domestic companies according to the Law on Free Economic Zones. Profit made within free economic zones can be transferred to any state including Serbia without previous approval and imposing any taxes or duties, which allows for a wide range of opportunities for cooperation of domestic and foreign industries.

Free economic zones had turnover of 5 billion euros in the year 2013, which represents an increase of 97% relative to the previous year. Participation of raw materials from Serbia in production in 2013 was increased by 260% relative to the previous year (Serbia Investment and Export Promotion Agency, 5/18/15). In free economic zones of Serbia there are 226 multinational companies, which employ more than 18.000 workers. According to the data of the Serbia Investment and Export Promotion Agency (SIEPA), investments in free economic zones of Serbia in 2013 were over billion euros. Export of the goods from free economic zones was increased by 143% to 2.1 billion euros, which makes one fifth of total export from Serbia.

OTHER INCENTIVES

CUSTOMS-FREE IMPORTS OF RAW MATERIALS AND SEMI FINISHED GOODS

If foreign investors in Serbia operate in one of the free zones, or if they obtain a permit from customs office for outward processing production, they can benefit from customs free import of raw material and semi-finished goods production for export. All the finished products in both cases must be designated for export.

CUSTOMS-FREE IMPORTS OF MACHINERY AND EQUIPMENT

Machinery and imported equipment which are the share of a foreign investor in a company's capital are exempt from paying customs duty in Serbia.

LOCAL INCENTIVES

A variety of business incentives is available to companies at the local level. They depend on geographical location and they differ in scope and size. The most important ones include: city construction land lease fee exemptions or deductions and paying the fees in instalments if the prior consent of the Serbian Government is provided; other local fees exemptions or deductions.

STATE GRANTS

According to the investment incentives package for investors in Serbia, investment projects in services and manufacturing sector which may be subject to international trade are eligible for funding. The projects not eligible for funding are those in the sector of primary agricultural production, fishery and aquaculture, transportation, hospitality, lotteries, trade, the production of synthetic fibers, coal and steel, tobacco and tobacco products, weapons and ammunition, ship building, airports, energy industry, broadband networks, and companies in difficulties.

The funding decisions are based on the criteria set by the Decree on Terms and Conditions for Attracting Direct Investments (Decree on Terms and Conditions for Attracting Direct Investments, 5/22/15). The funding depends on the investment costs and the eligible costs of the gross salaries for new jobs creation over a two-year period after the implementation of the investment project. The funding of large enterprises may be up to 50% of the eligible costs for implementation of the investment project. The funding may be increased by up to 20 percentage points in case of small companies and up to 10 percentage points in case of medium companies.

In case of eligible costs exceeding 50 million euros, the amount awarded for investments cannot not exceed 25% of the total value of the eligible costs, while in case of eligible costs exceeding 100 million euros, the amount may not be higher than 17% of the eligible costs of the investments.

PREFERENTIAL TRADE AGREEMENTS

According to the Background Report to the European Competitiveness Report (Falk et al., 2012), foreign direct investment inflow depends on a series of drivers, the most influential of which are institutional environment, i.e. regulations regarding registration and operation of business entities, judicial system, efficient institutions, trade policy, trade agreements and regional integrations.

As far as Serbia's preferential trade agreements are concerned, the Republic of Serbia has treaties on preferential trade in force with Belarus, Turkey and European Free Trade Association (EFTA), which is force in trade with Switzerland and Lichtenstein, too.

Serbia signed Central European Free Trade Agreement in 2006. This unique multilateral agreement was signed by eight countries in South East Europe-Albania, Bosnia and Herzegovina, Bulgaria, Croatia, FYR Macedonia, Moldavia, Montenegro and Kosovo. This agreement replaced 32 bilateral agreements on free trade in the region, which contributed to liberalization of trade.

Apart from this, agreements on avoidance of double taxation with 54 countries considerably remove obstacles for foreign direct investments.

TAX COMPETITIVENESS OF SERBIA

Tax rates on dividends, corporate income, royalties, interest and capital gains differ considerably in the region.

Tax rates on corporate income in Serbia is 15%, and it differs from tax rates of other former SFRY countries. This tax rate in Bosnia and Herzegovina is 10%, in Croatia 20%, in Montenegro 9%, Slovenia 15%, Macedonia 10%. The average tax rate on corporate income in the region is 13.17%, which makes Serbia's tax rate on corporate income higher than the regional average (Table 4).

Table 4: Tax rate on corporate income in former SFRY countries in 2015

<i>Country</i>	<i>Corporate income tax rate</i>
<i>Bosnia and Herzegovina</i>	<i>10%</i>
<i>Montenegro</i>	<i>9%</i>
<i>Croatia</i>	<i>20%</i>
<i>Macedonia</i>	<i>10%</i>
<i>Serbia</i>	<i>15%</i>
<i>Slovenia</i>	<i>15%</i>

Source: World Bank Doing business database

Dividend tax for non-residents in Bosnia and Herzegovina is 5% and it is the lowest in the region. This tax rate in Montenegro is 9%, in Croatia 12%, in FYR Macedonia, Serbia and Slovenia 15%, in Slovenia, tax holidays are possible under certain circumstances (Table 5). This tax rate in Serbia is among the highest in the region, and it is higher than the average dividend tax rate for the region of 11.83%.

Table 5: Dividend tax in former SFRY countries in 2015

<i>Country</i>	<i>Dividend tax</i>
<i>Bosnia and Herzegovina</i>	<i>5%</i>
<i>Montenegro</i>	<i>9%</i>
<i>Croatia</i>	<i>12%</i>
<i>Macedonia</i>	<i>15%</i>
<i>Serbia</i>	<i>15%</i>
<i>Slovenia</i>	<i>15%</i>

Source: World Bank Doing business database

Tax rate on interest paid to non-resident companies is the lowest in Montenegro- 9%, in Bosnia and Herzegovina it is 10%, in Croatia generally 15%, except in cases of loans of banks and other financial institutions, on loans for purchasing goods for production, on interest paid to owners of corporate bonds. Tax rate of 20% in Croatia is applied on payments to legal entities which are residents of some countries. Slovenia applies tax rate of 15%, with the possibility of tax holiday. Serbia, too, has interest tax rate of 15% (Table 6). The average interest tax rate in the region is 10.67%, and Serbia's interest tax rate is among the highest in the region.

Table 6: Tax rate on interest in former SFRY countries in 2015

<i>Country</i>	<i>Tax rate on interest</i>
<i>Bosnia and Herzegovina</i>	<i>10%</i>
<i>Montenegro</i>	<i>9%</i>
<i>Croatia</i>	<i>15% with exceptions and 20%</i>
<i>Serbia</i>	<i>15%</i>
<i>Slovenia</i>	<i>15% and tax holiday</i>

Source: World Bank Doing business database

Tax on royalties for non-residents in Bosnia and Herzegovina is 10%, in Croatia 15% and 20% for residents of some countries, in Montenegro 9%, in Slovenia 15%, and in Serbia 20% (Table 7). Tax rate on royalties in Serbia is the highest in the region, while the average tax rate on royalties is 11.5%.

Table 7: Tax on royalties in former SFRY countries in 2015

<i>Country</i>	<i>Tax on royalties</i>
<i>Bosnia and Herzegovina</i>	<i>10%</i>
<i>Montenegro</i>	<i>9%</i>
<i>Croatia</i>	<i>15% and 20%</i>
<i>Serbia</i>	<i>20%</i>
<i>Slovenia</i>	<i>15%</i>

Source: World Bank Doing business database

Capital gains tax in Serbia is 10%, while capital gains of resident companies from abroad is taxed by 15% corporate tax. Capital gains tax in Bosnia and Herzegovina is 10%, while in Croatia capital gains is included in the calculation of the annual corporate capital tax. In Montenegro, capital gains tax rate is 9%, the same as capital gains tax rate of resident companies from abroad. This tax rate in Slovenia is 10% with the possibility of tax holiday of up to 50% under certain conditions. Macedonia has the lowest tax rate of capital gains tax of 7% (Table 8). Serbia's capital gains tax rate is the highest in the region.

Table 8: Capital gains tax rate of former SFRY countries in 2015

<i>Country</i>	<i>Capital gains tax rate</i>
<i>Bosnia and Herzegovina</i>	<i>10%</i>
<i>Montenegro</i>	<i>9%</i>
<i>Croatia</i>	<i>Included in calculation of corporate income</i>
<i>Macedonia</i>	<i>7%</i>
<i>Serbia</i>	<i>10% and 15%</i>
<i>Slovenia</i>	<i>10%</i>

Source: World Bank Doing business database

The analyzed data on tax rates demonstrate that Serbia's tax rates on dividends, corporate income, royalties, interest and capital gains are not competitive in the region of former SFRY considering the fact that in each analyzed case tax rates are higher than average for the region of former SFRY and among the highest in case of capital gains tax.

CONCLUSION

The drivers influencing economic growth are capital inflow, stable and competitive tax system, independent and efficient state institutions, stable judiciary system, market economy and developed infrastructure. Economic growth of Serbia from 2000 to 2007 was boosted by inflow of foreign capital and significant reform of business environment.

Tax rates are identified as one of the causes of low competitiveness of Serbia according to the Global Competitiveness Report of World Economic Forum. At the same time, analysis of tax rates in Serbia in 2015 and their comparison with tax rates of former SFRY countries prove that according to the tax rate Serbia cannot be considered to be competitive in the region.

On the other hand, data regarding inflow of investments in Serbia in the past period demonstrate that other location specific incentives more than tax rates themselves influence decision regarding investment destination foreign capital inflow. A wide range of tax and other incentives obviously encourage investment destination decision regardless of the tax rates. Investment destination decision depends largely on the taxation regime since most world economies offer tax holidays and tax credits for a certain period in order to attract foreign investments. Tax rates are not precise indicator of tax burden of foreign direct investments considering the fact that they do not provide complete Figure of tax burden, which includes both tax rates and tax incentives. The effective tax burden is difficult to estimate since incentives for foreign investments are subject of a large number of regulations.

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INTEREST RATE PASS-THROUGH IN SERBIA: AN ASYMMETRIC THRESHOLD COINTEGRATION ANALYSIS

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ABSTRACT

The aim of this analysis is to test the long run relationship between the monetary policy rate and different bank lending interest rates in Serbia and to estimate how much of the changes in bank lending rates can be attributed to changes in the key monetary policy rate and the money market interest rate. We look at the period from January 2007 to December 2014.

Estimation results suggest that there is a significant long run relationship between bank lending rates and money market rates. However, interest rate pass-through in Serbia appears to be incomplete for both corporate and household lending rates.

In order to test the possibility of asymmetric adjustment of lending rates, we implemented asymmetric TAR and MTAR cointegration models used by Enders and Siklos (2001). Results of analysis suggest nonlinear adjustment of household lending rate, while in the case of corporate rates it is not detected.

Key words: *Monetary Policy, Monetary Transmission Mechanism, Interest Rate Pass-Through, Asymmetric Threshold Cointegration.*

JEL Classification: *C22, C51, E43, E52*

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336.781.5(497.11)"2007/2014"*

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INTRODUCTION

The main objective of most central banks is maintaining a low and stable rate of inflation in order to provide good environment for sustainable economic growth. In order to achieve this goal central banks adjust their official short term interest rates. In the first stage of transmission process the official rates affect money market rates, and in the second stage the money market rates influence retail bank interest rate. Finally, the level of deposit and lending rates influences the real economic activity (consumption and investment).

Since the inflation targeting is the monetary policy strategy in Serbia how fast and to what extent a change in the central bank interest instrument modifies inflation is of the great importance to the monetary authority. Therefore, the monetary authority necessarily has to analyze monetary transmission mechanism through different channels, where estimating the interest rate pass-through effect on economic activity and inflation has become crucial.

Interest rate pass-through could be defined as a speed of adjustment of lending and deposit bank rates to monetary policy interest rate. Higher interest rate pass-through indicate more effective interest rate channel. Complete pass-through means that changes in policy rates are totally transferred to banking retail rates and monetary policy decisions can be implemented successfully by central banks. Such a pass-through mechanism indicates the effectiveness of interest rate channel in establishing price stability and strong banking system.

Most of the empirical studies based their analysis on assumption that each change of key policy rate will be reflected in the changes in money market rates, bank lending rates, and bank deposit rates. Therefore, there is a long-run equilibrium among market rates and monetary policy rates. Although theoretically the pass-through is expected to be close to one, most empirical studies on different countries have found incomplete interest rate pass-through, even in the long run. Possible explanation of this phenomenon is some imperfection of markets, such as the lower degree of competition among banks, presence of asymmetric information, etc.

The aim of this analysis is testing the long-run relationship between the monetary policy rate and different bank lending interest rates in Serbia. Our aim is to estimate how much of the changes in bank lending and deposit rates can be attributed to changes in the key monetary policy rate and money market interest rates. The dataset consist of monthly per annum average interest rates on new business corporate and household loans on monthly basis covering period from January 2007 to December 2014.

The paper is organized as follows. The next section provides rationales for an asymmetric interest rate pass-through in general. Section 3 describes the data and the methodology. The estimation results are presented in Section 4. Finally, Section 5 concludes.

EXPLANATIONS OF ASYMMETRIC INTEREST RATE PASS-THROUGH

Empirical studies show that a transmission process from the central bank interest rate to the retail bank interest rate is incomplete and may be asymmetric. The change of certain economic indicators may cause an asymmetric adjustment process. First, it is the level of economic growth. In case when high levels of economic growth are observed, it is easier for banks to adjust lending and deposit rates. Subsequently, the demand for loans is higher and banks are more inclined to limit it by greater increases of their lending rates. Moreover, when the output gap is positive and high inflation occurs, the prices are usually adjusted more frequently and more completely in the whole economy, as well as in the banking sector.

On the other hand, higher market rate volatility connected with increased uncertainty lessens the size and the speed of pass-through. In other words, the level of pass-through is influenced by commercial banks' perception whether the change in policy rate is temporary or permanent. In times of higher policy rate or market rate volatility, banks wait to observe whether the changes in these rates are temporary before adjusting retail rates. In cases when the change is considered to be temporary, banks opt not to change interest rates in order to avoid so called menu costs (costs of adjusting interest rates to changes in policy rate). Cross-country studies confirm the abovementioned (see Cottarelli and Kourelis, 1994; Mojon, 2000; Sander, Kleimer, 2004a, 2006).

Complete interest rate pass-through may not prevail in the presence of asymmetric information (adverse selection and moral hazard). Stiglitz and Weiss (1981) argue that increasing lending rate attract borrowers with higher risk preferences since they accept higher rates as their projects have higher expected return. Therefore, although it seems to be profitable, banks might be unwilling to increase lending rates.

The imperfect substitution between bank deposits and other money market and capital market instruments may cause slower interest rate pass-through. The degree of disintermediation and the availability of non-bank financing options affect the pass-through through the increase of elasticity of loan demand and deposit supply to changes in key policy/money market rate. Namely, in developed capital and money markets, companies do rely not only on loans, but also on other, non-bank financing instruments what makes the loan demand more sensitive to changes in interest rates. On the other hand, existence of alternative investment options to deposits affects the elasticity of deposit supply to change in interest rates.

Intensity of competition among banks also influences interest rate elasticity. Low degree of competition among banks and other financial institutions usually results in lower interest rate pass-through (Kot, 2004), while higher level of competition among banks appears to cause faster interest rate pass-through (Gropp et al., 2007). According to the structure-conduct-performance hypothesis the level of concentration is inversely related to the degree of competition, because high level of concentration encourages firms to collude. Sørensen and Werner (2006)

show that the level of concentration has negative impact on the speed of interest rate pass-through in the Euro area. Whereas, Corvoisier and Gropp (2001), by investigating the role of concentration in banking sector in Euro zone, find that when an increase in concentration is observed, banks set less competitive rates on loans and demand deposits but not on savings and time deposits. Furthermore, there is a theory in which bank customers can be distinguished as sophisticated and as unsophisticated (Rossen, 1995). The more unsophisticated customers in the market may cause lower and sluggish interest rate pass-through and less pressure for banks to be competitive. Also, the expectation of market participants might play an important role. Becker et al. (2010) point out that some banks may wait adjusting their rates for a sequence of small changes to accumulate or for a large change of money market rates.

Level of capitalization and liquidity position of the bank may influence interest rate pass-through as well. Well-capitalized banks and banks with better liquidity position are less forced to adjust to changes in monetary policy. On the contrary, less liquid and less capitalized banks will adjust their rates faster and in a higher extent, since they rely more on market borrowing and have less ability to neutralize the effects of changes in market rate.

Banks' assets quality can also influence the pass-through. Namely, banks with weak balance sheets may react to expansive monetary policy not by extending new loans at lower rates, but with improving their liquidity position. In other words, already exiting NPLs crowd out new loans (see Saborowski, Weber, 2013).

More general factors related to country's institutional and financial structure, such as absence of short-term instruments market, existence of entry barriers and restrictions on international capital flows, public ownership in banking system, etc., also have impact on the speed and size of pass-through.

DATA AND METHODOLOGY

DATA

To examine the interest rate pass-through mechanism in Serbia, we employed average yearly interest rates on new business corporate (C) and household (H) total loans on monthly basis. As a proxy of monetary policy rates we use central banks key policy rates (RR), as well as one/two week maturity money market rate BELIBOR (MMR). Our data set covers the period from January 2007 to December 2014. All data series are taken from National bank of Serbia website.

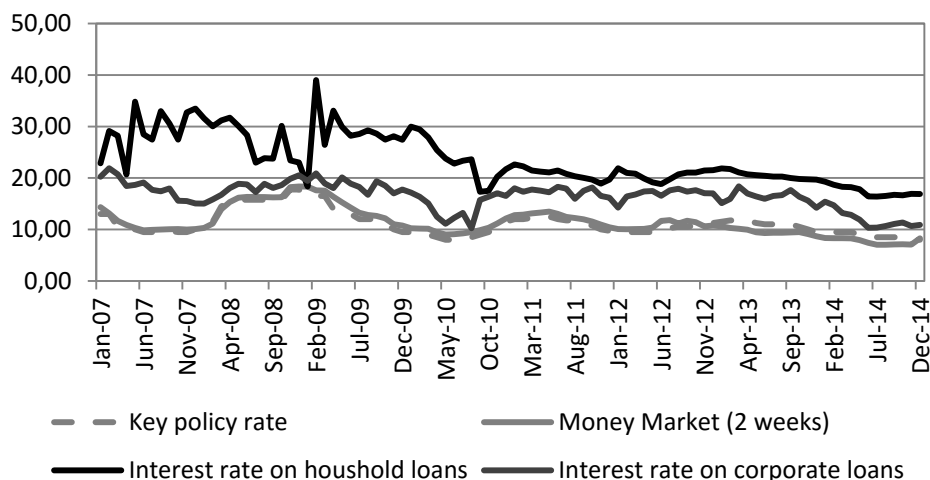


Figure 1: Interest rates in Serbia

Source: National bank of Serbia

Figure 1 shows that the short-term money market rates generally mirrored the key policy rate. Key policy rate movements were followed by moving money market rates and lending rates in the same direction, although relationship between lending rates on household loans and monetary policy actions is less evident. However, for more precisely conclusion, we need to test and estimate long run relationship.

ECONOMETRIC METHODOLOGY

Taking the standard Engle-Granger approach as benchmark, this section describes the TAR and MTAR type of cointegration test of Enders and Siklos (2001) along with the nonlinear ECMs within the context of the interest rate pass-through. The standard two-step Engle-Granger (1987) procedure developed for linear time series models requires OLS estimation of the long-run equilibrium relationship in the form:

$$i_t^l = \alpha + \beta i_t^{mmr} + u_t \quad (1)$$

where mmr and i_t^l refer to the money market and lending rates, respectively, and u_t is the stochastic disturbance term measuring the deviation of the lending rate from its equilibrium path. Coefficient α measures the mark-up (or down), β represent the degree of the pass-through in the long-run, with complete pass-through indicated by $\beta = 1$ and incomplete pass-through by $\beta < 1$. The second step of the Engle-Granger approach involves testing for the presence of cointegration, i.e. stationary of the u_t sequence, through the OLS estimation of the equation:

$$\Delta u_t = \rho u_{t-1} + \sum_{i=1}^p \lambda_i \Delta u_{t-i} + v_t \quad (2)$$

where ρ is the required number of lagged changes of Δu that ensures an iid structure for the disturbance term, v_t . Rejecting the null hypothesis of $\rho = 0$ implies stationarity of u_t , namely existence of long-run equilibrium between the money market and lending rates.

The traditional cointegration test overlooks the possibility of asymmetric adjustment. To address this problem Enders and Siklos (2001) propose a specification of asymmetric threshold autoregressive model by extending the Engle-Granger two step procedure with threshold autoregressive (TAR) model, as:

$$\Delta u_t = \rho_1 M_t u_{t-1} + \rho_2 (1 - M_t) u_{t-1} + \sum_{i=1}^p \lambda_i \Delta u_{t-i} + v_t \quad (3)$$

$$\text{where } M_t = \begin{cases} 1 & \text{if } u_{t-1} \geq \tau \\ 0 & \text{if } u_{t-1} < \tau \end{cases} \quad (4)$$

M_t is called the Heaviside indicator, ρ_1 and ρ_2 represent the speed of adjustment coefficients in two regimes, τ is the value of threshold.

Stationarity of u_t requires $\rho_1 < 0$ and $\rho_2 < 0$ and $(1 + \rho_1)(1 + \rho_2) < 1$. If u_{t-1} is above the threshold, the adjustment is measured by $\rho_1 u_{t-1}$, while if u_{t-1} is below the threshold, the adjustment is measured by $\rho_2 u_{t-1}$. For a threshold close to zero, $|\rho_2| > |\rho_1|$ implies sluggish downward adjustment in the lending rate, while for the cases where the τ is significantly different from zero this reflect that interest rate adjust differently to disequilibrium once a certain minimum deviation is exceeded, as stated by Sander and Kleimeirer (see Yildirim, 2012).

Enders and Siklos (2001) also propose momentum threshold autoregressive model (MTAR) which suppose that adjustment depends on changes in the disequilibrium, where the indicator function becomes:

$$M_t = \begin{cases} 1 & \text{if } \Delta u_{t-1} \geq \tau \\ 0 & \text{if } \Delta u_{t-1} < \tau \end{cases} \quad (5)$$

In both TAR and MTAR models, the null hypothesis of cointegration is testing by non-standard F test, denoted as Φ .

Once the threshold cointegration is established, one can use nonlinear threshold ECM (error correction model) to capture the short run and long run dynamics of money market and lending rates as:

$$\Delta i_t^l = \varphi_{10} + \sum_{i=1}^p \varphi_{1i} \Delta i_{t-i}^l + \sum_{i=1}^p \delta_{1i} \Delta i_{t-i}^{mmr} + \gamma_{11} M_t u_{t-1} \gamma_{12} (1 - M_t) u_{t-1} + v_{1t} \quad (6)$$

Where v_{1t} is the *idd* disturbance term with zero mean and constant variance, u_t . $l = \Delta i_t^l - \alpha - \beta m m r_{t-1}$, γ_{11} and γ_{12} are the error correction terms or speed of adjustment to the long-run equilibrium, M_t is the Heaviside indicator function which has form of (4) and (5) for TAR and MTAR type ECMs, respectively. The parameters φ_i and δ_i indicate short-run dynamics, with rejection of the null of $\delta_i = 0$, suggesting Granger-causality from the money market rate to lending rate. To test for the validity of this assumption Yildirim (2012) re-form the nonlinear ECM in equation (6) by setting money market rate as the dependent variable:

$$\Delta i_t^{mmr} = \varphi_{20} + \sum_{i=1}^p \varphi_{2i} \Delta i_{t-i}^{mmr} + \sum_{i=1}^p \delta_{2i} \Delta i_{t-i}^l + \gamma_{21} M_t u_{t-1} \gamma_{22} (1 - M_t) u_{t-1} + v_{2t} \quad (7)$$

In this context, the weak exogeneity assumption is supported when the money market rate does not respond to the disequilibrium error terms, with insignificant γ_{21} and γ_{22} coefficients, but may still be influenced by lagged changes in the lending rate as stated by Engle, Hendry and Richard (see Yildirim, 2012).

ESTIMATION RESULTS

UNIT ROOT TEST

Before starting our analysis, unit root test is done to check stationarity of the series. We use standard test: Augmented Dickey-Fuller (ADF) test (see Dickey and Fuller (1979), Dickey and Fuller (1981), Said and Dickey (1984)), Philips-Perron (PP) test due to Philips-Perron (1988) and Kwiatkowski, Philips, Schmidt and Shin (KPSS) test due to Kwiatkowski et al. (1992) to detect if the variables are non-stationary with stationary first differences. As the null hypothesis: ADF and PP test have unit root, whereas KPSS has stationarity. Critical values for ADF and PP are taken from McKinnon (1996), while for KPSS from Kwiatkowski et al. (1992).

In the ADF test Akaike Information Criterion (AIC) is used to indicate the lag length. Whereas for the PP and KPSS test we use bandwidths are chosen according to Newey-West using Bartlett kernel estimation method. Jönsson (2006) suggested using the Bartlett kernel estimation method while performing the KPSS test for small samples.

According to Table 1 and Table 2, existence of unit root cannot be rejected for all series. However, after taking the first differences, the ADF and PP tests shows that series are stationary at 1% significance level so that all series are integrated of order 1, I(1). Results of KPSS test in Table 3 show that the null hypothesis of stationarity is rejected for all series. Since all these tests have low power with short time spans of data we decided to rely on the results indicated by majority of the test (i.e. at least two).

Table 1: ADF unit root test results

ADF Test Statistic			ADF Test Statistic		
Level	Lag	Trend and Intercept	First difference	Lag	Trend and Intercept
C	1	-2.55	C	0	-11.69
H	3	-3.69	H	0	-17.66
RR	1	-2.18	RR	2	-3.53
MMR	1	-2.78	MMR	2	-3.81

Note: The critical values are: -4.05, -3.45, -3.15 at 1%, 5% and 10% statistical significance, respectively

Table 2: Philips-Perron unit root test results

Philips-Perron Test Statistic			Philips-Perron Test Statistic		
Level	Bandwidth	Trend and Intercept	First difference	Bandwidth	Trend and Intercept
C	3	-2.85	C	1	-11.71
H	4	-7.77	H	17	-30.40
RR	5	-2.22	RR	5	-6.83
MMR	5	-2.24	MMR	1	-4.76

Note: The critical values are: -4.05, -3.45, -3.15 at 1%, 5% and 10% statistical significance, respectively.

Table 3: KPSS unit root test results

KPSS LM Test Statistic			KPSS LM Test Statistic		
Level	Bandwidth	Trend and Intercept	First difference	Bandwidth	Trend and Intercept
C	6	0.09	C	2	0.05
H	6	0.07	H	7	0.35
RR	7	0.06	RR	5	0.05
MMR	7	0.08	MMR	5	0.04

Note: The critical values are: 0.21, 0.14, 0.11 at 1%, 5% and 10% statistical significance, respectively.

RESULTS OF THE ENGLE-GRANGER COINTEGRATION TEST

Results of Engle-Granger cointegration test are presented in Table 4. The results of the Engle-Granger cointegration test are reported for each lending rate. The null hypothesis of no cointegration is rejected at the 1 percent significance level for new business corporate loans, while existence of the long run relationship is not supported for new business loans to household. However, not only with respect to structure of monetary mechanism, but also with regard to Chart 1, a strong evidence of cointegration is anticipated for each lending rate. Since the Engle-Granger cointegration test have low power if adjustment to the equilibrium

is asymmetric, we rely on the TAR and MTAR type of cointegration test that account for potential nonlinear nature of the long run relationship between the lending rates and the money market.

Table 4: Results of Engle-Granger cointegration test for lending and money market rates

New business loans to household		New business corporate loans	
B	-0.78***	β	0.68***
test statistics of ADF unit root test for residuals	-2.41	test statistics of ADF unit root test for residuals	-3.53***

Source: Author's calculations. Significance levels are denoted as *, **, *** for 10%, 5% and 1%, respectively.

RESULTS OF THE TAR AND MTAR TYPE COINTEGRATION TEST

In order to examine the interest rate pass-through mechanism in Serbia, we first regress the each banking retail rate on the money market rate separately and then model residual according to TAR specification. The result of cointegration test and symmetric adjustment test are shown in Table 5. Regarding the TAR type cointegration at the 5% significance level, the null hypothesis of no cointegration, $\rho_1 = \rho_2 = 0$ is not rejected for both lending rates, i.e. it is found that cointegration does not exist between the policy rate and loan rates.

Table 5: Results of TAR cointegration test for lending and money market rates

Household loans		Corporate loans	
ρ_1	-0.139	ρ_1	-0.164
ρ_2	-0.658**	ρ_2	-0.247**
P	4	p	2
T	-1.125	τ	-1.807
Φ	4.210	Φ	3.421
$\rho_1 = \rho_2$	5.362	$\rho_1 = \rho_2$	0.338

Note: Only lending rate equations are displayed. A set of critical values for F statistic provided by Enders and Siklos (2001); 5.98 for 5% significance level and 8.24 for 1% significance level. **denotes significance at the 5% level.

Next, we perform the same analysis using MTAR specification to test possible asymmetric behavior between the expansionary and contractionary divergence of the lending rates series from their long run equilibrium. The test results of cointegration relationship are presented in Table 6. Turning to the MTAR cointegration test, the null hypothesis of no cointegration, $\rho_1 = \rho_2 = 0$ is rejected at the 1% significance level for loans to households, i.e. there is a long term

relationship between policy rate and the loan rate. F statistic for the symmetric adjustment test indicates that there is an asymmetric adjustment between loans to households and the money market rate.

Table 6: Results of MTAR cointegration test for lending and money market rates

Household loans		Corporate loans	
ρ_1	-0.013	ρ_1	-0.136
ρ_2	-0.607***	ρ_2	-0.447***
P	1	p	2
T	-1.355	τ	-1.198
Φ	15.2402***	Φ	5.119
$\rho_1 = \rho_2$	11.015***	$\rho_1 = \rho_2$	3.505

*Note: only lending rate equations are displayed. A set of critical values for F statistic provided by Enders and Siklos (2001); 6.51 for 5% significance level and 8.78 for 1% significance level. *** denotes statistical significance at the 1% level.*

Next we proceed with estimation of MTAR type nonlinear EC model. Estimation result for loans to households are reported in Table 7. Results suggest that there is long run relationship between the rate on loans to households and the money market rate. Loan rate show slower convergence for positive discrepancies from long-run equilibrium arising from a decrease in the money market rate supporting downward rigidity. Indeed, loan rate adjust to money market rate decreases with the speed of adjustment parameter being - 0.019. Moreover it exhibits the speed of adjustment of - 0.571 following money market increases. This indicated the lack of deep financial system as well as domination by commercial banks in financial system of Serbia.

Table 7: Results of estimated threshold error-correction model

Household loans rate	
ρ_0	-0.045
ρ_1	-0.504***
δ_1	-0.088
γ_1	-0.019
γ_2	-0.571

*Note: only lending rate equations are displayed. *** denotes statistical significance at the 1% level.*

CONCLUSION

In this paper we have analysed the long-run relationship between the monetary policy rate and different bank lending interest rates in Serbia and tested how much of the change in bank lending rates can be attributed to changes in the key monetary policy rate and money market interest rate. As Özkan (2003) point out, the monetary transmission mechanism is highly related to efficiency of the

implementation of monetary policy. Thus, analysis of interest rate pass-through of great importance. Kwapil and Scharler (2006) mentioned that the adjustment degree between the monetary policy rate and retail banking interest rates is important factor that determines the relationship between the monetary policy action and the aggregate demand and the inflation.

We analyze asymmetric interest rate pass-through and monetary transmission mechanism in Serbia using Asymmetric TAR and MTAR cointegration models. Results of empirical analysis confirm statistically significant long run relationship between monetary policy rates and lending rates and shows that central bank in inflation targeting in Serbia have control over banking lending rates. The threshold error correction models reveal further downward rigidity of lending rate, implying a reduction in money market rate, following a monetary policy expansion affects the economy differently from a monetary policy contraction, probably due to the shallowness of financial system as well as and domination by commercial banks in financial system in Serbia.

From the perspective of the effectiveness of monetary policy, possible explanations of incompleteness of interest rate pass-through effect are lower level of competition, increase of risk premium, and interest rate volatility during the crisis period, inflation slowdown and keeping key policy rates at low levels, greater reliance on foreign funding, higher level of NPLs, higher level of dollarization, etc.

The findings of incomplete and/or asymmetric interest rate pass-through may create challenging issues if policy makers don't recognized the actual structure of mechanism but rely on the assumption of complete and symmetric interest rate pass-through.

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FINANCIAL RISK TRANSFER – THE CASE OF FINANCIAL DERIVATIVES

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ABSTRACT

Not so long ago from the economic perspective of time, great turbulences on global financial markets brought the use of financial derivatives in risk management to the public's attention. The questions and opinions of the public are very controversial. One of the key facts is that not just financial instruments, but also the global market in the past thirty years became more complex and layered. Another important issue is the revolutionary technical and technological development that made financial markets faster and more fluid. Therefore, the main purpose of this paper is to point out the importance of financial derivatives in global economy and the inevitable existence of the risk and the role of its bearer in economic and financial development, as well as the financial crashes.

If we look at financial derivatives as the products based on the market value of some securities or commodity, the risk can be seen as the bonding tissue which shapes its form. However, the risk itself is a more important factor for market participants. For some participants it is a "burden" difficult for carrying, and therefore it is transferred to another interested party for a market-determined price.

Therefore, the conclusion is that the derived financial instruments, i.e. the risk that is extracted from the underlying assets, represent specific financial market instrument by itself.

Key words: *Risk, Risk Transfer, Financial Derivatives, Financial Management, Derivatives Markets*

JEL Classification: *G14, G15, G23*

UDC: *005.6:336*

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INTRODUCTION

Not so long ago from the economic perspective of time, great turbulences on global financial markets brought the use of financial derivatives in risk management to the public's attention. The questions and opinions of the public are very controversial. One of the key facts is that not just financial instruments, but also the global market in the past thirty years became more complex and layered. Another important issue is the revolutionary technical and technological development that made financial markets faster and more fluid.

The ability to locate potential exposure to losses for financial institutions caused the recent financial crisis, which largely relates to the transfer of credit risk via OTC markets. Key facts in statistical review of data relating to the credit of financial derivatives is that nonrated more appointed credit risk which originates from multiple sectors is transferred through dealers of financial derivatives on insurance companies, financial guarantors, special-purpose funds and other financial and non-financial institutions. Such transfers of risk are most likely generated from basket credit default swaps, collateralized debt obligations and credit default index tranches. The last form of credit default swaps are complicated for evaluation, characterized by more significant growth rates in the last period.

OTC financial derivatives market certainly recorded in the last three decades remarkable growth and unlike traditional organized markets whose development and growth oriented on the national and local levels, the OTC derivatives market from the beginning of development, has international scope and in this range has been developed and expanding. Master contracts is used by all market participants as a basis for documenting all transactions. Most OTC derivatives trading books are global in character, full of the supply and demand of clients from all over the world.

Any attempt to "compressed" this global financial industry to fit the national, or to be controlled on the local level, is a monumental task and the same risk. Hence arises countless risk management, the Operating, legal and technical issues that the financial industry and regulators are only beginning to grasp.

Opinions of comparative theory when it comes to financial derivatives are still quite divided. They are although fully aware of the fact that derivatives are not a source of capital and that the prices of these instruments are endogenously derived from the price of the original contract, but also are unable to explain the attitudes that derivatives are major cause of exogenous development and movement of international capital flows.

Financial engineering is modern economic term for use of contemporary information technology in creating synthetic financial instruments as a solution for anticipated risks. Modern comparative theory holds that the main reason for expansion of the market for financial derivatives generates speculative capital flows. And that these risk - driven, leverage - boosted flows, restruct the capital relation from production oriented activities towards financially oriented economic activities. Simplier, those financial instruments represent materialization and

objectification of a risk. The question is: Is it really so? Does the risk transformed into an in financial market instrument becomes a commodity? If it becomes a commodity and is the subject of trade then it has its own value. On the other hand, the question arises: Are this newly created value can be properly determined?

Therefore, the main purpose of this paper is to point out the importance of financial derivatives in global economy and the inevitable existence of the risk and the role of its bearer in economic and financial development, as well as the financial crashes.

THE EMERGENCE AND DEVELOPMENT OF FINANCIAL DERIVATIVES

In the first book of Politics, Aristotle is narrated about the Greek philosopher Thales, who concluded (based on astronomical observations) that olives harvest for next year will be plentiful. Thales placed agreement that was similar to a deposit option for a large number of olive press, and when the harvest came he could have rented presses with significant profits. Some thought that this proves that philosophers can easily earn money if they decide to do so, but they are actually more interested in the rather spheres. He believed that the scheme is based on limiting the market or monopoly in the market for olive press, and not to any particularly brilliant predicting gender olives.

Forward and futures were created in Middle Ages. Sellers of goods at European fairs have signed contracts committing themselves to deliver the goods in the future. Commodity futures were ensued in rice trade in Osaka 1600s. Derivatives on shares have been traded on the Amsterdam Stock Exchange until the seventeenth century. At the beginning contracting was for current supply, but soon call and put options have been introduced which gave right to sell and purchase in the future for determined price.

Amsterdam stock exchange was replaced by London as a major European financial center. Soon after that a derivative contracts began to be traded on the London Stock Exchange. The development was occasionally contraversal, 1820's first problems arose on the London Stock Exchange intrading with put and call options. Some members were openly criticized the practice. Others opinion was that optopn trading greatly increase the volume of transactions on the Stock Exchange and they were very opposed to any attempt to interfere. The Committee of the Stock Exchange has tried to ban options, but in the end was forced to withdraw from it when it became obvious that some members are particularly keen to options, so much that they were willing to invest resources in the establishment of rival stock exchange. Meanwhile in the US stock options are still traded the 1790s, shortly after establishment of the New York Stock Exchange.

In 1848 Eighty-two dealers in founded the Chicago Stock Exchange (Chicago Board of Trade, CBOT). Oldest forward contracts (related to corn) were traded from 1851, and rapidly gained popularity. In 1865, after several cases of defaults on forward

contracts, CBOT formalized grain trade by introducing standardized contracts that are called 'futures contracts'. The Stock Exchange requested the buyers and sellers who operate in the market of grain to pay down the collateral that is called 'margin' to ensure their contractual obligations. Futures trading attracted speculators as well as food producers and other companies engaged in food processing. Trade volumes have increased in the late nineteenth and early twentieth century and that incited formation of new stock exchanges, including the New York Cotton Exchange NYCE in 1870 and the Chicago Mercantile Exchange CME in 1919. Trading with futures contracts has began on a broad range of goods and metals.

Future contracts which underlying asset is some financial instrument are recently represented. Chicago Mercantile Exchange CME has introduced futures contracts on seven foreign currencies in 1972, and this was the first contracts in the whole world that was not based on physical goods. In 1975, CBOT has introduced futures on US Treasury bonds, and in 1982 created an option on bond futures traded on the stock exchange. In 1981, CME's Eurodollar futures contracts on the short-term interest rates on the US dollar were introduced, which is the main hedging instrument to for banks and traders. The settlement is in cash rather than physical delivery of financial assets.

In 1973, the Chicago Board Options Exchange, CBOE has started working, it was founded by members of the CBOT. It reformed stock option trade creating standardized contracts on stocks that are listed on a regulated stock exchange. Before that stock options in US were traded on "Over - The - Counter" OTC markets. CBOE was the first to introduce the call option for 16 basic stock, and later, in 1977, introduced a put option contracts. Within a few years, trade options has become so popular that other exchanges have started to make their own contracts. In 1983, the CBOE introduced "Index options", including the S & P 500. Due to the great fortunate circumstances, just as the CBOE began with the work, Fischer Black, Myron Scholes and Robert Merton were first released model of option pricing by industry standards that they developed. For first time it was possible to determine the value of options on common and consistent basis.

Meanwhile in Europe in 1982. London International Financial Futures and Options Exchange LIFFE was established as a market to trade financial futures and options. After the merger with the London Commodity Exchange in 1996. It began with an offer of various commodity futures contracts. Purchase of LIFFE by Euronext was completed in 2002. Euronext.liffe is now an international company which operates in Amsterdam, Brussels, Lisbon and Paris derivatives market beside LIFFE. Great rival of LIFFE in Europe is Eurex, which was established in 1998 by the merger of DTB - Deutsche Terminbörse and SOFFEX - Swiss Options and Financial Futures Exchange. Eurex is the world's leading futures and options market for derivative instruments denominated in euros. It is also the largest market in the world by trade volume, over 1 billion contract was sold in 2003, and the biggest turnover was achieved by contracts on German government bonds. That year 640.2 million contracts was sold at the CME which were worth 333.7 trillion. Eurex has global ambitions and in February 2004th launched a fully electronic futures and options exchange in the US. (De Haan, 2009., pp. 78)

As the stock market continues expanding its activities, trade on forwards, futures, swaps and options, has experienced rapid growth over the last twenty-five years. The first real interest rate swap was agreed in 1982. Statistical data show clearly how fast the market is growing compared to its modest beginnings. Now you can trade swap futures contracts on stock exchange on several stock exchanges and also assure third party guarantee of possible risk defaults on swap contracts. On the OTC market dealers offer a variety of complex derivatives, including newer generation financial products with exotic names such as

- Barrier option, (Type of option contract whose payoff depends on whether or not the underlying asset has reached or exceeded predetermined price).
- Cliquet option, (¹ Or “ratchet option” is a type of an exotic option that periodically settles and resets its strike price at the level of the underlying asset during the time of settlement. It actually consists from series of successive start forward options (type of option that give right to buyer to hold call or put option to some future date). First contract is active immediately, second becomes active when first expire and so on.. Therefore cliquet is series of currently fine definable options but where final premiums fixed in advance. Source:
- Chooser option, (An type of exotic option that gives investor right to choose whether the option is going to be call or put option in a certain moment during the duration of a option contract).
- Binary option, (Also known as Digital options, or all-or-nothing option, is a type of option in which the payoff is structured to be either a fixed amount of compensation if the option expires in the money or nothing at all if option expires out of money. The success of binary option is based on yes/no proportion therefore it is called binary option.

Financial derivatives developed trough time . From these time perspective it is hard to determine which trigger what. The historical data shows that financial derivative developed along side with financial markets. Thou we can simply say that financial derivatives were created from common need for provision of some certainty in the free market and risk spreading.

FINANCIAL DERIVATIVES AS RISK

Standardized financial contracts like forwards, futures and options traded on regulated stock exchanges for the nowadays financial practice are not considered as risk as they were at the very beginning. Financial contract that can be considered as risky are called exotic derivatives. The assumption is that these financial instruments prefix "exotic" got from practice which came from need to emphasize their specificity. The term is adopted in comparative as well as in the domestic theory, although some comparative theorists believe that the term does not give adequate explanation. "Term completely established in financially vocabulary, so to speak "stuck" and it is unlikely that it will be amended in the future." (Chance,

2008., pp. 217) At the time when these financial instruments are first presented (eighties) were considered to financial innovation and in the same time qualified as exotic. In the contemporary theory general definitions of these instruments are placed on the financial basis or with other parameters. They are considered to be product of financial engineering and as in practice known as exotic, today there certainly are no longer.

Unlike traditional financial derivatives under the term "exotic" are considered derived financial instruments that are derived from the value of the base or a defined set of values in the basis. They are also complex financial instruments and risk management tools used exclusively for managing specific risks. According to some comparative theory authors "exotic derivatives are powerful tools that allow customers the flexibility to transfer and manage business risk on the other sides with varying degrees of tolerance by whom it is core role"(Blanco, 2007, pp.127).

Exotic financial instruments are traded on the OTC market. Most often are described as a completely flexible financial instruments, tailored to suit the needs of their users. Also require continuous monitoring and are more difficult for the evaluation of, for example, the classic option. They represent a non-standard financial instruments and therefore are considered risky.

To better understanding why these instruments are considered "exotic" and "risky" we'll briefly describe how these instruments function.

BARRIER OPTION

One group of exotic derivatives called options with barrier, these options have become popular especially on currency markets. Options with barrier include a specific provision on the basis of which they considered due or go off although the premium is paid.

There are two general classes of options with barrier: in-options and out-option. For the in-option buyer pays the premium in advance and receives an option that will not be activated while the price of base assets reached a certain level, called the barrier. If asset prices never reached the barrier, the option will never be activated and maturity in no value, although it would otherwise have to be put into the liquidation. For example, one form of this type of option is referred to as a down-and-in option (De Wert, 2008, pp. 63 - 65).

For example - Let say it is an call option. It guarantees the right to buy the base assets for \$ 10 exercise price. Current price asset is \$ 20. Arbitrarily set the barrier at \$ 15. The buyer pays the premium in advance, but the option is never actually activated until the price of the stock falls to \$ 15. When asset price reaches \$ 15 option is activated and from that moment it is just a call option. When the barrier is reached and the option is activated, the option is in the area of the liquidation. If the barrier is set below the exercise price, the option will be outside the area of encash. In-option is also called "knock-in options. Put-options, which are sometimes called "knock-out" options are options with barriers which are

canceled prior to maturity if the price of the base asset reaches the barrier. We'll take the down-and-out call option for example - The price of assets is \$ 20 and the exercise price \$ 10. We set up a barrier at 15 \$. If asset prices fall to US \$ 15 over the life of the option, the option immediately due without value. Out- or knock-out option can be down-and-out options, which means that the barrier is below the current price of the asset, or up-and-out options, which means that the barrier is above the current price of the asset.

Combination of down-and-out call with the down-and-in call, gives the interesting result. If the barriers and the exercise price are the same by these two options, a down-and-out call goes out when reaching the barrier, but the down-and-in call is immediately activated. Therefore, the combination of these two options creates a regular European option. The result of the formula for determining the price of these two options is of course equal to the Black-Scholes-Merton formula.

Barriers are sometimes added to the forward swaps agreements, leading to changes in payments that depend on whether the barrier is reached during the life of the contract.

Some barrier options have an additional feature called the 'rebate'. In this case, if the price of assets by out-option reaches the barrier and thus the option is turned off, the owner is paid a certain amount of money in the form of a rebate. In the case of in-mode rebate is paid at maturity if the price of the stock never reaches the barrier.

Formula for pricing of standard options with barrier are well known and are not particularly difficult to use. They are based on a number of somewhat complicated principle in connection with a stochastic procedure. For example, the formula must take into account the risk-neutral probability that they will reach the barrier, which uses the concept first time going through the process, likely about the time it takes to process reaches a certain level. In addition to selected barrier for the formula is not necessary more than to determine the price of a regular European option. One factor that partly represents a complication is the fact that the formula is based on the requirement that cross this barrier, by definition, occurs whenever asset prices touched the barrier. Many option contracts with a barrier recognize touching barrier only at the closing of the trading day. In such cases, numerical methods such as the binomial model-with very careful calibration to set barriers exactly- can provide reasonably accurate rates.

In practice, the options with barrier are traded on the OTC market. There have been some experiments with barrier options on stock exchange. Standard & Poor's Caps Chicago Stock Exchange options are options contracts that actually represented the bull and bear spreads that were admitted when they reach the maximum value at the closing of any trading day. For some reason they're not significantly traded, and therefore ultimately abolished.

The most important question in connection with a barrier option is probably why would anyone want one of these exotic creatures. The most obvious reason is that they're cheaper. The requirement that the option can be prematurely shut down or that it will never be activated leads to no payment, except maybe rebates, which do not

exist in ordinary options. For this reason the cost of option with a barrier is usually smaller than a standard option, again assuming that is barrier options with no rebate. For this reason some users find them more attractive. In practice, users pay a lower price because they do not pay for the outcomes that they are not very likely. For example - suppose we have a property portfolio that is approximately equivalent to S & P Mid-Cap index. We want to buy the ordinary put on this portfolio to protect the accumulated profit. Option dealer will be happy to sell this OTC option. We, however, feel that the price is higher than it needs to be played. Dealer propose us an up-and-out put. This option will turn off if the value of the Mid-Cap index rises to a certain level. We believe that the conditions are acceptable, hence we assume that the index won't rise to that level and we are certain that we do not need protection; therefore pay a lower premium. The risk we take is that the index will reach the barrier and then fall below the exercise price to the maturity date, but we can consider that this scenario is highly unlikely. Option with barrier would therefore be a much simpler solution. It is not difficult to make other scenarios by which a particular user wishes can be fulfilled by using the option with a barrier.

STRADDLE AND CHOOSER OPTION

Popular strategy with options is called a straddle, which is not particularly exotic, but it is very similar to the type of exotic options that are called chooser options. To describe chooser options, it is important first to explain straddle options.

Straddle options in public appear very often as a subject of discussion.

In addition to the simple strategies of buying or selling one call and put, a straddle is apparently one of the most popular strategies that can be used as illustration, but it cannot be used by untrained investor.

Straddle is a simple strategy. We're buying the same number of call-and put's. If we retain the position until maturity, or call or put will enter the field of encash, unless the price of assets is equal to the cost of enforcement, which is unlikely.

Therefore, the straddle-profit chart and the price at maturity of assets is in the form of letters V. If at the end the asset prices is above or below the exercise price at least for the sum of premiums per call-in and put-in strategy makes money. Profit in the event of price growth is limitless, and profit in the event of falling prices, although is limited by the fact that asset prices can not fall below zero, which is still quite high. The maximum loss is the summation of call and put premiums. The maximum loss exists only in the case that at the end asset prices is equal to the cost of execution. Any slightest deviation from this value reduces the loss.

Straddle usually appears as a strategy for those who believe that asset prices will be volatile, but this is not accurate Figure of a straddle. Although any big change is certainly possible, even for assets with low volatility, straddles will be successful in the long run only if the investor believes that the market underestimated the volatility. If everyone thinks that simultaneous volatility should be higher, premium options will therefore be higher.

In comparative practice a certain part of the public, even professional investment managers, believes that straddle was appropriate strategy "probably in case of return or notice of events that will be big news'. If the expected event that everybody knows will occur, the volatility of the assets will already be high and premium options will also be high. For example - in January 1991, President Bush gave Saddam Hussein a deadline for the withdrawal of Iraqi troops from Kuwait. Everyone knew that the deadline for this, and straddle's oil had been a popular strategy because people thought there would be, or war and that everything would be possible, or that Iraq will withdraw and that the oil price will fall. But such thinking could only makes sense if the investor believes that all the others underestimated the true volatility although they are fully aware of the critical date.

Best way to analyze straddle is a simple method that is in theory, rarely explained. As an example Take the Dow Jones Industrial Average (DJIA), from February 1st 2007., of 122 straddles, till 23rd January, on average closed at 12,533.80. Options are ranked by the value of 1/100 of the average, so that the index actually was 125.34. February 125 call closed to 1.40 and February 125 closed the way to 0.90. If we ignore transaction costs, the DJIA would had to closed above or below 12.730 12.279 for the straddle to be profitable.

These values were obtained by adding and subtracting the put and call premiums of the exercise price, which reflects the alignment 1/100 above average with the average on which the options are based. Increase to 12,730, representing a yield of 1.56%. The fall of the 12,270 represents a loss of 2.11%. Options have only 24 days to live. Therefore, the straddle buyer's is betting that Dow would quickly grow at an annual rate of

$$(365/24) (0,0156) = 23.78\%;$$

or to fall at an annual rate of

$$(365/24) (0.0211) = 32.03\%.$$

A very small number of straddle owners would on a simple question: 'Do you believe that the Dow will grow at an annual rate of at least 23.78%, or it will fall at an annual rate of at least 32,03% in the next 24 days?' answer " Yes ". The truth is that developments on the market so far has been very fast. Also, market developments must be happening at that speed only during a short period of time of the remaining life of the options. Thus, presents owner of the straddle as "gambler" on a short burst of energy instead of the prolonged movement up or fall down, and short explosions are very unpredictable, although actually occurs.

OTC options market has created an interesting variation of a straddle-called the Chooser, and often in comparative theory used the term is "as-you-like-it option. When chooser option buyer pays a premium, but at a certain date prior to maturity, and determines whether it will be a call option or put. The buyer, therefore, selects the type of options later during the life of an options.

Standard chooser is a very simple option that can be replicated with ordinary European call's and put's. It can easily be shown that the chooser is equivalent to an ordinary call-in that comes with maturity chooser, the execution with the price equal to the price of executing the Chooser plus the time that comes to the date when you must choose the type of options. Price-execution time is equal to the cost of execution called

a discounted due until the selected date. For example, if call option matures for 100 days a chooser option requires the owner to decide whether to call or put 30 days prior to maturity, the price of execution time in this case is determined as the present value of the exercise and call- option which can be reached discounting with a30 days. This lower price means that this putt costs less than regular put. As value of chooser and the value of put option with a discounted price plus the value of the execution of an ordinary call, a chooser costs less than a straddle. We assume that the reason is that it will be in the straddle cashing unless the price of assets at the end is not equal to the cost of execution. Chooser would rather have to finish outside the area of cashing bearing in mind that his owner could not decide whether to call or put, and after that asset prices fall significantly or grow to maturity.

Chooser can easily be structured to allow the owner to choose at any time when owner wants. Also, put and call that are implicit in the Chooser may have different maturities and different rates of execution, in which case they are called complex Chooser.

Although relatively expensive straddle transactions which main goal is to meet the needs of investors who cannot decide whether they want to bear or bull position chooser option is a cheaper alternative that allows investors to decide whether the option put or call, but bear the risk of wrong decision. In both cases, the key ingredient of the process is the opinion of investors about market volatility. If an investor believes that the other investors underestimated the volatility of the market, any of these strategies makes sense. If an investor believes that the market accurately assess the current volatility, probably none of the strategy will not make sense, since both strategies equivalents purchasing two options, and therefore two premiums has to be paid.

BINARY OPTIONS

Usually nothing is as complicated as it looks. Digital options, which are sometimes referred to as binary options, at first glance look like any other exotic instrument. If they are a little more carefully studied it would be revealed that the digital options are as same what are ordinary atoms compared to the molecule. They are the building material.

There are two basic types of digital options: cash-or-nothing option and the asset-or-nothing options. Asset-or-nothing options, like most other options have exercise price and time to maturity. On the maturity date: - If the price of the base asset exceeds the exercise price, the owner receives assets of the issuer; or - If the price of the base asset is less than the exercise price, the owner gets nothing and options mature without value.

This structure has the form of a call option, paid assets if the price of assets exceeds the exercise price at maturity. Asset-or-nothing put would pay for the assets if the price of the base asset at maturity is lower than the exercise price, otherwise there is no payment. In the second case, the owner receives assets without paying the exercise price. This at first sight is a great job.

Cash-or-nothing option also has an exercise price and maturity as a regular option. For cash-or-nothing call on the day of maturity: - If the price of the base asset exceeds the exercise price, the owner receives the exercise price of the issuer; or - If the price of the base asset is less than the exercise price, the owner gets nothing and options mature without value.

If the cash-or-nothing is put option, it pays the exercise price, only if the price of the base asset is less than the exercise price, otherwise there is no payment. More often cash-or-nothing option appears to a more fundamental form in which option pays one unit of currency if they get into the field of monetization and does not pay anything to the contrary. This form of option is more often called a binary or digital option.

Asset-or-nothing option has a payment equal to the value of assets, provided that the value of assets above the exercise price. Probability of these payments is equal to the probability that the price of the assets exceed the exercise price at maturity. The present value of these payments is the present value of assets at maturity in the event that the value of the assets at maturity exceeds the exercise price of put option and probability that the value of the assets will exceed the exercise price at maturity.

For example: Let X be the price of execution. The current value of these payments is determined by discounting the payment by risk-free rate over the life of the option. Suppose you buy asset-or-nothing option and sell X units cash-or-nothing option, where both have the same maturity and exercise price. In this case payments for a total position will be: If the price of the assets exceeds the exercise price at maturity we will pay X units of currency, which is our obligation by X units short cash-or-nothing options, and get the assets, which is our right to the asset-or-nothing option, or If the price of assets is less than the exercise price at maturity, we will not pay nor receive anything. This combination of long asset or nothing option or short X unites is equal to payment on the basis of common European call option. Therefore, the value of the combination of these two options must be equal to the value of the standard European option, which, as we know, we get on the basis of the Black-Scholes-Merton (BSM) formula. The BSM formula can be presented as

$$C = SN(d1) - Xe^{-rT}N(d2)$$

where

Xe^{-rT} = presents value of the exercise

$N(d1)$ and $N(d2)$ = normal probability.

The first term on the right side is the value of long positions in asset-or-nothing option. The second term on the right side is the value of X units of cash-or-nothing options. The minus sign reflects the short position on the cash-or-nothing option. Few comments on the interpretation of $N(d1)$ and $N(d2)$.

$N(d2)$ is the probability that the price of the assets will exceed the exercise price on the assumption that the expected return on the assets is by the risk-free rate. This, of course, is the expected return on the assets, so the actual probability that the option will enter the field of monetization higher than the $N(d2)$. This probability is based on risk-neutral value assessment.

Interpretation of $N(d_1)$ is much more complex. Although indeed represents the probability, it is a much more complex probability, and its interpretation cannot be separated from the value of S . In other words, they must be together to explain as $SN(d_1)$. $SN(d_1)$ is the present value of the expected value of the price of the asset at maturity, provided that the price of the assets exceed the exercise price at maturity, discounted to present the risk-free rate. We already know that this is simply the value of asset-or-nothing options. Of course, $N(d_1)$ is also the coefficient of the coefficient or the hedge delta standard European option. And (d_2) is the coefficient of hedging, which means that it is no risk-free bonds for sale to the ownership of $N(d_1)$ action in order to replicate the European call. Digital or binary options are simpler derived instruments from standard European options. They are neither new nor exotic. They are as individual Lego bricks that can be combined into a seemingly more complex structures. However, these complex instruments are quite simple when their components are tested individually.

There are more various types of financial contact and combinations of so called exotic derivatives, like Asian derivatives, options on multiple asset classes (also known as Margrabe options, and ctr. Some of these derived financial instrument look more on strategy and juggling with several financial instruments.

CONCLUSION

According to statistical estimates, the derivatives market is huge. So much that can be compared with the size of the universe. Therefore, as comparison benchmark of the market with a gross domestic product of US \$ 11 trillion. It yields the value of concluded contracts was 19 times higher than the value of the US economy, while the trading volume on the stock exchanges over 79 times higher than the US gross domestic product. (Chako G., Sjoman A., 2006., pp. 22)

Key attributes that separate unregulated market of the stock exchange are among others, contractual flexibility and somewhat weaker regulation requirements and conditions. The transparency on these financial markets, which reflects in the publicly available information on prices, scope and participants are less pronounced.

Many times in its long history derivatives trade is publicly unfortunately, linked with disasters and scandals. The collapse of Barings Bank in 1995, which was caused by speculative trading by Nick Leeson (among other things) futures contracts on the Japanese stock market is very well documented. However, there are other examples. In September 1998, the US Federal Reserve was forced to organize rescue "Long-Term Capital Management" hedge fund with taxpayers means in the amount of 3.625 billion dollars due to losses in trade, inter alia in complex transactions with derivatives. In 2002, American substation of Allied Irish Banks has lost about \$ 700 million in transactions with currencies, which were concluded by John Rusnack. Counterargument is that many similar stories caused by poor control and poor risk management were not related to the very derivatives. However, over the years, financial institutions have lost billions of dollars in free activities, such as lending to states and bond trading.

The real advantage of derivative products is that they allow effective management and risk transfer. The farmer who is exposed to fluctuations in the price of grain on the market can hedge risk by concluding appropriate agreements on derivatives. The risk can then be taken by trader or speculator who can bear risk by concluding appropriate agreements on derivatives. Bank approving corporate loans may use derivatives to hedge its defaults on these loans. The risk assumed by another party and in turn receives appropriate compensation. Derivatives have many similar applications every day in the modern world.

Comparative authors discussed the possibility of the existence of institutions that share the risk, and that is ready to provide any of how high and any risk. They describe it as "completely market" and state that it would increase the economic prosperity since people would be more willing to engage in risk-taking activities. It could also improve the quality of our forecasts on future events such as natural disasters and caused by man. Besides all shortcoming and even never reaching the ideal state modern derivatives markets provide a global network for rational assessment, management and distribution of risk on the real industrial scale.

What is however common ground for all financial derivatives is the fact that in certain sense have "their own market life" i.e., to the delivery or exchange of goods and financial assets or the underlying contract from which they are derived, usually and mostly never occurs. The participants in the financial market investors, hedger, speculators and even in not insignificant extent and physical persons these instruments are used just for making profits i.e. profits on the basis of the risk to which the material is exposed to market. Propensity of investors to risk not irrelevant in terms of absolute price of derivatives. They are irrelevant in relation to the relative prices of products. By relative price we mean the cost of products in relation to the price of the base asset. In other words, the mathematical relationship products and their asset base is independent of risk preferences of investors who are in possession of the assets.

That brings us to the new angle of the subject matter which confirms that the Derivative financial instruments, i.e., from the core values extracted risk represents a specific element.

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PREDICTION OF RISK IN CORPORATE MANAGEMENT FINANCE

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ABSTRACT

Any investment provides information that may not always be complex and risky, but decisions must be adequate to make the best use of money or some other form of income.

In corporate management in finance is necessary to know the conditions and factors that can lead to potential occurrence of risks and thus jeopardize the profits. Corporate risk management methodology to quantify the potential frequency of the level of risk in defining the scope of necessary investments in the system.

The aspiration is that every investment decision must have the required level of knowledge, as such knowledge is greater and the risk is smaller, and can rightfully be expected to achieve the best profit without excessive risk-taking. However it is hard to accomplish because almost every investment, brings a certain amount of risk, which is reduced with greater empowerment of investors to make the best decisions at the right time and avoid bad investment choices.

In this paper we analyzed the predictive variants possible advice to investors, and citizens as potential investors, to realize your profits, if not avoid complete, then the least possible risk. In this context, give some advice to investors, to invest in corporate governance, with the minimum risk.

Key words: Risk prediction, Investments, Corporativeness, Money, Profit

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INTRODUCTION

Risk arises in any situation where there is uncertainty, that is, if there are at least two possibilities, two events or consequences that are mutually exclusive. Often viewed only as a risk the possibility that something bad happens, something negative. However, the risk is referred to the possibility that something positive happens, for example, gain in games of chance, interest profit in the banking system and the stock exchange and many other cases.

When it comes to finance and investment from the aspect of prediction of risk in corporate governance, it can be considered any kind of primarily investment funds, the purpose of gaining certain economic benefits or profits. These may invest in financial forms of assets and equivalent investments, or in the form of real assets that enable the realization of economic benefits through certain productive business activities. In some primary investment concepts at greater risk, there are greater chances of profit and vice versa.

The most common type of investment risk is capital risk, or whether it will be a decline in the investment value of money. In this context, today many investment advisers are beginning to use sophisticated means of categorization as part of the risk analysis process. They usually use psychometric questions and other resources in the field of psychology to build a complete attitude of investors toward risk. On that basis the investor advisors can be divided into the following categories: "*cautious*", "*balanced*" or "*risky*".

GENERAL RISK

The risk arises in any situation where there is some uncertainty, and, where there are at least two possibilities, two events, or the consequences, which are mutually exclusive. Often risk is seen as an opportunity to something bad happens, something negative. However, the risk is referred to the possibility that something positive happens. Each participant of the lottery risks to realize gains. Each risk has two basic components. One is more likely to realize some event, while the second component relates to the result of that event.

When each job is essential well do the preparation, so it is to risk management. Before the commencement of the project implementation, it is necessary to thoroughly prepare those who will carry out all planned actions, with special attention paid to the composition of the team, who must be covered with all aspects of phenomena that can occur in the management of project risk. This fact requires the necessary level of training and knowledge of the team members, who participate in the formulation and implementation of the project.

CORPORATE GOVERNANCE GENERAL SIGHT OF RISK

Risk involves uncertainty and the likelihood that it will happen something unexpected and undesirable. For an investment project, the unwanted consequences of investments may be weak results of the project and the loss of investment. Risk can be defined as the probability that a project will fail, and therefore the consequences stemming from a failure. We can distinguish the following types:

- 1) *Certainty* - a situation in which it is possible to accurately define the size and all the solutions.
- 2) *The risk*-situation in the future where there is more binding investors solutions with a known probability of occurrence. The highest negative level of risk is a "hazard" as possible degree of threat to life and health, assets and property, or the environment. It should be borne in mind, and measures to prevent hazards, eg deterrence from entering the program too risky.
- 3) *Uncertainty* - the situation in the future in which there are a number of alternative solutions and is not known to be obtained. According to Kaufman, there are 4 basic level of uncertainty:
 - a) *Unstructured uncertainty* - system status are unknown at any time.
 - b) *Structured uncertainty* - the state of the system are known, but it is not known what will be the situation in any what time.
 - c) *Risk* - state of the system are known, as well as the laws of probability of occurrence at any time.
 - d) *Certainty* - state systems are known and can be described by a state in which the system will be found in any time (Petrovic, Petrovic, 2013; Petrovic, Petrovic, 2012).

GENERAL AND PERSONAL PREDICTABLE RISKS CORPORATE GOVERNANCE

As with many personal, when investment can bring profit, and loss, as well as project investment of industrial plants, apply the basic concept of investor with a clear connection - higher risk, higher reward. Some basic types of risk can be:

1. Capital risk - the risk of decline in the value of money.
2. Foreign exchange risk occurs when an investment is not in the same currency as that used by the investor "at home". It's actually a risk that the value of the embedded currency, reduced before converting into domestic currency. Instability is greater in countries with weaker economies and can operate in both directions.

3. Liquidity risk exists when there is no possibility of sales of investments or when the sale is possible only at a price which is below the expected.
4. Credited Risk is the probability that the selected investments will fail to provide the desired level of income which can lead the erosion of capital.
5. Interest rate risk exists when frequent changes in interest rates, but it can positively and negatively affect depending on the angle from which to observe changes. Depositors, corresponding to rising interest rates, as opposed to persons who have borrowed funds.
6. Financial risk is any disruption of internal mechanisms of some investments, or any suspicious operations in the company, and the most effective way to reduce the diversification of investments.

An essential element of the investment is its volatility, and the positive and negative movements in its value. The higher volatility means higher risks, particularly at the time of sale and investment, but it can be positive for the connoisseurs of good opportunities in the market.

Attitude towards risk is a key factor in making investment decisions, and would be taken into account five key risk factors: knowledge of investment, experience in this area, reactions to negative developments, the feelings when making important decisions and greed, the desire for more money .

There are different profiles for different purposes risking (not dealing with the same risk when repaying mortgages and retirement planning). They can also be changed over time and gaining experience (Bamford, 2008; Savanovic 2010).

CONCEPT OF RISK MANAGEMENT IN PROJECT MANAGEMENT

As mentioned, corporate risk management is a complex concept that can be defined through the following sub-processes: risk identification, risk analysis and risk assessment, planning and control of the application of the risk.

The concept of governance is defined strategy for dealing with the conditions of uncertainty and risk, which takes into account the specificity of each situation. Providing for the creation of special management plans for treatment in case of risk events (budget planning, preparation of alternative plans and actions, reactions, etc.). The concept of determining whether the planned responses to risk are adequate and whether to introduce new, which can give an answer in accordance with the actual progress of the project.

By establishing a continuous process of risk control, it is understood, continuous system of risk identification, risk assessment and the development of strategic documents for the response, and it is necessary to continuously adapt to the new conditions of the planned strategy to reduce the risk or lead to a minimum.

HOW TO BECOME A TOP EMPLOYER

When basically review the basics of investing, primarily the relationship between risk and reward (and volatility), in which areas and how it can make money and how money affects the performance of the investment, then it is considered that achieved superior investment. Of course it is not at all easy, even very unpredictable. What they think about it a top global investors, given a few thoughts:

Warren Buffett: "Wide diversification is only required when investors do not know what they are doing."

Bendžamin Graham: "People from Wall Street do not learn anything, but they forget everything."

Jesse Livermore: "You never hesitate to tell the man that I'm growing or declining. But do not tell people whether to buy or sell any specific action. In a market with prices declining, all actions are falling and the market with prices rising they grow. "

"The vast majority get a top investment portfolio comes from directing active- market they decide to ulažete- and not from the actual individual investment. If the whole market is growing, then you should let your investments grow with him. If the entire market collapses, then it is very likely to fall and your investments. "

Peter Lynch: "If you're good at this job, then you're right six times out of ten. You're never going to be right nine times out of ten cases".

Paul Samuelson: "Investing should be more like looking at paint until it dries or watching grass grow while. If you want excitement, take \$ 800 and go to Las Vegas".

Daniel Quinn: "Many of the largest and most far-reaching investments that we make in life are investments that have little or nothing to do with money".

Investment analysis: Different investors make their investment decisions in different ways. Basically there are three important ways to the implementation of investment analysis: fundamental (the analysis of the most important conditions for investing in potentially the company), technical (follow the movement of prices of certain actions when deciding on purchase or sale) and instinct (common sense, which is available to everyone, free of charge) and combined all three analyzes.

It is very important and regular revision of the investment, because what was appropriate at the beginning can be very, very wrong later due to changes in a number of circumstances. When auditing can seek help from professionals, both in the performance of, and in the timing and preparation of the audit itself (Bamford, 2008.).

The investments should always be measured by real income, and if not done so, then may be self-delusion. In this regard, action plans can be defined through setting specific standards, such as: taking into account the "inflation", "what would

happen if? "What if I had invested the money elsewhere and "average in the branch"-How Funds are selected successful than others in their field.

One simple action plan that can be recommend to every investor, can be displayed in any of seven steps:

The first step - set goals- specific, measurable, achievable, realistic and timed.

The second step - think about riziku- think from the perspective of a comprehensive investment portfolio.

The third step - select strategic assets routing model-a model that will determine the long-term mix of investments.

The fourth step - napraviti few tactical changes on a model-take the opportunity of minor changes to the long-term models, because they are short-term outlook positive.

The fifth step: choose a tax-wrapper possibility to protect investments from taxes.

The sixth step - take action or funds-choose an investment that provides a sufficient exposure to the selected model, directing assets.

Seventh step - Audit - set up the audit strategy when making investments and to take into account the relative and absolute standards (Bamford, 2008.).

PREDICTABLE ON INVESTMENTS

Investing is all about money, and in order to achieve the best profit from investments without prekomerenih mistakes and risking. In the framework elements of superior investment may be given the following factors:

1. **Merge**, which involves the use of the profit from the initial investment to continue investing. If this process is repeated year after year, income would be higher than if the same amount invested each year. Einstein this increase investment fast paced considered the "*eighth*" world wonder.
2. **Average price** is a way to avoid the risks of investing when the market price is too high, but also to ensure the purchase of larger amounts of investments when prices are low. Implies constant investment for several months during which the price will vary, but will eventually be carried out by an investment ie average. high price. This is a good way to reduce risk, but it can also miss the bigger profits, when to invest huge amount that would have been available for a longer period of time.
3. **Uticaj inflation**, reflected in the old rule that RSD 100 today is worth more than 100 dinars tomorrow. Things are becoming more expensive over time due to inflation, which means that the same nominal amount now be able to buy a larger quantity of goods than tomorrow. You are missing out on possible investment profit of these 100 dinars, rather than to gain that amount in the future.

The most common investment mistakes:

- 1) Monitoring of previous successes and expects the same results.
- 2) Short-term investment, which does not allow for recovery, if things go in an unexpected way.
- 3) All the money put into an investment ("all eggs in one basket")
- 4) Inadequate risk-taking.
- 5) Relying on its own home as an investment, not a place where one lives, as growth in property prices not only applies to the home, but all in the environment.

They are mainly characterized by three procedures that must be taken when investing:

- research on the investment through the press, experts, consultants, other experiences,
- planning, clear, precise and realistic definition of goals,
- plans must always have dimension SMART (Specific, Measurable, Achievable, Realistic and Timed),
- audit conducted in more frequent intervals, because circumstances and goals change, especially in long-term investments,
- when things go unexpectedly, we should not panic, as this may cause a negative chain reaction in other investors and to choose the right type of investment at the right time (Obradovic et al., 2013).

PREDICTION OF RISK MANAGEMENT AND EARNINGS FROM INVESTMENT

Basic concepts investor with a clear connection is - the higher risk, higher reward. Types of risk can be:

1. Capital risk - the risk of decline in the value of money.
2. Foreign exchange (FX) risk occurs when an investment is not in the same currency as that used by the investor "at home". It's actually a risk that the value of the currency entrances, reduced before converted into local currency (higher in less stable economies, can function in both directions).
3. Liquidity risk exists when there is no possibility of sales of investments or when the sale is possible only at a price which is below the expected.
4. Credited Risk is the probability that the selected investments will fail to provide the desired level of income, which can lead to erosion of capital.
5. Interest rate risk exists when frequent changes in interest rates, but it can positively and negatively affect depending on the angle from which to observe changes. Depositors, for example, corresponds to the rise in interest rates, as opposed to persons who have borrowed funds.

6. Financial risk includes any disruption of internal mechanisms of any investment or any suspicious operations in the company. The most effective way to reduce the diversification of investments.

An essential element of the investment is its volatility, and the positive and negative movements in its value. The higher volatility means higher risks, particularly at the time of sale and investment, but it can be positive for the connoisseurs of good opportunities in the market.

The attitude towards risk is a key factor in making investment decisions, and would need to take into account the following key risk factors:

- **Knowledge of investment:** greater awareness of the investment, the greater the ability to more risk-taking, as well as profit.
- **Experience in this area:** experienced investors often more at risk of inexperienced, because they know how it feels to gamble with their own money. For beginners it is much better to start with a small risk, with experience them grow.
- **Reaction the negative developments:** in order to respond to the decline in investment over night, there are some three types of reactions: selling what was left, do nothing or buy additional investments.
- **Feelingshen making important decisions:** by making important financial decisions, which relate nmogo money or a big investment, and she feels pretty bad. But those who do not feel so, usually have a higher profile risking.
- **Greed:** often runs attitude towards risk and depending on the desire for gain and attitude to risk is more or less pronounced.

There are different profiles risking for different targets (eg. not the same when dealing with the risk of default on their mortgages and retirement planning). They can also be changed over time and gaining experience (Bamford, 2008.).

SITES FOR INVESTINGFUNDS

Are investment asset class "*drivers*" of any investment that is selected. Any application that will contain one or more of these classes: cash, bonds with fixed interest, property and shares.

- 1). Cash in the context of investment includes money invested in banks, construction cooperatives or accounts in the National Savings Bank. This money is used to approve loans and in turn pay interest to the investor. Cash is considered the safest class of investment assets, but even he is not immune to risks, primarily to the impact of inflation in the long run that will almost certainly lead to a loss of value of money. Then the present institutional risk, or the likelihood that the institution to which the invested money bankrupt. And finally, there is the risk of missed opportunities, ie the risk of leakage get better investment elsewhere.

- 2) Securities (Securities), with a fixed interest rate is primarily related to bonds, as well as debt securities of state, local governments or companies that use them to come up with funds. In this way undertake to bond holders regularly pay a fixed interest rate and that at a certain point in the future to return the borrowed sum or principal. The safest bonds issued by governments, but they bring the least profit, while the riskiest securities companies because of the possibility of their bankruptcy, but also the most profitable

There are two very good reasons for investment securities with fixed rates. The first is, what the interest rate is fixed and interest may be paid every six months. The second reason is, as with the cash no capital growth, while the Securities may be some market for bonds.

There are various payment dates, which are grouped into: short-term (fifteen years to pay), indeterminate (no specific date of payment)

- 3) Real estate is one of the most popular investments in the previous period. The first reason is the potential for capital growth, or the possibility that in a few years the real estate is sold at a much higher price than it was purchased. Another reason for investing in real estate is rental income that can be achieved.
- 4) Actions provide a share of the ownership and profits of companies (dividends). There is a possibility of achieving capital gain (selling at a higher price than he bought), but also the risk of lowering the value of stock.

When making a decision on the choice of assets, should take into account the so-called negative correlation, ie a way of reducing risk by investing in different asset classes in which, when the price of one class is growing, and the other falls. In this way, the loss of coverage is provided on one side, the yield of the other.

Personal buying some assets and the registration on your behalf is a direct investment. Getting over an investment or pension fund is an indirect (collective) investment. Indirect investment returns and additional costs in the form of commissions for advisers and intermediaries, but something greater security. Mutual funds represent a way to invest in a wide range of actions with a relatively modest amount of money along with expert analysis and professional portfolio management. Besides them, there are companies for investment capital, when the portfolio of shares gives the management of the professional investment manager. Reminiscent of investment funds, but they are publicly listed companies that exist to buy shares in other companies.

There are three risks that must be thinking about investing money, namely:

- **Rizik inflation:** the money that was long kept in the form of cash can actually lose value, because long-term inflation tends to erode the purchasing power of money. Consider the possibility that after the deduction of taxes on interest, the investor receives a higher interest rate than the rate of inflation, is practical in the long run, it is impossible.
- **Institutional risk:** in this case can lose capital if the Institution's where the money paid goes bankrupt and has fewer assets than liabilities.
- **Rizik missed opportunities:** the risk of failure to get a better investment elsewhere because the money in the safe, predictable cash.

SOME ALTERNATIVE INVESTMENTS

This term includes everything that does not fall under Chapter prior investment assets: art, gold, antiques, hedge funds, private equity ... Very often they behave differently than other asset classes, and although individually can have a huge risk (but also bring high profits), its inclusion in the portfolio can be significantly reduced risk due to significant negative correlation. Despite for such investment is associated with a number of specific problems: art is subjective and its value is based on current trends and tastes, are ignored costs associated with them, as they often are not formally regulated, beginners very difficult entry into this market.

Hedge funds have existed since the 40s of the last century and represent a different group of investment management companies that share an important characteristic of investing money in almost everything you can to bring them profits. Their goal is to achieve absolute return, or earnings greater than zero and their success does not depend on the success of the market because they use different combinations of investment strategies. However, mystery, difficult access to new investors as well as high salaries and bonuses that require their managers, can threaten succession these funds.

Private equity involves the purchase of shares that are not sold publicly, or on the stock exchange. Offer above-average earnings, but they are accompanied by a high risk, high initial investment and a lack of liquidity.

TAXES AND INVESTMENTS

The three main taxes that may relate to investment are:

- Income tax, the tax is payable on realized profits or income from investments.
- Capital gains tax is paid when you sell an investment for a higher amount than what we paid at its purchase. Costs incurred in these two transactions can reduce the taxable amount.
- Inheritance tax reduces the value of assets left by a deceased person behind.
- Taxes on income from interest.

Each of the first three taxes, there are certain tax exemptions or minimum amounts are not taxed. The most commonly taxed interest on savings, labor income and dividends.

There is a well-known buzz word in the world: "*Tax evasion is completely legal, or tax evasion, illegal.*"

SOME FINANCIAL ADVICE

Finding superior authorized advisor is very important and represents one challenge. There are different types of advisers:

- Financial advisors who help their clients to achieve future financial goals and intentions of finding detailed information on their current situation, the desired effect and providing them with assistance to build, manage and protect their wealth.
- Stock broker can provide a variety of services from purchasing and selling by order of the investor, through the provision of advice to an unlimited management role, but also bear the entire risk.

Of the many questions that may be posed in helping election advisers may be listed as follows:

- Are you: independent, multi-tied or tied.
- What are your qualifications?
- How do you charge for your services?
- How you experience?
- What is your process of investment counseling?
- What are your main areas of expertise?
- What is your approach on the issue of fair treatment of customers.
- Do you offer an advisory service or unlimited service management.
- How often will we be raised in the future?
- Can I talk to some of your existing clients.

Investment advice costs money, so every decision to this effect has to be paid. There are two main ways of payment-commission, which should be known at the outset and the fee is agreed with a counselor before you any advice. Any investment is a personal act of investors, but there are some provisions, what to and what not to do when investing (Velimirovic et al, 2014.).

What to do:

- 1) Being well read and informed.
- 2) Check the credentials of his advisers.
- 3) Have a realistic attitude to investment risk.
- 4) Keep a certain amount in cash as a reserve, usually equal to three-month to six-month spending.
- 5) Build strong long-term model for directing assets.
- 6) Maintain regular contact with a counselor and monitor your investment.
- 7) Expect more when you get more chances.

What not to do:

1. You can not believe everything that is said in various media.
2. There is free advice.

3. Do not hesitate in seeking a second opinion.
4. Do not rely too much on the past results in making decisions.
5. Do not try to predict the market.
6. Do not risk more than you can lose.
7. Do not hide important facts of his advisers.
8. Do not accept advice of unskilled people.
9. Do not invest in things that you do not understand.

SOME FINANCIAL ADVICE TO PROSPECTIVE INVESTORS

When you are thinking about investments and make a final decision on participation in the stock market or real estate, it should be observed, as far as possible the following tips:

1. First practice and then a chance with their money.
2. Choose yourself limits and stick to them.
3. Do not invest just because others are doing it.
4. Make sure the costs.
5. Aat stake are reduced, not orders.
6. Investment that generates income of 200% per year is never low-risk.
7. Keep good records.
8. Learn to own mistakes.
9. Invest with a purpose.
10. When in doubt, consult with a trusted person that you trust. What further.

CONCLUSION

Show in this paper, as well as how to invest with as little mistakes and risks, a potential investor, greater security, and hence less risk. By following the above recommendations can be made very good decisions, for example, when investing money. When you seek professional investment advice, the user specified council needs to know what questions to ask and how to examine investment advisor.

Each investment represents a potential opportunity to create additional profit, at the same time gaining valuable investment experience and with what right can be expected ultimate progress in this area.

Modern portfolio theory is essential when considering the risk level of the entire investment portfolio, and not at the level of individual investments if it is to become a good investor.

Serbia will have political processes to enable more favorable conditions for new investments through a variety of concessions, incentives, recommendations

elections location, traffic, infrastructure and general social benefits, socio-economic and other parameters through many benefits.

What can not be ignored when it for Serbia, the poor planning in the public sector, which gives it a special significance negative general impression of the citizens and potential investors. What is increasingly propagated in Serbia's stimulus initiatives and economic development through the private sector or entrepreneurship. In this context, the reindustrialization and construction of new facilities, Serbia must pay more attention to the creation of better conditions for the business of small and medium-sized enterprises, which modeled the related companies of the developed western countries, can significantly contribute to better and faster economic development through increased employment and exports, improving standards and the gross national income, increase employment, reduce public debt and budget deficit, reducing imports of consumer goods and agricultural products and others.

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SINGLE WOMEN ACTIVISM IN NEPAL - MICRO CREDIT MOVEMENT TOWARDS SELF-RELIANT ECONOMY AND HAPPINESS

Raghu Bir Bista PhD³⁰

ABSTRACT

Single women are itself a trauma psychologically and socio-economically in patriarchal society where male factor is a dominating and fundamental factor, although the government has endorsed a gender balanced development approach. Skill training and micro finance programs have made economic activism in productive activities.

This paper examines whether the skill training and micro finance improves to empower single women socio economically and to reduce poverty and vulnerability and happiness of single women in Nepal through descriptive statistics and the paired “t” test. Its primary data sets are collected from the survey of Center for Integrated Development Studies Report 2006. The paper finds that the skill training and micro finance are effective to empower single women socio economically and to reduce poverty and vulnerability and then improve self-reliant and happiness.

Key words: Skill, Training, Micro Finance, Vulnerability, Happiness

JEL Classification: J 16, F63

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336.77:338.3(541.35)

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INTRODUCTION

In recent years, the development plans and policies in developing countries, like in Nepal have been much more attentive to women development and empowerment based on the assumptions that women are socio economically weak, ignorant and backward within household and family due to the so called traditional patriarchal social structure, although women have equal right as human being legally and naturally and the extreme vulnerability of women due to socio-economic disparity results poverty and inequality as barriers in the course of development and welfare and in the way of happy family life. UNDP (1997) notes the status of women in the context of their access to knowledge, economic resource and political power as well as their personal autonomy in the process of decision making. There are found two simultaneous modules: constitutional and legal provisions to make guarantee women's rights on resources, property, opportunity, decision making process etc. and empowerment programs including advocacy, skill training, informal literacy, information about women's right, institutional development etc. In Nepal, women are provided 33 % quota from the parliament election to local VDC level election like as in India and other developing countries. Since 1990, National and regional political parties have practiced to encourage women leaders to participate in such process to include women in the decision making body and process. Its reflection can be found in development plan and policies from national level to local level. Women activism in socio-economic activities has been encouragingly in momentum. Its beautiful impacts can be found as the establishment of women's right on decision making process and resources within households and also within the society. Its strong evidence is positively progressive socio economic status of women in developing countries like in Nepal in *Human Development Index 2015*.

Gender literatures and studies in developing countries have focused on women issues and women empowerment in which *single women* within household was identified as a hidden, sensitive and serious issue. World Human Right (2009) specifically explains single women as a widow, divorce, separated or an unmarried woman over 35 years. Parajuli (2008) have similar note but consider currently divorced, widowed or have always been single, as well as unmarried cohabiters. World Human right Report (2003) argues young aged single women as harassment issue. Over long decades, such issue was not much more talked and not considered as a big issue because of its hidden domain, social codes and practices and misunderstanding on its multidimensional factors. If we observe status of single women, they are blamed as husband eaters and stigmatized as inauspicious and witches (Thapa, 2010). In case of hidden characteristics, single woman have difficulties to show and express their sentiment and emotional, sexual and socio economic issues because single woman after the death of husband are socially bonded by social codes, norms and values and have social and emotional responsibilities for their family and children. It is supplemented by the social practices and behavior of single woman in the society. The death of husband as a big trauma in her life has created *a great vacuum* making indifference to all emotional, sexual and socio economic issues. Later, her life adjusts herself with such trauma. Later, it is found social practice in which *single woman* has a

role of male having all socio-economic responsibility to her children within house. Thus, her responsibility dumps internally and externally her womanhood emotional and sexual desires in her mind and brain and her body respectively. In the exceptional cases of her womanhood emotional and sexual desires, she ignores all for her *lajja* (Lajja is a nepali term having a meaning of shyness) by accepting and blaming fatalism (Fatalism is the belief on unknown things for gain and loss) for her vacuum life. For her children, she lives without thinking second marriage option found in developed countries and society by deciding herself independently by ignoring all above factors.

The issue of *single women* has been a complicated issue coiled by age, children and capacity and nature of family structure. Literatures in developing countries on the issue explain different age groups of single woman. In case of above 35 years, these women have emotional and sexual desire issues, except socio economic less than below 35 years single woman. Having children, single woman have more emotional attachment with socio economic responsibility more than sexual desire. In case of single child, age is below 35 years, single woman have sexual and socio economic issues having desire of second marriage. However, in case of more than one child, single woman below 35 years have sexual and socio economic issues for children's livelihood. If single woman is literate having assets and income sources, her capacity adjust everything. In the reverse situation, single woman has issues of socio economic and sex. If the family is traditional and fatalistic, single woman has not option to accept the social code. If not, single woman below 35 years. There may be a hope of alternative. Thus, different variables including age, children, capacity and nature of family structure play an important role to make complex this issue in the society.

Recent growing literatures on women in developing countries have extended their serious attention on socio economic status of single woman and her vulnerability level within the family within the house and then in the traditional society of developing countries like of Nepal. Its reflection can be found development plan and policy formulated by the government level at local level activities of local government and of Non-Government for their empowerment and capacity building in rural areas. In different approaches, there are different dimensions and arguments. Development approach argues the need of women empowerment for household prosperity and welfare. Such approach has been followed in each and every activities of development conducted by the government and the non-government agency. Its major concern is to reduce the vulnerability level of single women because the vulnerability of single woman is the byproduct of discriminatory and avoided behavior to woman. Therefore, it receives top priority on the government activities and budget allocation for their economic empowerment. Similarly, the gender approach argues it as the result of gender discrimination created by social codes, norms and values of traditional society. It explains her state as psychological and socio economic trauma to woman's livelihood and prosperous happy life. In many countries where patriarchal values prevail, a woman is considered worthless and inauspicious once she becomes a widow. For many women, widowhood brings with it not just the shock and trauma of losing one's husband but also losing their home, being abandoned by family members and increased sexual vulnerability if she is young and bleak future for her children as well (KC, 2009).

Studies and fact figures on that issue in the world wide show single women as *socio economic vulnerable people lying below the poverty line of nation*. In various studies of UN, there are 245 million widows worldwide. Out of total widows, 150 million widows live under the poverty line. In Nepal, its figure has reached at 0.5 million widows in the country. Day by day, its trend is inclining because of inclining trend of male deaths per year induced by war, internal conflict, socio-ethnic conflict and accidents in the country. Thus, a single woman is a root trauma factor and indicator of poverty.

In Nepal, single woman has different circumstances in which early marriage is considered as a good cause behind it in many literatures in which early marriage reduces life time for education and other ability earning. Bernstein (2006) notes that most single woman has early marriage by dropping her schooling. Further, he argues that single woman has obstacles of ability including employment, access to the market, skill trainings break out the cycle of poverty. Furthermore, her inability and independence makes herself marginal and silent against any exploitation. Giri (2000) explains her problems such as sexual harassment. She cannot react publically and privately due to fear of losing job, of livelihood source and of social status and feelings of shame. Fact and figures indicate 66 percent verbal abuse and 33 percent emotional abuse (UNICEF, 2001). In addition, out of 57 percent women, 11 percent of single women in Nepal are literate (CBS, 2011). Lohani(2010) mentions that single women are usually deprived of their husband's property left to face discrimination, stigma, forcing them into poverty. Thus, single woman issue is considered a complicated issue to be needed urgently addressed.

Since 1990, the democratic movements of the country have opened up the society to rethink the role of women not only political movements but also to revise the discriminatory constitutional and legal provisions to women contradicting International Laws-human rights in Nepal Constitution 1992. First time women came out the role defined by traditional social codes, norms and values practiced for a long into nontraditional role that is *socio-economic and political role*. As supplementary, the development approach of the government has focused women issues and their empowerment from multi dimensions socio-economically, politically and legally. In this regard, the right of single women has been recognized and prioritized. Still, massive single woman in rural areas has been suffering from marginality, sexual violence and vulnerability. However, only numerous literatures have focused on the single woman and its vulnerability.

In this context, this paper assess whether social codes, norms and values and its practices of single woman within the family within household in the society are more effective than legal measures in which socio economic characters and circumstances of single woman, whether the vulnerability level of single woman is influenced by various socio economic factors or not, and whether skill training and micro finance have contributed to reduce the vulnerability of single woman and her role within the household in the society.

This paper is organized into sections. Section 1 introduces the context of single woman in Nepal. Similarly, section 2 explains objectives of the study; section 3 explains data and method of this study containing primary data (household survey

and Focused Group Discussion (FGD)) and source of data. Section 4 presents results of the case of single woman in Nepal. Firstly, this paper describes nature, characteristics and size of single women and also social codes related to single women. Secondly, it presents socio economic status and vulnerability level of single women. Thirdly, it explains interventions of skill training and micro finance to empower single women and their impacts and then fourthly it provides alternative solution.

OBJECTIVES

This paper has a broad objective to assess the impacts of skill training and micro finance on single woman within household in the society in Nepal. Specific objectives are as follows: to assess social codes, norms and values and its practices of single woman within the family within household in the society, to examine the vulnerability level of single woman and its socio economic factorial contribution and find out the impacts of skill training and microfinance on the vulnerability level of single woman within household in the society.

DATA AND METHOD

This study is case study methodbased on explorative and descriptive research design to assess the vulnerability level of single woman and its capacity building and micro finance impacts in rural village in Nepal by studying case of *Ramkot* and *Bhimdhunga* VDC. Its data sets of this study used primary and secondary. In case of Primary Data of Individual's perspective and responses, household survey and focused group discussion, the interview method and observation method were applied in the selected VDCs.

The sample selection method followed the principle of random sampling method in which out of total single woman population (*261 as recorded in two VDCs*), about 15 percent sample (*that is 40 single women*) was selected. In case of household selection, there was used lottery method after numbering households in above VDCs. The sample was interviewed with structured questionnaire.

The secondary data was collected from CBS (2001), District Profiles (2013), VDC profiles (2013) and other relevant sources: women's profile of CBS (2011).

STUDY AREA

Nepal is the landlocked country emerging new republican country between two giants: China in North and India in East, South and West in South Asia.

Demographically, women population (51%) leads to male population (49%) in accordance with Population Census. However, there are identified various different socio economic and gender issues related to women in which single woman issue is considered as major issue in Nepal from all perspectives.

In Kathmandu, the study areas: *Ramkot* and *Bhindhunga* VDCs are two VDCs of Kathmandu Districts which are located 10 km far at the western side of Kathmandu Metropolitan City.

- RamkotVDC is the areas of 5.8 square kilometer in which 1937 households with 8759 population (CBS, 2011) occupy. Family size is 4.52 that are lower than national family size of 5. By sex, there is 50.2 percent male and 49.8 percent female. It is little bit reverse with national sex ratio. There is a single woman of 2 percent at VDC level.
- Similarly, BhindhungaVDC is the area of 6.1 square kilometer in which 619 households with 2915 population (CBS, 2011) occupy. Family size is 4.71 that is lower than national family size of 5 and greater than Ramkot VDC. By sex, there is 50.9 percent male and 49.1 percent female. It is little bit reverse with national sex ratio. There is a single woman of 2.8 percent at VDC level.



Figure 1: Location and Map of the study areas

Source: CBS 2011 VDC/Municipality profile

RESULTS AND DISCUSSIONS

SOCIO ECONOMIC CHARACTERS

HH size and structure: Single women are understood as vulnerable section socio economically. In other words, they are the poor households. In general, nuclear households have smaller family size than the joint family. There are family sizes of 3.75 less than national average family size of 5.4(CBS, 2010). In case of the joint family and the poor family of single women, there is outlier of 8 person's family size in maximum. It may be a good source of labor endowments. In minima, there is outlier of 1 person family size (*see its details in table-2*).

Similarly, sex factor is another character of single women's HH in which female in mean (2.37) dominates highly to male in mean (1.37). In minima, there is found zero male. In maxima, female's representation of 5 in HH is greater than male's (4)(*see its details in table-2*).

Table 1: Socio economic character of single women

Socio-economic character of single woman	min	max	mean	standard deviation
Age (years)	39	71	53.48	10.04
Female Head in Household/family	0	1	0.38	0.49
Age Group(years)				
Below 60	39	59	44.4	
60-70	60	67	59	
Above 70	70	71	70.5	

Source: Field Survey, 2015

Table 2: Household size and structure

Household size and structure	min	max	mean	standard deviation
Sex				
Male	0	4	1.37	1.08
Female	1	5	2.37	1.18
Family Size	1	8	3.75	2.01
No of Children	0	4	1.12	0.91

Source: Field Survey, 2015

Age distribution of single women is found in minima of 39 years and in maxima of 71 years. Its mean age is 53.48 years. When its age distribution is categorized into below 60, 60 to 70 and above 70, there is found 62.5 percent HH, 32.5 percent HH and 5 percent HH respectively (*see its details in table-1*).

Table 3: Landholding and Livestock endowments

Landholding and livestock	min	max	mean	standard deviation
Landholding(Ropani)				
Irrigational land	0	3	1.72	1.08
No irrigational land	0	4	1.92	1.18
Livestock(No)				
Cows	0	2	0.3	0.52
Goats	0	4	2.15	1.09

Source: Field Survey, 2015

Female Head in HH has decisive factor in decision making process within family and Household. There is found 38 percent household having female head (*see its details in table-1*). It reflects size of nuclear family also.

Resources Endowments: there are two major resources endowments: landholding and livestock presented in table-3. In land, there are two characters: irrigational and non-irrigational. Each household holds 1.72 ropani in average in irrigational land and 1.92 ropani in average in non-irrigational land. In sum, each household holds 3.62 ropani in average. In case of non-irrigational land, each household has challenges. Similarly, there are two livestock including cow and goats. Each household traditionally farms two cows in maxima only for milk and composite fertilizers and four goats in maxima only for milk and meat production. In practice, livestock is attached of traditional Nepalese households, like as single women's household (*see its details in table-3*).

Socio economic character of single women: A single woman is vulnerable section within the family in the society of Nepal. To understand their socio economic status, there is used food sufficiency, economic and social indicators. Education is social indicator indicating capacity of single women. There are just two categories: just literate (who can read, sign and write her name) and illiterate (who cannot read, sign and write her name, except understanding Nepali language). There are found 50-50 percent distribution between just literate and illiterate. In case of economic condition, there are three categorizations: rich, relative poor and poor. There are 45 percent well off rich group. Then, there are 55 percent of the poor (32.5 percent) and the ultra-poor (22.5 percent) in sum (*see its details in table-4*).

Similarly, food sufficiency categorizes poverty level by dividing four groups of food sufficiency based months: less than 3 months, less than 6 months, less than 9 months and less than 12 months and equivalent. There are 22.5 percent less than 3 months, 10 percent less than 6 months, 10 percent less than 9 months and 57.5 percent less than 12 months and equivalent (*see its details in table-4*).

Table 4: HH categories in socioeconomic characters

HH categories	HH No	min	max	mean	standard deviation
Food Sufficiency	40	2	12	8.75	3.84
< 3 months	9				
<6 months	4				
<9 months	4				
<12 months	23				
Economic					
Poor	13				
Ultra poor	9				
Rich	18				
Literacy	40	0	1	0.5	0.506
Education					
Literate	20				
Illiterate	20				
Sex					
Male		0	4	1.37	1.08
Female		1	5	2.37	1.18

Source: Field Survey, 2015

POVERTY AND VULNERABILITY LEVEL OF SINGLE WOMEN

Vulnerability is a state of inability to self-protection and recovery from social, economic and natural shocks. Literatures (Aysen,1993) and Philip and Rayhan (2004)) identify its causes: *illiteracy, hunger, fragile and hazardous location, gender discrimination, no access to resources and decision making process.*

With Poverty, Philip and Rayhan(2004) argues that despite different implications of poverty and vulnerability, poverty is generally associated with deprivation of health, education, food, knowledge, influence over one's environment etc. It creates vulnerability. The poor are more vulnerable than any other group to health hazards, economic down turns, natural catastrophes and even man made violence, along with shocks (illness, injury and loss of livelihood).Abukaet. al. (2007) notes that High incidence of poverty contributes significant amounts of insecurity in the people.Thus, poverty and vulnerability level are correlated each other.

Measure of poverty level: There are different reference lines of poverty level based on different approaches at household level. One of well used and popular approach is the reference of 12 months of food sufficiency. If household meets 12 months food sufficiency, such household is categorized no poverty. However, less than 12 months food sufficiency measures extremity of poverty level. There are three extreme reference points: less than 12 months, less than 9 months, less than 6 months and less than 3 months. Table 4 shows distribution of households and single women. Out of 100 percent single women HH, there is 57.5 percent single woman having less than 12 months food sufficiency in which 22.5 percent less than 3 months is more highly vulnerable, 10 percent less than 6 months is highly vulnerable, 10 percent less than 9 months is vulnerable and 14 percent less than 12 months is less vulnerable than of less than 9 months, less than 6 months and less than 3 months food sufficiency.

Table 5: Food Sufficiency

HH categories	HH No	Mean HH size	< 12 months	12 months
Economic				
Poor	13		13	
Relative poor	9		9	
Rich	18			18
Literacy	40	3.75	20	20

Source: Field Survey, 2015

Measure of vulnerability level: There are different approaches and factors measuring level of vulnerability. Above poverty level shows us the vulnerability level of single women. In addition, there are applied the following factors as supplementary factors to poverty: *social factors (discrimination and exclusion), sexual harassment, and emotional torture, no access to resources (land, money, information, organization etc), no participation in household decision making process and no participation in community decision making process (see its details in table 6)*. There are presented two cases: nuclear family and joint family. In nuclear family where female is head, there are not social discrimination and exclusion found in 38 percent in nuclear family within household because single woman has a right to take decisions in which single woman is free to access to resources and participation in decision making process within household and in the community. In this case, a single woman is less vulnerable from social factors. However, in case of sexual harassment, there is found because single woman has not only internal activities but also external activities like as male.

Table 6: Vulnerability level of Single Women

Vulnerability Indicator	Nuclear Family		Joint Family		Total
	Yes	No	Yes	No	
Social					
Discrimination	0	15	25	0	40
Exclusion	0	15	25	0	40
Sexual Harassment	15	0	10	15	40
Emotional Torture	0	15	20	5	40
No Access to Resources	0	15	20	5	40
No Participation in Household Decision Making	0	15	22	3	40
No Participation in Community Decision Making		15	19	6	40
Total	15	90	141	34	280

Source: Field Survey, 2015

In case of joint family, male is a head following social codes, norms and values as practiced in the society for social prestige of the family. Therefore, single woman is not free like as female head nuclear family. Single woman is not considered as good fortune. Therefore, she is excluded from every socio-religious activities. In case of food, dress up etc, she is discriminated. In this case, 62.5 percent single women in the joint family perceives socially discriminated and excluded. Except few cases, out of 62.5 percent, about 50 percent single women think in emotional torture, no access to resources, no participation in household decision making process and community level decision making process. In case of sexual harassment, except 25 percent single women, 38 percent single women feel no sexual harassment because single women don't need to work outside and they have male protection. However, if we observe the level of vulnerability, the vulnerability of single women in the joint family headed by male is higher than in the nuclear family headed by female. From poverty, majority of single women are extremely vulnerable.

THE IMPACTS OF SKILL TRAINING AND MICRO FINANCE ACTIVITIES

In recent years, single women's vulnerability and poverty are identified as critical issue to be addressed seriously and specifically from holistic approach to women issue and then the government and Non-government agencies have intervened in two aspects: skill training and micro finance to single women group. In the skill training, these agencies have conducted two staged activities: advocacy about women's right and gender issues at first stage and women's empowerment at second under which single women are provided different training on micro

enterprises related skills and techniques for income generation (such as commercial vegetable farming, tailoring, knitting, painting, pickle making and others). They have organized at general and at group level. After then, these NGO have made single women groups for microfinance activities in which NGO provides seed money and skill training about micro finance with its objectives, uses and importance. There is three single women's group involving actively in micro enterprises and micro finance over 5 years.

To capture the impact of above interventions particularly in single women groups on their poverty and vulnerability, the statistical tool, the paired "t" test is applied.

Hypothesis formulation and testing:

Let's find whether the skill training and micro finance program is effective to reduce poverty and vulnerability of single women within the family within household in Nepalese society, particularly in the study areas. Let's suppose Null hypothesis is the skill training and microfinance program is not effective to reduce poverty and vulnerability of single women that is $H_0: \mu_d = 0$. Its alternative hypothesis is the skill training and microfinance program is effective to reduce poverty and vulnerability of single women that is $H_a: \mu_d \neq 0$.

Symbolically, hypothesis at significance level ($\alpha = 0.05$) is presented as below.

Null Hypothesis: $H_0: \mu_d = 0$

Alternative Hypothesis: $H_a: \mu_d \neq 0$

Descriptive Statistics:

The skill training and micro finance program of NGO have certainly brought changes in the life of single women. To measure the effectiveness of the skill training and micro finance program to reduce poverty and vulnerability of single women within the family, there are different factors having four major measures: time allocation inside and outside house and in capacity building, use of micro finance and income generation per month. Time allocation inside and outside house and Time allocation in skill training is measured by using time measure of hours. In case of microfinance, its unit is Rupees like as Income Generation per month.

In four factors: time allocation inside and outside house, Time allocation in skill training, microfinance and income generation from enterprises activities, there are used two time periods including pre and post of the skill training and micro finance programs for measuring change between pre and post time periods in the life, activities and behavior of single women in the family within household. Table 7 shows that how much change in these two time periods: pre and post time through mean.

Time allocation measures behavior and preference of single women. If single women give more time, it means more preference. If single women give less time, it means less preference. In the time allocation of single women in kitchen inside household, mean hour of pre time period of the program is 7.88 hours. Kitchen receives more preference of single women. It is higher than mean hour of post time of the program (4.38 hours). Thus, single women's time allocation in kitchen in the post of the program is less by 3.5 hours. In other words, single women give less preference in kitchen in the post of the program than other activities because the

skill training and micro finance program has given alternatives to single women more than kitchen (*see its details in table 7*).

Table 7: Descriptive statistics and Correlation

Time allocation of Single woman	Mean	Std. deviation	Std. Error Mean	Correlation	sig
In Kitchen					
Inside household (before)	7.88	1.842	0.291	0.68	
Inside household (after)	4.38	0.868	0.137		
Social Activities					
Outside household (before)	.32	.432	.068	.112	0.492
Outside household (after)	2.50	.531	.084		
Skill Training					
Outside household (before)	.22	.423	.067	.262	0.103
Outside household (after)	1.90	.67	.106		
Use of Micro					
Enterprises (before)	12.75	39.09	6.181	-.202	0.211
Enterprise (after)	4577.5	2090.208	330.491		
Income generation					
before	677.50	240.179	37.976	-.142	.381
after	1.39E4	6221.551	983.714		

Source: calculated outcomes based on field survey, 2015

Similarly, time allocation of single women outside household activities (social and economic activities) measures how single women improve their confidence, capacity and preference. If single women increase time in hours, they have more social and economic activities outside household by rejecting social codes, norms and values binding to single women. Before the program, single women have given less time in hours per day by following social codes, norms and values. Its mean is 0.32 hours per day. After the program, they have allocated 2.5 hours mean time per day for participating training and advocacy activities. It shows changes in their preference, behavior and time allocation. Out of total time allocation outside households, single women have allocated 1.9 mean hours per day (*see its details in table 7*).

Single women have not access to resources in the family within household. If they work inside and outside household, they will not get any wages because such work is generally defined as socio economic responsibility within household. In addition, single women are socio economically discriminated and exploited in the family. In another words, they have ignorance only after the death of husband. However, there is not alternative. Therefore, they have used 12.75 rupees per month in average. It is nearly zero per month. After the intervention of micro finance groups, single women have started to use micro finance for different economic entrepreneurial activities after getting training and knowledge. In the post of such intervention, single women are capable to use 4577.5 rupees per month in average for entrepreneurial activities (*see its details in table 7*). It is a

positive change in access to resources and capacity to take right decision in resource allocation for household or desire.

Generally single women have not allocated their time on traditional activities (cooking, cleaning, working in land etc) within household. For their work and time allocation, they could not receive any rupees, except food, accommodation, security and social prestige. They are very far from resources and decision making process, although they have desire to access to resources and allocate such resources. However, in the pre time period, they have not such opportunity and preference. Therefore, they are economically vulnerable. At the pre time period, they have earned 677.5 rupees per month in average. After getting entrepreneurial trainings and micro finance services, single women have changed their preference and desire for generating income per month through vegetable farming, tea stall, retailing etc. Their mean income per month is 13900 rupees. It is a big change activities (*see its details in table 7*).

ESTIMATION OF THE PAIRED T TEST

- The paired “t” test-1: Change in time allocation inside and outside household

In this paired t test -1, whether the change in time allocation of single women inside household activities (cooking, cleaning, water collection etc.) and whether the change in time allocation of single women outside household and also participation in social activities and training occur in two time period samples of time allocation of single women in kitchen is tested by running SPSS-16. Table-8 shows there is a difference between two periodic samples by 3.5 hours in case of time allocation of single women inside household work. Its t value is estimated 15.857 at 0.05 percent significant level.

Similarly, there is a difference mean between two periodic samples of outside household time allocation of single women by -2.175 hours. Its t value is estimated -21.294 at 0.05 percent significant level. Out of time allocation household activities, there is an included training activity. In this test, there is difference mean time allocation of single women in social activities and training activities outside household by -1.675. Its t value is -15.294 at 0.05 percent significant level.

- The paired “t” test-2: Change in use of micro finance for entrepreneur activities

In this paired t test -3, whether the change in participation and use of micro finance of single women for entrepreneurial activities inside and outside household occur in two time period samples of micro finance money used by single women is tested by running SPSS-16. Table-8 shows there is a difference between two periodic samples by -4565 rupees per month in case of finance used by single women. Its t value is estimated -13.758 at 0.05 percent significant level.

- The paired “t” test-3: Change in Income generating of single women

In this paired t test -3, whether the change in income generation of single women from entrepreneurial activities by using micro finance and training inside and outside household occur in two time period samples of income generated used by single women is tested by running SPSS-16. Table-8 shows there is a difference between two periodic samples by -13220 rupees per month in case of finance used by single women. Its t value is estimated -13.358 at 0.05 percent significant level.

Table 8: Estimated results of Paired “t” test

Dif	Paired Differences					t	p Sig. (2-tailed)
	mean	Std. deviation	Std. Error Mean	95% Confidence Interval of the Diff.			
				lower	Upper		
before and after	3.5	1.396	0.221	3.054	3.946	15.857	.000
before and after	-2.175	0.646	0.102	-2.382	-1.968	-21.294	.000
before and after	-1.675	0.694	0.110	-1.897	-1.453	-15.268	.000
before and after	-4.565E3	2094.46	331.79	-5235.87	-3893.62	-13.758	.000
before and after	-1.322E4	6260.23	989.83	-15224.61	-11220.38	-13.358	.000

Source: calculated outcomes based on field survey, 2015

DISCUSSION ON THE RESULT OF THE PAIRED “T” TEST

As H_a is one sided, the one tailed test for determining the rejection at 5 percent level of significance which comes to as underusing table of t-distribution for 39 degree of freedom.

$$T_{\text{table}}: 1.960$$

In the paired test-1, the observed (calculated) value of t for the paired t test-1 is 15.857 which are greater than the t tabulated value 1.960 ($15.857 \geq 1.960$, p-values $\approx 0.000 \leq 0.05 = \alpha$) falls in the rejection region and thus null hypothesis H_0 at 5 percent level and the difference in time allocation of single women inside household activities between pre and post the intervention is significant. Similarly, in the outside household, the observed (calculated) value of t for the paired t test-1 is -21.294 which are greater than the t tabulated value 1.960 ($-21.294 \leq -1.960$, p-values $\approx 0.000 \leq 0.05 = \alpha$) falls in the rejection region and thus null hypothesis H_0 at 5 percent level and the difference in time allocation of single women outside household activities between pre and post the intervention is significant.

Similarly, in skill training activities, the observed (calculated) value of t for the paired t test-1 is -21.294 which are greater than the t tabulated value 1.960 ($-15.268 \geq 1.960$, $p\text{-values} \approx 0.000 \leq 0.05 = \alpha$) falls in the rejection region and thus null hypothesis H_0 at 5 percent level and the difference in time allocation of single women in skill training activities outside household activities between pre and post the intervention is significant.

Use of micro finance in results of the paired test-2 and Income generation per month in the results of the paired test-3, the observed (calculated) value of t for the paired t test-2 and 3 are -13.758 and -13.358 which are greater than the t tabulated value 1.960 ($-13.758 \geq 1.960$, $p\text{-values} \approx 0.000 \leq 0.05 = \alpha$ for the paired t test -2) and ($-13.358 \geq 1.960$, $p\text{-values} \approx 0.000 \leq 0.05 = \alpha$ for the paired t test -2) respectively fall in the rejection region and thus null hypothesis H_0 at 5 percent level and the difference in the use of micro finance and income generation of single women between pre and post the intervention are significant.

CONCLUSION

The program of skill training and micro finance particularly for single women initiated by NGO is used to socio economic empowerment of single women for reducing their poverty and vulnerability level in Nepal. Above results of all factors (time allocation inside and outside household, time allocation in training, use of micro finance and income generation per month) have rejected null hypothesis and accepted alternative hypothesis that is there is significant difference in means in all these factors. It means the program of skill training and micro finance particularly for single women is effective to empower single women socio economically and to reduce poverty and vulnerability and to improve self-reliant and happiness of single women.

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OVERINDEBTEDNESS OF NATURAL PERSONS IN WIDER SOCIO-ECONOMIC CONTEXT

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ABSTRACT

It is impossible to give an absolute definition of overindebtedness; it is directly connected to the subjects who create that overindebtedness. Consequences which follow the overindebtedness of the natural person are not only of economic nature, which are seen in the inability of a natural person to service his debts, but they also have a distinct sociological and psychological aspect, which causes the creation of new expenses for the society as a whole.

Authors of this paper have a goal of emphasizing a frequent issue of natural persons, consumers and entrepreneurs, facing the inability to pay their due debts, which leads them to the edge of their existence, loss of their homes, which challenges the constitutional right to dignity.

The condition of insolvency of a natural person does not cause only social, psychological and legal consequences, but it also represents a significant risk for the economy of a country. Therefore, the authors try to point to the consequences of autistic behaviour of the legislator towards the more common situations of involuntary insolvency of natural persons, towards the non-existence of legislation in this area, as well as to provide the suggestions for the future practice in cases of overindebtedness of natural persons.

Key words: *Insolvency, Natural Person, Overindebtedness, "Fresh Start"*

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INTRODUCTION

Every business arrangement which implies forming of certain debtor-creditor relation bears the real risk of debtor not being able to realize his obligations. In order to realize the fundamental principle of civil and international law "pacta sunt servanda", and by that keep the legal safety, law introduce the institute of bankruptcy as a form of securing the creditors in the situation when the debtor becomes insolvent i.e. unable to make payments. (Opačić, 2012, pp.37).

Expansion of consumer credits and psychology of easy life financed by loans, create the false impression of citizens' solvency, who, according to statistics, are sinking deeper and deeper into debt, from which they will not come out without the real engagement of the state. The burden of responsibility is also on the financial and loan institutions, which almost hypnotize their potential clients by using increasingly aggressive marketing approach. Financial institutions, in the competitive race for more original loan product, shorter period of loan approval, which leads to the limited control of credit rating of the client, usually find themselves in the position of creditors who have debtors being late with instalments. In this situation we can justly pose a question of the possibility of debt collection from the debtors, in the situation when they have no means even to pay for their basic needs. Unfortunately, the trend of development of consumer mentality in our country, where the overindebtedness becomes a lifestyle (Maljković, 2008, pp.26-27), was not followed by the development of the theory and procedure of bankruptcy over the assets of natural persons.

BASIC CHARACTERISTICS OF THE INSTITUTE OF INDIVIDUAL BANKRUPTCY

Bankruptcy over the assets of natural persons or individual bankruptcy is unknown to our theory and practice, which is why, at the very beginning, the authors consider, in order to facilitate the understanding of the further text, that it would be appropriate to mention the basic steps which characterize this procedure.

Individual bankruptcy can be defined as a sub-branch of the bankruptcy law or a type of bankruptcy which has all the property rights between the insolvent natural person as a debtor and his creditors, as the subject of study (Radović, 2006, pp.17). Individual bankruptcy represents the system of general execution on the non-exempted assets of the debtor, with the purpose of settlement of the unsecured creditors, by following the principles of collectivity, equality, fairness and coercion, which is done by the trustee with the monitoring of the bankruptcy court. Important goal of this procedure is the rescue of honest debtor from the mass of repression indebtedness and creation of the possibility for the debtor to start fresh liberated from the commitments and responsibilities which arise from business and life misfortunate circumstances (Evans, 2010, pp. 337-351). Determination of

individual bankruptcy as a type of bankruptcy could be justified if we have in mind the division of bankruptcy types according to the criterion of the subject of bankruptcy procedure. According to who can be the subject of the bankruptcy procedure we can divide the Bankruptcy law into bankruptcy of legal person and bankruptcy over the assets of natural person. The term bankruptcy over the assets of natural person is mainly descriptive in character, but it is our opinion that it is the most suitable one, because otherwise one could think that the bankruptcy is done over the natural person and not his or her assets. The consequence of individual bankruptcy is by no means the cessation of legal personality of a natural person, because that would oppose the fundamental principles of legal ability of natural persons, but, on the contrary it is their revival and reintegration through the application of „fresh start” philosophy.

There are unbreakable bonds, numerous identical rules and many common institutes between the bankruptcy of legal persons and individual bankruptcy, so it is justified to consider them as a whole. However, the individual bankruptcy studies and arranges the whole of socio-economic relations and has many special traits which differ it from the corporate bankruptcy, which is why it should be given the character of a sub-branch of bankruptcy law, with the undisputed qualification that it represents also the type of bankruptcy procedure (Radović, 2006, pp.17-18).

By determining this sub-branch of law as bankruptcy over the natural person's assets, we emphasised two important characteristics of individual bankruptcy. Firstly, individual bankruptcy should relate to all natural persons with no exception, to sole traders (entrepreneurs in domestic law) as well as to the consumers. World trend is the expansion of the circle of bankruptcy persons to all categories of natural persons which end up in a difficult economic situation. Secondly, unlike the corporate bankruptcy which foresees the conducting of bankruptcy over the legal persons, which has the cessation of the legal person itself as a consequence, with individual bankruptcy the bankruptcy procedure is applied on the assets of the debtor, and not on the subjectivity of the natural person. Considering the specificity of this institute in this procedure, we have to consider some questions regarding the personal and legal sphere of the individual, like for example, the application of the institute of limitation of the debtor. By opening the bankruptcy procedure, natural person becomes the subject of numerous bans. Here we have many types of bankruptcy consequences which affect the individual's personality. Depending on how the legislator perceives the debtor's position he will opt for a certain scope of bans. For example if the legislator wants to put the debtor in the unfavourable position, he punishes and discriminates him by the procedure itself, then the number of bans will naturally be larger, and the procedure itself will take the quasi-criminal form. The goal is to punish the debtor, to re-educate him economically and through his punishing to act preventively towards other potential debtors. This form of regulating the individual bankruptcy in modern bankruptcy legislations represents the anachronism and a relic of a past time (Opačić, 2013, pp.62). Nowadays, the financial ruin of the debtor is considered to be a reality which can affect anybody. Modern law puts the emphasis on the second chance

given to the debtor through the application of „fresh start” philosophy with the goal of faster socio-economic reintegration of the debtors. Upon the opening of bankruptcy procedure, only the necessary timely limited bans are foreseen, and only in cases when it is necessary because of the protection of society from those persons, like restrictions prohibiting the performance of certain activities, the debtor's obligation to inform creditors of the opening the bankruptcy procedure, the debtor restrictions on movement (ban on leaving the country until the procedure ends) temporary loss of some political rights etc.

The more the legislations are pro-debtor oriented, the narrower the scope of their limitations and restrictions will be. Comparative law, regarding the regulation of this matter, contains the differences which will be more easily seen if we pose the following questions: who can be the subject of passive bankruptcy ability, what is the scope of assets the debtor can keep, which future assets are protected and who decides in which way (Tabb, 2007, pp.11). Reasons, which led to establishing various models of individual bankruptcy most often, depend on how the general bankruptcy procedure is structured. Therefore, the concept of individual bankruptcy has a different meaning in European legal circle than that in the Anglo-Saxon. The approach used in USA, which is also called Anglo-American or open credit economy approach (Niemi-Kiesiläinen, 1999, pp.476) is characterized by fast liberation from debt responsibilities as well as the liquidation of non-exempted assets (the so-called fresh start philosophy). In this respect we use the term exempted assets for the assets on which the execution against the debtor cannot be done, i.e. the assets which do not enter in the insolvent estate. This is a special contrast in relation to the European legislations which, until recently, did not want to acknowledge the adequacy of debt relief to natural persons by emphasising the importance of principle *pacta sunt servanda*, and still in the majority of cases they condition the liberation from the other debts by a payment plan (so-called earned start philosophy). Despite all differences, the main characteristic of these systems is the liberation from debt responsibilities by ending a procedure. Forms as well as the scope of liberation from the unpaid claims vary throughout the legal systems which can be justified by historical and politically legal reasons (Howard, 1987, pp.1047-1048). The example for the most consistent application of principles of the new financial start of the USA, in the field of liberation from responsibilities for the remaining obligations and exclusions, as well as in the field of personal restrictions of the debtors. The right balance during the determining of these restrictions would be the achievement of balance between the application of fresh start principle, on one hand and the necessary protection of third persons and the state on the other hand.

EXAMPLES OF NATURAL PERSON OVERINDEBTEDNESS MANAGEMENT IN THE USA AND EUROPE

Modern systems of liberation from the remaining debt approach the financial troubles at least on two different levels. Besides the formal and legal system of forced liberation from the remaining debt, every system, to a certain measure, is trying to avoid violation of basic principles of law of obligation by mediating in the private, voluntary solution. Each of them encourages and often forces the debtors to renegotiate on their obligations towards the creditors. Inviolability of the contract is the central element of private law of these systems. If this was not the case, there would not be the need for the system of liberation from the remaining debt; since the debtors could simply state that they are involuntary to fulfil their obligations. Such a system could not support the modern commercial world we live in, because of various practical and theoretical reasons. (Opačić, 2014, pp. 143). Therefore, to understand that any of these systems of individual bankruptcy functions in comparison to others, we have to take into consideration the system of voluntary negotiations which comes before the system of obliging liberation from the remaining debt, as well as their mutual influence. As we will see, this pre-bankruptcy system has a significant role in majority of current formal bankruptcy systems. In some cases, it represents the primary method for solving the financial difficulties. In further overview the authors will separate only the main characteristics of pre-bankruptcy systems of representative countries, Anglo-Saxon, German, Roman and Scandinavian system of bankruptcy, while in the end we will give a brief overview of the bankruptcy regulations in Poland, which can be a good inspiration for the future Serbian legislative solutions because of its specific development of policy of raising financial awareness.

The aim of extrajudicial debt restructuring is the attaining of compromise between the debtor and creditor in respect of modest concessions by creditors, which would create the possibility for debtors to make payments of their debts according to their abilities, in a certain time frame, and based on the prepared and approved payment plan. Taking the control of the debtor over his or her debts leads to strengthening of the idea of responsible financial behaviour and realizing the principle of sanctity of contract at the same time.

Credit counselling in the United States of America was developed in late 1950s and in the beginning of 1960s at the initiative of commercial banks. These banks financed the initial setting of the network of agencies for credit counselling all over USA with one primary goal: to encourage and mediate the renegotiations regarding the terms of credits for natural persons which are faced with insolvency, with the goal of preventing the fast debt write-off, which is offered by formal procedure according to the chapter VII of Bankruptcy Code. Credit counselling implies the advice and guidelines to natural persons on how to manage their finances with budget planning and greater control of spending and loaning. Nowadays, credit advisors mediate between debtors and their creditors in

renegotiation process on terms of credit arrangements, providing limited concessions by the creditors with the aim of creating opportunities for debtors to regain control over their payment obligations, in order to avoid a total financial collapse (Kilborn, 2007, pp.19). Basic task of credit advisors in the USA is the achievement of compromise about the debt service, often called "debt management plan" (complete payment of the debt within 3 to 5 years). The question of the source of financing the credit advisors is always present as a potential problem, it is necessary to harmonize two interests, one which is connected to the professional unbiased mediator and another interest of profitability of the mediating agency itself. The example for the realization of such a problem is the former practice in the USA, doing "fair share" payments; amount, in percent, from the debtor's payments which belongs to the agencies if the plan would be achieved with the debtor through the agency (creditors would guarantee the amount of 12-15% from the amount which would be paid by the debtors because of the achieved payment plan, which can be undoubtedly defined as bribe). This practice led to the collapse of the credit counselling system, because the rapid increase in the number of newly founded agencies for mediation led to cessation of financing by the creditors (Stehl, 1999, pp.133). Agencies for counselling increase their significance by changes of the Bankruptcy Law, which took effect on 17th October 2005. (BAPCA, 2005). Now for the first time in the long history of American Bankruptcy Law, credit counselling has become the precondition for entrance into formal system of liberation from the remaining debt. In order to obtain the access to formal bankruptcy system, the individual debtor has to submit the certificate of authorized "non-profit agencies for issues of budget planning and counselling." In order to become authorized, counsellors have to fulfil the sequence of conditions defined by the changed Bankruptcy Law. Selecting and authorizing the agencies is now one of many obligations of central agency which overlooks the system of formal bankruptcy all over the USA (Zywicki, 2002, pp. 2016).

Roman system of remaining debt liberation for natural persons has different grounds. Regulation of formal procedure of natural person bankruptcy as an alternative to which the debtors could be redirected through credit counselling was non-existent for a long time. Formal systems which were developed according to French model, hesitated greatly to interfere with the private contract obligations, so renegotiation about the existing contracts with very little formal regulating of terms was either the only option or the primary option in these systems from the beginning. Nowadays in practice, renegotiating with the mutual consent is not only the desired alternative but also the precondition for formal remaining debt liberation in these systems; it is the focal point of the entire remaining debt liberation system. These systems are structured in such a way to convince the creditors to accept the agreed settlements and to encourage the debtors in searching for compromise solution. In these systems, if the stage of voluntary negotiations fails, the stage of obliging debt relief is generally characterized by relief of debts of the smaller scope, and it is not as certain as it is in American and German system. This matter is regulated by regulations under the title "Solving the issues of overindebtedness", which are found in the Code of consumer protection, which represents slightly specific solution, because the regulations on regulating the

insolvency of natural persons are usually found in bankruptcy or separate laws. Credit counselling in France was introduced by the Law brought in 1989 which has a double role. A central system of information on credit collecting was introduced, under the management of Bank of France (the check of credit rating of the potential debtors) while the other side of the system was designed to encourage the creditors and debtors in finding the solution the private way. Instead of asking for private credit counsellor, French debtors make a formal request for remaining debt liberation to the specially established body, Commission for overindebtedness of individuals, which is actually the network of Commissions under Government control. For a long time France did not foresee the possibility of debt relief in terms of liberation, but the accent was on negotiating on achieving the compromise about the debt regulation between the creditors and debtors. However, in 2004 for the first time it introduces formally the debt relief (Kilborn, 2005, pp. 619.).

Counselling function in Luxembourg is done by private socially oriented counsellors who offer assistance to the over indebted debtors, as a part of their social mission. These organizations signed the contract on cooperation with the *Ministere de la famille et de l'integration*, and they started operating as a part of one coordinated programme of counselling with the state support, called "National Centre for the fight against overindebtedness". In 2000, a formal system of remaining debt relief for natural persons became a part of the Luxembourg's legal system, even four years before the French system (Kilborn, 2006, pp.69).

Model of overindebtedness management in Belgium is firstly interesting as a starting point of some future Serbian model of bankruptcy over the assets of natural persons, because it is characterized as an exceptional commitment to the mediation process, and it is also of formal structure because the court participates in the process of mediation. Debtor submits the request for remaining debt relief to the court of general jurisdiction. Court overviews the demands in order to make sure that the debtors are qualified for liberation from the remaining debt (i.e. that they are unintentionally insolvent), and then in the mediation process which follows, it does the control. Debtor is obliged to name the mediator in the request and the court is obliged to establish the mediator as soon as possible. The mediator controls the mediation process while the court is aside. Mediator is authorized to stop the negotiation process and the return the case to the court if it becomes obvious that the creditor will not accept the terms foreseen in the plan, which starts a formal court procedure. Court has to set the mediators from the line of lawyers, registered executor and licensed public or private agencies for debtor counselling. Belgian system of credit counselling for natural persons consists of over 500 public social aid centres all over Belgium, which are licensed by the state, so it is certain that they will participate before the lawyers because of low fees which are set by the regulation because of protection of debtors' position. (Kilborn, 2006, pp. 73).

Law on individual bankruptcy of Germany as a representative of German system emphasises the encouragement and facilitation of conducting of extrajudicial agreement between the debtor and creditor, with the goal of achieving the agreement on realization of debt without the assistance of the Court. In order to approach to the formal bankruptcy system, the debtor has to submit the

confirmation which proves the failure of extrajudicial attempt to settle in the last six months from the day of submission of request for debt relief. The way and the content of negotiations are completely unregulated; the only requirement is that the debtor has to be represented by the authorized person or an agency – lawyers and advisors competent for debt issues, financed by the Government. German debtors have at their disposal advisory centres (Shuldnerberatungsstelle) which are located all over the country, which are under patronage of the state (Kilborn, 2007, pp.40).

Holland Law on individual bankruptcy, like the solutions in the USA and Germany, states the obligatory phase of the procedure, extrajudicial attempt to adopt a payment plan as the precondition for the access to the system of formal remaining debt relief of natural persons. The debtor, along with the request, submits the certified statement stating the reasons for the inability to achieve extrajudicial settlement for recovery of debts. Local municipal loan banks represent basic local organizations for providing the services of credit counselling. System of municipal credit banks (geementelijke kredietbanken) dates from 1930, which does the crediting of natural persons by the non-profit non-commercial banks, which are controlled by the local municipal council, under very favourable conditions. Nowadays these banks are primary providers of services of the pre-bankruptcy credit counselling in Holland (Kilborn, 2011, pp.2).

Code of Conduct for Debt Arrangement (*Gedragscode Schuldregeling*) from 1979 represents the golden standard for the restructuring of natural persons' debt in Holland. Debtor submits an application for regulating the debt to the local credit bank, together with complete financial data, which will then evaluate, according to the purchasing power of the debtor and credit burden, whether the creditors will accept the potential payment of the debt via standardized three-year instalment plan which includes the freezing the piled interest and other fees.

Since January 2007, Sweden, as the first European country leaves the system of obligatory pre-bankruptcy credit counselling. Every municipality had to provide the counselling for the issues of budget and debts, however obligatory phase of counselling and negotiating as a precondition for entering into a formal system of debt relief, does not have any real function, according to the opinion of Swedish jurists. It leads to unjust postponing of the inevitable, with spending the resources for those debtors who are in a hopeless situation. This enables the counsellors to direct their attention and resources to the cases in which there is serious possibility of solution (Kilborn, 2007, pp.435-437).

Approach to the solving of problem of overindebtedness in Poland is directly linked with the founding of The Microfinance Centre for Central & Eastern Europe and the New Independent States - MFC4. This is an international network of around 110 micro financial institutions from the region. Organization is founded in Warsaw and began working in 1997. Consortium for education of people with low income was started in 2004 by the programme Plan your future (Zaplanuj swoją przyszłość). Besides MFC, the member of the Consortium was also the polish bank Association. According to the MFC, 13.5 million people with low income should be educated and trained to be able to manage their own financial resources. Pilot research was done in 2004 and 2005, and then they started training of 262 people

(up to 45 years of age and students from 16 to 19 years of age). MFC tends to include all family members in order to promote the importance of good personal finance management and to advance the financial planning. In 2007 the Centre in cooperation with 30 non-government organizations, started the programme of financial education of people with low income. It was envisaged, at the local level, for professional groups for educating these people to be formed and trained. The importance of this can be seen in MFC's researches, according to which only 35% of people with low income believe that they do financial planning in a successful way, and even 87% does not plan for the period longer than a month. Only 15 % of people with low income saves, 47% loans from different sources and even 5% is constantly over indebted. MFC is the only institution directly involved in the education and training of people with low income (Bejaković, 2010, pp.41). Other programme, My Finance (Moje finanse) was started by the Kronenberg foundation and the National bank of Poland, and is conducted by the Foundation for endeavours of the young. 2,400 of high school teachers all over the country are included. It is foreseen that, in the few years, around 216 000 young people will be educated, trained and informed. My finance contains three modules: I love banks – young people learn about what money is, which criteria are relevant while choosing the bank account, types of deposits, how to obtain the loan and avoid any possible inconveniences. My investment – various forms of saving and investing (besides bank deposits), their advantages and disadvantages. This module explains the rules of effect of capital market and its most important instruments such as shares and securities. Investing in the future – explaining the new retirement insurance system, its legal characteristics, forms of saving for the old age, selection of the optimal strategy etc. (Bejaković, 2010, pp.42).

Debt management is not only the moral commitment of the society, but it is also very useful from the expenses point of view. To organize and conduct the counselling has its expenses, however one saves greatly by financial education of debtors. This can prevent facing the poverty and loss of home and encourage social inclusion. Financial counselling is undoubtedly extremely important aspect or phase of debt management with over indebted people, however we should have in mind the Swedish experiences as well. Counselling is not and it should not be the goal itself, but it has to be done only in situations which can provide the results, and the moment when the counselling is done is essential. Preventive counselling, debtor education in respect of managing their finances can provide results, while financial counselling of natural persons who are hopelessly over indebted really only prolongs the inevitable, necessity for application of debt relief institute.

POSITION OF NATURAL PERSON IN CASE OF INSOLVENCY IN SERBIAN LAW

Natural person cannot be the subject of bankruptcy according to the Serbian law, Law on bankruptcy of Serbia foresees in the article 1 that only legal person can be the subject of bankruptcy (Official Gazette of RS no.104/2009, 99/2011- other law, 71/2012 - decision CC and 83-2014). By this determination the bankruptcy law of Serbia made a discontinuity with the bankruptcy solution from 2004 (Official Gazette of RS no.84/04), which foresaw the possibility of bankruptcy management over legal person as well as natural person who does the economic activity – entrepreneur. So the reform which was done in 2009 in the field of bankruptcy did not continue to pave the road of and perfecting the institute of individual bankruptcy. So the perfecting of institute of individual bankruptcy and starting the bankruptcy procedure over the assets of natural person in Serbian law became impossible even though the real indicators of growing overindebtedness of citizens and discouragement of entrepreneurs go in favour of implementation of this institute.

Citizens of Serbia have taken around five billion euros in loans from the banks, most of those are housing loans around 3.2 billion. According to the data of Credit Bureau of the Association of Serbian Banks, every citizen owns 837 euros to banks and leasing companies, 749 euros go on loans, 35 overdraft, 47 credit cards and 6 euros on leasing services. (Credit Bureau ASB, 2014). If we compare these data with the data of the Association of Serbian Banks from 2012, we can see a slight growth of debt per capita from 814 euros in 2012 to 837 euros in 2013. Total debt of the citizens of Serbia and the economy of Serbia according to bank loans is decreased by 5.1% in 2013 and is 2.140 billion of dinars, where debt of companies is decreased by 8.2 % and is 1.414 billion of dinars. Debt of the population according to bank loans is increased by 2.8% and is 616.37 billion of dinars, however if we take into consideration the inflation rate we can notice stagnation in the trend of indebtedness of the population (Credit Bureau ASB, 2014). If we look at the structure of loans of citizens, the largest fall can be seen in consumer loans - 18.3%, while the cash loans grew by 14.4%. (Credit Bureau ASB, 2014).

Strictly taking into consideration only the statistics, we would surely come to the wrong positive conclusion in respect of movement of the trend of indebtedness of citizens of Serbia. What masks this statistics is the trend of increase of delay in instalments of the citizens and entrepreneurs and legal persons.

According to the data of Credit Bureau of the Association of Serbian Banks conclusive with 30.11.2014, 20.6% of legal persons were over 15 days late with instalments, which is a significant increase in relation to 2013 when it was 15.4%. Entrepreneurs also follow the growth trend of delays of instalments, so that percentage in 2013 was 16.3% and in 2014 21.7%. Citizens of Serbia also had more difficulties while paying their instalments, so there we can also see growth trend in delays of instalments. 6.8% of population in 2014 was late with paying the instalments for over 60 days, which marks the growth by 1.8% in relation to 2013. (Credit Bureau ASB, 2014).

Taking these data into consideration we can notice the fall of credit activity which will continue in the next year if there are no new investments in economy, because economy does not own its own means which it can use to invest and it is forced to be financed from the loans, but the number of eligible subjects for loans is decreasing. The fall in credit activity causes the fall in investments, and it all causes the inability of economic development of a country.

Without the systematic approach to solving the problem of overindebtedness of natural persons will soon lead to alarming statistics of home loss as a consequence of execution, psychopathological consequences in respect of growth of suicide statistics which is already alarming. According to the Statistical Office of Serbia in 2009, there was 1,367 suicides, and in 2013 1,198. During the analysis of these data we must take into account the negative birth rate where in 2011 65,598 were born and 102,935 died, while the same trend was continued in 2013 as well when there were 100 300 born and even 65 554 died (Statistical Office of Serbia, 2014). If we correlate the number of born individuals and the number of those who committed suicide we come to the fact that almost 2% of the number of born in 2013 committed suicide. Suicide statistics of entrepreneurs is non-existent, but it has become devastating, where entrepreneurs decide to opt for this method of finalizing the entrepreneurial activities, because of facing business failure, sudden poverty, loss of reputation, loss of home because of activation of security measures (mortgage), and often because of psychological torture by the usurers and threats to them and their families. Statistics of suicides among entrepreneurs is non-existent, so these types of data cannot be found in the Statistical Office, but the only relevant datum is the one got from the Union of Employers of Serbia which conducted a research for the period from 2004 to 2010, that even 75 entrepreneurs chosen suicide as an epilogue of their business career, while recent opinions are that more than 200 entrepreneurs who committed suicide as a form of “salvation of their families” when faced with overindebtedness, in hope of preservation of homes and liberty from piled debt (Union of Employers of Serbia, 2011). Having in mind everything that we said, it is redundant to emphasise that it is high time to deal with the problem of effect of permanent insolvency on the natural person. Instead of dealing with economic reintegration and the way of financial restructuring, which has to be followed by the assistance of the state, entrepreneurs create an ugly image, leaving not only the psychological negative consequences for the family, but also serious expenses for the society.

The problem of piled unregulated debt which is a serious problem of the economy of Serbia has long-term consequences for the overall society. By a statement that the debt cannot be regulated, i.e. that the execution is impossible because there are no means, leaves the creditor's needs unsatisfied but also creates the effect of insolvency which transfers to other areas, which can directly or indirectly jeopardize the creditor and push him to insolvency. Considering that it is necessary to encourage the development of entrepreneurial spirit, and at the same time to look after the entrepreneurs who are already in the market game, firstly it is necessary to regulate the procedure in case of insolvency within the bankruptcy law or other special law, which will then have long-term effects.

According to the current Law on companies, entrepreneur is a natural person who is registered for conducting of economic activities and he is responsible for his business with his entire assets, including his home (Official Gazette of RS no. 36/2011 and 99/2011, 83/2014). Novelty in this law is the responsibility for debts which does not end by erasing from the register, for example by committing suicide the entrepreneurs are erased by the force of law, but now in the law article 85, clause 2, foresees that by erasing of the entrepreneur from the register does not end his asset liability (Official Gazette of RS no. 36/2011 and 99/2011, 83/2014). Debts which the entrepreneur piled during his business operations are not erased automatically with the cessation of his legal subjectivity, but they become the obligation of his heirs. According to this solution the suicide as the way out of debts of the entire family is no longer the option, if it could ever be seen as one.

However the Law on companies does not oblige entrepreneur to own any assets, but only to provide the means for operations, so nowadays we have a frequent situation of intentional deceitful conduct of entrepreneurs, who are registered and doing business, while they consciously do not own any of the assets, so during facing the insolvency, the creditors do not have anything to do the execution on and regain at least some of the means.

It is obvious that the existing system is dysfunctional and that it cannot realistically satisfy the needs of the economy in transition. One-time interest and accumulated debt relief, one-time arrangements with the banks regarding the attempts to refinance or reprogramme debts obviously do not give the results (Opačić, 2015). Through standardization of bankruptcy procedure for natural persons, and especially the entrepreneurs with foreseeing of “new financial order” and implementation of the institute of unsettled debt relief, we would get the humanization of the position of entrepreneur, as well as the strengthening of financial responsibility of those present on the market. Having in mind the rule that the contract commitments have to be fulfilled, there is the question of what happens to all obligations which remain unsettled by a statement that there is nothing to conduct execution on.

Implementation of the bankruptcy procedure for the natural persons has shown that comparatively and legally it leads to multiple benefits. Critics often put the system of individual bankruptcy into the context of social giving and creation of new expenses for the state; however the truth is completely opposite. Bankruptcy systems are designed for individuals who are able to create enough income for providing for themselves and their families; however the problem is that the accumulated debt encourages their initiative and decreases their productive capacity. These debtors do not ask for stronger intervention into their lives, but on the contrary less of an intervention regarding the constant conduct of overpriced and destructive procedures of debt collection. The goal is not the receiving of financial or other help, but stopping the counterproductive procedures of forced debt collection (Kilborn, 2008, pp.563-565). The essence of differing the welfare system from the system for fighting against insolvency is the fact that the problem of poverty cannot be solved by establishing of one procedure, while the practical problems brought by insolvency are solved exactly in that way (Kilborn, 2008, pp.570).

Bankruptcy system which is well structured and functions regularly should provide facilitations only to those debtors who really need them and they should be available in a short period of time. Every well designed bankruptcy system will foresee the fulfilment of certain demands as a precondition for entering the bankruptcy system. If it is determined that the decrease of debt will not lead to its payment, not even with application of encouraging measures that the debtor is self-supported, bankruptcy procedure should provide facilitations, in a short period, to the debtor in respect of application of debt relief institute (Kilborn, 2011). Relatively shortly after ending the bankruptcy procedure, most debtors should find themselves independent and financially stable, and most of them are not expected to ask for these facilitations again, because through this procedure, besides their financial reintegration, education regarding the strengthening of financial responsibility is also done.

We believe that, in the following period, the legislators will approach more seriously to solving this problem and make it a legal text which will regulate the procedure of bankruptcy over the assets of natural persons in Serbia in detail.

CONCLUSION

Entrepreneurs have a significant role in creating the new work positions, and the development of entrepreneurship facilitates the exit from recession of any country. They provide new products, i.e. provide useful services with the effect of creating prosperity. Mental health of entrepreneurs, tendencies for gaining various psychosomatic diseases was not a topic in our country. The questions are posed sporadically when the black chronicle enters the pores of entrepreneurship. Mental diseases with which the entrepreneurs are faced, if they are left neglected, have long-term consequences on the ability of development of entrepreneurship in one country, and the creation of new expenses for the country in respect of health care and welfare, while at the end we cannot neglect the fact that it influences the overall mental health of the nation (Freeman, 2015, pp.2-3).

Study done by Michael A. Freeman which was approved by the UC Berkeley institutional review board was conducted on 242 entrepreneurs who, via on-line anonymous questionnaires, answered the questions connected to their contribution in doing the entrepreneurial activities, but also the physical condition they are faced with while doing the activities. The goal of this research was to establish the tendencies towards mental illnesses of entrepreneurs, but also the effects and tendencies towards mental illnesses of their nuclear families. The study has shown that entrepreneurs are more prone to mental illnesses than the control group of people who do not deal with entrepreneurial activities, almost 49% of interviewed answered that at least once they have faced mental disorders, 32% answered that they had some form of mental disorders at least twice or more times in their lifetime, and 18% that they faced mental disorders three or more times.

Study has shown a significant correlation between high intensity of stress which is a part of entrepreneurial activities, and determined that entrepreneurs are more prone to

getting a more permanent form of depression, even 30%, ADHD 29%, abuse of tranquilizers and creation of addiction 12%, bipolar disorder 11%, in relation to the control group. What is especially worrying is the fact that it is determined that with interviewees who did not express certain symptoms of bad mental health, but some form of mental disorders found in their close family with whom they live. Depression, ADHD, tranquilizers abuse and anxiety was found (Freeman, 2015, pp.3).

This study shows that the entrepreneur, even though he is an individual seen in the light of conducting the economic activities, he cannot be separated from his family, all those turbulences in business life affect the entrepreneur, but also his nuclear family. The nature of this relation is clear if we have in mind that the entrepreneur is a natural person who is liable with his entire assets while conducting the economic activities. The condition of threatening and actual insolvency is not only a stressful period in his economic activities, but it can also have significant consequences not only for the functioning of his family, which can result in home loss in the end.

Legal systems of Europe and America an entrepreneur, through the system of bankruptcy has a certain network, through counselling agencies, which provide help during the reprogramming of debts and provide an alternative and possibility for overcoming the condition of overindebtedness (Opačić, 2014, pp.143-190).

The country of Serbia behaves completely in the autistic way; it proclaims the development of entrepreneurship as the skeleton of faster economic development of the country, without providing an appropriate legislation which is the precondition of such development. The economy is not expected to have the growth of the number of newly-registered entrepreneurs, for them to employ larger number of people and by doing so influence the decrease of unemployment, while the issue of more severe market conditions is not seen as the real obstacle on that way.

Nowadays, entrepreneur is exposed to deeper prying of the country regarding the payment of the obligations, disloyal competition has become the rule, the possibility of financing from the loans is almost impossible, because of bad previous experiences of business banks with possibility of forced payment by the over indebted entrepreneur, and the problem of greater delays in instalments draws entrepreneurs into condition of threatening insolvency. The procedures of forced executions are often ended with a statement of non-existent means on which the execution could be done, these obligations remain unfulfilled creating the legal insecurity, by influencing the increase of economy's insolvency. While negating the need for bankruptcy procedure over the assets of natural persons, the state creates new expenses for itself. Failed forced collections of debts, increase in unemployment rate, increase in welfare for the unemployed and their relatives who sink into bankruptcy together with the insolvent natural person, while nobody is mentioning the health aspect or the significance of decrease of means necessary for welfare. Mental health issue of the nation in recession seems to have become rhetorical.

Financial health of natural persons in Serbia demands serious work on formulating the Strategy for fighting against overindebtedness of natural person, where the state has to take active role in respect of making the instruments, which will enable the institute of bankruptcy over the assets of natural persons not to be visible only in legal context but also to find their full application in practice.

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THE ROLE OF A TAINABLE MONEY AS A MECHANISM OF MONEY LAUNDERING

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ABSTRACT

The essence of this thesis is to explain that the problem of money laundering should not only be ascertained by its consequences, but it should be observed from its source, where it emerges firstly. The term “attainable money”, which we have used for the first time in this thesis, contains the goal achieved and the mere heaviness of the whole project. This does not refer to some related feature, without any essence, but it refers to the feature which has certain characteristics and goal for participants in money laundering. Therefore, this is about an attainable goal. For a participant, it is attainable money – enrichment without control, for a controller, it is the attainable sum of money he investigates and for an organizer, it represents available funds. Having this in mind, the aim of this thesis is to set the role of attainable money by stages of its manifestation, paying special attention to participants, in order to demonstrate the possibility of detection of all money laundering operations by stages. In this thesis, these possibilities of detection are described by steps, in order not to abandon already mentioned methods (techniques) which explain certain operations of money laundering. The essence of this thesis rests on setting the way of detection of money laundering in its original stage, when and where money laundering takes place and what makes the attainable money. This has been explained with the authentic schemes (author’s), which were made according to sublimated cases that emerged in the period of transition in Serbia and afterwards. Each scheme is described and each scheme shows the initial appearance of money laundering, this is, what sum of money it is and when it has been made, becoming the subject of money laundering later.

Key words: *Attainable money, Phantom companies*

JEL Classification: *E4, D43*

UDC: *343.53:336.741.1*

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INTRODUCTION

“Attainable money” is the key word in this thesis. It has been used for the first time in the research of this area and wider. The term is related to the role of participants whose goal is to put the target sum of money, being the original substance, in the mechanism of money laundering. It is the allocated amount of funds that will become the subject of detection. The real sum of laundered money cannot be known for sure, but the way of determining the sum of money which was the subject of laundering may be found by detecting it through laundering stages. In all actions (steps), taking into consideration the techniques of money management, the sum of money was unknown, this is, someone’s achievable goal. This is why the term “attainability” is used in the form of an adjective which has always been pursued. For a participant in money laundering, it represents the goal, for legislature it represents the amount which should be controlled, for an organizer it is the available form and for location, it is money. The term “attainable money” implies the unknown sum of money which should be researched through (please see preliminary definitions in this thesis) techniques of money laundering and through application of the existing definitions. Techniques of money laundering are analyzed separately in this thesis, through examples of their use (well-known techniques: investment, changing and concentration of funds and the unknown technique: current cash). An investigator is not a policeman, but as a scientist, he has to set the path where forms of attainable money are manifested to the smallest details, taking into consideration all possible problems: where the source is and where it is hidden, this is, cut.

Money laundering means an action, but its source is never set, so it is very hard to find out where this action comes from, this is, what sum of money it starts from, what amount of money it tends to reach and how it is exposed. The impossibility of detecting money laundering is due to the fact that its end was always looked for, while its sources remained insufficiently investigated, leaving the risk to the owners (an individual, the state, etc.). The initial detection consists of determination of the sum of money, the place where it changes its form and where its trace is lost. It is known that forms of business combinations articulate with money and when this articulation moves to irregular forms or through a simulated financial market, total money gets the prefix “attainable”. We are talking about actions which have the significance of a public event and move to secret events. This represents the essence of attainability, which remains unexplored. Where it is used and how it is used is the part of another thematic unit. If the principle of attainable money is known, then the sum of laundered money we have to investigate is known, too. According to detected attainable money we can know the expected level of risk, as well as all participants who were creators of these activities directly or indirectly.

In this thesis, presence of money laundering mechanism in Serbia is analyzed through four general examples of money laundering. They represent the initial framework of enrichment based on illegal business basics. Mechanisms of money laundering have found the biggest accomplice and its base in banking operations which were performed on the financial market. This activity comprised:

investment, remittances, loans, purchasing and selling of foreign currency, capital and mortgages. When a banking operation is applied to the sum of money which contains money of unknown origin and which is followed by simulated documentation, illegal foreign exchange market and unrecorded assets, they are tied creatively and they make a mechanism that has only one goal, to hide the real essence of financial transactions. In this thesis, we have related this phenomenon to “attainable money”, which represents money laundering, according to legal financial system. There is a big difference. It is reflected in determination of a hologram, where the source of money laundering should be determined firstly, and not its use, this is, application.

The phenomenon of money laundering (period from 1990-1996) in Serbia has its complexity as it occurred as a consequence of political and economic disorientation. This disorientation helped participants to find their roots in the first forms of establishment of private banks, savings and credit cooperatives, companies with unknown title (phantom companies) and in some individuals. Combining mechanisms and techniques of money laundering on one side and majority of various participants, absence of legislature, absence of professional institutions (economic disorientation) on the other side, “the Authority” tacitly approved money laundering as a leading way to enrichment of individuals. Due to such conditions, parallel financial system was developed. The consequence of it was distrust of citizens towards the banks and financial system. Abolition of SAAS2(SAS – Social auditing and accounting service was a part of the National Bank of Yugoslavia. Until 1995, all payments on the territory of the SFRY were effected through SAS (and later, since 1992, it was a part of SRY). SAS stopped to perform external controls in 1996. It transferred payments on business banks in 1995, while banks took over payments for the economy in the second half of 2002.), gradual transfer of payments on business banks, absence of compulsory external control (except for budgetary users) represented a new environment for performing of financial transactions.

Researches were conducted on the basis of the renewed financial system, this is, on concrete examples of elements of money laundering in Serbia, taking into consideration basic definitions of money laundering (Financial Action Task Force on Money Laundering (FATF) was formed in 1989 by the countries of G7, Action group for financial action on money laundering (FATF) is inter-governance of the bodies whose aim is to develop and promote international response for the fight against money laundering.emergence of parallel financial market. This fact was knowingly omitted, and central monetary authorities and banks approved this state by their policy of exchange rates. This confirms that the phenomenon of money laundering represents general problem to which Serbia was not immune, too). Having these researches in mind, we have analyzed the problem of money laundering through application of the basic definition of money laundering, which was disclosed by the international committee for the fight against money laundering FATF. The role of some mechanisms of money laundering in this thesis is explained through examples, by steps (this is, stages) and through their forms of exposure. Circumstances suggesting hiding of the real intention of money disposal are related to

Investigations and detections of money laundering in Serbia are not completed if we don't mention basic features which made the background of money laundering. In this thesis, the environment in which parallel financial market was organized represents the road in the form of intersection where attainable money is situated, this is, its presence in the sphere of discovering a mechanism of money laundering. Therefore, pre-action in money laundering, in all operations and business combinations, manifested even in the sequence of events (steps), makes a significant link proving connection between the attainable money in a public event and its transfer to a secret event. It has been noticed in the research that a big unknown, existing between the boundaries of the two financial systems, makes the "attainable" cash. In this research, it represents maximum sum of equivalent value of potentially laundered money or sum of money which has to be detected as the source of laundering.

HISTORICAL ASSUMPTIONS ON MONEY LAUNDERING

Economic assumption on participation of subjects in business activities in Serbia during certain past period makes its basic essence of survival on applicable legislature, believing it is right, while some actions have been historically characterized as illegal actions. This illegal character is historically represented by the term "money laundering", which assimilated intensely on the territory of the republic since 1990. This historical term is also related to mafia, the owners of laundries in the USA. Gangsters earned huge sums of cash from extortion, prostitution, gambling and sales of beverages. They then placed that cash in the system for their positioning and expansion of their so-called illegal empire. When we look back in the brief history, emergence of money laundering in the world, before and now, has a common trait with our researches. This trait is reflected in the fact that participants want to get rich quickly, to avoid legitimacy in work, to recruit participants of questionable past for this activity and that the system and legislature of a national economy, in the sphere of the fight against money laundering, was not rounded off yet. In this thesis, we don't want to attach particular importance to the history of money laundering. International organizations have taken set of measures and activities within the fight against organized crime and terrorism. Every experience which is described in this thesis may be a nuance in the majority of measures and solutions for prevention of money laundering and it may enrich general goal of the fight against money laundering.

Disclosure of money laundering in Serbia is related to investigations performed by relevant Serbian authorities, when huge material damage was already done to citizens and community. We will mention damage made by: Dafiment Bank a.d. Belgrade (Internal newspaper Srpska dijaspora <http://www.srpskadijaspora.info/vest.asp?id=1952>, How Dafiment Bank was established and how it collapsed, published on 29.04.2001, National Bank of Serbia: on Dafiment and Jugostandik bank debt

servicing <http://www.krediti.rs/clanci/rec-narodne-banke-srbije-o-servisiranju-duga-dafiment-i-jugoskandik-banke/9/>), Jugostandik doo Belgrade, private construction companies in Serbia and phantom companies (According to the data of the business portal Ekonomik www.ekonomiy.rs/vesti/Fantomska). A tradition of the history of money laundering and its frequent emergence in Serbia is not connected, but its intensity is related to the period of transition and to non-transparent change of financial system in Serbia. The most obvious proof of this assertion is emergence of the companies with obscure identification data. Such companies were closed very shortly afterwards, and their number reached thousands of legal entities in the period from 1992 to 1195 (Reports of the Ministry of Justice of RS from 2003). These companies were said to be direct performers and organizers of money laundering in the period of transition in Serbia. The action of closing was conducted by BRA (BRA = Business Registers Agency), after many attempts to discover the real owners of the phantom companies. Just for example, BRA closed more than 300 legal entities, which were recorded only formally, in one go. More than 1/3 of these companies neither have, nor had any employee. In 2005, it was written about money laundering much more open for the first time, but only from the standpoint of tax evasion as a criminal offense. This was followed by professional articles, from 2006 (Reports of the Ministry of Justice of RS from 2003) onwards, which dealt with the problem of money laundering in Serbia on scientific basis, describing it as a global problem in the fight against organized crime in the world. Neither sources of money laundering were mentioned anywhere in our professional literature, nor an answer to the question what was organizational and historical assumption of emergence of money laundering in Serbia was given.

PRELIMINARY DEFINITIONS

Thematic unit is explained through a case study with the use of widely recognized international definition of money laundering. Definitions of money laundering complement each other (Financial Action Task Force on Money Laundering (FATF) was formed in 1989 by the countries of G7, Action group for financial action on money laundering (FATF) is inter-governance of the bodies whose aim is to develop and promote international response for the fight against money laundering.), proportionally to detection of aspects and forms of money laundering. In this thesis, we favour a definition of money laundering which was disclosed by the international committee for the fight against money laundering FATF as a preliminary definition. According to it, money laundering often occurs in three steps (Further readings, Lilley, Peter. 2003. *Dirty Dealing: The Untold Truth about Global Money Laundering*. 2d ed. Sterling, Va.: Kogan Page.), firstly, cash is introduced in the financial system, through some funds (“investment”), the second step implies performance of complex financial transactions in order to hide the illegal source (“layers”), and the third step implies acquisition of wealth, categorized from transactions of illegal funds (“integration”). In domestic literature, a definition of money laundering as “a way of turning legal money into illegal money and vice versa” appeared very often.

This definition does not give the essence of money laundering, but description of the process of money laundering itself, expressed through a path, this is, it does not give basic feature of existence of money laundering and its sources, but qualification of the action. It is a product of investigative actions of the persons who dealt with this problem (officials of the Ministry of Interior) and described it in their official notes. The features such as forging of financial documents, manipulation in the system of interbank transactions etc. should be added (Originates from the English word money laundering, which means legalization of capital acquired by criminal action, this is, financial transaction whose aim is to hide the real origin of money and other forms of capital on the market.) to the concept of money laundering. Disadvantage of most definitions of money laundering is that they don't give an answer to the question where the initial money is, where it comes from and what are its paths of concealment, this is, its attainable values. Money laundering comprises activities directed to hiding of material benefit gained by criminal action, investment, depositing and disposal of such objects (money, securities, investment, jewels etc.), with creation of the illusion that they were gained legally (Giunio, 1998:40). 12

Mechanism of money laundering may always be perceived in the definitions of money laundering, as it is closely related to money laundering technique. Elements of money laundering structure and their forms of exposure are also perceived in definitions, but the source and the place of the initial activity cannot be found. For our thesis, definition of money laundering is significant for a closer explanation of the mere act of money laundering. All definitions lack a role of legal financial system in which these actions happen, this is, in which they are hidden. This is why in our cases these actions are often explained through the wish of the so-called „launderers“ to hide the activity through total sum of money.

KEY WORDS

Attainable money is the key word. Besides it, other key words are used to describe basic key word closely. We use frequent words which overlap continuously. They have special heaviness in this thesis when we want to explain where elements of identification of money laundering are. Without these words, purpose, methods and techniques of money laundering and all that describes the mere activity could not be understood.

Attainable cash:	The expression which describes the sum of money from the so-called attainable money being the subject of money laundering and which is comprised in the origin of money. It represents the initial cash and it may be shown through equivalents at the same time. All money is comprised in the cash, even the part of money which is managed by the organizer of money laundering and which represents a subject of detection for an investigator.
Holders of money laundering:	Private banks (established in the period from 1990-1996), savings and credit cooperatives, phantom companies and individuals were observed in our research.
Phantom companies:	In the Republic of Serbia, owners of a significant number of companies were recorded in Commercial Courts under a false name (names were taken from stolen or lost personal identification cards, from deceased persons etc.). These companies worked for a short period of time, they had high circulation, they did not have any employees and they did not submit financial reports in most cases etc.
„Current cash“:	This is characteristic term in inflationary and hyperinflationary conditions. It connotes bank cash which is moved from legal payment system to cash which goes into street exchange (current cash-cash-current). In this way, money moves directly to the street with the aim to be turned into a hard currency, then it is returned on the account through exchange and it goes on in the unknown direction.
Mentors-organizers:	They are hidden persons, direct organizers and principals in money laundering.
Street exchange office:	Represents the place where exchange was done – money was exchanged. These exchange offices were named by the street or facility in front of which the exchange was done. The exchange rate of the „French street“ is mentioned. Exchange was done by savings and credit cooperatives, too. There was more than one exchange rate during the day (1990-1996), such as: official, accounting, bank and street course.
Street market:	Represents the synonym for „organized exchange office“ at the wider territory of the city, this is, of certain urban locality. This is why every city in Serbia had its so-called exchange offices which were named by the streets where direct executors were situated. This represents a part of parallel financial system.

CASE FACTOGRAPHY

Factography consists of the chosen cases of money laundering in Serbia. Explanations are given with application of internationally recognized methods of money laundering. Cases are described in the closed circle for clear recognition of the environment, in the sphere of economic and political disorientation. In general, facts are based on real events, without mentioning of concrete participants. Case factography is explained using the facts which were most common for money laundering in Serbia (in the period from 1992-2000). We have started from the phenomenon of cash placed in legal financial system, which was done by newly established private banks and savings and credit cooperatives. The transaction had a predefined flow, which showed one fact, while completely different action was performed. The first and the second step of money laundering may be vulnerable (easily detected) for an organizer. The third step in money laundering is observed separately through detection of the case (such as: breaking, changing, generating, concealment and concentration). In our case, the operation of money laundering is performed in layers and completed on the final way to the holder (the so-called

organizer). The final action of money laundering represents the trace which is present even now, but in the new forms of exposure. In the chosen case, organizers of money laundering are not neglected. Their coordination of the whole flow starts from investment of cash, through layering to its consolidation out of the financial system. Integration explains enrichment from transactions of illegal funds. The third step in money laundering is the last step in investigation and it is closely related to concealment of money laundering. Culmination of description is determination of the subject of detection, this is, where the attainable money, from which the whole projection of money originates, is comprised. When it is isolated, some operations in detection of money laundering may be significantly narrowed.

The whole of this thesis is the role of attainable money from which cash invested in legal financial system and parallel financial system originates and its camouflage through the complex financial transaction. The essence of the subject of investigation of the content is what made that attainable money the initial mechanism for money laundering and what participants intended to achieve with it.

The problem of presentation of the source of money laundering as well as the act of money laundering itself is the impossibility of recognition of public and secret events in money laundering. The organizer's intention to use money represents combination which makes revelation of the real intention harder. In such cases, money laundering is observed as a consequential action. We haven't observed it from the standpoint of the sources which initiated and motivated this act.

Detection of the sources of money laundering represents the basis for early detection of the intention from participants' business activities in money laundering, through invested money, transferred cash to detection of attainable money. This action is recognized as the aim of this research. It presents all corrupt activities as a whole.

It is possible to determine attainable money. It is a tangible phenomenon of the source of money laundering which comprises the source and the consequence of money laundering. Legal flow of money cannot be separated from the illegal flow without detection of total available money. We have started from this hypothesis in this thesis.

METHODS (TECHNIQUES) OF MONEY LAUNDERING

In order to explain characteristic phenomena of money laundering we have used the method in which we described them based on chosen cases, with application of famous, analyzed international methods or detection of money laundering, namely: Structuring (Also known as „smurfing“, it represents the method by which cash is broken in smaller money deposits. It is used to conquer a doubt in money laundering and to avoid the interest in the investigation by relevant authorities (elements of the fight against money laundering). It is performed by smaller amounts of cash which serve for purchasing of payees' instruments, such as

money order and which are finally deposited in smaller amounts. This type of the source of funding is significant for Serbian market and it was used in the first phase of privatization, this is, recapitalization was done using these smaller amounts.), Group Cash (Smuggling: Physical smuggling of cash in another jurisdiction, where it will be deposited in financial institutions, such as off-shore banks, with higher banking secrecy or less rigorous performance of money laundering. Such action was mostly followed by fabricated documents.), Cash of intensive companies (Funds for obtaining the cash which will be settled as legal money through the company's accounts and thus laundered money will be taken out as a legitimate profit.) and Current cash (This action is not a method, but it has its sources in Group Cash smuggling. This term was introduced by investigative authorities in their reports and it was related to events from the past. It is important for our research for explanation of the parallel financial market.):

Structuring is also known as „smurfing“, it is a method of investment in which cash is broken in smaller deposits of money. It is used to conquer the doubt on money laundering and to avoid the interest in investigation by relevant authorities (elements of the fight against money laundering). It is performed by smaller amounts of cash which serve for purchasing of payees' instruments, such as money order, and which are finally deposited in smaller amounts. This type of the source of funding is significant for Serbian market and it was used in the first phase of privatization, this is, recapitalization was done using these smaller amounts. Group Cash is a type of smuggling: Physical smuggling of cash in another jurisdiction, where it will be deposited in financial institutions, such as off-shore banks, with higher banking secrecy or less rigorous performance of money laundering. Such action was mostly followed by fabricated documents. Cash of intensive companies implies the case when a company uses funds for obtaining cash which will be settled as legal money through its accounts and thus laundered money will be taken out as a legitimate profit. There is no official data that the method of money laundering, known as Current cash, is recognized, but it appeared on the basis of emergence of phantom companies which withdrew cash from the account and came to cash through street exchange.

HYPOTHESIS OF THE RESEARCH

BASIC HYPOTHESIS

When the subject of money laundering is comprised in the source of funds, then it may be detected by observing, by stages and steps, how this money changes its manifestation form.

ADDITIONAL HYPOTHESIS

- If attainable money is detected, then starting point of the invested money which is the subject of money laundering is determined, too.
- Attainable money comprises legal and illegal money. If legal money cannot be separated from illegal money, the amount of money from which the process of money laundering started may be determined.

INITIATION OF MONEY LAUNDERING

Two steps and operational techniques preceded the phenomenon of money laundering in Serbia. Positioning of funds (sources) and subjects were background steps of money laundering. Operational techniques (jobs) were: business activity, concentration of funds and features of the parallel financial system.

Financial system of the Republic of Serbia was set on the influence of legislature which was enforced in two directions in the period of transition. The first direction implies legislature according to which payments between disassociated republics of SFRY (After the break-up of SFRY) were organized under strict supervision of the State. The second direction implies independence of the financial system of the Republic of Serbia based on the new autonomous basis which appeared after disassociation of Republics. A significant part of funds remained out of reach of the controlling authorities, this is, it was under strict jurisdiction of individuals. After disassociation of the state members of Yugoslavia, the role of central monetary authority was still present. In the period of blockade of payments by the International Community (1992), payees formed a financial system based on the reorganized form. This phenomenon was implemented through movement of payment from SAAS (SAAS = Social Audit and Accounting Service. Its role was to monitor and control management of money by central monetary authorities) to business banks. This resulted in mass opening of private accounts which were registered on private organizations of various forms or even on individuals. State banks and private banks opened off-shore companies which performed extended business activity. It is well-known that Beobanka (The ownership of Serbia) had off-shore companies. Big business systems, both state and social, had their accounts abroad. A new monetary system expanded through establishment of savings and credit cooperatives. Number of private banks increased (more than 40 banks was established in the period from 1991 to 1996) with one goal, additional mobilization of citizens' funds. Such condition, before monetary-financial transition and the relations found, gave a significant motive, this is base for formation of the so-called second track of the financial system. This is how a mechanism of management and disposition of funds under the guise of legal flows was formed or this is how illegal money flow was implemented. Street exchange offices and exchange rates emerged. This environment created the so-

called “laundries” (companies registered on persons with stolen identity) in Serbia, which had direct, executive role in money laundering.

For an organizer of money laundering, two parallel tracks of the financial system in the described pre-actions continue through the “third step” (The third step in money laundering will be researched by detection and observed separately (through breaking, clearing, generating etc.) (selected methods)) of money laundering. In the figure 1 – environment, a schematic basis for successful concealment of money laundering is shown. The steps in the background of money laundering start from initiation of the activity to positioning of cash sources. Therefore, the above mentioned three steps of money laundering cannot be detected from the definition if background of money laundering is not defined (initiator of investment, creators of layers and organizers of integration). Basic step in the background of money laundering is investing of money, second step is subjects of the parallel financial system (There is no official data on the parallel financial system. It can be said that Serbia had a parallel financial system. This primarily means street exchange offices, street exchange rate which was intensified in the period of hyperinflation, from 1991 to 1994.).

Is there a pre-action or intention in organization of money laundering? Initiation of the activity starts from an individual, group of people or the system. In Serbia, private banks (banks established in the period from 1990 to 1996), savings banks (Savings bank. Significance of savings and credit cooperatives) and phantom companies (The term “phantom companies” was introduced by investigative authorities, when they could not reveal the real identity of the founder and legal representative.) (under the name “holders of money laundering) had the initiative in money laundering. Confusion on the financial market in Serbia let holders, financial institutions, collect citizens’ funds on the basis of the “attractive offers”. This kind of collection of RSD and foreign currency funds by banks was executed through various forms of savings based on inflationary basis. Banks put high interest rate on term deposits in the first plan. This manner of collection of money, without clear monetary policy, resulted from the business environment (hyperinflation), this is “financial coup”. Not all money could be invested, so that great amount of money “stayed” in safes and on the accounts of the activity holders. Inflation depreciated money and holders came to an idea to use the environment and (consciously or unconsciously) form a parallel financial system. Parallel financial system was a rival to legal financial system in terms of its feature (street system, system cash-street-cash (STREET SYSTEM, SYSTEM CASH-STREET-CASH. This describes the payment system in the period when floating exchange rate of dinars did not exist, so that big quantity of foreign currency and dinar funds were exchanged on the street, with the “cash” – money and “current cash”, this is, with the money of private companies – please see the text published in Politika on September 18, 1999 by the author Vladimir Milovanovic, http://www.vreme.com/arhiva_html/454/1.html. Integral scheme of the initial activity of money laundering in Serbia), multicurrency system etc.). War environment favoured the inflation and made the emergence of money laundering faster. This condition brought a great amount of uncommitted funds to newly

established private banks. This activity belongs to the first step in the pre-action of “positioning of funds” (Figure 1). The owners of these funds forced investment of cash with the aim to join flows of economy through “privatization”. Privatization was in its infancy at the time and it was implemented through the method of recapitalization (1990). Special technique and organization of money laundering were designed for this type of investment. In most cases, invested money was entrusted to “holders of money laundering” (II step, Figure 1). The second step was inevitable and the following organizations came to the fore with their offers: private banks, savings and credit cooperatives and phantom companies. Holders of money laundering, in cooperation with money owners looked for solutions which would help them to compensate for lost income. This is how parallel financial market was formed in Serbia. The aim of this activity was to compensate for lost income on the basis of currency depreciation – “lost income”, this is, all conditions were created with the emergence of the sources of money laundering through attainable money. Money which was not invested and devaluated money directed initiators to engage free cash, this is, to redirect (invest) it through the so-called parallel financial market. It is not certain to whom money was delivered in the pre-action, but it can be known for sure what the first step in that pre-action was. Attainable money has its aspects and forms. The origin of money and the way in which it was created make the aspect of attainable money, this is the form in which it is taken in the system of money laundering. The manner of exposure of attainable money through stages of money laundering makes the form of attainable money. This money is not recorded officially, only because it changes its aspect and form.

Basic logistics of the background of money laundering may be treated differently, depending on the initiator, source, location and sum of money. The steps in the background of money laundering start from initiation of the activity by an organizer. The three steps in money laundering from the definition of money laundering, which will be mentioned later, cannot be detected if background of money laundering, in which all sources, organizers and business combinations are comprised, is not defined (initiators of investment, creators of layers and organizers of integrations). Basic significant step for detection of attainable money in the background of money laundering is recognition of pre-actions which followed the money laundering (investing of money being the subject of “investment”). In the so-called second step (Figure 1), creation of business connection with holders (subjects) of money laundering is in the background of money laundering.

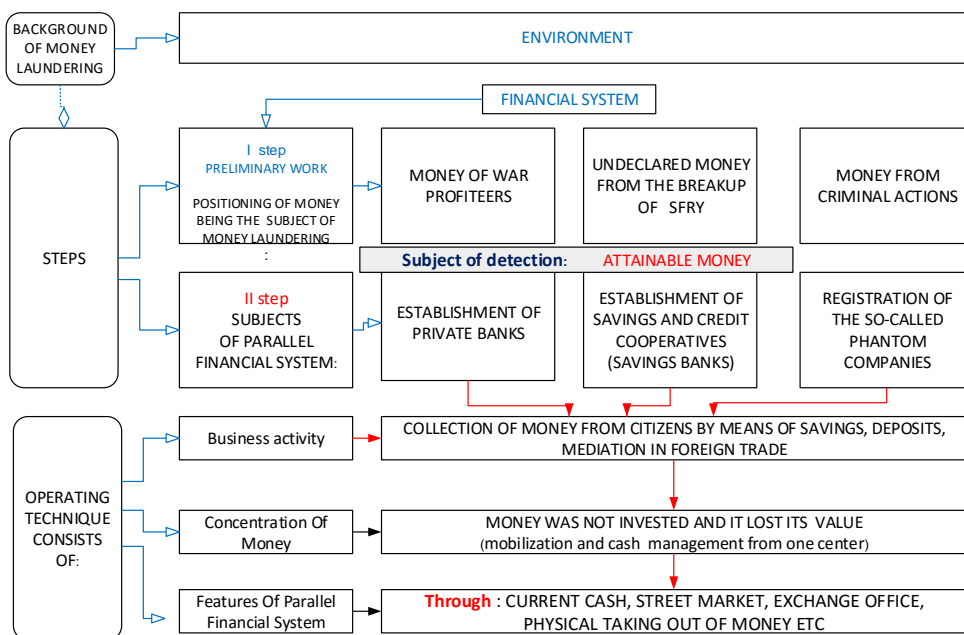


Figure 1: Integral scheme of the initial activity of money laundering in Serbia

All funds in the chain of business financial combinations make mobilization of funds. These funds may represent attainable money initiated by an organizer. Who is the organizer? This big unknown is always present in our thesis, which should be recognized in the identified person who leads and manages cash autonomously, through performers to the new owner of the so-called value. The funds which he manages have the following origin: budget, crime, war profiteering, drugs etc. These funds are not expressed under this name in operating, financial combinations, but they can be expressed later, when their origin is determined etc. In the privilege of business activities which were characteristic for the observed period of intensive emergence of money laundering, mobilized funds were mostly related to their commanded origin. Commanded origin is the origin based on which the order is given to transfer money, approve money, create documents, keep money, to use the most favourable (agreed) exchange rate and perform many already described “formula” which follow these orders. Such functional connection in the first step of the pre-action need not imply that the activity of initiation of money towards attainable money ends there. Attainable money goes through many participants in constellation of mobilized funds. This pre-action potentially announces the existence of a functional network. Upon completion of the activity, based on the environment from the defined background of money laundering, elements of the first detection of the problem of money laundering in Serbia may be perceived, namely, the origin of cash which was taken in the illegal financial system, also known as “investment”.

Operating techniques of the background of money laundering consisted of: business activities, concentration of funds and formation of the parallel financial system. Business activities followed mobilized funds through various forms (savings, investment, budgetary funds, funds, mediation etc.). Concentration of funds had its managing function in the documents from various places collected in money. In the period of hyperinflation money was prone to devaluation (RSD funds), and this is why the parallel financial system was formed spontaneously. Recognizable features of the parallel financial system are well-known. They imply application of the techniques “Current cash” and “Street market”.

Who was the creator of the parallel financial system in Serbia in the period from 1990 to 1996? The answer may be found in the Figure 1, step II (two), where establishment of financial organizations is described. The National Bank of Yugoslavia made decisions and gave permissions for private banks (1990-1996). Commercial Court in the place of establishment of legal entity registered savings and credit cooperatives as well as companies. There were legislation and rules for establishment of private banks and companies. Holders of the parallel financial system coordinated the location with mobilized funds. This became a tacit legitimacy. If one wants to demonstrate business disobedience, he will find an excuse in some parallel event. In such case, the community is always at a loss, while owners and organizers of funds have protected themselves following the model of the natural behavior system, where “big animals attach the small ones”. The state did not demand the evidence on the origin of money from financial organizations (rules about determination of the origin of money did not exist), except for the limit by which types of authority given to banks when starting the activity was defined (little authority which is given to business banks for work performance only in the country and big authority for performance of foreign exchange operations abroad). Therefore, creators of the parallel system were: owners of private banks, owners of savings banks, phantom companies and unknown individuals. But, this cognition is not enough. This is why the owners of legal entities are deep undercover, while names of stockholders or establishers are placed in the first plan. This is not the topic of this research and we have given it only for your information. In order to avoid this thesis to become a criminal investigation, from now on, we will call these hidden creators “mentors – organizers of money laundering”. The difference between this thesis and criminal investigation is essential. Primarily, it is reflected in the fact that this thesis demonstrates on scientific basis that money laundering occurs in its input stage, while investigative authorities come to these actions after they are done. Investigative authorities do not like to talk about techniques and methods of investigation, as they are specific and they are always connected to certain cases, to an individual, group of people, this is, location. Our thesis researches money laundering in the context of the role of attainable money from general macroeconomic approach.

FIRST CIRCLE – OPERATING TECHNIQUES

Operating techniques from the background of money laundering are presented based on introduction of the initiators of the activities of money laundering in Serbia. We have researched various cases of money laundering, applying well-known, international methods of investigating money laundering in the world. Early detection of the intention of an individual to introduce certain cash in the financial system and make a fortune is essential. We have conducted this research applying the method of money laundering called “structuring”. It is a procedure in which the way in which money was introduced in the system is obvious. When this money has a managing function from one place, such introduced money represents attainable money. When money has a managing function from more places (it can be proved with documents), introduced money can be used through various techniques and this is called structuring. Therefore, the organizer has created a road with the documents and he has defined the structure (exchanged money in order to make it unobservable). Location dictates the type of structure and the sum of money by introduction of money through various structures.

We will start from the first step. The first step in money laundering (after pre-actions) is introduction of cash. Business banks, individuals, savings banks and phantom companies introduce free cash by investment. This method is widely known as structuring. Also known as “smurfing” (synonym for structuring), this is a method of investment in which cash is broken in smaller money deposits. With this, preparation of requests for financial reporting is meant to be avoided, namely, organizers wanted to avoid presentation of certain amounts in the reports. We will mention the example of private banks in Serbia. Business banks allocated huge amounts of cash which they had in safes from everywhere (without determination of origin), and they had to introduce these amounts through smaller deposits etc. Thus, a part of money was introduced in the form of money orders for payment abroad, and another part was taken out of the country, which was organized independently, the third part of money served for purchasing of foreign currency from the parallel financial market. Now we have a basis for detection of the sources of attainable money. It may be simply summed up in all operations regardless where it will end.

Each of the mentioned paths (Figure 2-through 4 examples) was broken into very small parts and on several grounds, so that paths went in indefinite directions. Path direction was determined by location of funds, especially by the source of funds.

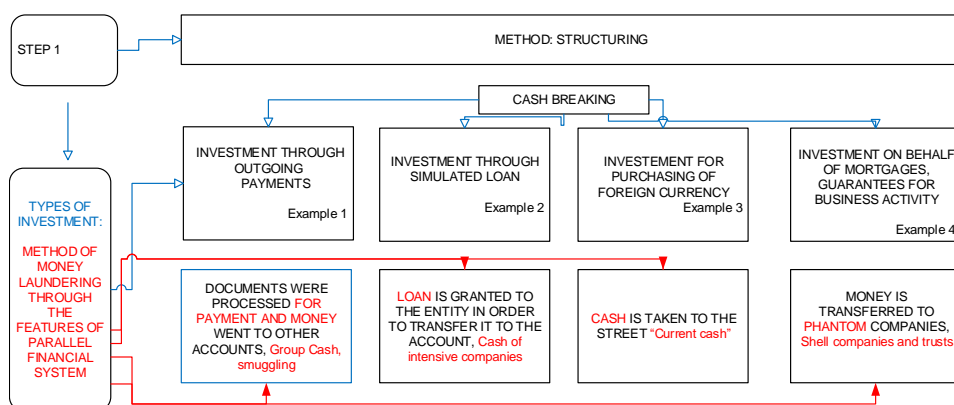


Figure 2: Review of application of cash structuring

Structuring is given in general, without details. Basic question for detection is if mechanism of money laundering is present is the described operations. It should be mentioned that money laundering is observed differently through each activity which is shown in the structure and which was most common in Serbia. Detection of paths left traces to help us to come to attainable money and the sources of money laundering.

DETECTION OF CASES

EXAMPLE 1. ALLOCATED DEPOSIT FOR OUTGOING PAYMENTS

Example 1. Private banks (which had big authority) took cash from business companies, savings banks in the form of deposit for their obligation to perform outgoing payments. Therefore, taking of deposit meant investment of cash. Processed money orders, containing the account information given by the principal, were submitted. Bank took deposits for these actions and it kept up to 30% of them for its services. Before that, bank physically took the available cash out of the country (in foreign convertible currency) through its canals and deposited it to the accounts it had in the off-shore banks. This method is known as Group Cash smuggling (Group Cash smuggling: Physical smuggling of cash in another jurisdiction, where it will be deposited in financial institutions, such as off-shore banks, with better banking secrecy or less rigorous control of money laundering Description of events and detection of attainable money).

ANALYSIS OF THE EXAMPLE 1

The real intention, this is, the way in which the bank acts contrary to the information given in the money order is hidden here. Money laundering is detected due to the amount of kept fixed assets as a discount up to 30%. It is well known that these banking services amounted mostly up to 3% in the interbank transactions. Therefore, 3% of commission was shown in business records, while the difference to 30%, hidden in the changed documentation, was the subject of usurpation. The owners-organizers or mentors kept this amount of money for themselves. In the calculation of remittances, this keeping of deposit was hidden through various manners of calculation of exchange rates (turning hard currency into liquid currency) and through multilayer documentation into broken transactions. In the continuation of the review, we will show the manner of concealment through outgoing payments, this is, the way in which the method of money laundering called „Group Cash smuggling“ was implemented.

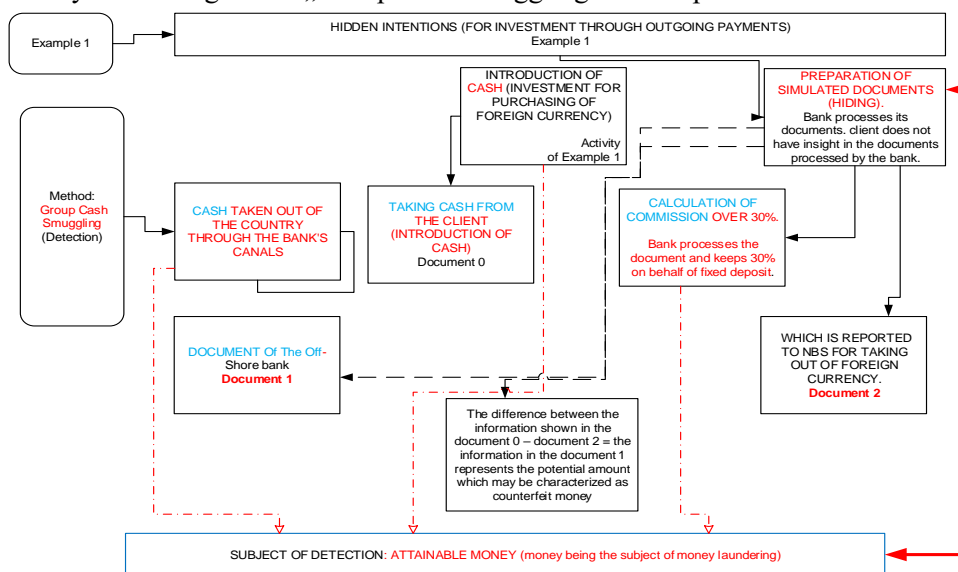


Figure 3: Hidden intentions in the example 1.

DOCUMENTS IN POSSESSION OF THE OFF-SHORE BANK WERE NOT CREATED AS USUAL, BUT THEY WERE CREATED IN THE PART OF THE DOCUMENT AS PER ORDER OF THE BANK OWNER

Introduced cash is hidden through the order for purchasing of foreign currency. Business bank makes documentation with which it reports its need to take foreign funds for outgoing payments to NBY. The bank transfers foreign funds through a legal canal to its account in the off-shore bank out of the country (in most cases, these banks were in Cyprus). The introduced cash which is not reported to NBY represents the amount which is transferred to private accounts. It

represents the basis which has to be detected. In the figure no. 3, it may be seen that there are elements which are comprised in the attainable money being the subject of money laundering.

They consist of the cash taken out of the country, a part of cash intended for purchasing of foreign currency, amount of corrected bank commission which appears as a difference between the official commission and the kept deposit (please see the path marked with the dashed lines in the Figure 3).

What was missing is to request from the bank of the receiver of funds to send a feedback about the accounts to which the amount of the transferred funds was allocated. This missing information represents the act of money laundering and everything that preceded this act may be comprised in the attainable money.

The hypothesis that the subject of money laundering is comprised in the sources of money laundering is confirmed. This is reflected in the money intended for purchasing of foreign currency (method of Group Cash smuggling). The documents recorded in the records of business banks are comprised in forged documentation where total funds and the funds taken out of the country do not match. The hypothesis that attainable money is the first tangible (detected) source, which comprises starting indicators of the existence of money laundering, is confirmed.

EXAMPLE 2. INVESTMENTS THROUGH SIMULATED LOANS

Example 2. Introduction of cash through investment for simulated loans was characteristic for business activities of savings and credit cooperatives. Savings and credit cooperatives earned big amount of cash collected from citizens for deposits for purchasing of apartments or classical savings as well as for other purposes. The feature pointing out that saving banks gave simulated loans is that contracts were made with the receiver (of the deposit in foreign currency) for the loan and the deposit was the same amount of money as the amount of the loan in foreign currency. Therefore, the „agreement“ was performed so that transfer from that loan went for the so-called „settlement of some liabilities“. Savings bank had the document about that loan and it kept money (deposit) and calculated commission which was very high. It then redirected money to the account of non-existing liabilities as per order of the provider of money. Then documents were made showing that the money granted for loan was returned to cover the deposit etc. In most cases, receivers of this money were phantom companies which submitted fictitious documents. After that, savings bank got cash (in hard currency) from phantom companies, reduced for a discount which amounted from 5 to 25%. As we are speaking of the method called Cash of intensive companies, persons who get cash will use their own accounts to deposit and withdraw it legitimately, claiming it a legitimate profit. Very often, the job will not have a legitimate activity. Therefore, in this activity, loans are simulated so that money could be introduced, and this method of money laundering is called Cash of intensive companies.

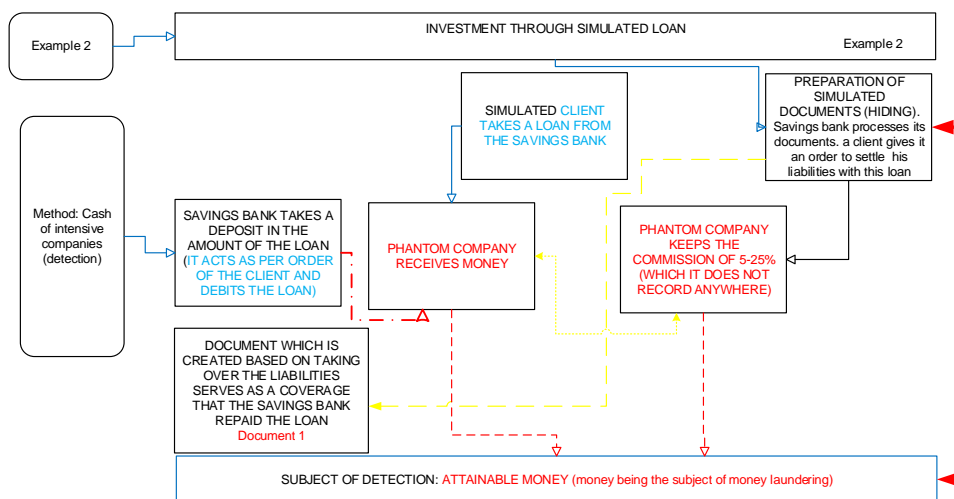


Figure 4: Example of simulated loans

ANALYSIS OF MONEY LAUNDERING MECHANISMS, EXAMPLE 2

In this case, the owner of funds is a client which we call the „intensive company“ and it transfers deposit (cash for simulated loan) to the savings bank for loan debts. Simulation occurs when the savings bank has the responsibility to transfer the funds to phantom companies (divided in several sectors) as per order of the intensive company (client). Phantom companies, which are closely related to savings and credit cooperatives perform further transactions and the obtained cash is returned to savings and credit cooperative, reduced for discount amounting to 25%. Phantom companies have a key role in this as well. Foreign funds which the client obtained in the nth way, upon realization of the undocumented agreement or in cash, are not recorded anywhere. The only trace exists in the initial basic document on granting the loan for which the deposit is laid.

DISCUSSION OF THE EXAMPLE 2

Cash introduced through investment of simulated loan is described through application of the method called „Cash of intensive companies“. Savings banks grant loans to phantom companies. Savings bank previously takes a deposit in the amount of the loan. The amount of cash on the accounts is not changed, but the cash from other sources goes further in the payment system with the documents of the savings bank. Savings bank processes other documentation, while loan documentation serves as a basis for money origin. With such funds, phantom

companies meet social companies and buy foreign currency. Phantom companies give exchanged RSD funds to other subjects, with reduced provision. Provision and simulated loan represent attainable money – money being the subject of money laundering. This is true for the so-called phantom companies, savings and credit cooperatives and other companies (please see the path marked with the dashed lines in the Figure 4).

What was missing is to request from the bank of the receiver of funds to send a feedback about the amount of money in banks and amount of cash. This missing information represents the act of money laundering and everything that preceded this act may be comprised in the attainable money.

The hypothesis that the subject of money laundering is comprised in the sources of money laundering is confirmed in the example 2, too. This is reflected in money intended for purchasing of foreign currency and keeping of commission up to 25%. The documents recorded in the records of phantom companies, other companies and savings banks are comprised in forged documentation and the amount of money shown in them does not match with the exchanged amount. The hypothesis that the attainable money is the first tangible (detected) source, which comprises starting indicators of the existence of money laundering, is confirmed.

EXAMPLE 3. ATTAINABLE MONEY THROUGH INVESTMENTS FOR PURCHASING OF FOREIGN CURRENCY

Example 3. Introduction of cash through investment for purchasing of foreign currency was done so that RSD funds were transferred dedicatedly (within the investment) to banks and savings and credit cooperatives. This activity was characteristic and its aim was to take as much cash as possible to the street for purchasing of foreign currency. As we have already mentioned, this so-called „street“ represented big exchange office. The way in which money was taken to the street without any control was not described as a separate method of money laundering in the world. This is why we called this method „Current cash“. This method of money laundering was characteristic for the environment of the countries blocked by the International Community, countries with hyperinflation, countries which were surrounded by the countries at war.

When money was exchanged, clients who previously transferred cash to account of the bank, savings and credit cooperative, did not get it back in hard currency. The owners hid the real purpose of that cash and the destiny of its further flow by means of simulated documentation.

This method of money laundering, breaking of cash through investments for purchasing of foreign currency, is called „Current cash“ in domestic terminology.

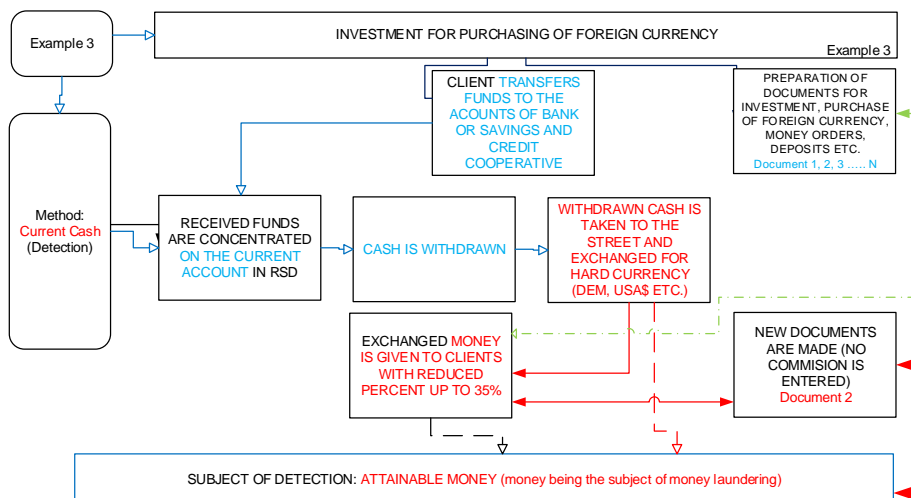


Figure 5: Investment for purchasing of foreign currency

In this case, the owner took the received foreign funds (mostly) out of country or he engaged them for purchasing of personal real estate. Smaller amount of foreign funds served for business activities. Therefore, there was a direct money launderer, as he came into possession of funds using financial institution, when he did not have to effect outgoing payments. This example was analyzed before and it should be mentioned that all companies which were established for this purpose are called “Phantom companies”. They were in direct coordination with banks and savings banks as well as with organizers of money laundering. Phantom companies were closely related to savings and credit cooperatives, this is, they were their direct executants. Mentors of phantom companies were hidden somewhere. These activities were frequent and they were performed in more rounds during the day. Thus, a multiplier of laundered cash was widely concentrated in the hands of the individuals.

DISCUSSION OF THE EXAMPLE 3

The most common operation of application of parallel financial system was performed by application of the method called “Current cash”. Concentration of big amount of deposit money on company accounts in inflationary conditions tended to change its value form. The feature of managing funds was that big amount of cash was withdrawn from current accounts of business companies and banks and then exchanged on the street market. Mediators kept commissions which exceeded 35% for the service performed. Elementary question is where this big amount of invested money came from and what it originated from. The answer is partly in the fact that business activities were replaced with the so-called speculative activities in inflationary periods, which were strictly forbidden. Cash

invested in simulated market which was recorded for purchasing of foreign currency represents the determined amount of money being potential subject of money laundering. It represents the basis to be detected. In the figure 5 it can be seen that there are elements which are comprised in the attainable money (hidden money being the subject of money laundering). Commission which is multiplied all the time, amounts of cash withdrawn from accounts on daily basis and corrected documents make these elements.

The hypothesis that the subject of money laundering, paths and the way of detection of money laundering are comprised in the sources of money laundering is confirmed in this example. This means that the attainable money is the first tangible and detected phenomenon of the source of money laundering which is comprised in the amount of cash withdrawn from the account on one side and the kept commission by the mediator on the other side. Where and how this commission ended will be analyzed in the separate chapter and in its path the amount of laundered money is comprised. The amount of money has to be set and its legal flows cannot be divided from the illegal flows.

EXAMPLE 4. MORTGAGE INVESTMENT – GUARANTEE FOR BUSINESS ACTIVITIES

Introduction of cash through mortgage investment is a guarantee for a business activity, this is, a guarantee that this business activity will be performed in order to legalize the cash introduced. This activity is done in the way that partnership is established with the bank. On behalf of partnership, a partner suggests to the client's bank or he arranges it himself, to give it significant amount of money apart from the mortgage investment. He demands a guarantee from the bank (in any form) or a real estate. A partner-client gives bank the order to transfer money to the accounts by means of remittance (he does not want to participate directly in this activity). A partner sets the condition that this transfer is done through some other accounts. Bank carries out the client's (partner's) will and transfers money through the accounts of some other banks with which it has correspondent relationship and it acts as per order of the partner-client. In this way, transfer of money is hidden. Bank takes a substantial commission for this service and this commission is also paid through a hidden account.

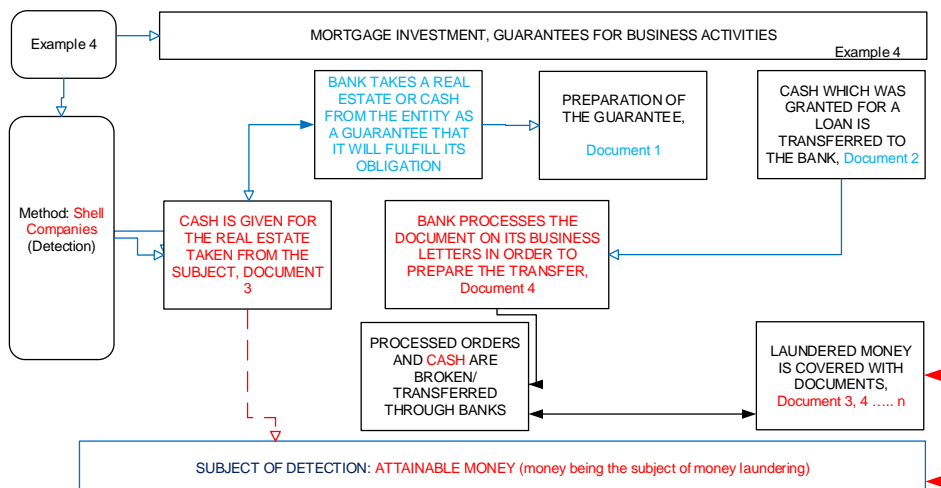


Figure 6: Mortgage investment – guarantee for business activities

ANALYSIS OF THE EXAMPLE 4

This method of money laundering is widely known as “Shell companies and trusts”. Shell companies and trusts imply that the real owner of money is hidden by funds and fictitious companies. The executor’s trusts and companies, depending on jurisdiction, are not obliged to discover the name of their real user, the owner. This was a mass phenomenon and this is why detection of this activity had to be given in the scheme showed in the Figure 6 and analyzed separately. A real estate and cash are deposited as a guarantee for taking cash from the bank. This granted cash is further transferred through orders for withdrawal and transfer of money by outgoing payments. Broken money is exchanged and goes in different directions. This method follows all other methods and it was characteristic for the first privatized subjects which rented devaluated property in order to get cash. This is why this method is characteristic for the first forms of privatization by which the process of transition was directed to the function of personal enrichment.

DISCUSSION OF THE EXAMPLE 4

The introduced cash, which was intended for mortgage, represents the sum of money being the potential subject of money laundering. In the figure 6, it can be seen that there are elements which are comprised in the attainable money, especially withdrawn cash (hidden sum of money).

The hypothesis that the subject of money laundering, paths, the way of detection are comprised in the sources of money laundering is confirmed in this example. This means that, in this case, the attainable money is the first available detected phenomenon which is comprised in the amount of loan debt on one side and laid (intentionally devaluated property) mortgage on the other side. Where and how the transfer and exchanged money ended is analyzed in the separate chapter and the sum of laundered money is comprised in this path. Sum of money may be determined, but its legal flows cannot be differentiated from its illegal flows. They can only be located to the sum used for starting of money laundering.

SECOND STEP – HIDING OF SOURCES

The second step in money laundering is performance of complex financial transactions in order to camouflage the illegal source („layers“) of money laundering. In each of the above mentioned four examples it can be seen that documentation followed stratified hiding of money laundering. Document (marked blue) are legal basis of the activity (actuality – economic substance). Documents (in the examples 1-4) which are marked red represent simulated documents and they are the subject (layers) of money laundering. The aim of this step is to hide the real flow of financial reporting. This is called „forging of financial reports“. Forging of financial reports in order to hide money laundering may be simply described as preparation of forged documents for simulated activities. This is closely related to processed and reported documentation, total sum of available money and the structure shown in cash flow.

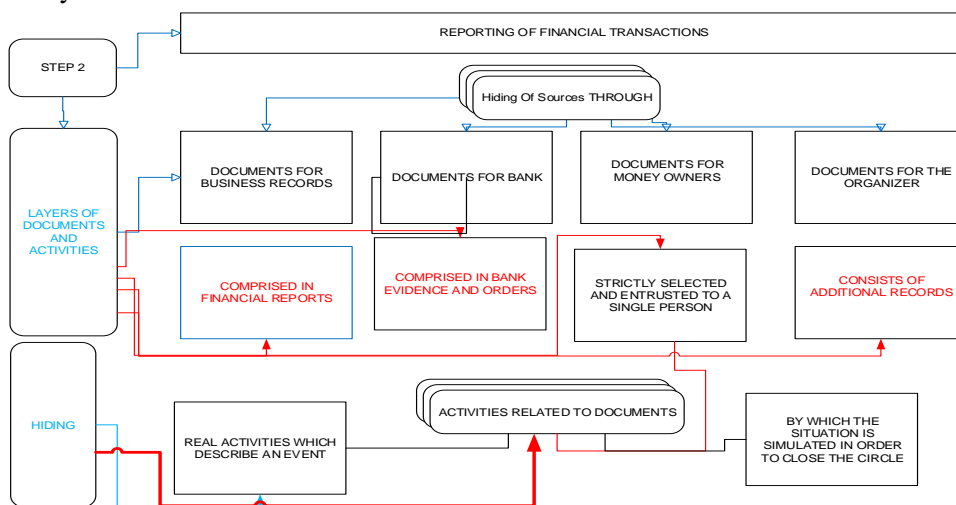


Figure 7:

The second round of money laundering, which can explain forms (Figure 7) of expression of attainable money, is comprised in various records. In this short thesis, we don't study this issue. It is good to know why it is a separate thematic unit (also known as forging of financial reports).

THIRD STEP OF MONEY LAUNDERING

The third step in money laundering is concentration of laundered funds. In professional circles, it represents final activity of money laundering. It is exposed in the form of integration of funds, organization of funds etc. Integration is carried out by concentration of total funds. The aim of detection is to recognize the attainable money through the sum of money, path of money, fabricated documents and simulated activities. This is why the third step of money laundering cannot be assessed as final, because its detection is yet to come. We cannot find the organizer following the documents, but holders of money laundering may be discovered through the time distance. This is another delay because of which the word „final“ is erased from the third step of money laundering. It is possible to calculate attainable cash based on the concrete examples in the Figure 8.

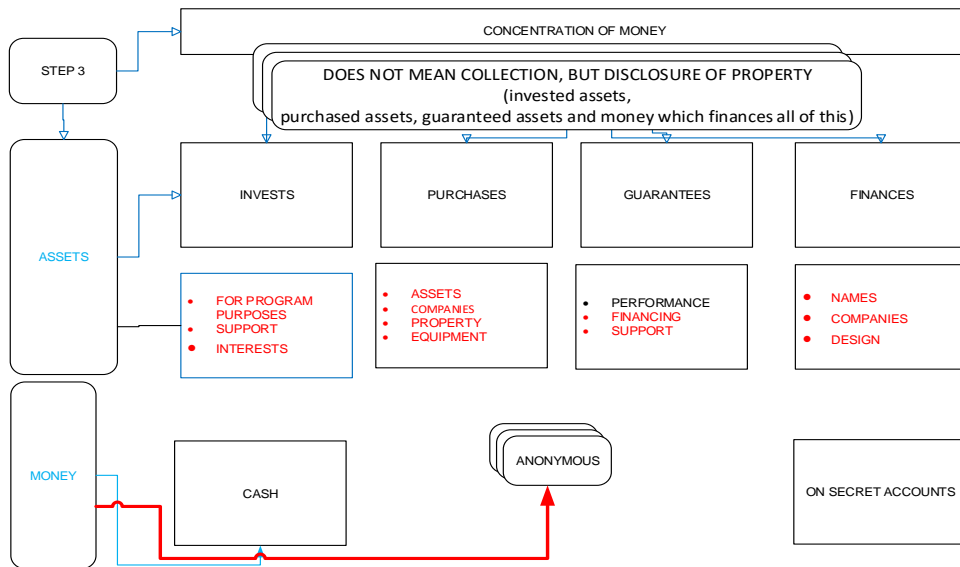


Figure 8:

The third step of money laundering shows some (steps – schemes) assumptions of concentration of funds and forms in which attainable money may end. Confirmation of arguments is perceived in this figure and the place where money from the sources of attainable money ends. (Thematic unit is explained on concrete examples).

DETECTON OF ATTAINABLE MONEY

Detection of money laundering consists of the following elements: time when money laundering was performed, participants in money laundering, forms of money and material evidence. Money laundering is detected through the path of money and form of money when the initial characteristic of money is changed. Explanations of activities which are performed in the action of two parallel financial markets (systems), limit of their existence (it is marked with red and blue dashed line in the Figure no. 9) represent point of detection of the place where these activities are performed. This is why we are interested in „attainable money“. It has always been recorded or prominent participants kept it (Pyramidal banks, phantom companies, savings and credit cooperatives and other entities). At the beginning, we could not detect it in the legal financial system. Its detection is difficult in the illegal financial system as well (phantom companies and other entities). In parallel financial system (illegal), this money is an assumption. This is why cash in legal financial system can be detected in early stages. Taking of cash out through illegal financial system cannot be identified directly, but it can be defined indirectly on the boundary where cash goes out – leaves the legal system as well as on the difference of the sum which is not recorded. This boundary is reflected in detection of the known parameters. These parameters may be expressed in the form of facts, time, participants, sum of money and period when money laundering is performed.

The path of money and its detection is closely related to collection of all important and unimportant facts. It consists of the sum of received money, cash in safes and data from the central deposit, date of first entry, difference resulting from reduction of legal sum of money etc. Facts used for detection of the path of money have to be amended with the information significant for the circumstances in which these activities happened. Upon sublimation of our researches, in the Figure 9 we have divided these intervals in three separate parts and related them to some significant activities. Therefore, in the period when international transactions were performed, primary fact was avoidance of regular payment system. In the period of hyperinflation and consolidation, it was total neglecting of legal financial system. This was done by accelerated taking out of cash and everything that was related to cash. In the period of introduction of financial discipline, money laundering was done within legal financial system, with prominent simulated activities. Period of hyperinflation, when the market was not regulated, when financial system did not work, when there were no auditing companies and central database was not formed, represent the base whose traces may be still seen in the so-called arranged financial system. This is why we have divided the observed period in three parts. The first period is related to introduction of international sanctions. The second period is the period of hyperinflation and later introduction of economic consolidation. The third step is introduction of a new financial discipline. It is very important that payment was done on two tracks in the period from 1990 to 1996. The first track implies the payment related to the time when the one could dispose with deposit money and the second track implies the exchange rate which was

regulated on the street. It is important to say that the first track of payments is related to the work of the safe of NBY. This means that cash was taken to the street directly from safes (Please see a part of the described information at <http://www.novosti.rs/vesti/aktuelno.291.html:202601-Novac-uleteo-49-puta>, published by Vecernje novosti on 06.09.2007, based on the investigation against responsible persons. The known parameters of money laundering). The second track of payments is related to the amount of cash which was taken out of the payments of the first track. Cash overflowing from one financial system to another is the first and basic trace with which attainable amount of cash, which was taken into the other track by NB may be detected. This cash changed its forms in the second track of payments (it was laundered).

Basics for the other traces of money laundering and continuation of existence of the parallel financial market to these days are perceived in the Figure 9, but the interest is mostly shifted to individuals and privatization etc.

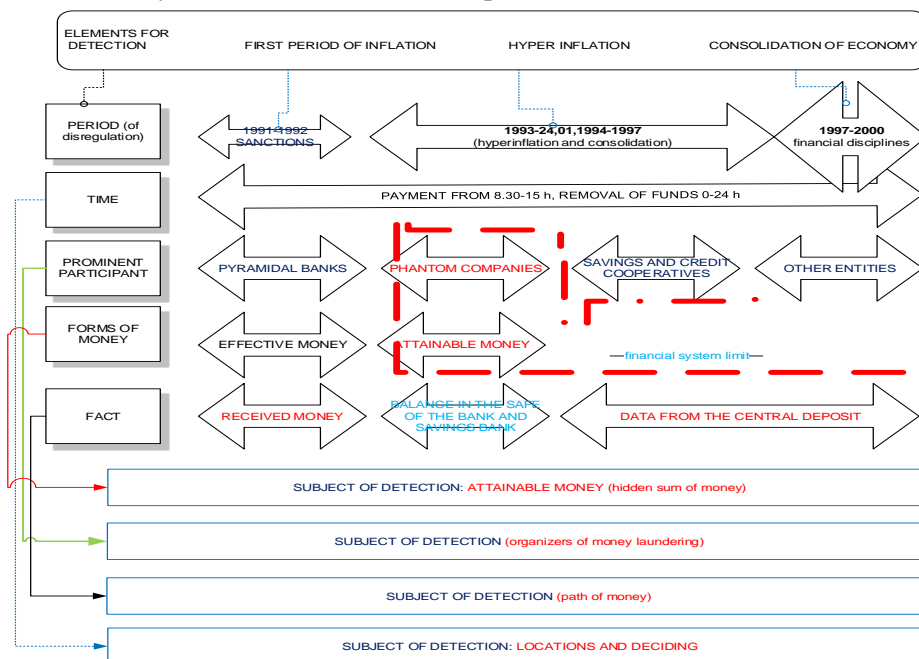


Figure 9:

The source of detection of introduced cash was in the safe. We have analyzed facts through elements of detection which were always available as the known parameters. An imaginary line (Figure 9) between parallel financial systems characterizes payment function in three significant periods of business activities. Basic assumption that there is a connection between exposed participants, form of funds and facts on one side and the information shown in the central deposit on the other side is given in the Figure 10. At the same time, there is a functional relation between the central deposit on one side and phantom companies (through their accounts which are included in the system of payment) on the other side.

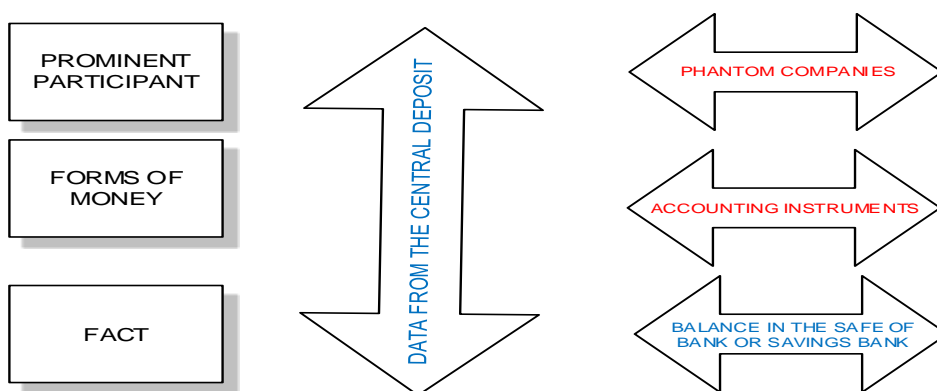


Figure 10: Functional relation of central deposit

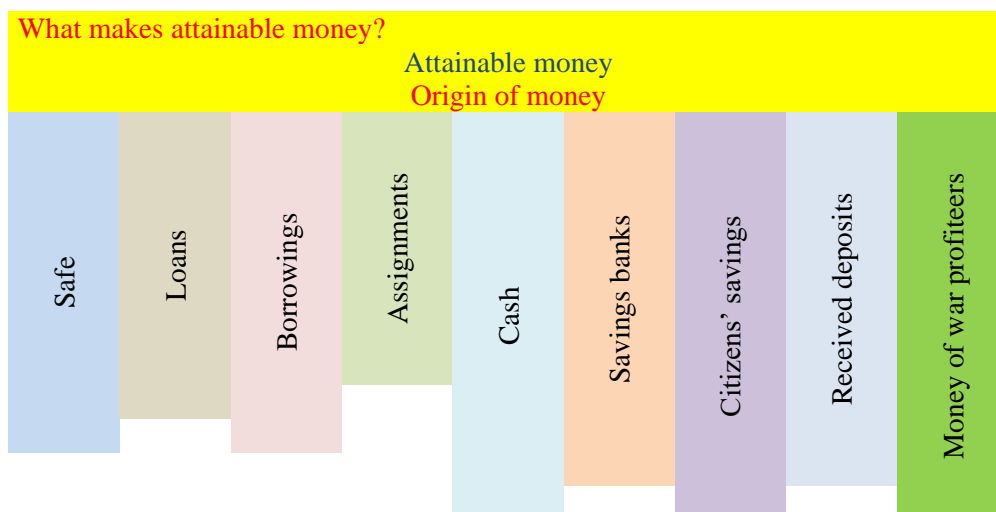
This is why all efforts to determine the sum of laundered money, where certain apparatus was included systematically, are not investigated officially enough. This material indicates that the answer on the origin of money which has the role of attainable money may be found in the data from the central deposit (daily reports of recorded payments in the central deposit). This means that there is the information about the sum of money which was deposited on the accounts for certain purposes and the place where this purpose was recorded. It is recorded through the central deposit to which NBS has indirect approach, this is, it is comprised in the off-balance sheets of NBS. Elementary question is where did cash from the second track come from? By the system of elimination: turnover of business banks, (+) turnover of economy, (+) withdrawn cash and requisitioned funds from the safe, we try to find out if all of this was recorded through the central deposit in the way it functioned, this is, what was left uncovered or what was kept? We cannot get the answer to these questions in this research, but detection guides us to a significant part of the answer, which is comprised in the records of the central deposit. Attainable money may be originally shown on the accounts as available sum of money.

All money which was laundered in the past period became the starting point, a liquid mass with which the process of privatization had the most direct contact on one side, while minus lined in central deposit through some accounts for years and this minus was covered (or written off) from other sources (public revenues, loans etc.), through insolvency and bankruptcy on the other side.

It is not known whether anyone has made this kind of connections between attainable money, through laundered money and its repeated cycle in the chain of money laundering through privatization.

This type of research suggests the only conclusion possible, that the history of money laundering in Serbia has to be investigated in order to determine the extent to which it affects consolidation of economy and regaining of confidence in the financial system.

The origin of attainable money may be found in its original form as it is shown in the Graph no. 1.



Graph 1: Attainable money

In order to confirm that money laundering occurred in Serbia in the past and that it happens nowadays, too, it is enough to mention the information obtained from *Illicit Financial Flows From Developing Countries: 2001-2010*, where it is cited that the total amount of 51.156 million USA \$ was taken out of the Republic of Serbia in the period from 2001-2010 and this was not recorded anywhere. That outflow of funds, from the standpoint of national institutions, was not recorded as shortage or category of laundered money anywhere in Serbia. In order to record the shortage and explain its source, the lost sum of money, which has its sources in the attainable money, has to be determined. This is why in this thesis this issue is set as the endeavour to investigate, through the prism of attainable money, all techniques of money laundering and where they manifested their attainable goal. All money cannot be laundered, but it is certain that the information given in the Scheme 1 is significant, that the sources of money laundering have to be investigated, this is, shortage recorded as the lost sum of money in all forms which are listed in the Scheme 1. Shortages of money in Serbian economy, which are recorded as lost sum of money, are the revenue of some people at the same time as well as the sources of enrichment for organizers of money laundering.

The information that Serbia is ranked sixteenth in unrecorded money taken out of the country in the period from 2001-2010 is given in the report (Dev Kar, formerly a Senior Economist at the International Monetary Fund (IMF), is Lead Economist at Global Financial Integrity (GFI) and Sarah Freitas is an Economist at GFI. The authors would like to thank Simon Ramirez Amaya, an intern at GFI, for assistance with data research as well as Raymond Baker and other staff at GFI for helpful comments. Any errors that remain are the authors' responsibility). In the continuation of the review, we have shown the data per years and we have compared them with population at the same time, in order to determine the sum of unreported money taken out per person and per year and it turns out that each citizen of the Republic of Serbia took out averagely 6.800 USD per year without recording them anywhere.

In million USD \$

Years	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average
<i>Population</i>											
Total population in Serbia**	7886732	7500031	7480591	7463157	7440769	7411569	7381579	7350222	7320807	7291436	6775172
<i>in million USD \$</i>											
Money taken out from RS in million USD \$**	4,080.00	5,469.00	7,409.00	9,776.00	6,434.00	5,407.00	4,194.00		5,637.00	2,750.00	51,156.
<i>in million USD \$</i>											
Average money in USD \$ taken out from RS per citizen per year	517.32	729.20	990.43	1,309.90	864.70	729.54	568.17	-	770.00	377.15	7,551

Figure

I Detection	
Attainable money	
– Person	–
– Last location	
– Sum of money	
II Detection	
– Amount of recapitalization of the unrecorded money that was taken out	
– Person	-
– Sum of money	
– Country of origin, receiver's country	

Graph 2: The order of detection

The above described attainable money has a counter effect on Serbian economy nowadays, especially on the result of the process of privatization. The most prominent form of counter effects on economic flows in Serbia is implementation of the process of the original privatization by method of recapitalization, while sources of financing of this privatization can be found in the described elements of money laundering through the role of attainable money. The above mentioned detection of the existence of attainable money is in the activities which are closely related to their owners. The question is what should be detected first, whether the owners or the sum of money. This question will be analyzed in a separate material. For our research, one should come from the attainable sum of money which is shown through all sources of monetary transactions from the Scheme 1 and described in 4 cases of this thesis. In the process of privatization and by the method of recapitalization, sum of money which was used for recapitalization from the attainable sum of money is less than the sum of the attainable money itself. Therefore, other instruments of the attainable sum of money, which were not detected, have the important role in all combinations of value reduction, such as second round of privatization, dictating the value of bankruptcy, insolvency etc.

In the Scheme 2, there are parameters which we have to follow and pair them with previously mentioned paths. These are parameters which have to be observed in some order of detection through the process. Organizers of money laundering have developed their empires in further spheres of business, by making the attainable money an initial spark for multiplying of property in the integration of newly established companies, which moves to the East of West lately. But, the virus of attainable money which was not discovered, remained trapped in the way of thinking that economic and political will deals seriously with the problem of attainable money in money laundering. A new chapter is set for detection – how to recognize the “virus” of attainable money in the context of new financial combinations, which emerged in the new time and space. Present role of the owners of attainable money is to develop as many multi variants and combinations as possible (through creative accounting), in order to hide every trace of undiscovered destiny of the attainable money.

CONCLUSION

Causes and consequences of money laundering have remained undiscovered enough in Serbia. The main reason is the absence of systematic approach to all preliminary works, which preceded the act of money laundering itself, especially to non-recognition and discovering of the main participant in the initial source of money laundering through the “attainable money”. This wish to hide sources of money laundering and the owners of money may be successful at first sight, but these researches indicate the opposite. The owners of attainable money may think that their goal is achieved, money laundered, but this attainable money may be seen and detected easily. From this thesis we may conclude that the owners of laundered money should not feel safe, due to the fact that it has been determined that there are elements for detection of money laundering through attainable money. By gradual approach, through these 4 observed cases, we have detected the sum of money which we can follow. Following this sum, we come to the participants in money laundering, activities and techniques of money laundering as well as locations where money laundering is performed etc. This conclusion gives an answer to the question where and when financial reports are forged, based on the attainable money which was the subject of money laundering.

INSTRUMENTS FOR THE FIGHT AGAINST MONEY LAUNDERING

Government of the Republic of Serbia made the Project against money laundering and terrorist financing in Serbia “MOLI”. The below given measures are intended for the fight against money laundering, but there is an elementary question, what was done with the laundered money which was described in the

attainable money that remained unexplored and whose consequences are clear. We have taken only published information about unrecorded money which was taken out of the country. Therefore, a clear concept of the fight against the instruments of money laundering should be developed and this concept has to rest on integral connection of databases within national economy and exchange with the databases within national economies of other countries. Republic of Serbia passed laws on the fight against money laundering and terrorism in the last 10 years, namely:

1. National Strategy against money laundering and terrorism financing
2. Law on prevention of money laundering and terrorist financing
3. Law on restrictions of disposal of property with the aim of preventing terrorism

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IMPACT OF MONEY LAUNDERING THROUGH PRIVATIZATION ON THE REDISTRIBUTION OF SOCIAL WEALTH

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ABSTRACT

Globalization as a permanently growing world process of integration of national economies into a single, global- international economy, apart from positive trends, also produces negative ones such as organized crime which tends to –through money laundering – legalize profits acquired as a result of criminal activity and to infiltrate into financial and economic flows in order to control them and then influence the political processes for its own benefit. Integrity, stability and soundness of credit and financial institutions and confidence in the entire financial system can be seriously jeopardized by the efforts of criminals and their associates to disguise the origin of profit acquired through illegal activities i.e. crime or to conceal the origin of legally acquired money used to finance terrorist activities. Such threats require international prevention and cooperation since the turbulent growth of illegal markets must also be perceived as a structural component of the already existing geopolitics.

The subject of this paper is one specific aspect of money laundering i.e. its impact on the redistribution of social wealth in the republic of Serbia.

A separate aspect of contribution is to define the economic and legal aspects of the impact that money laundering has on the changes of the socio-economic system in the transition processes where illegal redistribution of money and capital is present. This paper will observe the principles that lead to illegal accumulation of wealth and capital, forms and models of processes of its legalization and difficulties in the economic aspects of detection of illegal money which – through investments from “tax heavens” - appears as investment capital in Serbia.

***Key words:** Money Laundering, Off-Shore Zones, Privatization, Redistribution of Social Wealth*

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343.37

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INTRODUCTORY REMARKS

Endeavours to detach money from the sovereignty of individual states and that one monetary form become a global means of calculation and payment, i.e. a tendency to denationalize the money is one of the characteristics of the second half of the twentieth century. This tendency has been accelerated by the globalization of the international trade, production and market. Globalization involves a permanently growing process of the integration of national economies into one global - international economy. This process involves production, trade, investments and financial flows without territorial restrictions, on a world scale, enabled by highly developed information technologies. Negative aspect of globalization is the manifestation of organized crime which tends to –through money laundering – legalize profits acquired through crime and to infiltrate into financial and economic flows in order to control them and then influence the political processes for its own benefit. Monetary and fiscal policy has traditionally been focused on legal transactions and financial flows, neglecting the financial aspect of the economic proceeds from illegal activities. Lately it has been apparent the need to consider money laundering and its impacts on the reduction of transparency and deterioration of health of the financial markets at the global level, which are important determinants in the effective functioning of both- overall national systems and entire world economy. The soundness, integrity and stability of credit and financial institutions as well as confidence in the whole financial system can be seriously jeopardized by the efforts of criminals and their associates to disguise the origin of the proceeds from illegal activities or crime, or to channel legally acquired money for terrorist purposes. The phenomenon of money laundering should be observed in various aspects. In addition to the economic, there are also aspects from the standpoints of criminology, sociology, political science and, finally, law. Only recently the economic analysis with a focus on the study of money laundering as criminal activity has appeared. Given the importance of this issue, the former US Treasury Secretary Janet Reno said in her article "The National Money Laundering Strategy for 1999": "Money laundering is a financial aspect of literally entire crime".

Money laundering is not a marginal economic activity. Globalization, integration within financial markets and technological innovations- leading forces in the international economy, participated in both-legal and illegal economies with new opportunities. An efficient system of money laundering forms the base of criminal profits, since money laundering provides various ways for criminal associations to increase their influence on legal economy without fear of legal sanctions. As stated in the European Commission report: "The turbulent growth of the illegal market forces us to acknowledge the Mafia as a structural component of the already existing geopolitics".

Terrorism and its financing also constitutes a serious threat to national, regional and international cooperation and economic development. No country is safe from the influence of money laundering or terrorism, and no nation operating alone can combat efficiently money laundering and terrorism financing.

The subject of this research is one specific aspect of money laundering and its impact of the redistribution of social wealth in the Republic of Serbia.

The scientific objective of this paper is to analyse and determine the principles that lead to illegal accumulation of financial wealth and capital, as well as forms and models of processes of its legalization and difficulties in the economic aspects of detection of illegal money which- through foreign investments, or investments from tax heavens- appears as investment capital in Serbia. This paper will analyse the existing scientific and expert explanations published in local and foreign literature, with a focus on the description of the theoretical – legal and economic – framework for the establishment of legal order which would first prevent the emergence, and then disable the legalization of money and capital whose economic origin cannot be justified, i.e. those stemming from the range of illegal economic and business activities.

The social objective of this paper is to provide scientific findings to determine the economic and legal aspects and implications of money laundering to changes of the socio-economic system and redistribution and accumulation of wealth which is not a consequence of economic growth and development but a result of illegal redistribution of money and capital generated as an aftereffect of economic sanctions, hyperinflation and poorly conducted process of privatization in Serbia. The focus of the analysis are economic and legal aspects of the issue of forms of illegal acquisition of wealth and flows, its legalization, and then social verification of its owners. Scientific knowledge obtained in such a way should serve as a basis for taking certain social measures to prevent money laundering. The results of the research should determine the causes and consequences of unclear and wrongly established standards in the prevention of illegal accumulation of money and capital during the process of the transition from social property to other forms. The study will show the causal link between the inefficient legal system and regulation on one, and the growth of corruption and crime as a result of the social process of converting the form of property, on the other side.

DEFINITION OF MONEY LAUNDERING

Money laundering can be defined in several ways. Most countries adopted in their legislation definitions from the United Nations Convention against illicit traffic in narcotics and psychotropic substances ratified in Vienna 1988 (The Vienna Convention) and the United Nations Convention against Transnational Organized Crime, ratified in Palermo in 2000 (Palermo Convention).

In the Vienna Convention (adopted by more than one hundred countries including ours) is given the first definition of the criminal offence of money laundering. The Convention limited money laundering only to revenues and assets from drugs and psychotropic substances related criminal activities. This criminal offence exists when the following actions are deliberately (intentionally) taken:

- a. The conversion or transfer of property, knowing that such a property is the result of one or more criminal offences related to drugs or on the basis of participation in one or more such criminal offences in order to conceal the illicit origin of property or of assisting to any person involved in such a criminal offence to avoid legal consequences of those activities.
- b. Concealment or disguise of the true nature, source, location, disposition and movement of derived property rights or assets with the knowledge that such property is the result of one or more drugs related crimes, or participation in one or more such criminal offences.

A specific criminal offence of money laundering is defined by numerous activities including preparatory acts, attempts and acts of complicity (instigating, assisting or organizing a criminal association) as well as acts of commission. Knowledge, awareness, intent, purpose or aim as a subjective element of psychological nature are an essential element of the offence of money laundering. The Convention has laid the foundation for international cooperation in confiscation, mutual legal assistance and extradition. The Convention stipulates mandatory confiscation of items and proceeds acquired by a criminal offence or its equivalent and includes security measures.

According to the Palermo Convention characteristics of money laundering are defined in the same way as in the Vienna Convention. The only exception is that the Palermo Convention refers not only to criminal offences related to narcotics, but also to terrorism, human and weapons trafficking and highly profitable criminal offences. Predicate criminal offence is any crime that produces the benefit which can later be the subject of criminal offence, as defined in Article 6 of this Convention. Article 7 stipulate measures to combat money laundering. States parties are required to establish a comprehensive domestic regulatory and supervisory regime for banks, non-bank financial institutions and other bodies subject to money laundering. Measures must predict user identification, record keeping and reporting of suspicious legal transactions. The Convention provides forfeiture of items, proceeds or its equivalent (reversed burden of proof) and international cooperation. This is the first international convention that mentions the role of FIU.

Convention on Laundering, Search, Seizure and Confiscation of the Proceeds from crime (Strasbourg, November 8th 1990) obliges States Parties not only to criminalize money laundering, but also to adopt a very broad definition of predicate offences (previous, mayor criminal acts) including all criminal offences (all crimes approach). The Convention requires from States Parties to adopt legislative and other measures necessary for the criminalization in national legislation and in case they are committed deliberately:

- a. The conversion or transfer of property, knowing that such property is the proceeds of crime, in order to conceal or disguise its illegal origin or assistance to a person involved in the commission of the predicate offence to evade the legal consequences of their actions.

- b. To conceal or disguise the true nature, source, location, disposition, movement, ownership or property rights, knowing that such property is the proceeds from the commission of the offence.
- c. The acquisition, possession or use of property, knowing at the time of receipt, that such property is the proceeds of criminal offence.
- d. Participation in, association or conspiracy to commit and aiding, abetting, facilitating and counselling the commission of any of the offences established in accordance with this article.

The convention still allows each State to make a statement that limits the criminalization of money laundering to a narrower list of predicate offences, which manifests flexibility. For purposes of implementation and application of this measures it is irrelevant whether the predicate offence was subject to the criminal jurisdiction of a state. This provision is the basis for international cooperation in the investigation. The convention predicts the possibility that criminal proceeds are not considered as a separate criminal offence, as well as to deduce knowledge and intent as elements of the offence from the factual circumstances. The Convention prescribes the seizure of items, gain or its equivalent and security measures.

Convention on Laundering, Search, Seizure and Confiscation of proceeds from the crime and on the Financing of terrorism (Warsaw convention), whose goal was to revise and update the Strasbourg Convention from 1990, prescribes that each State Party shall adopt such legislative and other possible measures to define in its national legislative as criminal premeditated offences:

- a) Substitution of transfer of property for which is known to be concealing or disguising an illicit source or rendering aid to a participant in the commission of previous criminal offences in order to avoid the legal consequences of their actions.
- b) The concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of property, knowing that such property was proceeds.
- c) The acquisition, possession or use of property, knowing that such property was proceeds.
- d) Participation in, association or a secret deal on the commission or attempted commission of any crime according with the Article, as well as help, guidance, facilitating during the commission of such offence.

Warsaw Convention in its appendix offers the list of 20 categories of predicate offences. Previous or simultaneous conviction for the previous offence is not a prerequisite for a conviction for money laundering. A conviction for money laundering, under this article, is possible if it is proven that the property from items a) or b) in the first paragraph of this article has its source in a previous offence and that is not necessary to accurately determine which offense is in question. Previous offences of money laundering involve offences committed in another country and constitute an offence in that country, and would constitute a prior criminal offence in the domestic country. According to Jakulin, 2009, "Each State Party may designate as the only condition that the offence constitute a prior offence to have

been committed in the domestic country”. The Convention stipulates that each State Party shall adopt, as measures to prevent money laundering and terrorism financing, confiscation measures, investigative and provisional measures and measures to manage frozen or seized property.

The Financial Action Task Force defines money laundering as follows: “The aim of a large number of criminal activities is to generate or make profit for groups who carry out such acts. Money laundering is the processing of this criminal income to hide its illegal origin. This process is of critical importance since it allows criminals to use these profits without putting their sources at risk”.

As defined by the Bank of England “Money laundering is defined as the process through which criminals attempt to conceal the true origin and ownership of funds acquired from criminal activities in order to factually own those funds. If such an operation is successfully performed a legally allowed cover of the real source of the funds shall be created”.

The Luxembourg Monetary Institute’s definition of money laundering reads: “Money laundering is any act (especially concealment, disguise, acquisition, possession, use, investment, movement, storage or transferring assets) indicated by the law as the status of specific criminal activities, explicitly related to the criminal offence and actions specified in the law, which apply to proceeds, i.e. any economic benefit from other criminal activities.” According to Claessens, 2006, money laundering presupposes the existence of criminal action of previous criminal offence.

BASIC STAGES OF MONEY LAUNDERING

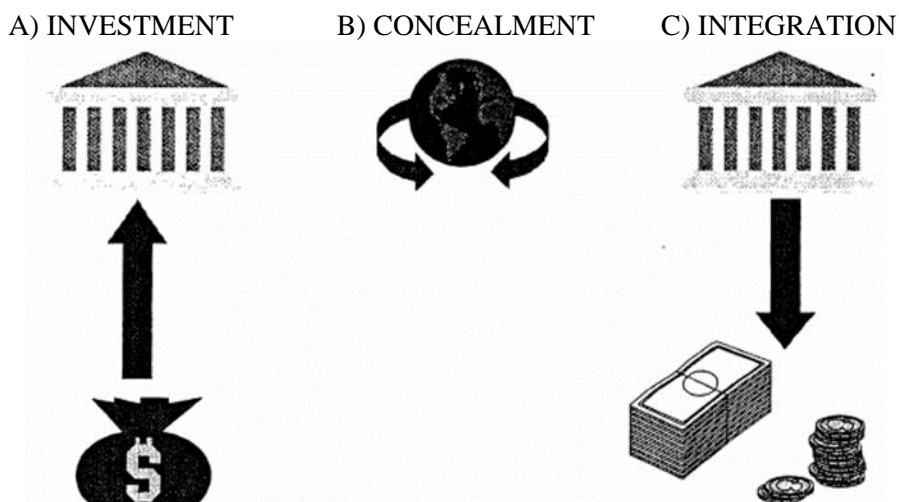


Figure 1: Basic stages of money laundering, from the Internet

FIRST PHASE-INVESTMENT

The main objective of the first phase is to infiltrate cash into the legal financial flows. At the stage of investment, funds obtained through criminal activity are invested in a bank or used for the purchase of shares, securities or life insurance policies. Banks in countries with weak or non-existent control are selected most frequently. Cash acquired from various illegal activities shall be deposited in bank accounts with the help of a bank officer or used to invest in a number or smaller investment projects and the jobs where cash is mostly used. The money derived from criminal activities is legalized at the stage of investment by replacing banknotes of small denomination bills with large denomination bills, transferring the money into cashier's cheques or other negotiable instruments, through electronic transfers, large cash transfers, purchasing real estate and other assets. Payments of grey money may be carried out under the cover of a regular cash income from business operations. One of the procedures at this phase is the establishment of false, so called phantom companies that do not do business, but exist only to receive cash payments to bank accounts.

In fact, it is easiest to detect money laundering at this phase, which is also the most difficult one for money launderers, since the biggest part of such illegally acquired funds is collected in cash, which is hard to hide and can, especially in larger quantities, certainly draw the attention banking officers, employees of the casino etc.

SECOND PHASE - CONCEALMENT

At the phase of concealing the aim of the operation is to carry out the largest possible number of transactions between the cash deposits and integration, i.e. infiltration of funds in the legal economic and financial system. It takes place in the form of opening bank accounts in many countries, electronic transfer of money without commercial purpose, where, in a huge everyday traffic, a high degree of anonymity and speed of flow of electronic money transfers offer the advantage of excellent disguise of the origin of the money. At this stage are used shell corporations that also possess legal assets. Funds are inundated into international banking and financial system. At the stage of concealment it is attempted to conceal the origin of money by raising a loan in one bank with a coverage of a deposit in another bank; through certain types of bonds; the payment of higher amounts by credit card or depositing cash into client's account in order to finance a project which will be abandoned soon in order to effect a refund by check.

In tax heaven countries money is deposited into the account of fraudulent companies. The only task of so called shell companies consists of concealing assets of money laundering. A front company sometimes performs legal business activity in order to conceal money laundering. Most of the launderers have several such

companies and grey money circulates among them to lose the track of it as soon as possible. Here one may ask: Why money is held in off shore banks? Generally speaking, there are two benefits of holding money in these banks. Firstly, taxes are not high, which is of great advantage for those who have millions. Secondly, no one will know whose the money is, which is, of course, of great importance for criminals, terrorists and all engaged in illegal activities and wanting to hide it.

THIRD PHASE-INTEGRATION

In the third phase the funds are entering into the legal economic and financial activity in such a way that disclosure has been disabled. Thus, e.g. funds accumulated during placement on a single bank account are used as collateral for raising loans to individuals or legal entities. A complex network of international transactions is being used, which disables keeping track of the original source of funds: early repayment of loans, payment of counterfeit bills, privatization, purchase of assets like real estate, precious stones, cars, vessels etc. Currently, a very popular method of integrating is investing in companies facing difficulties. Those companies then continue to operate normally using grey money as their capital, and money launderers receive interests and dividends from the invested funds as legal revenue. Finally, it has already been noted that in the time of privatization process in countries in transition, using dirty money to purchase capital of certain social and state-owned company has become reality.

CONSEQUENCES OF MONEY LAUNDERING

Large funds earned by money laundering undermine the fundamental principles of economic activity. Crime, especially of the organized nature, (trafficking in firearms, humans, narcotics and psychotropic substances, grey economy, nuclear terrorism, tax evasion) exceeds the national borders of individual states and is becoming an international issue. Money laundering also represents a serious threat to the integrity of financial institutions and prevents successful management of banks and supervisory bodies. The specificity of the banking and financial laundering can be determined by special characteristics of the intermediaries within the economic system. Development and creation of money market blurs gradually the distinction between banking and non-banking companies, which is reflected in various types of intermediation, given the capacity to meet the requirements of money laundering. Within the financial sector, banks play a special role of intermediaries by simultaneously offering the deposit agreement-which can meet the needs of payment and cash, and the loan agreement, which cannot be transferred to market goods. Thus, banks have become important brokers, confidential payers and performers of general services in markets. Management of the payment system have put the banks in an important position

from the perspective of money laundering. Therefore, the banks and other financial intermediaries are in the centre of attention of both- criminal organizations on one, and prosecuting authorities on the other hand.

Money laundering leads to deformation of consumption and savings and transformation of existing social structure by forming social groups of *nouveau riche*. According to Bartlett 2002 p.20 “Unlike the ordinary citizen, who uses the money for everyday expenses and savings, criminals invest large funds obtained by money laundering in the purchase of assets such as real estate, jewellery, art and luxury items, all of which stimulate speculation and inflation. As a result, there will be changes in exports and imports as well as the problem of the payment balance. Such products do not derive from domestic economic activity and employment, and that will lower domestic prices and reduce the profitability of domestic companies. This is particularly the case in developing countries”. Money launderers need to invest their illegally acquired funds to disguise their origin. As a result, they are willing to pay for certain material goods higher prices than the actual; or to purchase otherwise unattractive property or companies, which will lead to an artificial increase in prices and unfair competition. Since their interest in a certain purchase of material goods is not in line with the actual value, but rather to get their hands on in order to conceal its source, they are willing to pay far more than the true value of the good. Also, money launderers tend to invest in their country of origin or the country where they operate. They are guided more by the attempt to avoid the control and detection, than to get maximum return on the money invested.

In addition, interest rates are also affected, since the launderers rather invest in funds where it is harder to detect their schemes than in those with the lower interests on a loan or a higher income rate.

Money launderers reinvest in companies or real estate that will further ensure a profit, legal or illegal. The largest number of investments is in betting shops, casinos, bars, restaurants, prostitution, cars or freight. They tend to invest capital in the legal form in their country of origin or the country where they operate. Bartlett 2002, p.19, also believes that “money launderers are guided more by the desire to escape control and detection than to get a maximum return on the money invested. However, such investments harm the economy because they reduce funds for launching economic activity or employment”.

Money laundering can have a huge impact on government revenues due to reduced revenue from taxes. Avoiding to report income or reducing it is the most common method of conducting money laundering. Therefore money laundering has a negative effect on the state’s efforts in collecting taxes. Money laundering can also increase the yield of the public sector. Criminals want their money to be legal. The way of achieving it is to pay the income tax. Defunct high turnover of restaurants with no guests is sometimes deliberately reported to tax authorities. Thus illegal money has been converted into legal which is taxed. Some authors, like Unger, 2007, p. 137, believe that “it may also occur that public sector benefit from the money laundering if criminals deliberately pay taxes in order to make their income from illegal activities legal”. Certain authors, like Beare, 2006, pp.

296-312 consider that “money laundering has certain advantages for society since at least a part of the funds is transferred from illegal activities (not taxed) and extended into the legal economy where that money can generate legitimate wealth and tax payment”.

There can be positive effects of money laundering on development if there is an infusion of criminal funds, since that can lead to greater opportunities for lending, even for legitimate businesses. Money laundering enhances greater opportunities for lending through the banks. As a result of money laundering they will have more deposits, which will then create the opportunity for funds that may potentially grant loans. If it is done in a large scale it will affect a decline in interest rates. This may not necessarily be true for closed economies or large states since they can still determine prices and interest rates on the global market only in their own interest. However, in small open economies this argument does not stand, since the interest rates are determined on the global market, with a vague mobility of capital and funds almost unlimited. By the estimates of the magazine *Business organized crime* has, in 2005, generated 322 billion dollars offered to the bank sector, which, by abandoning the KYC (know your client) standard, enables money laundering activities.

Money launderers may channel funds towards financial institutions or countries where it will be easily placed, without too many questions asked. This can lead to the fact that capital is moving from the countries with sound economic policy where higher profit rates are generated towards countries with less efficient policies and lower rates of profit from investment. Keh 1996, p. 306 believes that “money laundering can have a reverse effect on economic policy, as recommended by IMF, with an aim to combat inflation by reducing the supply of money. In such circumstances, a large inflow of illegally obtained hard currency into economy may have masked advantage in employment, contribute to increase government foreign reserves and reduce foreign debts since some of the difficulties associated with the policy whose aim is to reduce consumption. Anti-inflation policy will, however, be ineffective”.

Activities related to money laundering can contribute to errors in macroeconomic statistics, which will cause the increase of defects in the formation of policy. This occurs primarily for two reasons. According to Aldridge, 2002, p.306, firstly “money launderers do not put their money in conventional investments, with the usual economic considerations, but are in the first place motivated by other factors, such as avoiding to be discovered, punished etc..”. So, fluctuation of capital related to money laundering is computational only intuitively from an economic point of view. As a result, policymakers may be confused and make the wrong political assessment on the basis of these unusual movements of capital. By McDowell, 2001 “Money laundering can have devastating effects on efforts in privatization. Firstly, due to unfair competition launderers can outbid honest buyers who have previously owned enterprises”. This will result in crime on a large scale in economy. Criminals are motivated to consider things differently from conventional business entrepreneurs, so they react to diverse stimuli. Keh, 1996, p.11 considers that “Criminal owners will change production and establish

prices according to non-economic factors: if feel pressured by the police they will change the business location to avoid strict legislation.” As a result, important sectors of economy may be disrupted because of market-oriented incentives, which can later extend the process of re-adapting to the new private economy. According to Unger, 2006, the inflow of dirty capital will lead to speculative and non-competitive approach in these sectors. This is especially great danger in economies where state-owned enterprises (such as railroads, telecommunications, electricity and gas, postal services) are yet to be privatized and where there is a probability of integration of dirty capital, as in the case of the Republic of Serbia.

Undermined integrity of the financial sector as a result of its collaboration with money laundering and the presence of organized crime can have a negative impact on direct foreign investment. When the state commercial and financial system is aware of being under the influence of criminal elements, the country’s reputation and undermine the confidence of foreign investors may be affected. Once on the black list published by FATF and OECD countries can face serious consequences on direct foreign investment. At the same time, if they turn to the lax regulatory environment and low tax rates, those countries will increasingly attract capital of illegal nature and derive out of it significant benefit; especially if the money is invested directly in the economy, rather than simply transferred through the state. However, such possibility is unlikely because the dirty capital seeks rapid fertilization and ability of rapid transfer to hide the true owner. Due to these requirements dirty capital is seldom invested in economy, where problems with production, employees and finally with market placement and payments await.

Illegal transactions can contaminate the legal ones. According to Quirk 1997, p. 4, certain perfectly legal transactions involving foreign participants have been reported to may become less attractive as suspected to be related to money laundering. Quirk does not provide any data to support the claim taken from the literature. He seems to be satisfied with a logical conclusion that a connection with money laundering or just a possibility of such a connection, may descend the level of confidence of economic agents. On the other hand, Aldridge 2002, p.315 believes that, “as it seems, such transactions and enterprises will become attractive for the circle of launderers. Demonstrating the willingness to cooperate with money launderers they may potentially attract illegal capital”. Corruption is closely tied to it. Crime can also contaminate legal professions (lawyers, accountants, tax advisers).

Bartlett argues that “money laundering has a major negative impact on economic growth. Since in the context of these activities funds are relocated from safe to risky ventures, from productive to infertile investments, facilitated by crime and corruption, economic growth will suffer.” His views coincide with McDowell’s, 2001, who states that “when a job or industry is no longer attractive to a money launderer they simply try to abandon them, causing potential collapse of those sectors and a series of damages to the respective economies”. The negative effect of money laundering is that it hampers economic growth. These claims are supported by Quirk’s study. 18 industrial countries in the period 1983-1990 are confirmed to have had annual economic growth related to the increased activity in

money laundering. However, money laundering can have a positive effect on growth. For instance, if a country serves only as a transfer of criminally acquired money that can generate additional value for financial services and the country does not pay the price for the crime. The money simply flows through. If the money is transferred from the country with criminal activity to the country where it is laundered, the latter bears no negative impact of the established crimes related to money laundering. It benefits from foreign crime and is a free participant in criminal activities. This is especially the case in countries with stricter regulations against money laundering than in neighbouring countries, since less stringent regulations can have a positive effect on the capacity to attract illegally acquired capital. The reverse is also true. The stricter regulations, the more a country suffers from negative external effect and the inability to attract illegal capital.

If money launderer's cartel manages to win over significant parts of the economy they could also keep trying to increase their political control as a means of following objectives and guarantee that the government will not introduce strict control to combat money laundering. These objectives can be achieved through corruption, bribery or even collusion with the national elections, what can influence the program of the democratic process itself. As pointed out by Tanzi V. 1996: "These criminal elements can corrupt the political process of particular economies by financing candidates who may be inclined to let those elements go their own way. When such big amount of money is involved and payments by criminal elements so significant, it seems realistic to expect attempts to establish more friendly administration".

Money laundering has a counter balance to the positive effect of foreign aid and jeopardises the implementers of foreign aid, loans from the World bank for Reconstruction and Development and the International Monetary Fund to reduce poverty and promote economic development. According to Baker, 1999, pp 38-39, the total support of the United States, the OECD and the World Bank for Development of the Former Communist Countries is 50 billion USD annually, but in the same period 100 billion USD returns from these countries to the accounts in Western Banks.

Each country has a special attraction for money launderers. In Italy the circulation of the securities has a special popularity because it allows the disguise of true identity for some time. In the Netherlands it is real estate, because that market is not transparent and it is often difficult to assess the value of buildings and it can be increased without control. Organized crime is a growing threat to security in the Balkans, and criminal groups have selected the Republic of Serbia for the illegal sale of property and money laundering. In Serbia the most of dirty money enters the legal flows during the process of privatization of companies, through real estate transactions, loans to legal entities, use of fictitious companies, transactions with off-shore countries, all of which affect economic, political, security and social structure of the country.

THE ROLE OF TAX HEAVENS AND OFF-SHORE ZONES AS DESTINATIONS FROM WHICH MOST INVESTMENTS HAVE ARRIVED IN THE PRIVATIZATION IN SERBIA

Like all countries in transition seeking to transform the economy from a centrally planned to market economy, Serbia has been intensively involved in the privatization of its state and social enterprises.

In Serbia there were two time phases of privatization, the first 1990-2000 and the second one from 2001 to the present. Both periods have their specificities from the standpoint of money laundering, but the results were, at best, mixed. Non-transparent procedures often led to accusations of collusion. The whole process was reviewed during 2001 with the introduction of a new Law on Privatization (published in the Official Gazette of RS, No 38/01). It puts emphasis on open, competitive procedures. Specifically, larger enterprises are to be privatized through a tender procedure, while the auction procedure provides for smaller companies. The process is administered by the Privatization Agency under the supervision of the ministry in charge.

Law on Privatization and subsequent instruction prepared by the Agency appear to be vague when it comes to determining who has the right to participate in privatizations, and that is a key aspect from the perspective of money laundering. Procedures are open to individuals and intermediaries, and with the exception of the largest companies, the information requested is minimal, particularly when it comes to determining the identity of the end user. According to the opinion of focus groups participants (organized by the OSCE Mission to Serbia in October 2006 to assist in the research of money laundering in Serbia) and the facts from practice, it is apparent that a detailed due diligence on the identity of the bidder is not the main concern. In that context, it is as interesting as it is disturbing to note the following: as a public agency financed at least partly from the budget of the Republic of Serbia, the Agency has been placed on the list of institutions obliged to report suspicious funds according to the previous Law on Prevention of Money Laundering, 2001, art.5, although it seems that the Agency never fully complied with these obligations. That provision on the obligations of public agencies and institutions was eliminated from the Law on Prevention of Money Laundering in 2005. According to the OSCE report on money laundering and the predicate offences in Serbia 2000-2005 it seems rather odd that Serbia allowed such a large failure when appearing to be so persistent in closing each, even the smallest input for money launderers.

Using the above mentioned holes in the Laws on Privatization, persons with criminal record and even those against whom the proceedings were in progress, appeared, personally or through third parties, as buyers. Another group of buyers were those who would buy the companies in attractive locations, counting on the fact that the value of land or real estate business may far exceed the paid price.

Current government has designated the year 2010, with all the extension of deadlines, as the end of the existence of social property in Serbia, but that did not happen. Afterwards, preparations should have been made and the privatization of public companies and sports associations should have started. The privatization of the domestic economy has not led to significant changes in its structure, primarily due to the negative impact of the global crisis which largely devalued the effects of ownership transformation. According to some analyses Gagović 2011 argued that “it can be concluded that Privatization has not brought the expected economic growth based on improvement and business efficiency, but a certain type of redistribution of assets and economic power.”

As part of monitoring of the movement of capital we will observe its inflow and flows through privatization in the Republic of Serbia during the period 2002-2009 from the official data of the Privatization Agency, with particular reference to the destinations from which the capital used in privatization had arrived. In this part of the paper we are particularly interested in the inflow of capital from off-shore zones, as destination where the legality of its acquisition is not checked. During this period 1717 business entities were privatized in the auction procedure, 108 economic entities were privatized in the tender procedure, while 546 economic entities and 817 previously privatized entities were privatized in the capital market; for a total of 2505 privatized business entities.

According to the data of the Privatization Agency 108 economic entities were privatized in the tender procedure, legal entities privatized 89 economic entities -41 foreign legal entities and 48 domestic. Individuals privatized in the tender 19 economic entities- 10 foreign individuals and 9 domestic. There were 21 terminated tender privatizations – 3 with individuals and 18 with legal entities, from which 10 foreign and 8 domestic.

Out of 1717 economic entities privatized in auctions in the above mentioned period legal entities privatized 420 economic entities and individuals 1297. Out of 1717 privatizations 403 were terminated, 366 with individuals, 37 with legal entities and 133 with consortiums.

Considering the privatization of economic entities executed by natural persons we found that, out of 1297 economic entities privatized by natural persons there were 165 privatized entities whose individual price was over one million euros, with total amount of 563,611,000 euros. Out of 165 economic entities, 109 were privatized by natural persons individually with total amount of 448,063,000 million euros, while 56 economic entities were privatized by consortiums and natural persons as their representatives in a total amount of 125,548,000 euros.

Out of 165 privatizations whose individual price of an economic entity was over one million euros, privatized by individuals, either directly or through a consortium, structure by sectors is as follows:

Farms and agricultural production	36
Manufacture of paints and varnishes	2
Hotels, motels, restaurants	18
Construction works	11
Mills	6
Road and river transport	5
Retail	25
Wholesale	9
Dairies	2
Bakeries	4
Other	48

*Data from the Privatization Agency

Out of 1297 economic entities privatized by natural persons there were 249 privatizations with individual price 300,000 – 1,000,000 euros in a total amount of 130,911,000 euros. 136 economic entities were privatized by natural persons with total amount of 77,756,000 million euros, and 113 economic entities were privatized by natural persons through consortiums in a total amount of 53,155,000 euros.

Out of 249 privatizations whose individual price of an economic entity was 300,000-1,000,000 euros, privatized by individuals, either directly or through a consortium, structure by sectors is as follows:

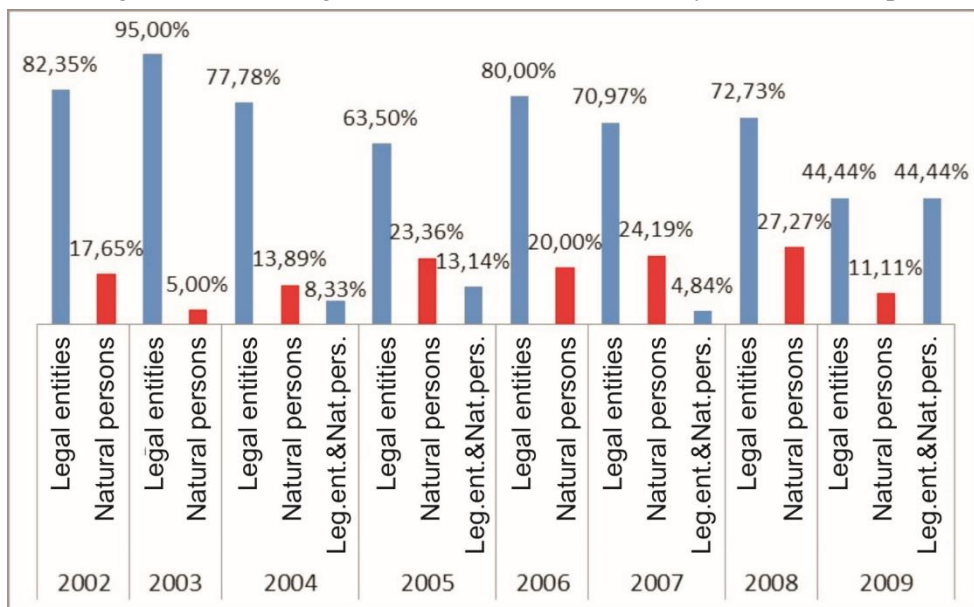
Farms and agricultural production	34
Veterinary activities	14
Production of brick and roof tiles	8
Hotels, motels, restaurants	33
Construction works	22
Manufacture of metal structures	5
Road and river transportation	16
Retail	25
Wholesale	
Dairies	3
Bakeries	8
Other	63

*Data from the Privatization Agency

What characterizes these privatizations is that by far the largest number of economic entities privatized by natural persons has agricultural production as an activity, i.e. that agricultural land has been purchased through agricultural homesteads; (36 estates for over a million euros and 34 between 300,000 and one million euros). The second most interesting activity for individuals were hotels, motels and restaurants (18 for more than one million euros and 33 between 300,000 and one million euros). Next most frequently privatized economic entities are from the retail trade (25 for more than one million euros and 25 between 300,000 and one million euros).

Analysing the flows of capital in the privatization we assumed that, to confirm the thesis, we should identify the destinations from which a part of the capital used to purchase (privatize) economic entities in Serbia arrived. The mere fact, and the possibility allowed by the Law, that natural persons with no evidence of the origin

of the money redeemed from the state 165 economic entities in a total amount of 563,611,000 euros, talks about the failure of the state to properly combat money laundering. That led to a significant redistribution of money and economic power.



Graph 1: Privatization from 2002 to 2009 (foreign buyers) legal entities/ natural persons

Source: Author, based on the data from the Privatization Agency

Summarising the data we have concluded that, unlike the domestic capital used in privatization, where far more important role was played by individuals; in the investment of foreign capital far greater role was played by legal entities. The lowest percentage of the investment of legal entities was in 2009, with 44.44 %, while the highest percentage was in 2003-95 %.

Observing the destinations from which the capital in privatization has been invested, according to the data of Privatization Agency, capital in the amount of 67,849,000 euros was invested from off-shore destinations, especially in 2004, 2005 and 2006. The following destinations have been spotted: Cyprus, Marshal Islands, British Indian Ocean Territory, Gibraltar, British Virgin Islands. We emphasise that we have not accounted the capital from The Netherlands and USA in the above mentioned sum, since it was not possible to discern from the data which capital arrived from their off-shore destinations such as Netherlands Antilles and The US State of Delaware. The above mentioned sum has been obtained by reviewing the direct payment from off-shore destinations by foreign legal entities. For a more analytical review should be taken into account the transfers of capital from off-shore destinations to legal and physical entities in those years (reminder: the data from the previous text that individuals privatized 109 economic entities whose individual price was over one million euros, for a total amount of

448,063,000 euros and 136 economic entities with individual price between 300,000 and 1,000,000 euros, for a total amount of 77,756,000 euros). We emphasise that after the abolition of the Privatization Agency's obligation to report suspicious capital in 2005, investment in privatization from off-shore zones were abruptly increased and accounted for about 25% of the total investments in privatization in 2006.

CONCLUSION

Selection of the wrong model of privatization, with the entry of foreign banks into the Serbian financial market, has led to the complete collapse of Serbian industry, best illustrated by the fact that in 2013 industrial production was only 40% of production in 1999. More than 150 billion dollars entered in Serbia for the past 13 years; mainly through government borrowing, then the sale of public/state owned companies, donations and export. Due to the absolute neglect of the state to whom the companies are sold in almost 40% of the privatized companies the purchase contracts were terminated, valuable time wasted, as well as the capital of these companies. From 2001 to 2008 due to privatization more than 400,000 people have been made redundant; some of them were re-employed in the public sector, fewer in retail shops and other small businesses. From 2008 to 2013 another 250,000 workers lost their jobs. In the opinion of Professor Boža Drašković PhD, "socio-economic situation in Serbia is characterized by high unemployment rate, low average income, uncompetitive economy, technological deficiency, high level of corruption, low level of unionisation, disempowered workers and cheap and unprotected labour force". United Unions of Serbia in their platform of 6th April 2014 describe the situation in Serbia in a following way: "Serbia has found itself in a whirl of predatory capitalism, where the rules are dictated by the owners of suspiciously acquired capital". Such privatization in which suspicious capital has played an important role led to a significant redistribution of social wealth in favour of the owners of suspicious capital.

Non-interference in laundering of dirty money and transferring shady businesses into legal flows, successfully deleting its tracks, stimulates the expansion of black and grey economy not only in small, but also in the largest firms. Further consequence of the stagnation of legal economy is the alarming increase in the number of unemployed and the poor. Stratification of the population by wealth and social status is increasing. At the top of the pyramid there is a small number of people with rapidly growing income, mostly based on business machinations. They are instigators and agents in operations of capital transfers across borders, but also brokers of the destiny of all citizens of Serbia.

To illustrate the redistribution of social wealth in Serbia we mention that European Statistical Office Eurostat published the information that the coefficient of financial inequality in Serbia was 38 points in 2013, making it officially the poorest in Europe. According to the official data from the Tax Administration of

The Republic of Serbia “the highest reported monthly earning in 2013 was 24.6 million dinars; 17,972 millionaires are currently reported in Serbia-500 more than the previous year. 400,000 people in Serbia receive minimum wage, while around 700,000 people are living below the level of poverty, i.e. about 10% and 24. 6% of the population is at risk of becoming poor. Even more worrying is the fact that the coefficient of financial inequality has been dramatically increased only in the last four years, since it was solid 27.8% in 2009. That can have fatal consequences for the state and society, since financial inequality entails the absence of economic development; in such circumstances there is no development of democracy, healthy social relationships, nor the development of institutions of the system - all of which generates political instability.

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THE APPLICATION OF VOLATILITY MODELS IN PORTFOLIO MANAGEMENT

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ABSTRACT

The research investigates the possibilities of application of volatility models in portfolio management. After the theoretical aspects of applied models are introduced, we conducted the research on four regional stock market indices: Belexline, Crobex, Sbi Top and Monex. Each series is examined in order to determine appropriate ARMA-GARCH model based on model fit and information criteria. The models are selected among ARMA(0,0) to ARMA(3,3) for the mean equation, and GARCH, TGARCH, EGARCH and GARCH-M for the variance equation, all from (1,0) to (2,2) parameters. Selected models were applied by rolling technique, and used for forecast, and obtained results are combined by linear programming method, in order to determine portfolio weights for each asset. Obtained results indicate that application of volatility models can increase portfolio returns, and help in portfolio risk management.

Key words: *Portfolio Construction, Risk Management, Volatility Modeling*

JEL Classification: *C58, G11, G17*

UDC: *005:336.763
005.334*

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INTRODUCTION

Since the diversification represents one of the most important aspects of investment, the understanding of risk is crucial for the successful portfolio management. The risk is associated with possible material losses that may occur when investing, due to various factors. Systematic risk is the risk that is of macroeconomic nature, and therefore cannot be controlled by a single investor or company. Systemic risks include:

Liquidity risk - occurs in the trading of securities that are subject to the influence of business cycles, technological change and related factors. Liquidity risks include risks of liquidity assets, resulting from the inability to sell assets at the expected value and liquidity risks of financing, due to the inability to access sufficient cash funds in case of need for regular payment.

Financial risk - is the risk that occurs as a result of changes in the capital structure of the company or investors. Given that the main sources of funding include equity, debt capital and retained earnings, risks associated with the sources of financing can be classified as follows: risks, changes in exchange rates which arise due to the possibility of changes of the relationship between the value of various currencies; Risks rate of recovery of funds lent; risks of sudden negative changes in the creditworthiness; indirect risks that occur due to non-linear exposure of the portfolio to different volatility movements; sovereign risk associated with the state's obligation to pay for own securities; Settlement risks relating to the possibility of default of the counterparty.

Operational risk - includes all risks in business processes caused by human error. They can be divided into: the modeling risks, arising from inaccurate or erroneous results obtained using the model for the valuation of financial instruments; human risks caused by non-compliance with prescribed procedures, rules and common practices in the business; legal risks arising at the conclusion of business agreements between the parties that are legally incompetent; political risks, caused by changes in government policy. The classification of systematic and non-systematic risks is presented by Table 1.

Table 1: Classification of systematic and non-systematic risks

Risk of changes in interest rates	Systematic risk		Non-systematic risk		
	Market risk	Inflationary risk	Liquidity risk	Financial risk	Operational risk
Price risk	The absolute risk	Demand inflation risk	Asset liquidity risk	Exposure risk	Modeling risk
Reinvestment rate risk	Relative risk	Cost inflation risk	Liquidity financing risk	Rate of return risk	Human risk
	Directional risk			The risk of creditworthiness	Legal risk
	Omnidirectional risk			Sovereignty risk	Political risk
	Basis risk			Settlement risk	
	Volatility risk				

Source: Author's work

The understanding of the systematic and unsystematic risk is crucial when creating a portfolio and investing in securities. The concept of risk diversification means reducing the overall risk while creating portfolios by investing in securities that have a low or negative correlation coefficient. In doing so, the overall risk can be reduced only to the level of systematic risk. Diversification is reduced unsystematic risk, while the systematic risk cannot be influenced by portfolio manager. Graphic shows lowering risk by diversification in Figure 1.

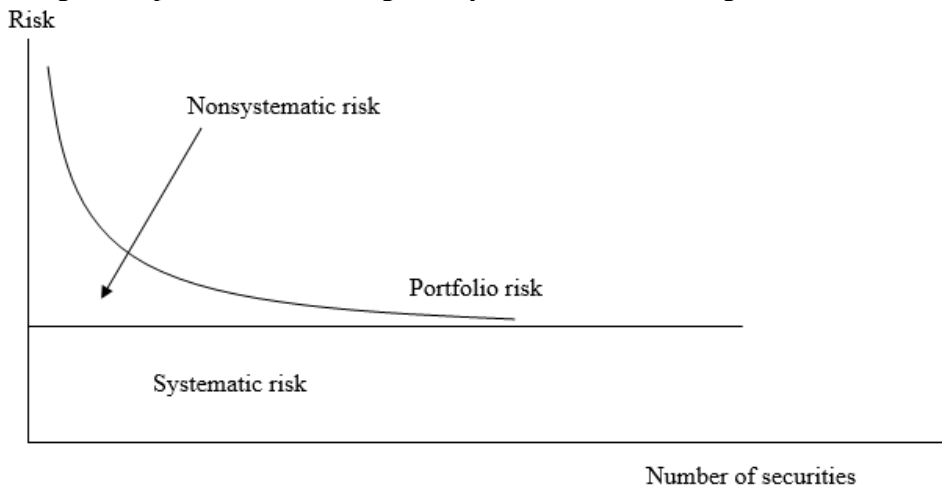


Figure 1: Diversification of portfolio risk

Source: Authors' work

In this paper, after presenting the theoretical aspects of volatility models and portfolio optimization, we examined the possibilities of the reduction of non-systematic risks by implementing volatility models in portfolio optimization procedures.

VOLATILITY MODELING

Consider the standard ARMA (1,1) model for financial time series yields:

$$r_t = \mu + \phi_1 r_{t-1} + a_t + \theta_1 a_{t-1} \tag{1}$$

where $\{r_t\}$ represents series of returns, μ is the mean value, ϕ_1 and θ_1 are model parameters, while $\{a_t\}$ is residual series with lag 1. This implies that:

$$Var_{t-1}(r_t) = Var_{t-1}(\mu + \phi_1 r_{t-1} + a_t + \theta_1 a_{t-1}) = Var_{t-1}(a_t) = \sigma^2 \tag{2}$$

which would mean that the variance of the observed model is constant. If you take into consideration the time series of squared residuals $\{a_t^2\}$, the mentioned

series can be decomposed into two parts: the conditional variance and a new series of white noise with mean value of zero and a variance:

$$a_t^2 = \sigma^2 + \eta_t \quad (3)$$

If the conditional variance is indeed a constant, autocorrelation function (ACF) of a series of squared residuals $\{a_t^2\}$ would be equal to zero.

$$\begin{aligned} \gamma_j &= \text{Cov}[a_t^2, a_{t-j}^2] \\ &= E[(a_t^2 - E[a_t^2])(a_{t-j}^2 - E[a_{t-j}^2])] \\ &= E[(a_t^2 - \sigma^2)(a_{t-j}^2 - \sigma^2)] \\ &= [\eta_t \cdot \eta_{t-j}] \\ &= 0 \forall j \neq 0 \end{aligned} \quad (4)$$

Empirical studies, however, show that the autocorrelation function of the series of squared residuals in time series of returns testifies to the existence of significant serial correlation.

For the first time this characteristic of financial time series focused attention of Engle (1982), which is in theory accepted as the stylized facts of financial time series, indicating a significant ability to predict volatility in the study. The model presented by Engle is a model of autoregressive conditional heteroscedasticity (ARCH (1)):

$$\sigma_t^2 = \omega + \alpha a_{t-1}^2 \quad (5)$$

where σ_t^2 is the variance at time t, ω is constant, α is model parameter, while a_{t-1}^2 is the series of squared residuals from the previous period.

This model indicates that the conditional variance at time t is not constant, but it also represents the sum of constants and squares residuals at time t-1. Generalization of ARCH (1) model was made by Bollerslev (1986), representing well-known GARCH (1,1) model:

$$\sigma_t^2 = \omega + \alpha a_{t-1}^2 + \beta \sigma_{t-1}^2 \quad (6)$$

where σ_t^2 is the variance at time t, ω is constant, α and β are model parameters, while a_{t-1}^2 are the squared residuals, or variance from the previous period. Combining ARMA(m,s) and GARCH (p,q) models, we obtain the model used in the analysis of financial time series:

$$\begin{aligned} r_t &= \mu + \sum_{i=1}^m \phi_i r_{t-i} + \sum_{j=1}^s \theta_j a_{t-j}, \\ \sigma_t^2 &= \omega + \sum_{i=1}^p \alpha_i a_{t-i}^2 + \sum_{j=1}^q \beta_j \sigma_{t-j}^2 \end{aligned} \quad (7)$$

where $\{r_t\}$ represents series of returns, μ is the mean value, φ_1 and θ_1 are model parameters, while $\{\alpha_t\}$ is residual series at time t , σ_t^2 is the variance at time t , ω is constant, α and β are model parameters, while a_{t-1}^2 are the squared residuals.

The model ARMA (1,1) -GARCH (1.1) is usually used as the basic model. Conditions that this model must meet are:

$$\begin{aligned} \omega &> 0, \\ \alpha_i &\geq 0, \\ \beta_j &\geq 0, \end{aligned} \tag{8}$$

Process a_t is covariance stationary if, and only if:

$$\sum_{i=1}^p \alpha_i + \sum_{j=1}^q \beta_j < 1.$$

The first condition provides a positive variance, while the second condition guarantees the covariance stationarity. The sum of the coefficients α and β is the so-called memory of GARCH processes, and indicates the time it takes for model to lose the prediction ability. If the $(\alpha + \beta)$ value is close to zero, the model will quickly lose the ability to predict, while the time horizon of predictability models in which the $(\alpha + \beta)$ is close to one tends to be much longer. If we mark the number of periods after which GARCH (1.1) loses its ability to predict with h , the value of h for certain values $(\alpha + \beta)$ could be presented with Table 2.

Table 2: The number of periods after which GARCH (1,1) loses the ability to predict.

$(\alpha+\beta)$	h
0,80	4,11
0,85	5,27
0,90	7,58
0,95	14,51
0,99	69,97
0,999	693,80

Source: Francq, 2010

Parameter estimation of GARCH models can be relatively easily made by maximizing the likelihood, assuming the distribution of residuals a_t . The most common assumption is that the residuals follow a normal distribution with a mean value of zero and variance σ_t . The likelihood for the observed model is presented as follows:

$$L(r_1, r_2, \dots, r_t | \theta) = \prod_{t=2}^T f(r_t | r_{t-1}; \theta) = \prod_{t=2}^T \frac{1}{\sqrt{2\pi\sigma_t^2}} e^{-\frac{a_t^2}{2\sigma_t^2}} \quad (9)$$

For the maximization of this function numerical methods are applied, where there are different ways to set the initial parameters a_1 and σ_1^2 , such as setting the initial values of these parameters to their expected value of 0 and $\omega/(1-\alpha-\beta)$. Numerous studies, however, suggest that, when it comes to financial time series of returns, the observed values usually do not follow a normal distribution, but show the so-called fat tails of the distribution. For these reasons, the Student's t distribution or GED (generalized error distribution) are often used in the analysis of financial time series. To assess the models with the above distributions, the following maximization functions are used:

$$L(r_1, r_2, \dots, r_t | \theta, k) = \prod_{t=2}^T f(r_t | r_{t-1}; \theta, k)$$

$$\log L(r_1, r_2, \dots, r_t | \theta, k) = \sum_{t=2}^T \log f(r_t | r_{t-1}; \theta, k). \quad (10)$$

The main drawback of said GARCH model, which represents the most commonly used extended version of ARCH models, is the inability to detect the leverage effect. Black (1976) found that stock returns are negatively correlated with changes in volatility. Bad news, which represent negative returns, result in increased volatility, while good news or positive returns are accompanied by a drop in volatility. For an explanation of this phenomenon the ability of companies to use leverage is utilized. If a particular company uses its own and borrowed sources of financing, the decline in the share price the company would cause an increase in debt/capital ratio, which causes an increase in volatility in the case of unchanged cash flows. This ratio indicates that the negative returns can expect higher volatility compared to the volatility following the positive returns. Later research found that the use of leverage by companies only partially explains the described phenomenon. However, the name of the leverage effect is still in use.

Because of the fact that the GARCH model in exactly the same way treats positive and negative returns, this model is classified as a symmetric model and is not suitable for assessing the leverage effect. For this reason, Glosten, Jagannathan & Runkle (1993) have extended GARCH model, adding coefficient, which aims to assess the leverage effect. The aforementioned model is known in theory as the GJR-GARCH by the names of authors.

$$\sigma_t^2 = \omega + \sum_{i=1}^p a_{t-i}^2 (\alpha_i + \gamma_i N_{t-i}^-) + \sum_{j=1}^q \beta_j \sigma_{t-j}^2,$$

$$N_{t-1}^- = \begin{cases} 1 & \text{if } a_{t-1} < 0, \\ 0 & \text{if } a_{t-1} > 0 \end{cases} \quad (11)$$

where α_i , β_i and γ_i are nonnegative parameters that meet the conditions set for the GARCH model. TGARCH model uses N_{t-1}^- to set zero as a threshold, including only negative returns in the part of the model along γ_i . Thanks to this extension of the model, it can be concluded that the value of γ_i greater than zero indicates the existence of a leverage effect in the observed time series. This model is very close to asymmetric Threshold GARCH or TGARCH model (Zakoian, 1994):

$$\sigma_t^2 = \omega + \sum_{i=1}^p |a_{t-i}^2| (\alpha_i + \gamma_i N_{t-i}^-) + \sum_{j=1}^q \beta_j \sigma_{t-j}^2, \tag{12}$$

The difference between the two models is in conditions to be met by model parameters. In the case of GJR model, conditional volatility is positive when the model parameters satisfy:

$$\begin{aligned} \omega &> 0, \\ \alpha_i &\geq 0, \\ \alpha_i + \gamma_i &\geq 0, \\ \beta_j &\geq 0, \end{aligned} \tag{13}$$

Process is covariance stationary if, and only if:

$$\sum_{i=1}^p (\alpha_i + \frac{\gamma_i}{2}) + \sum_{j=1}^q \beta_j < 1 \text{ (Hentschel, 1995)}$$

When it comes to TGARCH model, all the above conditions apply in this case except the condition of covariance stationarity, whose provision in this model requires nonlinear constraints. For this reason, in TGARCH model securing covariance stationarity is not common.

One of frequently applied ways of illustrating the impact of the leverage effect and the difference between symmetric and asymmetric volatility models is to show the influence of the news impact curve (Engle, Ng, 1993). News impact curve shows σ_t^2 depending on the movement of a_t , assuming all other model parameters fixed, and that a function is normalized for $a_t = 0$ specified. Example of news impact curves for TGARCH and GARCH models can be seen in Figure 2. The displayed image shows that the news impact curve for GARCH model is presented by function αa_t^2 , whereas in the case of TGARCH model it is a function of

$$\alpha a_t^2 + \gamma a_t^2 N_t, N_t = \begin{cases} 1 & \text{if } a_{t-1} < 0, \\ 0 & \text{if } a_{t-1} > 0 \end{cases} \tag{14}$$

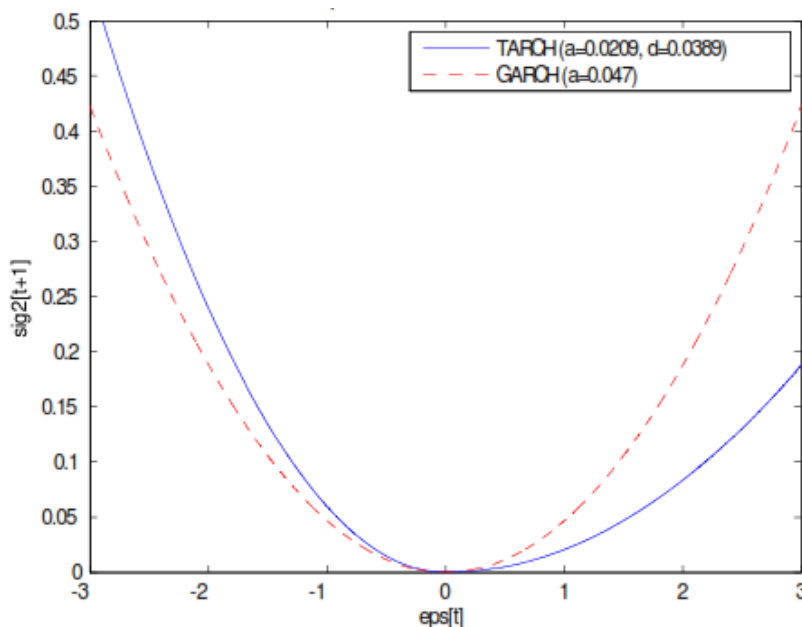


Figure 2: The example of News impact curves for GARCH and TGARCH models

Source: Authors' work

In addition to the TGARCH model, the wide application among the asymmetric models has an exponential GARCH (EGARCH), proposed by Nelson (1991):

$$\ln \sigma_t^2 = \omega + \sum_{i=1}^p \frac{a_{t-i}}{\sigma_{t-i}} \left(\alpha_i + \gamma_i \right) + \sum_{j=1}^q \beta_j \ln \sigma_{t-j}^2 \quad (15)$$

The basic idea of this model is to eliminate the two major disadvantages of GARCH models. The first drawback is the inability of GARCH model to capture the leverage effect, while the second refers to the conditions of positivity that have to be met by model parameters. EGARCH model manages to deal with the aforementioned disadvantages. Modeling $\ln \sigma_t^2$ instead of σ_t^2 ensures the obtaining of positive estimated value σ_t^2 , while the coefficient γ allows the model to capture the leverage effect. The process a_t is covariance stationary if, and only if: $\sum_{j=1}^q \beta_j < 1$

All the presented models are based on the assumption that the movements of the returns are independent of their volatility. However, it is expected that returns of certain risky securities to be correlated with the risk of the observed securities, as in the analysis of financial time series is called the risk premium effect. The

model developed by Engle, Lilien & Robins (1987) is an extension of the classic ARCH model, and is known as "ARCH and mean" or "ARCH-M" model. The aforementioned expansion is the introduction of the conditional mean values, conditional variance, or conditional standard deviation in the mean equation. Simple ARMA (m, s) -GARCH-M (p, q) model with the function of the conditional standard deviation can be represented by the following equations:

$$r_t = \mu + \sum_{i=1}^m \phi_i r_{t-i} + \sum_{j=1}^s \theta_j a_{t-j} + \delta \sigma_{t-1},$$

$$\sigma_t^2 = \omega + \sum_{i=1}^p \alpha_i a_{t-i}^2 + \sum_{j=1}^q \beta_j \sigma_{t-j}^2$$
(16)

The coefficient δ is a risk premium parameter, whose positive value indicates a positive correlation between returns and volatility.

Finally, it should be noted that in modeling of the stock returns very good results can be achieved by asymmetric power GARCH (APARCH) model. It is complicated for practical application, and can be summarized by the following equation:

$$\sigma_t^\delta = \omega + \sum_{i=1}^p \alpha_i (|a_{t-i}| - \gamma_i a_{t-i})^\delta + \sum_{j=1}^q \beta_j \sigma_{t-j}^\delta.$$
(17)

Model APARCH next to the leverage effect has the possibility to use the fact that the serial correlation in absolute return values powered by δ is stronger than in the squared returns.

For selecting a suitable volatility model, it is very important to have a good estimate of the dynamics of conditional arithmetic mean of the corresponding ARMA model. After that, it is necessary to test the residuals of applied ARMA model, in order to determine the existence of heteroscedasticity. One of the most commonly used tests is the Ljung-Box test applied on the squares of residuals. Hypothesis of Ljung-Box test are as follows:

$$H_0 : \rho_1 = \rho_2 = \dots = \rho_L = 0,$$

$$H_1 : \rho_j \neq 0 \text{ for some } j = 1, 2, \dots, L$$
(18)

Statistics of Ljung-Box test are marked with $Q_{LB}(L)$, and are as follows:

$$Q_{LB}(L) = T(T+2) \sum_{j=1}^L \left(\frac{1}{T-j} \right) \hat{\rho}_j^2$$
(19)

The null hypothesis of Ljung-Box test is rejected if the p-value of corresponding $Q_{LB}(m)$ statistics is less than 5%.

After choosing a model for the movement of the conditional arithmetic mean, and after finishing volatility modeling, it is necessary to check the adequacy of the applied models. The way of choosing the best model depends primarily on the purpose for which model will be used. In the case that the primary purpose of the model is to determine the existence of certain effects within the examined time

series, one of the appropriate choices would be by comparing the basic and extended models. If we, for example, take the following two models:

$$\begin{aligned} \text{GARCH}(1,1): \quad & \sigma_t^2 = \omega + \alpha a_{t-1}^2 + \beta \sigma_{t-1}^2, \\ \text{TGARCH}(1,1): \quad & \sigma_t^2 = \omega + \alpha a_{t-1}^2 + \beta \sigma_{t-1}^2 + \gamma a_{t-1}^2 1\{a_{t-1} < 0\}. \end{aligned}$$

It can be concluded that TGARCH (1,1) model represents an expanded version of the GARCH (1,1). In the case that the coefficient γ is not statistically significant, extended TGARCH model would be reduced to its basic version of the GARCH. The choice between these two models can be performed in this case by setting the following hypothesis:

$$\begin{aligned} H_0 : \gamma &= 0, \\ H_a : \gamma &\neq 0. \end{aligned} \tag{20}$$

In the case that the observed coefficient is statistically significantly different from zero values, we may reject the null hypothesis and conclude that expanded TGARCH model is significantly better than the basic GARCH model.

For the purposes of the choice between models with different parameters (for example, between GARCH (1,1) and GARCH (2,2) model) three Information criteria are widely applied: Akaike information criterion - AIC (Akaike, 1974), Schwarz Bayesian information criterion - the BIC (Schwarz, 1978) and Hannan-Quinn information criterion-HQIC (Hannan Quinn, 1979). These criteria are functions of arithmetic mean optimal logarithmic credibility function, ζ , sample size, T , and the number of parameters k :

$$\begin{aligned} AIC &= -2\zeta + \frac{2}{T}k, \\ BIC &= -2\zeta + \frac{\log(T)}{T}k, \\ HQIC &= -2\zeta + \frac{2\log(\log(T))}{T}k. \end{aligned} \tag{21}$$

The first part of information criteria is the extent to which the model fits the observed time series, while the second part represents the penalties for the additional parameters. When selecting a suitable model, using these criteria, we prefer models whose information criteria have a lower value. It can be concluded that, compared with the Akaike information criterion, the BIC and HQIC have higher penalties for a large number of parameters, which means that these information criteria favor models with a smaller number of parameters.

THEORETICAL ASPECTS OF PORTFOLIO OPTIMIZATION

Modern portfolio theory was established by scientific work entitled "Portfolio Selection" by Markowitz (1952), which indicated that returns, or the risk of securities included in the portfolio, should not be considered individually, but in the context of the part of portfolio. Viewed in this manner, the risk of the portfolio decreases with decreasing correlation between related securities. The lower the correlation between the returns of the securities included in the portfolio is associated with higher benefits from the diversification of the portfolio risks. The graphical representation of the relationship of the correlation coefficient and portfolio risk is given in Figure 3.

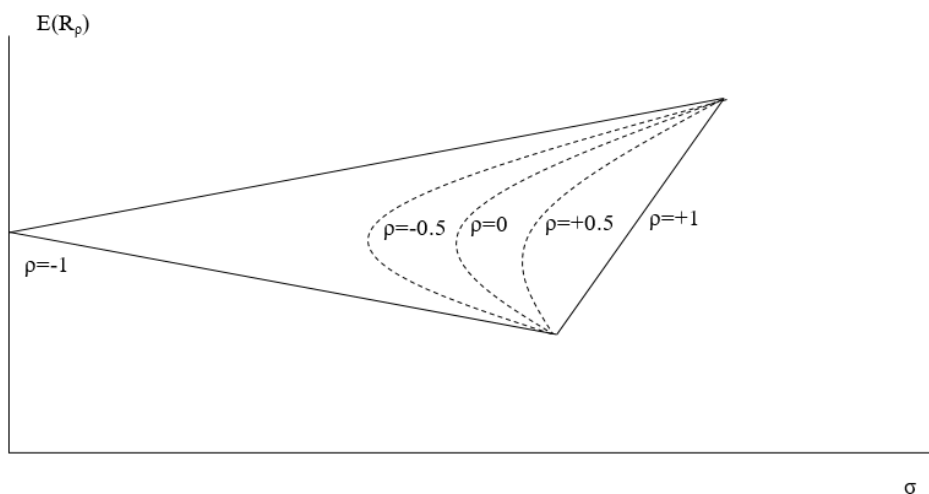


Figure 3: The relationship of the correlation coefficient and portfolio risk

Source: Authors' work

For each level of the expected return of the portfolio different combinations of the weight of individual securities can be specified, in order to minimize the total portfolio risk. A set of portfolios that have the lowest standard deviation for a given expected rate of return form the border of minimum variance. On the other hand, if one takes into consideration the assumption that investors have risk aversion, preferences of investors will be focused on portfolios that offer higher expected returns in the case of the same standard deviation. These portfolios create the efficiency frontier, which coincides with the upper half of the boundaries of minimum variance. An investor who has an aversion to risk will always choose the portfolio that is on the efficiency frontier, because every portfolio that is not on the efficiency frontier has a lower return for the same level of risk in relation to the portfolio belonging to the efficiency frontier. Portfolio having the lowest risk in

respect of all portfolios is observed at the beginning of the efficiency frontier, and is called the global minimum variance portfolio (GMV). Efficiency frontier and GMV portfolio are given in Figure 4.

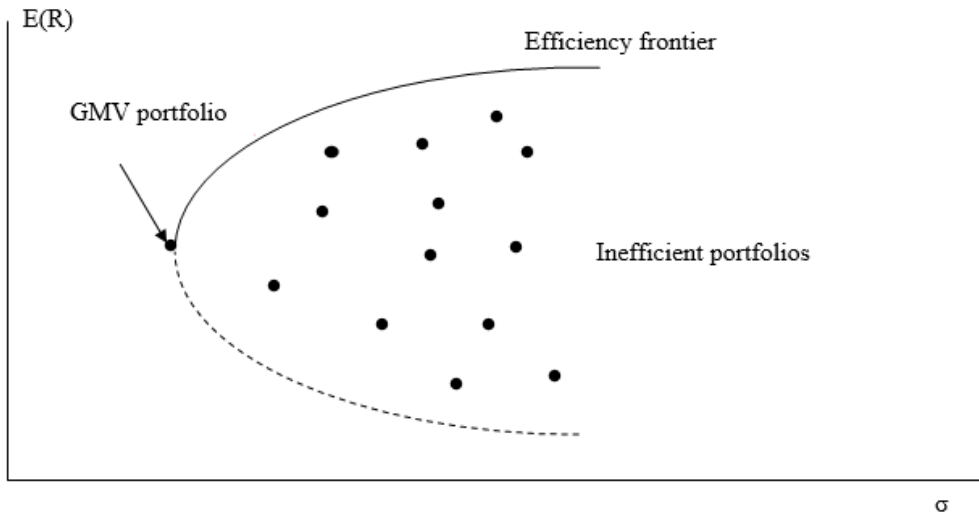


Figure 4: GMV portfolio and border efficiency

Source: Authors' work

Unlike Markowitz's portfolio, when optimization is performed with respect to portfolio risk here as the goals are set Value-at-Risk (VaR), and expected shortfall (ES).

VaR is a measure of the potential loss in the reporting period, arising from the change in the price of securities within the portfolio and estimated based on data from the past. The concept of VaR was presented first by company JP Morgan Chase (JPMorgan Chase Co.) in its publication Risk Metrics (1994) and can be represented by the expression:

$$VaR_{\alpha} = \inf \{l \in \mathbb{R} : P(L > l) \leq 1 - \alpha\} = \inf \{l \in \mathbb{R} : F_L \geq \alpha\} \quad (22)$$

where F_L represents the function of distribution losses. VaR can be explained as the smallest number l for which the likelihood of loss L is not greater than $1 - \alpha$ for losses greater than l . The main criticism of VaR value as a measure of portfolio risk is that this indicator is understated in terms of size of loss in cases when the loss was larger than expected for the chosen level of trust. In order to eliminate this deficiency, Artzner and others (Artzner et al., 1997; Artzner, 1999) defined the ES measure of risk, which aims to provide subsequent insight into the size of the expected loss in the event of a breach of VaR for a given level of confidence. Measure ES can be interpreted as the average value of VaR in the interval $(1 - \alpha, 1)$ and expressed as follows:

$$ES_{\alpha} = \frac{1}{1 - \alpha} \int_{\alpha}^1 VaR_u(L) du \quad (23)$$

Graphical presentation of VaR and ES risk measures is given in Figure 5.

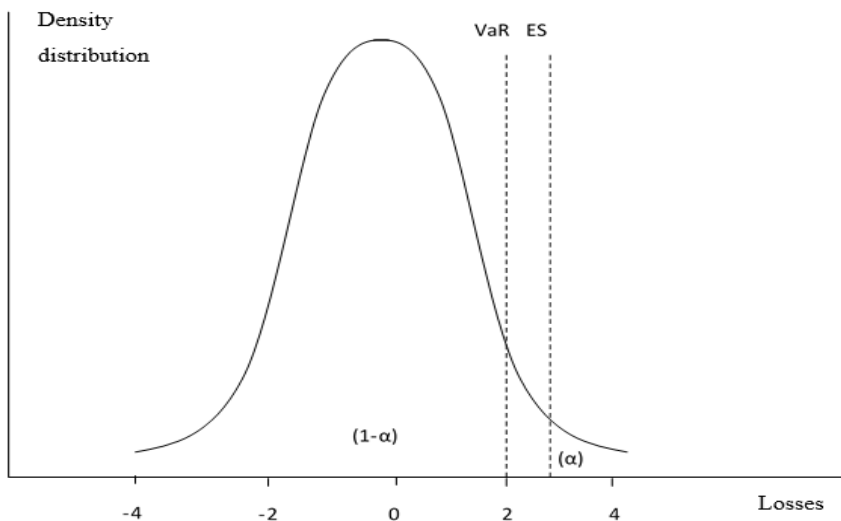


Figure 5: Graphical presentation of VaR and ES risk measures

Source: Authors' work

The need for minimizing risks in managing securities portfolio resulted in the development of numerous methods to optimize the portfolio. One way of optimizing is the use of conditional value at risk (Conditional VaR, CVaR). Conditional value at risk can be defined as the expected value exceeding the VaR for a given level of confidence (Uryasev, Rockafellar, 1999).

Defining CVaR requires the presentation of certain theoretical concepts. Let $f(\omega, r)$ be a loss function associated with a decision vector ω of length N , while r is the vector of returns of length M . When it comes to the application of CVaR in the analysis of the securities portfolio, ω can be thought of as a portfolio, or a subset of Ω , the set of all the available portfolios. The possible existence of risk free return causes a difference in the lengths of decision vectors and vectors of returns. The probability function of a loss lower than the threshold L can be represented by the expression:

$$\psi(\omega, l) = \int_{f(\omega, r) \leq l} p(r|\omega) dr \tag{24}$$

This function represents the cumulative distribution function of the losses associated with ω . Given that it fully explains the behavior of ω , $\Psi(\omega, l)$ is of fundamental importance for the determination of VaR and CVaR. Defining CVaR function in this case boils down to defining the limit values l . If the value of l took the VaR for a given confidence level α , and performance functions CVaR is

represented by $\frac{1}{1-\alpha} \Phi(\omega)$, we will have the function:

$$\Phi(\omega) = \int_{f(\omega, r) \geq VaR(\omega, \alpha)} f(\omega, r) p(r|\omega) dr \quad (25)$$

Minimizing the above functions can be represented as the minimization of functions:

$$F(\omega, y) = (1 - \alpha)y + \int_{f(\omega, r) \geq y} (f(\omega, r) - y) p(r|\omega) dr \quad (26)$$

The optimal value of y is equal to the value of VaR, resulting in optimization of the above functions to provide the optimal portfolio in terms of minimization of conditional risk values.

The advantage of CVaR compared to the VaR is in its convex shape and the sub-additivity (Rockafellar and Uryasev, 2000). Conditional risk value itself is not coherent measure, but together observed, CVaR and ES are coherent. Practical tests have shown that, due to the fact that VaR does not exceed CVaR, minimization of CVaR usually leads to approximately optimal solution when it comes to VaR. This feature is especially prominent for the normal distribution of returns, when it comes to equalization of CVaR and VaR. Portfolios with low CVaR therefore often have low levels of VaR, too. Differences in stated values increase with increase of skewness of return distribution.

Another way of forming the optimal portfolio is a method presented by Chekhlov et al. (2000, 2004, 2005), in which the optimization is conditioned by downs of portfolio value (Conditional Draw-down, short CDAR). Motive for CDAR portfolio optimization is to avoid significant falls in the value of the portfolio, as well as downs that can occur over a longer period of time. The decline in value of the portfolio at time t can be defined as the difference between the maximum value of the portfolio at time t and the value of the portfolio at time t , as shown in the expression:

$$D(\omega, t) = \max_{0 \leq \tau \leq t} \{W(\omega, \tau)\} - W(\omega, t) \quad (27)$$

Where $W(\omega, \tau) = \mathbf{r}'_t \omega$ the value of the portfolio at time t , ω is the vector of weights of the securities in the portfolio, while \mathbf{r}_t are cumulative returns. CDAR portfolio optimization in this case comes down to the minimization of functions:

$$F(\omega, y) = y + (1 - \alpha)^{-1} T^{-1} + \int_{D(\omega, t) \geq y} (D(\omega, t) - y) dt \quad (28)$$

where y represents a threshold value of falls in the value of the portfolio, such that only the $(1 - \alpha)T$ number of observations exceeds the value of y .

RESEARCH PROCEDURE

Research was conducted on four regional indices: Belexline, Crobex, Sbi Top and Monex, spanning the 5-year period from 12.01.2010 to 30.12.2014. All series were synchronized, and cleared of non-available data. ARMA models were applied

for the purpose of modeling return series, combined with GARCH models which were used for modeling the volatility. Depending on the characteristics of the studied series, different asymmetric and symmetric GARCH models were applied, in order to capture the leverage effect, as well as to examine the existence of risk premiums. All models are rated according to the values of AIC, BIC and HQ information criteria. In order to conduct the research, we were guided by the research on statistical software conducted by Njegic & Petronijevic (2014). Therefore, we choose to use EViews 9.0 software program to measure information criteria for all examined ARMA-GARCH combinations, and statistical language R 3.2.2 for GARCH modeling, results combining in process of linear programming, and portfolio construction. Based on the obtained results, for the aforementioned indices, we can conclude the following:

For BELEXline index all three information criteria suggested ARMA(1,1) as optimal. It was not observed statistically significant leverage effect, or the risk premium effect. As optimal for this index has proved to be ARMA (1,1)-GARCH (1,0) model with Student's distribution.

Akaike information criterion picked ARMA(2,2) as optimal. On the other side, both BIC and HQ information criteria suggested that there is no need for usage of ARMA models. Modeling CROBEX index showed a statistically significant leverage effect. Therefore, ARMA (0,0)-EGARCH (2,1) with Student's distribution was depicted as the optimal model for CROBEX index.

Regarding Sbi Top index, although AIC suggested ARMA(0,1) as optimal, we decided not to use ARMA model, since it was suggested both by BIC and HQ information criteria. Also, we did not find statistically significant leverage effect. Therefore, ARMA(0,0)-GARCH(1,0) with Student's distribution was chosen as an optimal model for the movement of this index.

None of three used information criteria showed the need for the usage of ARMA model. Also, MONEX series did not show characteristics of the series with leverage effect, which was the reason for electing ARMA(0,0)-GARCH(1,0) model with Student's distribution as the optimum model.

For the basic benchmark portfolio we used equally weighted (EW) portfolio, which implies equal representation of all four indices during the whole research period. In order to obtain static portfolio weights, rebalancing is allowed on daily basis. Also, we used Global minimum variance (GMV) portfolio, with weights determined on the basis of Markowitz portfolio optimization. Third benchmark was Conditional Value at Risk (CVaR) portfolio, in which weights are determined by the principle of minimizing the conditional risk level, where the VaR can be defined as a measure of the potential loss in the reporting period, arising from the change in the price of securities within the portfolio and estimated using data from past, while the conditional value at risk is the expected value exceeding the VaR for a given level of confidence. Finally, we presented the portfolio constructed by usage of selected ARMA-GARCH models. All the mentioned portfolios were allowed for long-only positions, rebalancing was conducted on daily basis, and transaction costs were not taken into account. Also, available capital was fully utilized at all times.

Selected models are different for each series, in order to investigate the possibility of applying different models, tailored to each series in particular, for the creation and optimization of the portfolio in terms of risk and return. Portfolio was created by using the rolling method. This methodology involves determining the window within which a particular model is applied, after which the forecast is conducted, and the results are recorded. From the obtained results series of expected returns and expected shortfalls are constructed. Based on the study of series of anticipated returns and series of the expected conditional variances, optimal portfolio weights were determined by the method of linear programming. The method of linear programming promoted Kantorovich (1940) and it represents the mathematical technique of linear optimization of objective function with linear constraints of equality and inequality, and can be represented by the following formula:

$$\max \{c^T x | Ax \leq b \wedge x \geq 0\}. \quad (296)$$

These series are combined in linear programming function in the following manner:

- Asset weights for portfolio are determined by maximization of expected returns on each day;
- Constraints regarding weights are that lower bound for each asset is set to 0.1, while upper bound is set to 1;
- In the case that all available capital is not utilized, additional capital invested in each asset is determined based on criteria used for CVaR portfolio, which means that additional weights are determined by the principle of minimizing the conditional risk level, and these weights are added to the weights determined by the abovementioned procedures.

After that, the period is shifted one day ahead, and the whole process is repeated.

In the case of portfolio optimization in this study, the function which is optimized by linear programming method can be represented by the following inscription:

$$\begin{aligned} & \min \{RE_1x_1 + RE_2x_2 + RE_3x_3 + RE_4x_4\}, \\ & ES_1x_1 + ES_2x_2 + ES_3x_3 + ES_4x_4 \leq 1, \\ & x_1, x_2, x_3, x_4 \geq 0.1, \end{aligned} \quad (307)$$

if $\sum_{i=1}^4 x_i < 1$, then $(1 - \sum_{i=1}^4 x_i)$ allocation is conducted

on the basis of optimal CVaR portfolio construction

where ES1, ES2, ES3, ES4 are expected conditional variances and RE1, RE2, RE3 and RE4 predicted return values of BELEXline, CROBEX, Sbi Top and MONEX, based on the selected ARMA-GARCH models. The risk and performance of the observed portfolios are measured by the following measures: 95% Value-at-Risk, Estimated shortfall, Sharpe ratio, Standard deviations and Annualized returns.

RESULTS AND CONCLUSION

First measure used for comparison of observed portfolios is 95% Value-at-Risk. The Equally Weighted portfolio was set as the basic benchmark in the research. Since EW portfolio is obtained without usage of any portfolio optimization strategy, it was expected for this portfolio to show the lowest results regarding risk and returns indicators. Results for 95% VaR from the Table 3 show that at 5% probability the largest amount can be expected to be lost in EW portfolio (-0.612027814). Significantly smaller Value-at-Risk showed GMV (-0.549732711) and CVaR (-0.558177569) portfolios. Portfolio which we constructed by utilizing GARCH models showed very good 95% VaR results (-0.549119398), which were far better than the one of EW portfolio, and very close to the results of GMV and CVaR, in the advantage of GARCH portfolio.

Table 3. Risk measures and measures of ability to generate capital of observed portfolios

	GARCH	EW	GMV	CVaR
Value-at-Risk 95%	-54.9119398	-61.2027814	-54.9732711	-55.8177569
Estimated Shortfall	-70.4719796	-77.9757083	-70.2016854	-71.2858588
Sharpe ratio	16.9847892	11.9868001	13.6124731	13.6684498
Standard deviations	0.3731769	0.4022656	0.3652235	0.3709719
Annualized returns	17.1083398	12.6879718	13.1540889	13.4306307

Source: Authors' work

Similar results were obtained for the estimated shortfall measure. EW portfolio underscored significantly with ES of - 0.779757083, while GMV, CVaR and GARCH portfolios had again very similar results: -0.702016854; -0.712858588; -0.704719796 respectively.

Finally, we calculated portfolio standard deviations as a measures of portfolios riskiness. As expected, the lowest results showed EW portfolio (0.004022656), while GARCH portfolio (0.003731769) had slightly worse, but quite similar standard deviation comparing to both GMV (0.003652235) and CVaR (0.003709719) portfolios.

Regarding the portfolios' abilities to generate capital, GARCH portfolio has proven to be far superior compared to all three other portfolios. The lowest annualized returns, as expected, proved to have EW portfolio, with only 0.126879718. Returns of GMV and CvaR portfolios have a bit higher, but very similar values (0.131540889; 0.134306307), which is not a surprise since the optimization of these portfolios is focused on risk management, not on generation of capital. On the other hand, the annualized returns of GARCH portfolio are 0.171083398, which is 26–35% higher than the returns obtained from aforementioned three portfolios. The abilities of observed portfolios to generate capital are presented on Figure 6.

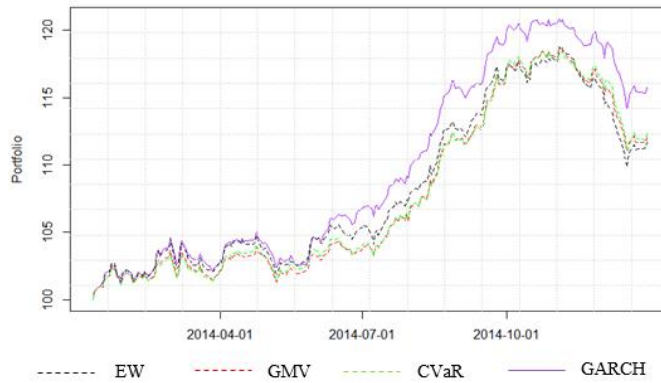


Figure 6: The abilities of observed portfolios to generate capital

Source: Authors' work

With similar standard deviations, but significantly higher annualized returns, GARCH portfolio proved to have higher risk/reward ratio. For the quantification of this relationship we used Sharpe ratio, which proved that GARCH portfolio provides highest excess return per unit of risk (16.9847892), while the lowest Sharpe ratio belongs to EW portfolio (11.9868001). GMV and CVaR portfolios have similar Sharpe ratios (13.6124731; 13.6684498), little bit higher than EW, but significantly lower than GARCH portfolio. All the examined measures are graphically presented by Figure 7.

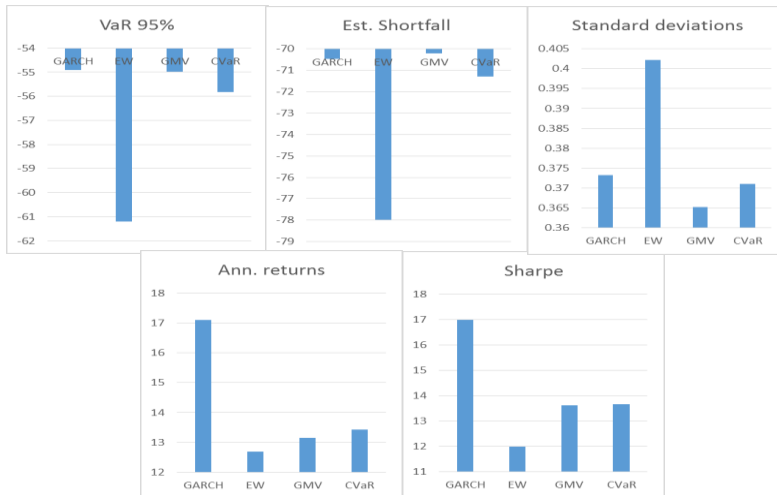


Figure 7. 95% Value-at-Risk, Estimated shortfall, Sharpe ratio, Standard deviations and Annualized returns of observed portfolios

Source: Authors' work

Some research conducted in regional markets showed that global crisis had strong impact both on global market, as well as on the performances of regional funds (Korenak et al, 2014; Miletic et al, 2014). These results imply that additional attention should be paid to risk management in the future.

We believe that this research could be beneficial for both individual and institutional investors. The further research of volatility modeling and its application in portfolio optimization could lead to the improvements both in risk management and the portfolios abilities to generate capital. Therefore, we believe that it would be interesting to examine some additional characteristics of individual series. Further research could include parameters for seasonal and weekend effects in the model. Structural breaks could be examined in order to identify additive and innovative breaks in observed series. Also, the application of multivariate models should be taken into consideration, as well as some tests for serial cointegration. Finally, it could be very interesting to try to include the abovementioned models in neural network environment, in order to try to construct applicable self-learning model.

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THE ROLE OF MOBILE BANKING IN DEVELOPING BANKING SERVICES

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ABSTRACT

The subject of this work is the development of electronic banking as a new way of providing banking services through means of electronic communication, especially the Internet. The modernization of the banking business and the application of modern systems for electronic banking (ATM, internet banking, and mobile banking) and electronic payment instruments (payment cards, e-check, and e-cash) significantly raised the level of services in the banking sector. Mobile banking is the latest trend in electronic banking. Mobile banking involves the expansion in the field of electronic banking from wired computers, to wireless computers - PDA (Personal Digital Assistant), and telecommunications by using mobile phones. The use of different applications on personal computers and mobile smart phones facilitates access to information and reduces the gap between customers and banks.

Key words: *Electronic Banking, Mobile Banking, Electronic Money, Services, Protocols*

JEL Classification: *G2, L86*

UDC: *336.71:[007:004*

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INTRODUCTION

In today's world of globalization and the increasing interrelatedness and interdependence of national economies, the use of modern information technology is of great importance for a successful business. The development of modern telecommunication technologies, closely associated with the development of the Internet, the networking of businesses and public administration, all of them have greatly enabled a simpler and more efficient operation of business systems. At the global level, it allows for quick and easy communication, the transmission of large amounts of information almost instantaneously at a distance, the availability of multimedia content, their easy publishing and updating, creation of virtual organizations, the possibility of organizing conference meetings "at a distance" and the like.

In the banking sector, modern technology has enabled banks to create and offer new types of banking products and services and thus improve competitiveness in the rising market competition, particularly in deposit and lending operations, and it also enabled banks to reduce their operating costs.

The introduction of new electronic banking services increased the speed, quality and efficiency in the performance of banking services. Banks are thus able to attract new users for their services with the possibility of reducing the cost of transactions, thereby increasing the number of transactions and increasing the profits.

The basic problems of electronic banking transactions are security issues and the lack of adequate legislation.

The application of IT in banking sector opened up possibilities for new forms of risk. The rapid development of electronic banking potentials carries certain risks with it. Therefore, the provision of adequate security appears as a separate critical factor in the operation of electronic banking. The essence of the security issue of modern e-banking systems comes down to the risks of breaches in data security and identities of subjects, with the relative importance of the relationship between the mentioned elements.

THE EMERGENCE AND THE DEVELOPMENT OF ELECTRONIC BANKING

Historically speaking, telegraph payment system, which was developed by the *Federal Reserve Banks* in the United States, can be characterized as the first system of electronic money transfer.

The automation of banking started in the 60s of the last century. The first to appear were ATMs (*Automatic Teller Machine*) and EFT/POS terminals (*Electronic Fund Transfer at Point Of Sale*).

The first phone services have emerged at the beginning of the 80s. Although they started to be massively applied, their biggest constraint was insufficient security, given that they used public networks vulnerable to eavesdropping.

This method of bank operations with the clients remained until today but with significantly changed conditions of enhanced security.

During the 80s of the last century the United States and some Western European countries began applying some home banking services (*Home Banking*). Since 1995, the advent of the Internet brought the development of Internet banking, primarily the expansion of banking services over the Internet (*e-banking*) which led to a decrease in queues on bank counters and reduced transaction costs.

The emergence of mobile phones presented a new step forward in the development of electronic banking. Mobile phones, pagers and personal digital assistants (PDAs) have enabled financial institutions to offer banking, brokerage and insurance services to the market. The development of mobile banking was forceful.

Bank of America was the first bank that, in October 1999, introduced banking services via PDA (*Personal Digital Assistant*) device Palm VII. In the same year, in December, *Harris Bank* offered its clients the use of banking services via the mobile phone model Sprint PSC. Along with banks, broker companies enabled wireless trade in shares through mobile phones and PDAs. Thus, the Boston brokerage firm, Fidelity Investments, in a very short time, registered close to 20 000 service users to trade shares with their *Instant Broker* service.

Technologically developed GSM network in Europe had enabled the rapid development of mobile banking in Europe compared to the rest of the world. „This was contributed by the creation and implementation of a single pan-European digital GSM standard, which presents unique technical standard for second generation of wireless telecommunications“ (Bach 2001).

By accessing electronic banking services via computer and phone, the user is allowed to access a variety of banking services:

- ordering checks
- printing statements on the account balance and changes,
- buying and selling of shares
- access to a variety of information that can be related to general information on banks operations, their services, the exchange rates, stock prices, etc.

Accelerated manipulation of the documents was the next consequence of the Internet implementation in banking sector. ETF system (*Electronic Fund Transfer*) allows replacement of paper transactions with electronic transactions. Money transfer is done electronically without the use of paper documents. Data is processed with a computer and then forwarded further.

Banking service users also have benefits from such transaction systems. ETF system enables faster, more accurate and less expensive financial transactions. On the other hand, there are certain limitations in the application of this system which are reflected in initial costs for equipment installation, slow changes of acquired habits, changes in legislation etc.

In Serbia, electronic business is not yet sufficiently developed although there is some progress, especially in the legal regulation of this area with the adoption of the Law on Electronic Signature, the introduction of e-healthcare and e-government, and the entrance of e-business in the National Strategy for Information Society Development, which sets the basis for the development of electronic business in general. Underdevelopment of electronic banking implementation in Serbia is largely a consequence of the lack of awareness of the benefits and concessions that electronic banking offers, and, consequently, the state institutions, in cooperation with banking sector, should conduct training of individuals.

Other causes of poor application of electronic banking in Serbia can be found in the facts that:

1. There is a large number of computer illiterates
2. Many simply do not like to use advanced technology or are afraid that they will make an irreparable mistake in the Internet transactions.
3. For many, there is concern about the insufficient data security and business privacy
4. The lack of adequate legal regulations in the field of electronic banking
5. Slow and bad internet connection with the banks is also one of the reasons why many return to traditional ways of doing banking transactions
6. The use of Internet in Serbia is still relatively expensive and for the poor citizens it is still a luxury

ELECTRONIC MONEY AND ELECTRONIC PAYMENT SYSTEM

A system for payments via mobile devices is a specific segment of mobile banking. Generally, the purpose of introducing the payment system by electronic means was to overcome the limitations of paper-based payments and to use modern technology in the business.

„Electronic money is specific monetary information that is transmitted in real-time, via electronic impulses between the transactors who make payments.“ (Jakšić et al., 2010, pp. 185).

The emergence of electronic money has produced an entirely new approach to banking business, which is based on the electronic exchange of data and funds (EFT *Electronic Funds Transfer*). The aim of e-banking is efficient and faster transfer of funds and data regardless of geographic distance. This increases the competitiveness of banks, enriches the offer, reduces costs and ensures greater security and reduced operational risks.

Electronic money represents a virtual way to exchange material resources through networks of telecommunications infrastructure. Basically, electronic money is a numerical system that is placed in the computer's memory and can be transferred instantly over long distances. All of this allowed for the creation of so-called "smart cards".

In essence, there are two types of electronic money: identified and anonymous. The identified electronic money represents the e - money which contains information about the identity of the user who handles it, and it leaves a record of the flows through which it circulates on the market, so it is easy to trace it. On the other hand anonymous e-money, like paper money, leaves no trace of its movement, i.e., there are no records of transactions through which money circulates.

Another differentiation of e-money could be made, on the basis whether transfers create an online connection with the bank or the transfer is performed without the direct influence of the bank.

The costs of electronic money transfers over the Internet are much lower compared to the costs of transactions carried out in the traditional way. The traditional method requires adequate infrastructure and the involvement of workforce. As electronic money uses the existing Internet network, in order to complete the transaction a user requires only personal computer, and the costs of banking transactions are much lower while the banking commissions are equal to zero.

BASICS OF MOBILE BANKING

In the past two decades, the telecommunications industry invested heavily in the development of wireless technology which is the next direction in the development of the Internet. Unlike conventional Internet access, wireless technology allows users to have the information always available, no matter where they are, WAP (Wireless Application Protocol) connects the mobile world and the Internet wirelessly, thereby enabling anytime - anywhere communication.

Wireless Internet access is the next direction in the development of the Internet. Some compare this trend with rise of the Internet in the early nineties. The telecommunications industry which is one of the most profitable industries, invests huge money in the development of wireless infrastructure and wireless applications. The main reason for that is the enormous growth in sales of mobile devices.

With the development of wireless technology, mobile phones and other portable devices equipped for mobile commerce, occupy an important place in the system of electronic business. Mobile phone is a device that is widely available, it is not limited to the location and requires relatively small amount of funds for the purchase and use. The emergence of mobile phones and mobile technology in general has opened new channels for distribution of financial products and

services, so today, financial institutions are increasingly able to offer banking, brokerage and insurance services via mobile phone. Along with other modern technological advances, the way and the nature of the promotion of products and companies in the global market is also being changed. M-commerce transactions are oriented towards online shopping through Web sites. Mobile phone provides the ability for searching and selection. The consumer has the ability to pay for micro transaction using a mobile phone with electronic cash.

With the development of wireless devices, mobile commerce takes precedence in electronic commerce. It provides the potential consumers with the ability to buy goods or order services at any time. M-commerce transactions are oriented towards Web sites, online purchases, in which mobile phones have the ability for searching and selection. The consumer, using a mobile phone with electronic cash will be able to pay for micro transaction.

Mobile users can pay bills for transportation, fast food and the like. Companies can continuously advertise their products and services by broadcasting promotional messages and thus trying to draw the attention of users and bystanders.

The system of mobile banking is based on transactions carried out between the user - network provider - a bank or other financial institution - merchant. Transactions can be carried out via laptop, mobile phone, tablet or other portable device that is equipped with special software for mobile Internet access.

The most important participant in the transaction is the user. The user must possess a particular mobile device that connects to the network. Network operator accepts a signal which user uses to send a request to perform certain transaction or to demand specific information, and that request is forwarded further. The task of the network operator is to provide interconnection between all participants as well as accessibility to other networks (roaming).

A financial institution is an intermediary in the transaction and it has the largest responsibility because it has to ensure full security of the transaction, to provide user authentication, check account balances and to issue an approval or reject the transaction.

The merchant (trader) or service provider is the last participant in the business and its mission is to provide goods or services that will be charged through the mobile service.

There is a broad range of products and services that financial institutions can offer to their customers through mobile banking, and they can be grouped in the following way:

- insight into the current account balance, review of the executed transaction orders, an electronic copy for printing as well as an overview of unrealized checks (floats)
- insight into account balance and transactions executed through a payment card,
- information related to foreign currency and dinar savings, information on interest rates and maturities of savings or term deposits,

- a variety of information on loans and borrowings, the total number of installments, installment amount, maturity date, the full amount of funds paid, remaining outstanding liabilities, etc.
- information related to the exchange operations, overview of currency lists, purchase and sales of currencies from foreign currency accounts, transfers to dinar account, etc.
- monetary transactions that can be made from your own current account to any account, for example payments of utility bills.

SERVICES AND PROTOCOLS OF MOBILE BANKING

Since electronic business, and therefore electronic banking is based on the application of the Internet, electronic banking (e-banking) represents a special, increasingly important segment of application of modern technologies based on information and communication technologies in the sphere of business and banking.

The modern development of mobile devices that can access the Internet (PDAs *Personal Digital Assistants*), mobile phones, etc..) along with the development of wireless networks and related infrastructure had enabled easier business environment for its users.

Mobile banking is the next step in the development of electronic banking, where mobile device is used as a delivery channel for financial products and services. Broadly speaking, mobile banking represents the execution of any transaction through a wireless communication network. The application of mobile banking transactions decreases operating costs as it allows banks to reduce the number of its branch offices or employees without sacrificing the quality of their services.

The application of mobile banking can be done through different technologies: WAP (*Wireless Application Protocol*) SMS system, Java platforms, iMode technology, smart cards and many others. SMS and WAP services are most widely applied, while smart cards technology has the fastest development and expansion in banking transactions.

The use of electronic devices to access banking services enables clients to make desired transactions from almost any place at any time, eliminating a restriction of Internet access through desktop computers at home or in the workplace.

THE WAP PROTOCOL

Since 2000, almost every GSM device has the ability to access the Internet via the internal modem and WAP protocols. Protocol for Internet access through 2nd generation mobile devices (GSM) is called WAP (*Wireless Application Protocol*), while GPRS and 3G access is performed by packet switched data networks, which brings second and third generation networks very close to the classic Internet. „Thanks to these technological innovations, there are new possibilities for banks and other financial institutions to expand their product offerings, to include banking, brokerage, and insurance services through mobile phones, thereby increasing customer loyalty and employee productivity” (Mladenović, Jovanović, 2007, p.194.).

Mobile business infrastructure is shown through:

- The set configuration of the wireless WAN modem, wireless LAN adapter or wireless *metro-area network* adapter.
- Web server with wireless support, WAP *gateway*, communication server, and/or a mobile *communications server switch* (MCSS).
- The application database or database server with the application logic and business application database that provides e-business functionality.
- GPS locator that is used to determine the location of the person who carries the mobile computing device.

The base of WAP technology is WML (*Wireless Markup Language*), which has properties and structure similar to HTML and XML languages. In order to use the Wap standard, it is necessary to install a micro browser on the mobile device. All necessary applications are on the WAP server and, if necessary, they could be sent to mobile phone and displayed in micro browser. The user, by means of WAP protocol on the mobile phone, sends the request to WAP *gateway* server, which forwards the request on to the regular HTTP web server. The request is then returned from the HTTP server to the gateway server either as WML or as a classic HTML code. *Gateway* server further converts the requested information to WML and then sends it to the WAP client i.e. mobile phone via SMS or some other available system for the transmission of messages.

WAP protocol provides its clients with the possibility to check e-mails or access the database through the Internet. Ease of use, compatibility with most wireless networks and ease of development made mobile technology based on WAP protocol widely accepted in the banking business, making it basic technology for mobile banking systems for a long time. However, high data transfer rates (prices) made WAP service less affordable so that clients primarily oriented themselves towards the use of less advanced but also less expensive technologies, primarily SMS services.

WIRELESS POS TERMINAL

Cash transactions in trade and service industries are usually performed via a wireless POS terminal that works on the principle of terminal connected with the home base provider via GSM (*Global System for Mobile Communication*) system. Connection with a bank is performed through a connection of POS terminal via telephone line. The system functions by POS terminal connecting to the processor, and exchanging the data. After the magnetic card goes through the POS terminal, if everything is correct, the amount of purchase is entered. POS connects with the Authorization Center via the telephone network and verifies data from the card and the account balance. After verification, the data is returned with the approval or rejection for the requested transaction. Then two copies of the receipt are printed, one of which is signed by the user and remains with the merchant, and a second receipt that goes to the user. At the end of the working day a recap of daily transactions is performed.

There are interests of all participants in the transaction for the application of these systems. Shops enhance customer service, accelerate the turnover of funds, reduce paperwork, and reduce the risks of abuse of check payments. Customer conducts transactions faster, reduces the risk and concern about carrying and using cash, and eliminates the use of checks

SMS SERVICE

Application of SMS services in banking business is based on short text messages. The client sends a request for certain information or service to the bank via SMS. The system responds to the request by SMS message with the requested information. Thanks to the easy accessibility and low cost of services, SMS banking has become the most accessible form of mobile banking.

One of the attempts to overcome the limitations in the use of WAP and SMS systems, to increase flexibility and to offer additional banking products and services is the SIM Application Toolkit. It was approved and included in the GSM standard. SIM Toolkit provides greater flexibility in relation to the existing SIM cards. Client is able to update the card content on a special GSM SIM card, which provides greater ability to change the existing and add new services. Sim Toolkit is a blog dedicated to users that require a higher degree of banking transactions security.

SMART CARDS

When, in September 2003, mobile operator in South Korea offered mobile banking services based on smart cards, there was a revolution in banking. The essence of this technology is that the information about the bank account is encrypted on a smart card microchip. This allows users to quickly and securely access their bank accounts. The security of transactions is further ensured by a special code (similar to a PIN code) issued by the bank that needs to be entered before each transaction. This is the first example of cooperation between banks and mobile operators.

„Smart cards can be used like a credit or debit card that allows you to perform off-line transactions.“ (Stankić, 2008, p. 109.). Its use is possible only by using the appropriate terminal for each transaction. The terminal has a microprocessor that is used to authenticate the user and to carry out the payment. In addition, the terminal does not necessarily have to be on line and connected to the central computer.

The main advantage of using smart cards is that they can be used both in real and in virtual world. This payment system is based on the EMV standard and it is most developed in France. It consists of integrating the external connector for smart cards to mobile phones. Consumer orders the goods over the phone and pays by inserting a card into the appropriate slot on the phone. Over time, the EMV technology expanded and evolved into a NFC technology based on contactless smart cards where the card does not have to be inserted into mobile phone, it just needs to be near it.

Using smart cards is also justified from the viewpoint of data security. In fact, the concept of magnetic cards that allow you to make transactions at ATM and POS terminals and cashless payments were quickly proved as a cost-effective technology which is easy to use and therefore this payment network has very quickly branched out and expanded globally. There was a sharp increase in number of users of magnetic cards and in geographical coverage from year to year.

However, as the network of ATM and POS terminals spread, thus the risk of misuse increased. Magnetic tape is not able to provide adequate protection against theft of sensitive data. Scams have become more sophisticated and were performed remotely via wireless micrometers, false keypads for PIN entry, and phishing websites. Another limiting factor of the magnetic card is the inability for one card to contain multiple applications. A solution to the above problems and limitations was found in the application of smart cards. The memory on the chip enables storage and execution of a larger number of payment (*debit, credit*) or non-payment applications (*loyalty*) on a single card.

From the above, it can be concluded that there are a number of aspects that favor the technology of banking business based on smart cards.

- The chip provides the ability to store large amounts of data and use a large number of applications compared to the magnetic card, whereby the banks

are enabled to provide additional services that are not related only to payment services

- Safety and security is at a much higher level with smart cards
- It easily adapts to new technological solutions

STATUS AND PROSPECTS OF MOBILE BANKING IN SERBIA

Fast development of mobile telephony in Serbia made Serbia fertile soil for the development of mobile banking. The vast majority of banking service users is using mobile phones in their everyday life. According to data from the 2014 survey, 90.6% of the population or over 5 000 000 persons use mobile phone while the figure for 2013 was 87.0% (Statistical office of the Republic of Serbia, 2014).

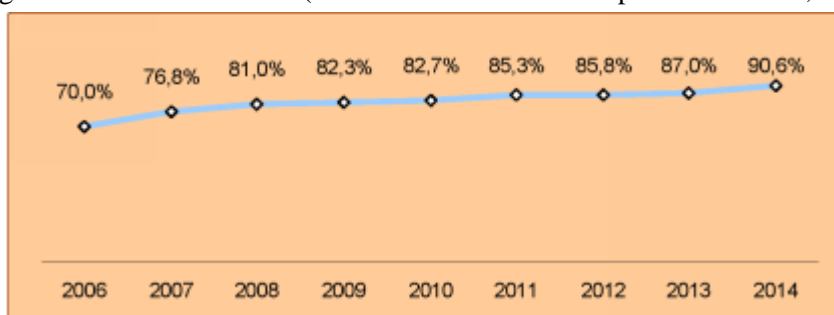


Figure 1: Number of mobile phone users in Serbia in the period 2006 - 2014

Source: Republic Statistical Office, 2014, pp. 22

Among mobile devices used to access the Internet, most connections are made via mobile phones over Wi-Fi networks 36.7%, 28.6% via smartphones, and 27.8% via mobile phones over GPRS or 3G networks. The same survey showed that 13.5% of Serbia's population uses the Internet to access banking services, of which about 50 thousand used mobile banking services (Statistical office of the Republic of Serbia, 2014, pp.27).

„Some studies show that less than half of the respondents had information about m-banking services in domestic banks, with about 1/5 of respondents expressed interest in using this type of services.” (Hadžić, Mladenović, 2014, pp. 129.).

Given the huge potential for use of the mentioned banking services through mobile technology, this banking sector in Serbia has not yet developed to a large extent and it boils down primarily to SMS banking services. Mobile payment (*m-pay*), Bluetooth solutions payments (*bluetooth pay*) and mobile cash (*mcash*) are still in their infancy.

The most common channel for mobile banking is SMS. SMS messages were initially used to receive information about the account balance, credit limit, the number of unrealized checks (floats), transactions carried out from the account, deadlines for settling the credit card debts.

Since 2006, the SMS channel is also used for issuing payment orders, and already in 2007 the majority of banks included the service for mobile payments in their offer. Due to the positive response from customers to the prepaid credit purchase for mobile phones, telecommunication companies have introduced the ability to pay postpaid bills as well. Today, the citizens have the opportunity to use mobile phones to pay parking, a number of administrative fees, birth certificates and marriage certificates and others.

Mobile banking has not yet taken its place in banking services of Serbia, having in mind its great potential, and it is mainly limited to SMS banking services, i.e. mobile short messages. Services of mobile payment (*m-pay*), Bluetooth payments (*bluetooth pay*) and mobile cash (*mcash*) would be a logical extension, but they are still in their infancy.

Table 1: SWOT analysis of mobile banking in Serbia

Strengths	Weaknesses
<ul style="list-style-type: none"> - without time and space constraints - security - coverage of all mobile network operators, - speed - ease of use - no commission - widespread Internet access 	<ul style="list-style-type: none"> - the lack of records for checks and credits, - lack of standing orders and records, - insufficient information, for potential users, - the application only works with the Internet, - internet not available in all parts of the world, - aversion to innovation.
Opportunities	Threats
<ul style="list-style-type: none"> - expansion of smartphones, - a large number of Bank customers - reducing the cost for the bank and for the user 	<ul style="list-style-type: none"> - difficult economic situation in the country, - the emergence of cybercrime

Source: Hadžić, Mladenović, 2014, pp.128.

According to the latest data from the NBS, from a total number of 8.4 million bank customers, only just over 81 thousand use the benefits of mobile banking (below 1%), with a growing trend, which is an indicator of domestic banks' efforts to attract as many users to use mobile banking and it also indicates a huge potential for growth of this form of banking services (Hadžić, Mladenović, 2014, pp.129.).

THE RELATIONSHIP BETWEEN BANKS AND OTHER NONBANK INSTITUTIONS THAT WORK IN MOBILE BANKING

The development of mobile banking enabled telecommunication companies to provide their technical - operating assets, to enter the banking market and thus in some way become a part of the banking system by doing jobs similar to banking. Thus, for example, when purchasing a prepaid credit, it is necessary that the user deposits his real money in order to obtain the electronic equivalent, which will later be reduced by the operator for the amount of minutes talking, executed transactions or sent messages.

With postpaid accounts, the situation is slightly different because the calculation and payment is performed mainly at the end of the month, which could be interpreted as lending to the user by the mobile operator. Mobile operator has the freedom to handle relations with their customers by means of a contract. Some mobile operators charge their users with the interest on the unpaid portion of the debt and enable repayment of debts in monthly installments which already goes to the domain of lending operations. On basis of all this, we have right to question the treatment of mobile operators in relation to the banking system. Many banking institutions often accuse mobile operators for trying to control the financial transactions and thus make unfair competition, and therefore banks and mobile operators create a "relationship of distrust" which may adversely affect the development of mobile banking. Therefore, this area requires the adoption of new regulatory framework in order to avoid conflict situations. One of the significant steps forward in this respect is the adoption of the Directive on electronic money.

Directive, primarily regulates the basics for all publishers of electronic money such as credit-bank institutions (which are defined in the relevant EU Directive - Directive 2006/48/EC), the authorized non-bank institutions and post office giro institutions. Ways of doing business for all publishers of electronic money are regulated by unique procedures. These procedures are governing the authorizations specified by the Directive on electronic payment services (PSD Directive 2007/64/EC). The amount of initial capital was reduced to 350 000 euro in order to encourage the development of e-money publishers.

Publishers of electronic money, according to the regulation, may engage in mixed operations, not just banking, thus giving the possibility, especially to the mobile operators, as well as to other interested companies for unhindered access to e-money market and the performance of financial services and transactions. This provision was meant to achieve an increase in market competition and development of innovative products and services in the sector of electronic banking.

Special attention was paid to protect clients from potential insolvency of e-money publishers. It is regulated with precisely elaborated provisions for the mandatory reserves and deposit insurance for the publishers of e-money. According to the directive, the license for the issuance of e-money cannot be granted to individuals or legal entities who are legally convicted of money laundering, financing of terrorist

groups and actions and other serious offenses in the field of financial crime. Every publisher of e-money must be reported to the duly registered physical address or headquarter in a member state of the European Union.

All publishers of e-money and financial service providers are required to periodically report to the appropriate national institutions responsible for the supervision and control of their operations, EU Member States decide independently on the pace for submitting such reports, to which public administration bodies they should be submitted, in which form and with which content.

CONCLUSION

With the advent of smart phones and tablets, mobile banking has received real expansion in the banking sector giving on one hand, the ability for banks to expand their range of banking products and services, while on the other hand, the users of banking services are offered additional benefits in the form of higher quality of services and greater security in monetary transactions.

Mobile banking, as a modern business model has greatly raised the level of business in the banking sector. It contributed to rapid changes in the society by facilitating all aspects of banking transactions, allowing transactions to be carried out 24 hours a day, 7 days a week, resulting in a reduction of waiting time at counters and in lowering the price of banking services.

Despite the mass use of mobile phones and other mobile devices, mobile banking in Serbia is still in its infancy. Distrust to the banking system, which dates back to the era of hyperinflation, the lack of information and inadequate legislation are, serious, but not insurmountable obstacles for the faster development of mobile banking. It is hoped that Serbia will become faster and more involved in modern trends of banking, and that mobile banking in Serbia will become a part of everyday life.

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THE IMPLEMENTATION OF MANAGEMENT INTO INSURANCE

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Ivan Piljan PhD³⁹

ABSTRACT

Today's strategic interests of Serbia are joining the European integrations, reform of social and economic systems which implies necessary foreign investments and investments in the economy that would cease its decline and accelerate its recovery which is necessary for achieving strategic goals.

Serbia has recently consolidated the insurance sector (removed insolvent companies that had acted as companies that raise money but without any obligations) and improved the quality of the sales network (removed insolvent participants - agencies, entities, etc.). On the other hand, a great number of licenses have been given to certified individuals who passed the exam organized by NBS (National Bank of Serbia) or by the banks that have been given the opportunity to participate in the sales network.

The importance of management has increased with the growth of this economic branch which has recently reached gigantic proportions. The risk management process has especially started to develop in the last ten years. Series of practical and scientific problem occur in the process itself. People who deal with them are individuals, holders of business endeavors, managers of insurance companies and insurance theorists.

In order to be highly organized, insurance companies need to have highly trained personnel which is specialized in risk studies. Risk management is a professional job which is as old as modern insurance.

Key words: *Insurance Sector, Insurance Management, Risk Management Process*

JEL Classification: *113*

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INTRODUCTION

In the previous system based on social ownership, all types of insurance except for compulsory insurance are underdeveloped because “the social state” provided citizens only with property and life insurance. Reform of economic and political systems, development of private property, forming of the new financial system in parallel with transformation in other social areas have opened the question of the development of insurance sector. I personally was particularly interested in the field of modern management and insurance which has been completely suppressed in the previous period and is highly developed in Western countries.

Serbia has recently consolidated the insurance sector (removed insolvent companies that had acted as companies that raise money but without any obligations) and improved the quality of the sales network (removed insolvent participants - agencies, entities, etc.). On the other hand, a great number of licenses have been given to certified individuals who passed the exam organized by NBS (National Bank of Serbia) or by the banks that were given the opportunity to participate in the sales network.

Low level of insurance in Serbia is caused by poor standard of living, undereducated population, and bad reputation of insurance companies.

In the first half of 2005 new Law on Insurance was passed and in the other half the effort “got the job done” by shutting down those companies that represented “the least loyal competitors”.

Under the provisions of the Insurance Act ("Off. Gazette of RS", no. 61/2005) and the Law on Amendments to the Law on the National Bank of Serbia ("Off. Gazette of RS", no. 55/2004), supervision of the insurance business has been entrusted to the National Bank of Serbia, which represents the first step towards establishing an integrated supervision of the financial sector as a whole.

The legal framework for the operation of insurance companies are also the Code of Obligations, Law on Accounting and Auditing, Law on the National Bank of Serbia, Law on Securities Market and other financial instruments.

The importance of management has increased with the growth of this economic branch which has recently reached gigantic proportions. Risk management process has especially started to develop in the last ten years. Series of practical and scientific problem occur in the process itself. People who deal with them are individuals, holders of business endeavours, managers of insurance companies and insurance theorists.

In order to be highly organized, insurance companies need to have highly trained personnel which is specialized in risk studies. Risk management is a professional job which is as old as modern insurance.

What is common denominator for legislation related to the insurance business is the fact that it has been at the stage of constant change in terms of harmonizing legal and market standards of the European Union.

The subject of this paper is the theoretical study of the impact of management on the operations of insurance companies. The goal is to establish interconnection and influence of the application of management to operations of insurance companies by analyzing the influence of management on operations of the business system on one hand and on the other hand by analyzing specifics of the operations of insurance companies.

Based on theoretical concepts and through the analysis of management in insurance, in this paper we shall find the answer to the question of how to improve performance of insurance companies in modern business environment.

Research in scientific sense starts from already familiar theoretical views and concepts on the subject of research and it is mostly focused on empirical research. Scientific goal of this research is achieving scientific knowledge of the importance of management for insurance.

The goal of this paper is to establish a theoretical framework based on which insurance companies in the area of risk management, planning, organizing and control would function.

Social justification for this research comes from the fact that the insurance sector has been facing with numerous problems but also challenges. That's why it is necessary to intensify research efforts which can contribute to better understanding of the current state and perspectives of the development of insurance sector.

Based on the set goal and hypothesis of this paper, scientific methods were chosen and their combination will constitute methodology of this paper. Taking into considerations the specifics of the subject of this paper, and in the purpose of satisfying basic methodological requests (objectivity, reliability, and generality and systematic) following scientific methods were used:

Basic methods: methods of analysis and synthesis, inductive and deductive method, description method and method of comparison;

Data collection methods: document analysis method.

Management represents the key function of any company. Company's success or success of any other organizational system depends on the abilities of the management. Therefore, it is rightly considered that the main cause of underdevelopment in many countries is non-implementation of modern management system and not the lack of resources. The goal is to use limited resources (human labour, elements of production, money) more rationally, so as to achieve before set goals with maximum efficiency and effectiveness. It is highly important to underline that today's large companies demand the application of the professional management system. Professional managers in companies are hired experts who have appropriate knowledge, skills and experience in the field of management. Management is considered to be universal by its very nature, hence its wide application in different forms of social and organizational systems. Key elements of management are universal and, with the appropriate adaptation applicable in different environments, which has been shown in previous scientific researches and experience in practice. However, that doesn't mean that management can everywhere be applied in the same way.

INSURANCE MANAGEMENT

The importance of management has increased with the growth of this economic branch which has recently reached gigantic proportions. *For example, in the USA total assets employed in corporate and personal insurance amount to \$ 300 billion*, which represents about *5% of the total costs of enterprises and households. Funds of insurance companies exceed the value of \$ 600 billion*, and about *1% of the total population is employed in this area*. Unlike the USA, in Great Britain most people are not that insured. One of the reasons for this is the fact that in the UK many risks and disasters are covered by the state's social security system. However, this is still an important and growing sector with over 4 billion pounds a year, and that is only the amount of money for premiums and annuities for life insurance.

RISK MANAGEMENT

Risk management represents a process of evaluating potential risks and development strategies with the aim to reduce and minimize future risks. Risk management is the methodology for (Knezevic, 2004., pp.8):

- Evaluating future potential events that can cause negative effects for the company
- Implementing strategies that are based on cost control, in order to reduce risks

False information transferred through an intermediary is not related only to the levels of management. It exists in the very business functions if there is no reduced dependence between conducting business processes and human factor. For example: change of tariff system demands distribution based on the memo sent to all branches, underwriters and very often to potential policy holders. The entire process is highly complex and susceptible to misinterpretations, errors in application, delay of the entire process etc. if there is no information system that functionally consolidates corporate knowledge.

Evidently, the decision brought on a certain level of management can be deformed or inaccurately conducted on the way through business functions of the business system when transformed into information system data which is not consistently computerized.

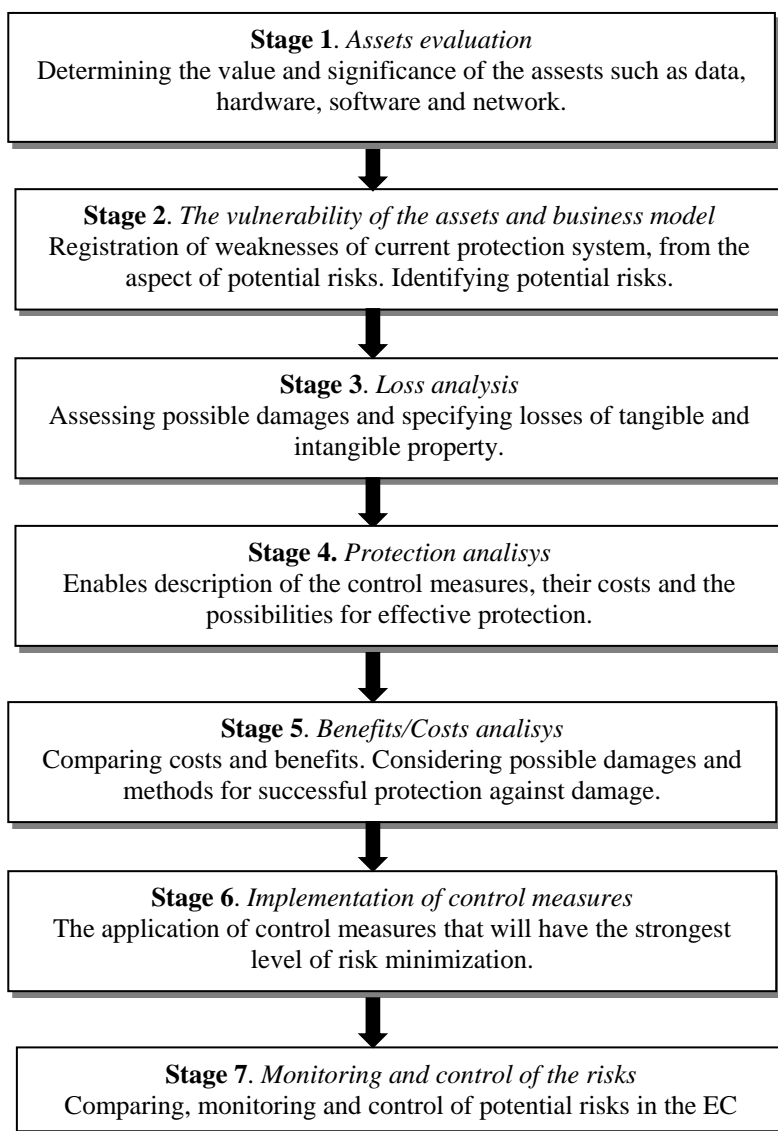


Figure 1: Risk management process (Knezevic, 2007, pp.216)

RISK IN THE INSURANCE COMPANIES

THE CONCEPT OF RISK

Risk is a multifaceted, multi-dimensional and complex notion which is present in our daily life (Karavidić, Čukanović Karavidić, 2014, pp.184).

It is a term which refers to any kind of event that cannot be predicted with a certain safety before it happens (in some cases it can never be predicted). Based on that, it can be concluded that risk can cause certain negative consequences on company's business aims.

Concept of insurance risk. The word "risk" (Ital.: Risico; German: das Risiko; English: Risk; Franch: risqué etc.) is a broad term. Therefore, risk is some future uncertain event that can have unwelcome consequences no matter how it occurred or how it was caused (Marovic, Avdalović, pp.57). We identify the concept of risk with the occurrence of a harmful economic event. Fire, flood, car crash, theft, and larceny are events we can associate with and are insurance risk (Marovic, Avdalović, 2006, pp.62)

Risk is a possibility of an unwanted, economically damaging event that, if it occurs, causes the insurer to fulfill an obligation towards the insured. That was noted in the insurance contract. In order to ensure the risk it is necessary that the risk is: possible, uncertain, that it doesn't depend on the will of the insured individual or third parties rather that it is coincidental and that it harms the integrity of the property or a person by inflicting damage.

In insurance, we can observe risk from the aspect of the insured individual, from the aspect of rights and obligations and from the aspect of the insurer.

The principles of reciprocity and solidarity are the basic principles underlying the insurance. By observing insurance through these principles we can say that it represents a merger of all those who are exposed to same dangers, in order to jointly endure the damage that will befall some of them. Through insurance we equalize – even out the risks on a more acceptable (easily tolerated) and much lower level, they are being atomized. Atomisation of risk, its deployment to the multitude of the insured individuals i.e. crushing big damages on countless small ones, hence their levelling at substantially lower level is the technical essence of insurance.

Risk from a legal point of view in insurance is an element of the legal relationship between the insurance to which insurer's obligations are related and the insured. The legal concept of risk should include all legally relevant elements of risk as one important element of the legal basis of insurance, and at the same time separate the risk of the insured event with which it is often confused. As a legal term risk also represents amortization for its value to decrease. In this case the result is safe and there is no risk (Marovic, Avdalović, 2006, pp.63).

Risk is a reality in the environment in which there is a possibility for an unwanted outcome. The individual hopes that the unpleasantness won't happen, and exactly this possibility of unfulfilled hopes is what represents risk. If we own a car, we hope that it won't be stolen. When we bet, we hope for a positive outcome. It is a fact that the outcome in both cases can turn out to be something other than what we had expected, and that represents a possibility of loss or risk.

Insurance risks are numerous. There are over 450 types of insurance risks in the world and their severity can be very different at a given moment or even in catastrophies. For those reasons, risk has its price, insurance premiums. Insurance premium depends on many factors, methods and calculation models based on various modalities, the law of large numbers, the law of risk on a global scale and a number of other factors. The concept of insurance risk is narrow and limited as it does not cover everything that the word signifies in everyday language.

In order to have risk in insurance it needs to:

- be possible,
- cause economic damage by its occurrence,
- be uncertain,
- be coincidental

Risk must be possible, possibility of a certain damage to occur, for example: outbreak of fire, sinking of a ship, collision of vehicles, person's death etc.

Its occurrence causes economic damage, economic harmfulness of an event. Consequences of the occurrence of insured event must be identifiable in monetary value, either by assessing the damage or on the basis of the agreed insured sum on a predetermined criterion.

Risk must be uncertain. Uncertainty of the occurrence of the insured event is present when we cannot predetermine whether a certain insured event will even happen, as well as its intensity.

Risk must be coincidental. When there is risk, there are always at least two possible outcomes. If we know for sure that some kind of loss will happen, than there is no risk. For example, when buying a car, we presuppose that the car will undergo physical amortization and that its value will decrease.

Insurance is a quasi collective agreement which is created by consumers who are exposed to a certain risk. It refers to those who are affected by that risk. Management in this area is gaining greater and more meaningful role, especially thanks to growing competition in this field.

Through laws and regulations, Governments create "the need" for insurance. In most of the countries, there is now a legal requirement for drivers to have insurance for the sake of responsibility towards third parties. The situation is similar when individuals or institutions, such as commercial banks, require from their clients to ensure imported goods paid by a letter of credit. Building societies engage companies which also buy principals in contracts on development and they also set demands for insurance. The insurer takes it upon him/her to cover the damage, and the insured is obliged to pay the service price i.e. premium. Even

when the amount of insurance premium is properly defined, the insurer bears the risk that he/she will conclude the business with a negative financial result. *In life insurance that risk comes from:*

- greater number of deaths than expected,
- unrealized interests that were calculated in the tariff
- incorrectly established personal retention in submitting risk

ENVIRONMENTAL FACTORS AND COMPETITION IN THE INSURANCE MARKET

The need for insurance services comes from three different types of systems that create hazards and insecurity (Žarković, 2005, pp.7):

Social system creates hazards such as robbery, fire, riots, strikes, kidnapping, social rebellion. This puts individuals and institutions in the state of financial uncertainty.

Natural system refers to natural forces such as hurricanes, earthquakes, thunders, floods, storms etc.

Technical system (which individuals and institutions form within a society) can create risks such as fire, explosion, pollution, contamination, radiation, collisions, malfunctions etc.

In addition to different factors that usually affect all other financial institutions, there are three major factors that affect the insurance market

Firstly, there is the impact of legislation and tax concessions. Legal requirements and limitations can have a significant impact on the size and scope of the market. This impact may take several forms, going from controlling the number of officials on the market, to the types of written contracts or even detailed policy conditions.

Secondly, there is the size and distribution of population and national income. Population size directly affects this market, especially life insurance. However, this is not necessarily the case, because we should take other factors into consideration – population density, demographic and sociological factors.

When the real income increases, personal consumption will have a tendency to increase. Personal savings in these periods will be sent to financial institutions such as banks and building societies, as well as in life insurance companies. This shows that there is a large potential market for life insurance when the national income grows. However, the main problem is competition from other financial institutions and the effects of inflation.

Thirdly, there is the competition. Aggressive competition and growing costs of service and administration have led to elimination of smaller non-profitable companies on one hand and on the other hand to difficulties in providing personalized services. This trend has led to the merger of insurance companies, so

as to use economies of scale and enable investments in computers and other additional equipment for the sake of:

- precise calculation of costs,
- acquirement of lower operational costs and
- increase in serving possibilities

In order to beat the competition, what is offered is a wider coverage with smaller or without the extra premiums. For example, direct sale via computer or mail, with economically assembled and packed contracts.

Savings has also been struck by competition between banks and building societies that enable long-term and short-term savings. Life insurance policies are a form of long-term savings; even though many money savers prefer having cash or long-term funds, which puts life insurance companies into an unfavourable position. Furthermore, the appearance of inflation in previous years has increased the hostility of population towards long-term contracts.

Insurance companies will have to find ways and means to drag money savers out of traditional financial institutions, or by guaranteeing submitted values (i.e. money is refunded when policy holders want to cash their policy), or by allowing policy holders to borrow submitted values so as not to have an impression that their money is completely tied. In order to deal with marketing problems that affect this sector, marketing personnel in insurance companies uses set of marketing tools and techniques.

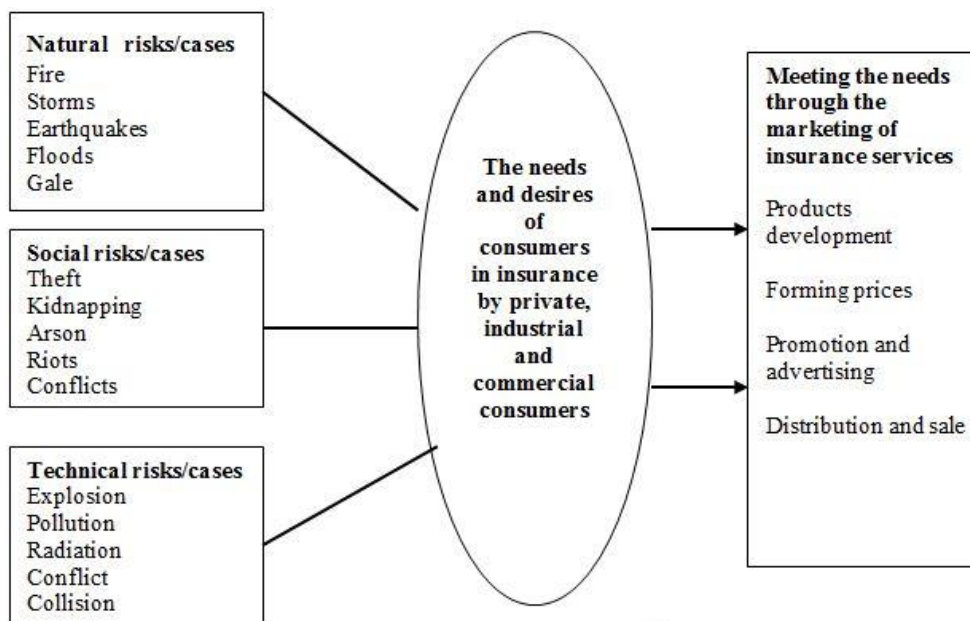


Figure 2. Risks that generate the need for insurance (Žarković, 2005, pp.70)

INSURANCE COMPANIES' RISK

Insurance companies exposed to greater risk depreciable risk with a higher market value of their portfolio assets. As a consequence, possibility of a failure in the insurance industry is smaller. Most evident types of risks that threaten life insurance companies are: a) interest rate risk; b) credit risk; c) market risk and d) liquidity risk (Jednak, 2007, pp.200).

Interest rate risk. Considering that life insurance companies have a great number of long-term investments, market value of their assets and portfolio is highly vulnerable when faced with the change of interest rate. When interest rates increase, companies cannot afford to cover the difference arising from the capital invested in long-term contracts. In order to depreciable this problem, companies reduce the average maturity of insurance and offer sliding rate, as is the case with commercial mortgages. Both strategies reduce the impact of interest rates changes on the market value of their assets. Having become more aware of their exposure to interest rate risk and having been more informed about the techniques for zeroing risk, insurance companies use more and more futures contracts and interest rates – swaps so as to maximally reduce exposure to risks.

Credit risk. Corporate bonds, mortgages, state and local bonds and other securities are influenced by different credit risks. To avoid this kind of risk, insurance companies invest primarily in securities that have a high rating, thus avoiding an increase in risk premiums. Also, they carry out the diversification between insurance claims, so that problems in the repayment of the beneficiary do not significantly affect the overall portfolio.

Market risk. It is an associated risk, the risk that is the result of market movements. For example, the decline in stock markets consequently reduces market value of the funds invested in the stock market of insurance companies. The value of trading portfolio that was established by insurance companies decreases with the decline in stock market, because a weakened economy causes the fall in prices of financial instruments. Often, real estates of insurance companies are under the influence of the economic upheaval. Some insurance companies became insolvent in the early 90s as a result of investments in real estates.

Liquidity risk. Additional risk for life insurance companies is the liquidity risk. A large number of demands for the payment of premiums at the same time can lead the company to insolvency, especially when the market value of the assets is low. Requests after someone's death are not usually repeated simultaneously, so life insurance companies reduce exposure to this risk through diversification of primary age limit. When the age group is well-balanced, life insurance companies increase the proportion of liquidity by preparing for the increasing number of requests. Another problem is when interest rates rise because consumers (customers) want to speed up the voluntary abolition of life insurance and use those funds to start a personal business. Thus, the cash flow decreases in life insurance companies, endangering their liquidity.

ROLE OF THE MANAGEMENT IN RISK MANAGEMENT

RISK MANAGEMENT PROCESS

Risk management process has especially started to develop in the last ten years. In the process itself series of practical and scientific problems occur and the people who deal with them are individuals, holders of business ventures, managers of insurance companies and insurance theorist.

Risk management is also a leadership function as well as marketing management or financing functions. Hence risk management doesn't only imply managing those risks that are in the area of insurance companies. The reason is that individuals and business entities are exposed to a wide range of uninsured risks. Insurance is just a part of the risk management process.

In order to be highly organized, insurance companies need to have highly trained personnel which is specialized in risk studies.

Risk management is a professional job which is as old as modern insurance. Numerous ways and techniques in risk management have been used for quite some time. Bear in mind the fact that risk management is not the same as managing insurance companies (Marovic, Avdalović, 2006, pp.57).

Risk management means to bear in mind those risks than can and cannot be insured, but can be prevented by choosing proper techniques i.e. good decisions. We can conclude that risk management means an optimization of risk management costs in a way that no one is damaged. Risk management is more than managing insurance company.

STAGES IN RISK MANAGEMENT

Risk management is carried out in six phases: (Carmen, 2003, pp.57)

1. establishing goals,
2. risks identification,
3. risk assessment,
4. assessment of alternatives and choice of means for risk regulation,
5. application of decisions,
6. evaluation and corrections

1. Establishing goals

Establishing goals of the risk management program is the first stage in the risk management process. Establishing goals as the first stage is often neglected, so the

risk management program is less efficient than it should be. Absence of common goals leads to a situation where risk management process is observed as an individual and isolated problem. Establishing goals ensures guidelines for consistent risk solutions.

Risk management goal includes preservation of organization's efficiency. It also needs to check whether an organization is capable of achieving other goals by using clean risks or losses than come from that risk. Therefore we can conclude that this includes avoiding financially severe losses that can lead to bankruptcy or those losses that could prevent insurance companies from performing their functions. In addition to the basic goal we have another one which is in charge in humanitarian protection of employees from injuries. Other goals are based on costs and efficient use of resources and preservation of good public relations. We can observe these goals in a different manner. For example, classification can be as "before the loss" and "after the loss", so the goals are as follows:

Table 1: Risk management goals before and after the loss

Goals after the loss	Goals before the loss
Survival	Economy
Continuity of operations	Reducing concerns
Achieving stability	Solving obligations imposed from outside
Continuity of development	Stable development
Social responsibility	Social responsibility

Main insurance company management, which is most responsible for preservation of the capital, establishes goals and politics of risk management.

Sole existence of a great number of goals can lead to a situation where some goals will be contrary to others. In the conflict of interests, main solving principles are attitudes that it is necessary to ensure survival as a precondition for everything else.

Risk managers who have a function of counselors need to advise the management in how to establish and formulate goals and in the risk management politics.

2. Risk identification

Identification implies that before anything has been done, somebody needs to be aware of the risk. To generalize risks is very difficult because different operations and conditions create different risks. Industrialization as well as the progress of technics, traffic and scientific development constantly create new sources of danger.

Many risks are obvious, but there are many others than can only be assumed. Risk identification is a process in which insurance company management needs to systematically and continuously identify risks and uncertainties.

Risk identification consists of the following factors: (Marovic, Avdalović, 2006, pp.65)

- knowing the clients,
- questionnaires for risk analysis,

- diagrams,
- analysis of financial reports,
- overview of the company's work and
- interviews

The more we are informed the better and more easily we can discern certain situations. Therefore, knowing the clients is the first step in risk identification which the risk expert gains from knowing the organization and their operations. Data about the organization and the goal of clients' organization are filled out in the report and they represent the basic source of information necessary for the risk analysis and identification in its presentation.

Risk identification being a systematic activity it is necessary to identify certain formal procedures. It is necessary to develop a proper conceptual and analytical framework for the identification of risks. Questionnaires for risk analysis are often in practice referred to as "fact discoverers". Questionnaires for risk analysis are key means in the process of establishing and evaluating the risk. Questionnaires are created in such a way to lead the experts towards risk detection through series of questions about organization. These questionnaires include risks that can and cannot be insured. Questionnaires being made in such a way that more than one business entity can use them don't always cover unusual questions or identification of loss areas that can be specific for a given company.

Diagram analysis shows all company's activities, from the acquisition of input to the realization of output. Diagram analysis of the company's business can point out to individual aspects of the company's business that create special risks. Most positive effects of diagram use are that they require a manager of the company to be familiar with the technical aspects of the company's business.

It enables the questionnaire on potential risks of property, obligations and human resources to be applicable to each and every stage of company's business.

In the process of risk identification what can help is the company's analysis of financial reports. Assets stated in the balance sheet can point the risk expert out to the existence of assets which he cannot reliably gain in any other way. Income and outcome classification in the balance sheet of success can underline critical areas of the operations that management hasn't been aware of.

Together with financial reports there are series of other very important reports and documents in the process of risk identification. They include internal regulations, minutes from the meetings of the Board of Directors, organization charts, manuals, reports on recent losses, leasing agreements and lease, purchase orders, construction contracts and the like.

During the assessment of financial consequences of risks what is significant is the distinction between direct and indirect costs. Direct costs are a direct consequence of a harmful event regarding property, obligations (rights) and individuals. Indirect costs are related to damage but are not a direct consequence of the activities or harmful events. For example, missed earnings during a certain operation due to an accident.

For every exposure to risk it is necessary to establish two dimensions of risk exposure. In the case of frequent risks: loss frequency and loss scale.

In the case of speculative risks: frequency of positive or negative outcomes and their scale. (Marovic, Avdalović, 2006, pp.66)

Overview of the company's work by the policy buyer is an instrument of systematic approach for which there is a rule: if a Figure is worth a thousand words, one overview of the interview can be worth a thousand control lists. Overview of company's work sites and interviews with the executives and employees will in many cases reveal those risks that would otherwise stay undetected.

There are numerous ways for identifying risk. So, when making a choice the best one i.e. most desirable one is a combined risk identification approach in which all the abovementioned means are being taken into consideration for the sake of finding risk solutions. We have to underline that not one method or combination of methods can replace executive's diligence and ingenuity in identification of risks which the company is exposed to. Risks can originate from many sources and for their identification it is necessary to have a comprehensive information system which enables a constant influx of information about changes.

Risk management in this stage of the process has for a goal to avoid unaware retention of risks and their detection i.e. timely identification. In almost every situation unaware retention of risks should be avoided. This happens because unaware retention of risk has a possibility of exposing the client to a potentially catastrophic loss which puts insurance companies into an unpleasant situation.

Risk identification methods – risk identification being a systematic activity it is necessary to identify certain formal procedures.

It is necessary to create a proper conceptual and analytical framework for risk identification. This framework usually comes in a form of a questionnaire (control list).

After forming risk questionnaire it is necessary to develop a systematic approach to detecting potential losses and gains the companies are faced with.

Risk identification includes:

- monitoring of the existing risks,
- identifying new risks,
- detecting changes in a company's risk profile

Numerous consulting companies have created a risk questionnaire:

- American Management Association (AMA),
- The Risk and Insurance Management Society (RIMS),
- International Risk Management Institution (IRMI)

3. Risk assessment

Risk assessment demands a list of priorities given the fact that *risk evaluation is extremely difficult and responsible work*. Certain risks demand more attention because of the severity of a possible loss. However, there is no major difference if the bankruptcy occurs as a consequence of a flood or not having fire insurance.

Criteria that can be used when classifying risks, and are oriented towards financial effects losses can have on companies are as follows (Carmen, 2003.):

- Critical risks are all risk exposures whose potential losses can lead to company's bankruptcy
- Important risks are those risk exposures whose potential losses wouldn't lead to company's bankruptcy, but the company would have to borrow money in order to continue its business.
- Irrelevant risks are those risk exposures whose potential losses can be compensated from existing assets or current income of the company.

In order to classify a certain type of risk exposure in one of these categories, it is necessary to establish the amount of financial loss that may arise from a given risk exposure and the company's capability to mitigate those losses. Assessment of the compensation claims is an essential component of risk management.

In the assessment of the compensation claims following methods can be used:

- Qualitative and
- Quantitative methods.

Qualitative methods mostly strive to identify possible risks and sources of those risks and they often represent the basis for carrying out the assessment of possible losses in the following stages of risk management process and by using qualitative methods.

The strongest qualitative methods of risk assessment are: checklists method, method of the analysis of the organization structure, flow charts method, analysis of the contract, a physical inspection of the facility.

Quantitative method is also called damage development method. This method is based on the average number of known compensation claims in order to assess future compensation claims.

Let's assume for the sake of illustration of the application of the damage development method that the risk manager of a certain company is aware of the fact that, in average, one quarter of compensation claims that originate from the use of a faulty company's product is announced to the company a year after selling the product, and three quarters of claims the companies will be receiving during the next ten years.

Ratio of reported and unreported claims (3:1) can serve as a basis for the assessment of the expected final number of compensation claims due to a sale of a faulty product during one year. This method is called method of the development of suffered damage.

4. The assessment of alternatives and the choice of means for risk regulation

When risks are identified as assessments next step is to consider all approaches that can be used in finding solutions to the risk. We do that by choosing techniques that should be used for each of them.

Managers i.e. experts who are professionally oriented towards risk management usually apply two ways i.e. two approaches when solving risks an individual or an organization is faced with: (Marovic, Avdalović, 2006, pp.81) risk control and risk financing.

Risk control is focused on minimizing losses the client is exposed to. Risk control includes techniques of avoiding and minimizing the risk.

Risk financing is based on testing all possible and available financial means aimed at regulating losses that can arise from risks that remain after the application of the risk control technique. Risk control and risk financing are the alternative approaches to solving risks, but they don't exclude one another, they are complementary approaches to solving risks. These approaches are very often used in combination that represents skillfulness and knowledge in risk management.

Before considering possibilities of choosing techniques that are used in solving risks, we should be reminded that the basic techniques for solving risk control and risk financing are: avoiding risk, minimizing risk, retention and transfer of risk.

After choosing the technique for finding solutions to the risk we should deal with the implementation of means for risk regulation.

The choice of means for risk regulation in this process of risk management is primarily a problem of decision making, i.e. deciding what available technique should be used in risk regulation. Decision process, i.e. making a decision the manager should complete at its own discretion, so as to distinguish from the organization the range manager i.e. expert should get to when making a decision. Politics of risk management inside the organization defines criteria that should be applied when choosing techniques. So, if the politics of risk management is rigid and detailed, there is not much wideness in decision making conducted by *the executive i.e. risk manager*. When the politics of risk management is flexible then it enables risk managers i.e. executives a large scope of action. So, the level of risk expert's loyalty is different depending on the politics of risk management (rigid or flexible). In first case it is administrative and in the other managerial.

5. Application of decision

After choosing the technique for solving risk a decision to either retain or transfer the risk is being made. Retention can be accomplished with or without financial means. If we would choose the option of preventing losses that solve specific risks, we would have to draw up and implement appropriate programs to prevent losses.

Deciding to transfer the risk through insurance would involve a choice of insurers and types of insurance protection levels.

6. Assessment and corrections

The process of risk management is happening in reality i.e. in the everyday economic practice. Things change, new risks emerge and old risks disappear. Techniques that have been appropriate in the past years don't have to be recommendable for the following year.

Errors sometimes occur in the process of risk management. Assessment and correction of the risk management program enable specialized expert to revise the decisions and find the errors before they emerge and cause new losses.

Assessment and correction of the risk management operation should be under the constant supervision of risk manager. It is also advisable to occasionally engage independent experts who revise programs. These experts can be engaged in order to assess the complete risk management program.

CONCLUSION

Risk management represents a process of assessing potential risks, development strategies in the purpose of reducing and minimizing future risks. Risk management is a methodology for: assessing potential events in the future that can cause negative consequences for the company and for implementing strategies based on the cost control for the sake of reducing the risk.

Risk management is a process that enables the insured individual to have aligned rights for managing with safety and rights for managing with continuity of business with business aims and strategy. Risk management is carried out in six stages: establishing goals, risk identification, risk assessment, assessment of alternatives and the choice of means for risk regulation, decision application, assessment and corrections.

The strongest qualitative methods of risk assessment are: checklists method, method of the analysis of the organization structure, flow charts method, analysis of the contract, a physical inspection of the facility.

By a quality and safe distribution of their clients' money, insurance companies ensure profit both for them and their clients. Through the risk management service the manager ensures the client with a business foundation with business goals and strategies.

Despite the fact that risk management is a very extensive and complex task, an efficient risk management program can be of great use for insurance companies because it significantly affects their financial success. The main advantages of a well-chosen risk management program are:

- The goals of risk management are more easily achieved, both before and after the occurrence of a harmful event.
- Risk costs are reduced which can increase the company's profit. Risk cost is a tool in risk management process that measures certain costs.
- Due to the reduction of a harmful financial influence that could be the consequence of mere damages if there wouldn't be a risk management plan, insurance company could draw up a program for managing the complete risk.
- The society also benefits, because it reduces direct and indirect damages.

Mentioned researches confirm both general and specific hypothesis and it is certain that business success of insurance companies depends on the proper implementation of management.

Only those companies that develop management strategies focused on satisfying clients' needs through an offer of numerous advantages for them, can in the future count on profit, sales increase and clients' loyalty.

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MEASURES TO THE ANTICIPATION AND MANAGEMENT OF RISKS ASSOCIATED TO NATURAL DISASTERS

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ABSTRACT

In the past, natural disasters were seen as one-time, unpredictable natural events. However, nowadays governments are under increasing pressure to protect their citizens from the damages caused by natural disasters. In this context, a lot can be done in order to minimize the sensitivity to risks related to natural hazards, i.e. to reduce the risk of disasters. Most countries have developed an administrative system composed of national and professional organizations, usually of civilian character, in order to implement these tasks. Unfortunately, almost as a rule, these systems tend to make governments spend considerably more funds in the elimination of the consequences of natural disasters, rather than in their prediction and the implementation of risk management measures.

The purpose of this work is to examine and explain, by facing the economic effects of natural disasters, the complexity of forms and the impact of natural disasters on development processes, as well as to detect empirical regularities in the behavior of economies affected by natural disasters, developing, at the same time, models for the study of the impact of such disasters on a typical economy. In that way, it will be possible to explain some empirical regularities.

Data sources for the achievement of work objectives and the confirmation of analysis results include relevant data from OECD and the World Bank regarding the consequences of natural disasters on the economy and economic development of the most vulnerable countries, with special emphasis Serbia..

The results of these investigations indicate the following facts: Natural disasters slow down economic growth; the length of the different effects of such disasters largely depends on direct losses, as well as on socio-economic factors (before, during and in the aftermath of such events), especially in the field of regional economies after the occurrence of such events; the validity of theoretical models, in terms of the general trendiness of recent data on the consequences of natural disasters, is largely unreliable; risk management of natural disasters is directly dependent on the identification, assessment and measures taken in order to reduce the risks associated to natural disasters, maximizing thus the resilience of the country to these natural phenomena.

Keywords: *Natural Disasters, Economic Effects, Models, Development, Risks*

JEL Classification: *G22, G32.*

UDC: *005:504*

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INTRODUCTION

The effects of natural disasters on macroeconomic processes have not yet been adequately researched and verified. The direct material consequences of natural disasters are major economic losses, suffered by the affected regions, usually expressed in billions of dollars. The vulnerability of the economy in terms of natural disasters depends on various socio-economic conditions, given that natural disasters disrupt and alter the complex network of interactions between current economic, social and political processes. From this point of view, a very important issue is whether the development of the regional economy may be significantly altered from the moment when natural disasters occur.

In that sense, the effects of natural disasters on development processes is very complex, especially in the field of regional development. Socio-economic processes have a direct impact on the vulnerability of the economy to natural disasters. Previous empirical studies regarding the determinants of the vulnerability of economies to natural disasters clearly link the impact of socio-economic indicators to the discussed losses, both at macro and micro level. The socio-economic indicators used for that purpose include income per capita, population growth, level of education, infrastructure and quality of management.

Macroeconomic damage occurred as a result of natural disasters is significantly higher in developing economies than in developed economies. Although other variables contribute to explaining this gap, including the availability of capital, better measures to mitigate risks and stricter requirements regarding the resistance of infrastructure, these differences are partly explained by the fact that, in developed economies, the private insurance market absorbs a disproportionately higher share of losses caused by disasters and allows a more efficient recovery.

Insurances can improve economic and fiscal problems through several channels. Before the occurrence of disasters, insurances provide an incentive to reduce the exposure through measures to mitigate risks. In the aftermath of disasters, insurances largely transfer the fiscal burden from taxpayers to the private sector and international capital markets. Insurances also reduce financial problems in the supply chain and in the slowdown of business activities, providing thus the necessary liquidity and safety in business and financial planning.

THE EFFECT OF NATURAL DISASTERS ON ECONOMIC GROWTH

In the past, disasters were seen as one-time, unpredictable natural events. However, scientific studies and practical experience have shown that there is a strong link between development and poverty. The destruction of property and living resources during natural disasters provoke the regress of development results and worsen the poverty rate, usually over a longer period of time. Typical disasters

reduce economic growth by 1% - 2% of GDP, but they may have deeper effects, as it happened during the earthquake in Kobe in 1995, when the GDP per capita decreased by 13% over a longer period of time (World Bank, 2013, pp. 60). In this context, governments increasingly recognize the fact that reducing the risk of natural disasters represents the basis for sustainable development, which implies a comprehensive resolution of issues across multiple sectors.

The number of natural disasters and calamities has increased sharply in recent decades. Their negative influence is manifested in almost all countries, irrespective of whether they are rich or poor. Several hundred million people per year are affected, and the losses are estimated at around 400 billion USD (*Annual Disaster Statistical Review*, 2012, pp. 28-30). However, we should emphasize that this figure does not identify total losses, because deviations often exceed 50% (UNISDR, 2013, pp. 41-43). This means that the knowledge on broad economic effects has not been covered, i.e. that economic effects have been underestimated at individual level, especially in the case of poor households. In some regions, minor damages and unreported events are the main source of aggregate losses, which particularly applies to developing countries (Bull Kamanga, 2003, pp. 193-203). What is particularly worrying is that disasters, i.e. the damage of living resources and economic capacities, may become a prerequisite for further excessive exposure to risks, increased vulnerability to losses. That means that they can block efforts to exit the sphere of poverty and lead to development failure. Of course, this is true for all levels: household, institutions, regions and countries.

Although there is general agreement that disasters may cause significant short-term damage at macroeconomic level, theoretically speaking, they may lead to long-term effects in three possible ways. First, the size of the direct and indirect losses in physical and human capital may permanently decrease the growth rate. Even if the economy returns to the average long-term path, economic growth may remain for a long time below the hypothetical scenarios (compared to the situation when the disaster never happened). Second, rebuilding after a disaster can help to replace the old dilapidated capital with newer and more productive technologies, i.e. this "creative-destructive" process may set the economy at a sustained high growth rate. However, even when that happens, the net effect remains unclear, since the additional costs of lost infrastructure can be significant. The third possibility is that these two effects cancel one another, i.e. that they will have no significant impact on long-term growth trends. That is, from a theoretical point of view, it is impossible to know which of these scenarios will prevail. However, empirical literature suggests that the impact of major disasters on the growth rate is largely negative (Hochrainer, 2009, pp. 8-10).

The basic principles for the sustainable risk management of (i) major natural hazards: storms, floods, earthquakes, heat waves and droughts; (ii) industrial accidents with potentially catastrophic outcomes; (iii) pandemic and (iv) mega-terrorism; are (Kleindorfer et al, 2009, pp. 3-7) are the following:

- the collection and analysis of data on the consequences of previous natural disasters;
- data processing and decision making on the level of risk acceptability, i.e. on the decrease of the likelihood of natural disasters and/or their consequences (e.g. financial protection and economic incentives for investments in risk reduction);

- risk management and response to consequences, including financial management; business strategy, public policy and public-private cooperation;
- impact on society and key actors in terms of achieving efficiency and fairness.

The above mentioned principles emphasize the vital link between risk assessment and the strategies to manage risk disaster. They also emphasize the importance of optimally allotting resources (efficiency) from the social point of view, as well as the significance of those distributive issues that refer to the elimination of the consequences of natural disasters by regions.

Nowadays, governments are under increasing pressure to protect their citizens from the damage caused by natural disasters. In that context, a lot can be done in order to minimize the sensitivity to risks related to natural hazards, i.e. to reduce the risk of disasters (IPCC, 2012, pp. 31-37). Most countries have developed an administration system for national composed of professional organizations, usually of civilian character, in order to implement these tasks (Quarantelli, 2000, pp. 8-13). Unfortunately, almost as a rule, these systems tend to make governments spend considerably more funds in the elimination of the consequences of natural disasters, rather than in their prediction and the implementation of risk management measures. (World Bank, 2010, pp. 115-121).

Natural disasters may cause major problems for public finances and debt sustainability, namely: (a) directly - by reducing economic activity, which causes a decrease in current and future tax revenues; (b) indirectly - by increasing government spending in order to fund emergency humanitarian aid and reconstruction efforts. Although the size of the fiscal effects varies according to the application of different statistical methods and depending on the type of natural disasters, the budgetary impact of such events is usually very significant (Fomby, Ikeda & Loayza, 2009, pp. 8-12). According to some estimates, in the period between 1975 and 2014, natural disasters in high and middle-income countries determined, on average, an increase of about 15% in public expenses and a decrease in public revenue of approximately 10%, which resulted in a combined increase of around 25% in budget deficit (Oct, Nickel, 2009, pp. 26-29). We should also take into consideration monetary measures under current fiscal constraints, which may further increase government spending related to consumption stimulation.

Economies with a significant level of public debt often face higher borrowing costs, which implies a considerable burden on taxpayers and causes further reduction of long-term growth. For example, as a result of natural disasters in developed economies, there has been estimated a decrease in state revenues of 3% of GDP and an increase in outstanding debts of over 8% of GDP (Melecký, Raddatz, 2011, pp.23-27). Similar evidence can be found in the case of Caribbean countries, where the public debt increased by 6,5 percent of GDP, in a term of just three years from the occurrence of large natural disasters (Rasmussen, 2004, pp. 12-16).

In any case, the net fiscal impact largely depends on the level of private insurance, i.e. on the extent that losses are absorbed by the insurance sector. In fact, over the past two decades, only 20% to 40% of the economic losses arising from natural disasters have been covered by insurance companies, while the remaining 60% to 80% has been borne by taxpayers (Melo, 2014, pp. 4-6). We may conclude that the conclusion of such trends may lead to the risk of unsustainable fiscal pressures on governments. In that sense, it is imperatively necessary to transfer a large part of the cost of natural disasters into the private sector, through insurance and other risk financing mechanisms.

THE MANAGEMENT OF RISKS AND CONSEQUENCES OF NATURAL DISASTERS

Disaster risk management (DRM) is a methodologically tested framework developed around the world and implemented by international institutions, including the World Bank, G20 and OECD (G20 & OECD, 2012, pp. 25-41). DRM includes the identification, assessment and reduction of disaster-associated risks, in order to maximize the resistance of a country to disasters. In fact, DRM comprises three functions:

1. Risk assessment;
2. financial management;
3. risk reduction, i.e. prevention and mitigation of risks.

The efficient management of the consequences of natural disasters begins with risk assessment. This fact is increasingly recognized by decision-makers around the world. In this context, it is clear that insurance companies should play a central role in the identification and assessment of disaster risks. Historically, this function is largely dominated by the activities of geologists, climatologists, seismologists and other members of the scientific community. Although their contribution to understanding the nature of risks is maybe of utmost importance, the applied analytical methods belong to the methodology of natural sciences. On the other hand, insurance companies use actuarial methods and stochastic modeling, by which we can predict the likelihood of disasters and quantify the economic impact on risk-exposed assets and business activities. In that way, insurance companies have a central role in the identification and assessment of disaster risks. However, in order to assess risks in a more effective way, it may be necessary to integrate both perspectives, i.e. to combine the scientific understanding of any risk with the quantification of associated physical and monetary impacts (AIR Worldwide, 2013, pp. 22-24).

When the risk is known and quantified, the next step is to establish the mechanisms and plans to actively manage the expected financial impacts. Risk transfer involves the distribution of disaster risk among the parties that may not likely face it. As a general rule, government intervention is justified only when private markets fail to provide adequate services. However, that is not the case of

disaster risk management, because the private insurance sector has the skills and expertise to provide the necessary financial protection.

Insurances may transfer the risk of disaster from taxpayers to global capital markets, cheaply and efficiently. However, insurance companies not only have access to international capital and reinsurance markets, enabling a cheaper diversification of risk in different geographical areas and among diverse interest groups, but they also have an incentive to achieve these goals in a more efficient manner. Infact, insurance companies, unlike governments, have experts that can evaluate the compensation for losses, contributing thus to the limitation of time and expenses in the transactions related to reconstruction and recovery after the disaster. Nevertheless, the government continues to play a significant role by providing the institutional arrangements that are necessary for the good functioning of insurance markets (Cummins, 2006, pp. 351-357). Namely, at a most basic level, such arrangement consists in establishing a good regulatory regime, while in some cases, such as in the management of extreme disaster risk, it may involve the introduction of a state-owned insurance and reinsurance fund. Governments may also meet the needs of low-income people by means of subventions, accepting basic insurance in high-risk regions and providing basic financial support.

However, in the absence of an adequate transfer of risk to the private insurance market, governments may create a reserve fund as part of the preparations for disaster. But regardless of whether that implies real preparation or the planning of contingent liabilities, this type of insurance can hardly be used effectively due to the scarcity of public funds. From this point of view, private insurance through mechanisms, such as reinsurance and bonds for the elimination of the consequences of disasters, can "transfer" local risks to a global level, while state reserve funds transfer to taxpayers the full cost of exposure to natural disasters (Cummins, 2006 pp . 351-357). In essence, economic and business recovery is possible in countries, where governments have the capacity to invest in reconstruction, or where they have pre-planned measures and instruments in order to finance the most unforeseen consequences of risk events.

In addition to providing a more efficient method for risk transfer and the financing of consequences caused by the emergence of risk events, private insurance generally provides consumers with real compensation for losses. For example, in the U.S.A every dollar spent to mitigate the risk of flooding is estimated at 4 USD for the reduction of future costs. In contrast, government assistance in such situations is often limited to basic living allowances, or one-time compensations, which are often inadequate for losses arising from disaster events (Raddatz, 2009, pp. 10-12). On the other hand, expectations that the government will finance reconstruction efforts after disasters may lead to situations, in which people make riskier decisions, such as building a house on a dry river bed, which would otherwise be avoided.

Pursuant to the foregoing, risk reduction is becoming increasingly important, especially in the context of climate changes, which means that fluctuations in climate and weather trends introduce an element of uncertainty in the financial management of disaster risk. Risk transfer and the risk of individual financing

solutions that are being developed nowadays can become obsolete in less than a decade, if the frequency and severity of primary risks significantly change. If we wish to eliminate these problems, it is inevitable to focus on the pre-planning/supplementation of financial-risk management processes in the direction of mitigating and adapting measures. In this process, public education plays a key role, because the level of public awareness on natural hazards and disaster risks represents the basis and precondition for defining effective strategies for disaster risk management at national and regional levels (OECD, 2010, pp. 15-19). Other effective methods include modifying consumer behavior, the implementation of early warning systems, the improvement of system regulations and investments in new and more resilient public infrastructure.

THE ROLE OF INSURANCE IN THE MITIGATION OF THE EFFECTS OF NATURAL DISASTERS

On the basis of previous exposure, we may conclude that insurance contributes to the reduction of fiscal and economic costs of natural disasters. In other words, the country's ability to manage the financial consequences of natural disasters largely depends on the established insurance system (Lloyd's, 2012, pp. 6-17). That is why; insurances are the basic tool for the assessment, management and mitigation of disaster risk, reducing the overall macroeconomic and fiscal impacts of disasters. Insurances may achieve it through four main channels.

- They reduce the overall total cost of disasters by: (i) transferring risks to the taxpayer, (ii) financing risks in a more efficient way and (iii) encouraging consumers to plan in advance risk reduction.
- They allow governments to focus on their core business, freeing public funds for a faster elimination of consequences.
- They direct capital reconstruction to assets and top national priority enterprises.
- They quickly provide money for the affected persons, preventing disruptions in the supply chain, enabling faster reconstruction and the continuation of economic activity (Geneva Association, 2013, pp. 3-7).

Despite the limited availability of data, several studies provided convincing and methodologically reliable conclusions about the relation between the penetration of insurances and the macroeconomic effects of disasters. One of the most comprehensive studies contained data on insured losses with a coverage of 8,252 observations in 203 countries during 2,476 major natural disasters between 1960 and 2011. That study demonstrated that the impact of natural disasters is weaker in countries with a high insurance level. The authors conclude that the macro-economic cost of natural disasters is largely dependent on the components of uninsured losses, while insured events are equally important in terms of impact, regardless of differences in the level of economic development of the country.

Another important conclusion of this study is that the strongest effects of insured losses are felt the three years after the disaster, which is equivalent to the average time of insurances payout, i.e. insurances facilitate restoration efforts (Peter Von, Von Dahl, Saxe, 2012, pp. 5-8).

Given that insurances mitigate the macroeconomic costs of disasters, they have a direct positive effect on the fiscal targets of the government. In fact, the unplanned government spending for reconstruction and assistance decreases immediately after the disaster, which may lead at middle term to a faster recovery and growth of tax revenue, reducing the pressure on public finances. That is why; countries with relatively undeveloped insurance systems present larger drops in GDP and a more pronounced growth of budget deficits, compared to countries where insurances play a more important role in the financial management of natural disaster risk.

The extent of insured losses significantly differs by regions of the world, depending on the development of the insurance market, i.e. the insurance coverage of assets the stage of economic development of a region. The inhabitants of North America and Europe invest significant amounts of money in insurances, whereas the most densely populated countries of Latin America, Asia and Africa are not sufficiently covered by insurance, due to their underdeveloped insurance market. Poor countries, as a rule, do not have the financial and technical ability to provide affordable and necessary insurance, which is confirmed by the data of Swiss Re, as shown in Table 1.

Table 1: Number of disasters, victims and insured losses in billion USD by region during 2013

Region	Insured losses		Economic losses	
	USD	%	USD	%
North America	19	42.0	32	22.7
Latin America and the Caribbean	2	5.4	9	6.3
Europe	15	33.8	33	23.4
Africa	1	1.4	1	0.7
Asia	6	12.5	62	44.1
Oceania/Australia	1	2.9	3	2.0
Water surfaces	1	2.2	1	0.8
World	45	100.0	140	100.0

Izvor: Swiss Re Economic Research & Consulting, Global insurance review 2013 and outlook 2014/15, November 2013,

http://www.osiguranje.hr/Private/redakcija/sigma_Global_insurance_review_2013_and_outlook_2014_15.pdf, pp. 30-31)

According to Lloyd's global report, the increase in insurance by 1% contributes to: reducing uninsured losses by 13%, reducing the burden of taxpayers to 20% of the total estimated damage and increasing the GDP by 2%. The conclusion is that any increase in the level of insurance contributes to increasing the benefits to all stakeholders (Global Underinsurance Report, 2012, pp. 4-17).

In principle, the ability of an economy to recover after a natural disaster depends on the extent of the damages, which are usually measured as a percentage of GDP. Insurance can play a key role in reconstruction efforts through the "liberation" of funds. In the absence of such financing, the recovery should be financed through the government and humanitarian agencies. In fact, even in the absence of a sufficient level of insurance, governments are forced to finance reconstruction. After comparing the costs to be borne by taxpayers in small, medium and large economies, we may see that the recovery time after the events is very similar, but the costs borne by taxpayers are considerably lower in countries, where there is a higher level of insurance.

MANAGEMENT OF THE CONSEQUENCES OF FLOODS IN SERBIA DURING 2014

Data from the National Strategy for Protection and Rescue in Emergency Situations warn about the fact that each ten years, between 1900 and 1940, there were 100 natural disasters in Serbia, while there were seven times more disasters between 1960 and 1970. There were 2000 disasters between 1980 and 1990, while the number of disasters between 1990 and 2000 was 2800, i.e. more than 100 per month. In the last few years, catastrophic floods have opened again the question about risk factors and the real threat to the citizens. In addition to floods and earthquakes, experience shows that Serbia is exposed to other threats, such as storm wind, torrential rains, landslides, snow, ice and avalanches (National Strategy ..., 20011, pp. 21).

Despite the fact that the natural hazards that threaten Serbia are not generally unknown, the risk awareness of citizens is very low. In fact, a significant number of facilities is built in prohibited areas and in violation of building standards, i.e. damages are greater than they would be otherwise. From this point of view, it is a paradox that expensive houses and production halls are often built on landslides and even the natural bed of rivers, which are not protected against floods. The infringement of building standards has a high price, in case of earthquakes or floods. Besides that, insurance culture is low, because citizens are willing to seek help from the state in case of disaster, in spite of the fact that they have behaved irresponsibly. However, the allotment of indemnities for damages is a sign of good will and humanity of the state and local government, because no one is legally obliged to compensate damages caused by disasters. Thus, the Serbian government promised indemnities for damages to the private property of the population, although it is well known that the state may rebuild town halls, schools, hospitals and bridges, but not private homes.

According to a report adopted by the Government of Serbia, the damages and losses arising from the flood amount to approximately 1.5 billion EUR. Direct damages amount to 810.1 million EUR, while losses amount to 661.9 million EUR. The amount applies to all sectors, including housing, education, roads,

railways, manufacturing facilities and agricultural goods. Two thirds of this amount refer only to the production sector, where damages and losses are estimated at 1.07 billion EUR. According to the report, damages to the manufacturing sector are estimated at half a billion EUR, while losses are estimated at 569.4 million. The agricultural sector, which accounts for around 10% of gross domestic product, was particularly affected. The largest part of the arable land in the flooded areas has been destroyed, and damages amount to approximately 108 million EUR, while losses are estimated at around 120 million EUR. Roads and railways, as well as water and electricity infrastructure, were affected, which represents a serious problem for the free circulation of goods and the movement of people, affecting business activities across the region. The effects of floods on the infrastructure sector, which includes transportation, communications and water supply, are estimated at 192.1 million EUR, out of which 117.3 million EUR represent damage and 74.8 million EUR represent losses. The largest item in this sector is transportation, with damages estimated at 96 million EUR and losses at 70.4 million EUR. When it comes to issues, such as natural environment and management, the estimated damage amounts to 17.2 million EUR, while the estimated losses amount to 10.6 million EUR.

According to the National Institute of Statistics, the real inter-annual decline in GDP in 2014 was 1.8%. About two-thirds of that decline, i.e. 1.2 percentage points are the consequence of floods and slow reconstruction. That means that, if there had been no floods in May, the GDP would have recorded a 0.6% growth in 2014. The reasons, other than floods, for the recession in economic activity in 2014 include: unsustainable fiscal position of the state (macroeconomic risks became larger and discouraged private investors), reduction of investments, low credit activity, a slowdown in exports after reaching full production capacity of cars (FAS) etc. (QM, N°. 39, 2014, pp. 11-15). The data presented in Table 2 illustrates our assertions and additionally explain the poor economic position of the Government of the Republic of Serbia regarding the possibility of a successful "struggle" with the consequences of natural disasters during 2014. Such situation is the consequence of numerous failures accumulated in previous years. Accordingly, we conclude that the destructive floods that affected Serbia and endangered its economy will continue to affect economic growth and inflation in the future.

Table 2: Selected macroeconomic indicators in Serbia in 2004-2014

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Economic activity - Inter-annual real growth											
GDP (in billion RSD)	1,451.4	1,751.4	2,055.2	2,355.1	2,744.9	2,880.1	3,067.2	3,407.6	3,584.2	3,876.4	3,884.0
GDP	9.0	5.5	4.9	5.9	5.4	-3.1	0.6	1.4	-1	2.6	-1.8
Fiscal data in % of GDP											
-Public revenues	41.2	42.1	42.4	42.1	41.5	38.6	-1.5	-4.6	0.6	-3.0	
- Public expenditure	40.0	39.7	42.7	42.8	43.7	42.7	-1.7	3.3	3.6	-5.7	...
Consolidated balance in billion RSD	17.5	14.8	-33.5	-58.2	-68.9	-121.8	-136.4	-158.2	-217.4	-178.7	...
Balance of Payments											
in million EUR flows											
- Import of goods	-8,302	-8,286	-	-12,858	-15,917	-11,096	-12,176	-13,758	-14,028	-	-13,393
			10,093							14,693	
- Exports of goods	2,991	4,006	5,111	6,444	7,416	5,978	7,402	8,440	8,394	10,540	9,732
Current account balance	-2,197	-1,805	-3,137	-4,994	-7,054	-2,084	-2,082	-2,870	-3,639	-2,092	-1,857
- In % of GDP	-11.6	-8.6	-12.9	-17.2	-21.6	-7.2	-7.4	-9.1	-12.3	-6.5	-6.1
Balance of the financial account	2,377	3,863	7,635	6,126	7,133	2,207	1,986	2,694	3,486	1,917	1,517
Foreign direct investments	773	1,248	4,348	1,942	1,824	1,372	860	1,827	669	1,229	1,210

Source: Quarterly monitor of economic trends and policies in Serbia, N^o. 39, October-December 2014, Belgrade, March 2015, page 10.

There is a direct correlation between insurance premiums and gross Domestic Product: The growth of gross domestic product per capita leads to an increase in insurance premiums. Such an increase is significantly faster than the growth of GDP and vice versa.

The level of development of the insurance market is measured on the basis of two indicators:

- Premium per capita (indicator of purchasing capable demand and density ratio) and
- share of the total performed premiums in the gross domestic product (*penetration ratio*).

Compared to the average of EU member states, where the insurance market is developed with a premium of 2,009 EUR and a share of 8% in GDP, the total premium per capita in Serbia in 2014 amounted to 80 EUR, while the density of life insurance amounted to just 14 EUR (the average in the European Union is 1,400 EUR). The share of the total premium in GDP increased from 1.6% in 2004 to around 2% in 2014. These data indicate that the insurance market in Serbia is underdeveloped. This conclusion is based on the following five facts, out of which almost none can be attributed to the negative effects of the global economic crisis (RSO, 2015, pp. 1):

- Low gross domestic product per capita (about 4,300 EUR);
- high unemployment rate (20%);
- reduced inflow of foreign direct investment;
- insufficient awareness of the need to protect assets and people against risks, as well as the lack of information and education among citizens;
- high overall country risk (according to the OECD classification, Serbia is classified in the category of the most risky countries).

The successful functioning of market economy as a whole, as well as of individual economic entities, cannot be imagined without insurances or the creation of insurance funds. In the economic process, insurances have the role of maintaining the reproductive capacity of the economic entity. They help to overcome the economic consequences of adverse events and to smoothly continue the business process. From that point of view, insurances have two types of functions: basic and other functions. The primary function is to provide economic protection against risks that threaten assets and people. Such protection is realized by compensating damages and paying insured amounts to the affected parties. The other functions include developmental, anti-inflationary and social functions.

Taking into consideration the specific aspects of the insurance businesses, insurers have a significant amount of funds that can be invested, at short or long term, in various development programs, especially, reserves that have long-term character, such as life insurance and pension funds. Investing in insurances represents a deferred expense at shorter or longer term, because the insurer's obligation to compensate damages and pay the insured amounts always appears with a certain delay in relation to the payment of insurance premiums. Funds

invested in the form of insurance premiums, especially funds in the form of perennial life insurances and annuity insurances, are not spent by immediately and therefore they reduce the pressure on price growth. From that point of view, a greater coverage of the insurance premium, measured by the share in the GDP, ensures a significant anti-inflationary effect of those funds.

The Protection and Rescue System is defined by the National Strategy for Protection and Rescue in Emergency Situations ("Official Gazette of the Republic of Serbia", N^o. 86/2011), is financed by the budget of the Republic of Serbia, the budgets of autonomous territories, the Budget Fund for Emergencies and other revenues. In accordance with the Law on the Budget System ("Official Gazette of the Republic of Serbia", N^o. 54/09, 73/10 and 101/10), there have been planned funds, in the budget of the Republic of Serbia, for the creation of permanent budget reserves, which may be used to finance participation expenses by the Republic of Serbia in the elimination of the consequences of extraordinary circumstances, such as earthquakes, floods, droughts, fires, landslides, snow precipitations, hail, animal and plant diseases, ecological disasters and other disasters that may endanger the lives and health of people or cause large damages. The permanent budget reserves may not exceed 0.5% of the total revenue and income from the sale of non-financial assets for the fiscal year.

However, in spite of the solutions provided by the Budget of the Republic of Serbia for 2015, out of all the sources for the financing of the protection and rescue system, the only ones that are certain are those defined as "other incomes". This primarily refers to cooperation with international partners and the possible planning of grants and joint projects, which are intended to provide support in the implementation of the national strategy. Another source is defined by Article 34 of the Law on Budget of the Republic of Serbia for 2015. It refers to the initiation of the procedure for borrowing and issuing guarantees of the Republic of Serbia, in order to ensure financial stability, as well as to prevent or eliminate any extraordinary circumstances that may endanger the lives and health of people, or cause large damages amounting to 100 million EUR, in accordance with a procedure regulated by the Law on the Public Debt ("Official Gazette of the Republic of Serbia", N^o. 61/05, 107/09 and 78/11). Unfortunately, taking into consideration the poor and unpredictable economic position of Serbia, the second source seems more certain than the first one.

CONCLUSIONS

Natural disasters significantly affect the development processes of the country and may cause major problems for public finances and public debt sustainability, namely: directly through the reduction of economic activity and indirectly by increasing public expenditure. Nowadays, there is no country in the world which is economically able to master the effects of natural disasters and their consequences, and fully compensate the damages. From a historical point of view, the success of measures applied before, during and in the aftermath of natural disasters, depends the level of risk transfer from individuals, companies and the state as insurance institutions. Experience has shown that countries with a developed insurance and reinsurance system "struggle" more successfully with natural disasters and their consequences.

Providing support in the realization of the objectives of the National Strategy for Protection and Rescue in Emergency Situations in the Republic of Serbia, through cooperation with international partners and the possible planning of donations and joint projects, seems to be a very unrealistic and unstable funding source. The other financing source refers to the initiation of the procedure for borrowing and issuing guarantees of the Republic of Serbia, in order to ensure financial stability, as well as to prevent or eliminate any extraordinary circumstances that may endanger the lives and health of people, or cause large damages. However, given the poor and unpredictable economic position of Serbia, this possibility only confirms our conclusions about the certainty of an increase in the budget deficit and the unsustainability of the debt.

Bearing in mind the above mentioned aspects, we present hereby several proposals that would improve, in our view, the current state of systemically under-regulated areas in the Republic of Serbia:

- To prescribe better organizational solutions, in order to ensure the consistent application of prescribed standards (e.g. building laws, regulations on land use etc.);
- to introduce long-term insurance against natural disasters, instead of the currently widely applied one-year format;
- to provide long-term loans, in order to encourage the mitigation of the consequences of natural disasters combined with economic incentives for these measures (e.g. reduction of insurance premiums);
- to develop financial solutions that may enhance micro-financial security (micro-insurances that protect individuals and small businesses at local level), as well as macro-financial security (insurances that protect the government during the first steps in the remediation of the consequences of natural disasters).

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INSURANCE MARKET OF SERBIA FROM 2005 TO 2014

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ABSTRACT

Insurance market significantly affects the development of every country and it is an important factor of the stability of the financial sector. Insurance market in Serbia is not developed and it is, by the degree of development, far below the European average. What support this fact are the indicators of the insurance market development – the ratio of total premium and GDP (gross domestic product) and total premium per capita.

Insurance market in Serbia falls under the category of markets in the development with significant potentials primarily in the field of life insurance. Growth rapidness in the field of life insurance market in Serbia was different and showed susceptibility to external and internal influences of different factors.

On the basis of the Insurance Law and the Law on Amendments to the Law on the National Bank of Serbia in 2004, supervision of the insurance business is entrusted to the National Bank of Serbia.

In 2004, the National Bank of Serbia defined and disclosed its strategic objective in the field of insurance - creating and maintaining a safe and stable insurance sector and ensuring public confidence in the insurance sector, and all that in order to protect the interests of policyholders and third parties.

In accordance with its legal authority, the National Bank of Serbia issues acts prescribed by law, supervises the insurance business, issues and revokes licenses to engage in businesses of insurance, reinsurance, mediation and insurance brokerage and activities directly related to insurance activities, gives consent for the acts, issues and revokes consent for the appointment of members of the management and supervisory board, gives and takes away the approval for acquiring qualified participation in society, processes statistical and other information, keeps registers of data in accordance with the Law, considers the complaints of the insured and the third parties on the work of insurance companies, including the conducting of mediation activities.

Key words: *Insurance Market Development, Supervision of Insurance Operations, Insurance Companies*

JEL Classification: *I13*

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INTRODUCTION

The subject of this paper is the analysis of insurance market management in Serbia in the last ten years. Since the NBS has taken over the role of the supervisor of the insurance companies' operations and until today, insurance market has shown a continual increase and the trust in insurance companies is slowly coming back. In order to assess the development of the insurance market it is necessary to analyze the entire management of insurance companies in Serbia for the previous period. What should be analyzed is: realized total assets, share in total insurance premium, the ratio of non-life and life insurance, who the participants in the insurance market are, the structure of insurance and other parameters that are required for the assessment of insurance market development, as well as the actions and procedures of the National Bank of Serbia which were taken in order to improve insurance market.

Upon taking control over the insurance sector the existing situation was characterized by the absence of good practice in business, lack of adequate control, lack of security in investment of insurance funds to discharge obligations to policyholders and third parties, the absence of transparency in the work, the absence of regular reporting, the incompleteness of business records, and thus unreliability of disclosed data, the overflow of funds to insurance subsidiaries, disorderly settlement of obligations to policyholders and third parties, double issue of policies, the wrong set business goals of insurance companies - instead of protecting the interests of policyholders and insurance beneficiaries, it is obvious that the aim was to protect the interests of owners, lack of public confidence in the insurance sector, a high level of illegal business activities, a significant number of legal entities operating in the insurance sector without a license, insufficient or inadequate activity of the association, the absence of good practice by auditors and actuaries. A number of insurance companies was not able to meet their obligations to policyholders and beneficiaries of insurance, and when they were able, they were financed from current inflows, which means that the premium charged for the new policy, instead of their safe investments, were used for repayment by the previously issued policies, which created a pyramidal system of insurance, which contributed to the total loss of public confidence in the sector.

To achieve its objective in these circumstances, the National Bank of Serbia has focused its activities in several directions simultaneously:

1. The stabilization of the sector,
2. Restore public confidence in the insurance sector,
3. Create ground work for the development of the sector,
4. The creation and development of the supervision functions
5. The continuous education of employees.

The new Insurance Law clearly prescribed legal regulations that have contributed to restoring public confidence in the insurance sector, which for years before that did not exist because of economic and political instability

in the country. The most significant change in the field of regulation of solvency in the insurance industry at EU level is the Solvency II directive which was first applied in October 2012. A key requirement that the Solvency II directive imposes on insurance companies is risk management and allocation of an adequate size of capital to cover those risks, where for the first time the capital requirements (in addition to credit, market and insurance risk) include operational risk.

PARTICIPANTS IN THE INSURANCE MARKET OF SERBIA

The following table provides an overview of market participants by age and situation analysis.

Table 1: Participants in the insurance market of Serbia

	2005	2006	2007	2008	2009	2010	2011	2012	2013
DO life	1	2	4	6	7	7	7	7	7
DO non-life	7	6	8	9	9	9	11	11	11
DO life + non-life	8	7	6	6	6	6	6	6	6
DO reinsurance	2	2	2	3	4	4	4	4	4
DO reinsurance + insurance	1								
Insurance companies – total	19	17	20	24	26	26	28	28	28
Majority foreign ownership	5	8	13	17	19	19	21	21	21
Domestic companies	4	9	7	7	7	7	7	7	7
Banks			5	11	15	16	19	19	19
Legal entities	40	44	59	65	69	77	79	84	87
Private individuals : entrepreneur	35	87	123	122	122	117	109	105	112
Private individuals : agents - insurance intermediaries	2.578	3.982	5.002	8.190	10.124	11.418	13.363	14.123	14.457
Travel agencies	1	1	1	1					

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2005 to 2013, modified

When it took over the functions of supervision over insurance companies, the National Bank of Serbia caught the insurance market at a very low level of development.

Number of insurance companies in 2005 was reduced by 50% (from 40 to 19), four companies commenced the process of voluntary liquidation, one merger was carried out, so on December 31 2005, 19 insurance companies were operating on the market, of which 16 companies were engaged in insurance business only, only 2 companies in reinsurance, while only one company was involved in both insurance and reinsurance. Of the companies engaged in insurance business, only one company dealt with life insurance exclusively, 7 companies with exclusively non-life insurance, 8 company dealt with both life and non-life insurance (NBS, (2006). Insurance sector in Serbia, Reports for 2005, Belgrade).

Insurance companies were obliged to draw demarcation lines between insurance and re-insurance businesses as well as between life and nonlife insurance by December 31, 2007.

Observed through the ownership structure of capital, 5 out of 19 insurance companies in 2005 were under foreign ownership, 14 were under domestic ownership, of which two companies were in public property, and 12 companies in private ownership.

During this period the characteristic was that companies with majority foreign ownership recorded a small market share of only 12%, and they made 71% of the life insurance market. Two largest companies accounted for 70% in non-life insurance.

Stabilization of insurance market and creation of right environment will create conditions for attracting serious strategic partners, who will bring new products of good quality into the market as well as new knowledge. This is supported by the experience of countries in the region where strong new participants contributed to an increasing competitiveness of the existing companies.

In 2005, the number of other participants in the insurance market - brokers and dealers, also decreased by approximately 50% (from 149 to 75), except that the previously existing 90% (133) were left without work permits, and in the meantime 59 legal entities and entrepreneurs obtained the work permit, so in the sales network, in addition to insurance companies, participated 40 legal entities, 35 private individuals-entrepreneurs, one travel agency, and 2.578 private individuals licensed to engage , i.e. mediate in insurance. The aforementioned activities significantly improved the quality of the sales network, which will further be promoted by allowing banks to carry out the sale of insurance policies.

Stabilization of the insurance market has created conditions for attracting serious strategic partners, which will, on the one hand, influence its development by introducing new products, and on the other, improve the business of insurance companies by a quality new way of capital management and a careful risk management (NBS, (2007). Insurance sector in Serbia, Reports for 2006, Belgrade).

Based on all these indicators, we can conclude that the stabilization of the insurance market, as a strategic objective of the National Bank of Serbia, achieved after 3.5 years, through the creation of conditions for business, which attracted strategic partners with majority foreign ownership. The privatization of one of the two largest market participants, insurance companies with foreign ownership increased their, and previously noted, prevailing share in life insurance premium

(from 68.7% in 2004 to 92.6% in 2007), and they also took over the dominant share in non-life insurance premium - 59.1%, total assets - 58.6% and the number of employees - 70%.

By a successful privatization process in the past, as well as by the entry of foreign companies at the market which was made possible when acquiring green field licenses, insurance companies with foreign ownership increased their already prevailing share in non-life insurance premium from 59.1% in 2007 to 61% in 2008, total assets from 58.6% to 61.2%, while keeping the share in life insurance premium at the same level of 92.6%, as well as participation in the number of employees of 70%.

In the sales network the number of banks engaged in the insurance business, legal entities, insurance agents and brokers increased in the previous period, so we had 19 banks that received permission for insurance brokerage, 87 legal entities, 112 private individuals-entrepreneurs, while 14.457 individuals received the certificate of brokerage or mediation.

REALIZED PREMIUMS IN THE INSURANCE MARKET OF SERBIA

In the table below are given total earned premiums and growth in relation to the previous years in the Serbian insurance market according to age and place Serbia occupies in the world.

Table 2: Gross insurance premium in Serbia

Year	billions RSD	mil €	mil \$	Place in the world	Growth of GDP Year
2004	25.1	318	433	66	
2005	34.7	406	480	67	38.2%
2006	38.3	485	639	62	10.4%
2007	44.8	565	833	67	17.0%
2008	52.2	589	830	62	16.5%
2009	53.5	558	802	66	2.5%
2010	56.5	536	713	70	5.6%
2011	57.3	548	709	68	1.4%
2012	61.5	540	713	78	7.3%
2013	64.0	559	770	65	4.1%

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

The preceding table shows that in the past we had a continuous growth in gross insurance premiums in Serbia. After establishing order in the Serbian insurance market, we had a significant increase in gross premiums in 2005 compared to 2004, even by 38.2%. Global economic crisis had an impact on the

development of the insurance market in Serbia, so we had a stagnation of growth, but in recent years the situation has been evolving so we can expect the growth of the insurance market. Even though the insurance market has had a growth during these past years, it is still below the average of European and regional countries in regards to realized gross premiums.

In the tables below are given the balance sum of insurance companies individually for the period from 2005 to 2013. Individual achievement of realized balance sum and share in total balance sum were analyzed. The results of the insurance companies owned by foreign and domestic companies and indicators for a couple of leading insurance companies are singled out.

Table 3: Balance sums expressed in millions RSD

	2005	2006	2007	2008	2009	2010	2011	2012	2013
GRAWE	1.776	2.214	3.878	5.103	7.000	9.097	10.051	12.386	14.150
WIENER ST.	2.360	2.966	5.542	7.291	9.361	11.634	12.916	15.116	17.734
WIENER Re				449	1.087	2.298	2.353	3.132	3.231
UNIQA ado (Zepter)	2.075	1.961	2.594	2.587	2.729	3.282	3.504	4.076	4.742
UNIQA non-life			1.359	3.032	3.571	4.087	4.365	5.141	5.439
MERKUR			259	347	486	741	942	1.316	1.627
BASLER non-life			391	378	361	798	812	946	941
BASLER life			247	258	253	437	422	464	474
AXA life						485	622	666	670
AXA non-life							722	833	983
Societe Gen.					335	282	395	408	498
Met Life							481	532	556
SAVA		1.083	1.555	1.887	2.353	2.793	2.608	2.559	2.559
SAVA life				308	303	267	271	341	415
GENERALI (DELTA)	3.578	5.033	8.061	10.331	13.704	17.144	20.180	24.371	26.664
GENERALI Re	664	1.023	803	684	1.605	1.653	1.942	2.153	1.921
AMS	859	1.002	1.399	1.739	2.261	2.485	2.511	2.721	3.067
AS				489	922	1.386	1.155	1.076	1.011
Energoprojekt	357	434	572	806	911	1.127	925	976	1.055
Kopaonik (Triglav)	1.711	1.487	1.750	2.333	2.684	3.208	3.585	3.731	3.689
DDOR	10.097	13.181	14.429	15.285	15.499	16.819	16.706	15.539	14.490
DDOR Re					480	1.389	1.475	1.356	938
DUNAV	16.338	19.742	20.226	23.804	24.184	25.509	26.551	29.865	29.160
DUNAV Re	1.250	1.667	1.800	2.361	2.497	3.001	3.256	3.042	3.864
TAKOVO	1.274	1.871	2.239	2.674	3.307	3.908	4.073	4.037	4.125
MILENIJUM	719	898	1.087	1.257	1.477	1.627	1.816	1.988	2.036
GLOBUS	775	1.504	2.220	862	1.153	1.273	1.035	1.040	993
Other	2.583		212	543	703	385		685	745
TOTAL :	46.416	56.066	70.623	84.808	99.226	117.115	125.674	140.496	147.777

Others: 2005 - Prizma, SIM, Polis, Morava ;2007 - CA Life; 2008-CA Life, AIG; 2009-CA Life, Alico; 2010- Alico; 2012,2013-Sogaz

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2005 to 2013, modified

Table 4: Share in total balance sum expressed in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013
DDOR	21,8	23,5	20,4	18,0	16,1	15,5	14,5	12,0	10,4
DUNAV	36,8	36,4	31,2	30,9	26,9	24,3	23,7	23,4	22,3
GENERALI	9,1	10,8	12,6	13,0	15,4	16,1	17,6	18,9	19,3
U+W+G+M	8,9	12,7	19,3	22,2	24,4	26,6	27,2	29,3	31,8
Foreign	12,2	14,7	22,7	28,0	29,1	49,8	52,1	56,1	55,2
Domestic	87,8	85,3	77,3	72,0	70,9	50,2	47,9	43,9	44,8

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2005 to 2013, modified

From the table above we can see that at the beginning of 2005 the share in the total sum of domestic insurance companies was dominant. The introduction of order in the insurance market of Serbia and the opening of markets to foreign insurance companies increases their participation and they slowly take precedence. In 2013, their share was 55.2%. In the recent period the largest three insurance companies were (DDOR, and DANUBE DELTA GENERALI), and they participated in over 67% of the total insurance premium. During this period their dominance weakened, and the ownership structure changed. Operations of four Austrian insurance companies are interesting (UNIQA, WIENER SHTEDICHE, GRAWE and Mercury) – during this period they showed a continuous growth from 9.1% to 19.3%, which is a very good result.

By analysing operations of insurance companies in the past, we can conclude that we have a continuous growth of business and the growing participation of foreign insurance companies, which caused new products and new insurance companies to appear on the Serbian insurance market.

Table 5: Trends in the Serbian insurance market from 2005 to 2013

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Total premiums expressed in billions of RSD	34.7	38.3	44.8	52.2	53.5	56.5	57.3	61.5	64.0
Life insurance premiums, in billions of RSD	3.3	4.0	4.9	6.3	7.9	9.3	10.0	11.9	14.1
Share of life insurance premiums in total premium, in %	9.5	10.6	11.0	12.2	14.7	16.5	17.4	19.3	22.0
Non-life insurance premiums, In billions of RSD	31.4	34.3	39.8	45.8	45.7	47.2	47.3	49.6	49.9
Premium per capita (density), in €	55	65	77	80	76	73	76	79	78
Life insurance premium per capita, In €	5	7	8	10	11	12	13	15	17

Share of premium in GDP (penetration), In %	2.1	1.9	1.9	1.9	1.9	1.9	1,8	1,8	1,8
Balance sum in billions of RSD	46.4	56.1	70.6	84.8	99.2	117.1	125.7	140.5	147.8
Number of insurance companies	19	17	20	24	26	26	28	28	28
Number of employees, expressed in thousands	7.299	7.883	9.704	11.713	11.142	11.142	11.289	na	na

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

From the table above we can see that the insurance market had a continuous growth in the past, but we should not ignore the fact that we are still at the bottom of the European and global scale by premiums realized. It is praiseworthy that the share of life insurance in total premium is increasing. By the share of GDP we are below the average of central European countries which is 2.5% to 3%. Our share is below 2% which represents a weak result.

Table 6: Total premium by types of insurance from 2005 to 2014, expressed in percentages

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Auto responsibility	30.7	32.3	32.1	31.7	34.1	33.3	32.6	31.5	30.6
Vehicle insurance	12.5	12.8	14.7	16.2	14.2	13.5	12.6	11.3	10.0
Property insurance	33.0	29.5	26.5	24.7	22.6	22.1	22.0	22.2	21.6
Other non-life insurances	14.4	14.8	15.7	15.3	14.5	14.6	15.4	15.8	15.8
Life insurance	9.5	10.6	11.0	12.2	14.7	16.5	17.4	19.3	22.0

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

In the structure of premiums in the previous period, life insurance had a dominant role – auto responsibility and property insurances with over 60%. We had this trend during the entire period, but bear in mind that in the last few years we had a significant increase in the share of life insurance. So, at the end of 2013, share of life insurances in total insurance premium was 22% which represents a significant success, but we should also mention that we are still far below the European and global average.

BALANCE STRUCTURE

Table 7: Assets structure on December 31, expressed in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Real estate	36.4	21.6	18.4	22.5	19.6	17.0	15.9	15.4	14.3
Long-term investments	13.0	21.9	23.4	18.3	21.8	20.8	30.3	35.0	42.5
Short-term investments	18.1	26.4	28.2	27.2	28.2	34.3	26.2	22.7	18.4
Claims	18.1	14.6	13.0	12.0	9.7	9.6	11.3	11.9	9.3
Cash	7.2	9.6	11.1	11.9	12.5	9.0	6.2	6.1	6.3
Others	7.2	5.9	6.0	8.2	8.2	9.3	10.2	8.9	9.3

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

At the end of 2013, 57.9% refers to fixed assets (of which 42.5% refers to long-term investments and 14.3% to real estate), 42.1% refers to current assets (of which 18.4% refers to short-term investments and 9.3% to claims).

In comparison with the previous year it can be concluded that long-term investments increase the overall share by recording a significant growth rate of 27.8%.

At the same time there is, in the previous period, a visible decline in the share of real estate as part of fixed assets, as well as the decline in the share of short-term financial investments and claims under current assets.

Table 8: Structure of liabilities on December 31, expressed in %

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Capital and reserves	40.1	37.0	34.9	29.9	29.4	27.5	26.5	25.3	23.7
Mathematical reserve	8.4	9.9	13.0	16.2	18.8	21.9	24.4	27.9	31.7
Unearned premiums	23.9	23.9	23.0	22.5	19.7	17.6	16.4	15.5	15.2
Outstanding claims reserve	16.2	17.1	18.9	20.8	20.9	19.4	17.9	16.8	15.7
Technical reserves	0.7	0.6	1.0	1.2	1.6	1.8	2.4	2.4	2.5
Others	10.7	11.5	9.2	9.4	9.6	11.8	12.4	12.0	11.2

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

In the structure of liabilities at the end of 2013, technical reserves accounted for 65.1% and capital and reserves for 23.7%. While capital in the amount of 35.0 billion RSD in 2013 decreased by 1.8%, the technical reserves in the amount of 96.2 billion recorded a growth of 9.4%, while mathematical reserves had the largest share in these reserves, with a growth rate of 19.5%.

Movements of technical reserves and total premium are also indicators of the results of the activities undertaken in order to stabilize and regulate

insurance market. In the previous period we had a much quicker growth of technical reserves than total premium, which is largely a result of the establishment of criteria for the calculation of technical provisions, prescribed by the NBS, as well as strict control of the adequacy of allocations of technical reserves, which resulted in the acceptance of the practice of insurers to have a more realistic estimate of the reserves, thereby significantly protect the interests of policyholders and insurance beneficiaries.

SOLVENCY

Solvency of insurance companies depends on the sufficiency of technical reserves for contingent liabilities as well as on the sufficiency of guarantee reserves as a form of protection of the insured in case of unexpected losses in business, or as a cushion for losses not covered by technical reserves.

Table 9: Solvency indicators on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Solvency margin, billions of RSD	10.0	8.7	9.8	12.0	13.3	14.2	14.8	16.5	16.7
Guarantee reserve, billions of RSD	17.1	17.9	20.7	21.0	24.5	26.9	27.8	30.0	29.1
The ratio of retention premium and total capital in % for non-life insurance	200.8	178.0	179.0	212.5	195.3	181.9	179.5	185.3	193.9
Ratio of total capital and technical reserves, in %, for life insurance	59.4	34.5	33.4	29.6	32.3	29.4	26.3	33.0	28.5

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2005 to 2013, modified

The ability of insurance companies to absorb the risk of inadequate price level of premiums, unforeseen claims and inadequate transfer of risk to coinsurance and reinsurance is measured by the ratio of retention premiums and total capital. For companies engaged in non-life insurance, retention premium is an approximation of risks and should be sufficient for the payment of claims and security benefits. Otherwise, total capital i.e. its parts are used as a guarantee.

This ratio in 2013 was 193.9%, while in 2012 it amounted to 185.3%. This change is a result of increased retention premium and a slight decrease in the capital of the insurance companies, with the required level of solvency margin for non-life insurance.

We can see from the previous table that by stabilizing the insurance market, the solvency margin is also showing a tendency of growth, especially in the last few years. At the end of 2013 it amounted to 16.7 billions RSD. Similar is the situation with the guarantee reserve, which at the end of 2013 amounted to 29.1

billions RSD. The growth of these parameters was influenced by the NBS adoption of regulations on the amount and method of forming the above mentioned reserves, as well as rigorous controls for the implementation of the adopted measures.

As an important indicator of insurance companies businesses which are primarily engaged in life insurance is the ratio of total capital and technical reserves. In the previous period we had a tendency of decrease in the mentioned parameter, which resulted in a significant increase in mathematical reserves.

The value of the mentioned ratio in 2013 indicates the existence of a "reserve" of 28.5% in the case of inadequately measured risks of these companies (for which, in life insurance, technical reserves represent a good approximation).

QUALITY OF ASSETS

In order to stabilize the insurance market, which in 2004 was characterized by the absence of secure investments of funds and non-settlement of obligations to policyholders by a number of companies, in addition to the permanent control, they are now establishing criteria for investment of insurance funds, primarily technical provisions and criteria for evaluation of balance positions. These activities have contributed to improving the quality of assets of insurance companies.

In addition to the ability of insurance companies to make the calculation of premiums to be at a level sufficient for damage reimbursement, it is necessary to provide its billing. Otherwise, the insurer may face a problem of failing to fulfil his/her obligations to policyholders.

Table 10: Indicators of the quality of assets on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
The share of intangible assets in securities and claims in total assets in % for non-life insurance	61.5	43.0	38.6	44.2	39.3	37.0	38.1	35.0	30.0
The share of intangible assets in securities and claims in total assets in % for life insurance	26.7	18.4	15.6	10.2	10.7	8.9	8.0	4.3	3.8
The ratio of claims to premiums and total contracted premium in % for non-life insurance	23.8	13.4	13.2	13.7	10.6	11.27	11.9	14.2	10.3
The ratio of claims to premiums and total contracted premium in % for life insurance	16.6	17.3	19.6	13.5	12.7	11.7	11.3	3.9	3.6

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

Prescribing rules for the assessment of balance sheet items and control payment of claims of insurance companies conducted by the National Bank of Serbia, as well as improving business practice, had caused, over a longer period of observation, positive movements of relations between claims for premiums and total contracted premium.

By analyzing data from the previous table, it can be concluded that, in the previous period, we had a positive trend of the given indicators.

THE COVERAGE OF TECHNICAL RESERVES BY THE PRESCRIBED TYPES OF ASSETS

In order to ensure the protection of the interests of policyholders and third parties, i.e. timely settlement of claims, it is not enough to merely establish an adequate level of technical reserves, but also to investment them in a way that ensures the fulfillment of obligations in both the present and future. In order to be able to meet its obligations, the company is obliged to place funds in such a way to be able to take account of the risk profile and limits of risk tolerance (qualitative and quantitative), using their strategies and policies for managing risks that come from funds placement.

Table 11: Indicators of the coverage of technical reserves by the prescribed types of assets on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Coverage of technical reserves in % for non-life insurance	87.1	100.1	96.5	90.4	94.2	100.3	99.3	100.2	100.6
Coverage of technical reserves in % for life insurance	74.2	95.0	92.0	100.3	100.9	101.7	101.5	100.9	100.3

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

Analysis of the data in the table above shows that companies engaged primarily in life insurance had better coverage of technical reserves.

Table 12: Indicators of the coverage of technical reserves by the prescribed types of assets, total for non-life insurance on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Investment in state securities, in%	na	14.0	10.0	10.0	16.0	24.0	29.0	35.6	38.9
Bank deposits in %	13.0	28.0	27.0	30.0	27.0	32.0	29.0	21.0	19.7
Cash in %	Na	Na	Na	20.0	21.0	14.0	12.0	13.9	14.5
Investment property in %	30.0	17.0	20.0	7.0	8.0	6.0	10.0	11.4	11.7
Receivables for undue premium in %	na	Na	na	12.0	10.0	9.0	3.0	7.1	6.3

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

From the table above we see that the companies in the previous period increased investments in government securities and reduced bank deposits, cash, investment in shares in the market and receivables for undue premiums.

Table 13: Indicators of the coverage of technical reserves by the prescribed types of assets, total for life insurance on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Investment in state securities, in%	33.0	57.0	69.0	71.0	72.0	59.0	82.0	85.7	88.5
Bank deposits, in %	na	16.0	12.0	19.0	20.0	30.0	12.0	7.8	5.2

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

The situation is the same in the companies that primarily deal with life insurance, investments in state securities are increased and deposits with banks decreased.

PROFITABILITY

We take applicable technical result in retention as the main indicator of profitability (the ratio of incurred claims in retention and applicable technical premium in retention), which is also an indicator of price policy and adequacy, i.e. sufficiency of premiums for settlement of liabilities for insurance contracts and adequacy of transfer of risk in the reinsurance and coinsurance. This indicator shows the sufficiency of retention premium for the settlement of claims in retention of the company.

Table 14: Indicators of profitability on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Relevant technical result in retention, in %	77.0	77.6	84.2	78.1	76.7	73.6	67.9	71.4	70.4
The ratio of net results and total assets in % for non-life insurance	0.9	4.3	3.0	3.0	0.74	1.62	0.76	0.76	-0.05
The ratio of net results and total assets in % for life insurance	Na	-7.9	na	-0.44	0.28	0.89	-0.58	-0.34	0.03
Total net result and return on total assets of all companies in Serbia in %	Na	2.4	na	2.3	0.64	1.44	0.42	0.59	-0.04

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

According to the 2004 data technical result amounted to 65.0%, which should be taken with caution, given the lack of reliability of data, primarily in terms of underestimating obligations to policyholders, as observed in the exercise of control of the company. From the table we see that this parameter had a positive trend in the past and that it was generally satisfactory.

The ratio of net results and total assets in insurance companies engaging primarily in non-life insurance for the first time in 2013 had a negative result, -0.05%. The above deterioration is the result of negative net results.

In 2006 there was a negative net result of -7.88% in the insurance companies that engage primarily in life insurance. This result is caused by the beginning of the expansion of contracting life insurance (number of contracted insurance increased by 56% compared to 2004, and the total life insurance premium recorded a growth rate of 140%), which in the early years was characterized by high costs of insurance, but also higher extract in technical reserves. At the end of 2013 this parameter has become a more positive sign and amounts to 0.03%.

In terms of all insurance companies in Serbia that deal with insurance business, achieved net result and return on total assets for the first time in 2013 had a negative result of -0.04%.

LIQUIDITY

If the insurance company wants to be able to meet their obligations, it must take into account the compliance of assets and liabilities by maturity, and the sustainability and quality of their assets. Since the height and timing of individual damages are uncertain, the company must carefully plan the structure of their funds primarily for settling the claims, and then for other liabilities.

Table 15: Indicators of liquidity on December 31

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Indicator of compliance of short-term assets and short-term liabilities, in % for non-life insurance	86.3	96.0	96.9	103.2	105.3	110.3	105.2	103.4	91.8
Indicator of compliance of short-term assets and short-term liabilities, in % for life insurance	206.8	212.0	276.5	197.5	216.8	316.8	179.8	343.9	393.0

Source: The National Bank of Serbia, Reports on the Insurance Sector in Serbia from 2004 to 2013, modified

The trend of this indicator points out to the sufficiency of liquid assets to settle short-term liabilities in insurance companies engaged primarily in life insurance, and the inadequacy in the insurance companies that engage primarily in non-life insurance. Reduction of the amount of short-term assets minus the inventories is caused, primarily, by the increased placements of insurance companies in securities issued by the state.

CONCLUSION

Based on the given data, we can conclude that the number of participants in the insurance market in Serbia for the period from 2005 to 2014, had been increasing from year to year. Number of insurance companies increased from 19 to 28, an increase of 47%. This is characterized by a growing number of insurance companies with foreign ownership of capital. As a good indicator we have an increase in the number of banks that perform brokerage businesses in insurance, which will certainly affect the quality of services in the insurance business. Number of legal entities increased from 40 to 87, which represents a growth of 118%. The number of entrepreneurs increased from 35 to 112, an increase of

220%. Number of intermediaries and agents has increased from 2,578 to 14,457, an increase of 461%.

From the adjacent indicators from the last period the following changes can be identified:

1. Evident increase in the balance sum of the insurance sector;
2. The reduction of capital;
3. Increase in technical reserves, and their complete coverage both in life and in the non-life insurance;
4. The increase in the share of lending in securities and money market instruments issued by the state;
5. The growth of total premiums;
6. The growth of the share of life insurance in the total insurance premium;

Key areas which the society should deal with in the coming period: corporate governance, which, among other things, implies an adequately established system of internal controls, improving risk management, improving valuation techniques of investment, increase in transparency, strengthening good business practice and fair relationship with the client and education of potential policyholders. This will contribute to strengthening the confidence of the insured and the creation of conditions for development of this segment of the financial system.

We have to emphasize the importance of training and preparation for implementation of the new methodological framework for risk management, *Solvency II*. Adequate risk management is essential for the success of the business of the insurer. That is the essence of the *Solvency II* directive, according to which the insurer is required to understand and quantify all types of risk to which they are exposed in their operations, as well as more efficient management of these risks. It introduces a more sophisticated solvency requirements to ensure sufficient capital for the risks the insurance companies are exposed to. Implementation of the requirements of the directive, according to the draft of the new Law on Insurance, was planned when Serbia enters the European Union.

In non-life insurance segment we emphasize the importance of consistent compliance with regulations in the field of compulsory insurance in traffic, especially in terms of promptness in the payment of claims, the cost of insurance and the application of the bonus-malus system, which had a positive effect on the insurance market.

Despite all the negative effects of the recession that hit the insurance sector (limits in presenting new funds, a large founding stakes in relation to the EU, low culture of insurance and confidence of citizens in the insurance institution, bad credit rating of Serbia) in the coming period we can expect the world leaders to enter the domestic market: Allianz, VHV Group, Eureka, KBC, AXA. They show great interest to start business in Serbia and they are expected to take the leading position in the financial market, contribute to the development of the entire domestic financial system and intensify competition in the insurance market.

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CORRELATION BETWEEN THE VALORIZATION OF TOURIST RESOURCES AND SUSTAINABLE TOURISM DEVELOPMENT

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ABSTRACT

Tourist valorization is one of the most important and complex questions in the theory and practice of tourism, which means qualitative and quantitative estimation of tourist resources' values. Valorization represents the most significant phase in the planning of tourism spatial development, for the purpose of objective evaluation of tourist resources' values. Speaking of tourism development in a particular area, a priority is given to the resources with highest value aiming to provoke the biggest tourist demand.

Existence and attractiveness of tourist destination resources is particularly important to the destination development. Nevertheless, the true tourist resources' valorization depends first and foremost on tourists, that is, on their subjective perception and estimation.

The issue of managing the tourist resources, that is, the tourist management, is getting even greater importance, the aim of which is the achievement of the integral component of using tourist resources profitably, their maintenance, that is, taking advantage of the resources without damaging them and their development. The result of this is the need for an examination of the significance of managing the tourist resources development.

The concept of a sustainable development of tourism involves few dimensions which show the connection of the economic, social and cultural development and limitations of life environment, without domination of any part of those elements. The continuous development of the tourism depends first and foremost on the ability of life environment to provide a stable and long-term basis of development.

Key words: *Valorization, Tourist Resources, Management, HRM, Sustainable Tourism*

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INTRODUCTION

The issues of tourist valorization of the resources are emerging as a consequence of the need for axiological approach to the interpretation of tourism development. Tourist valorization is very complex and important issue not only in the theory of movement, but also in economics, organization and many other sectors of the tourism development. The tourist evaluation in all areas of tourism activity and valorization depends on the objectives to be achieved. Because tourism values can be affirmed and potential, valuation should be qualitatively and quantitatively, in order to give their best combined results.

The problem of managing tourism resources, and tourism management, is gaining an increasing importance in order to achieve integral component of profitable utilization of tourism resources, their preservation or use without exploitation and development. Therefore there is need for consideration of the importance of managing the development of tourism resources. It means devoting special attention to human resources in tourism, or their expertise, ability and motivation to engage in the planning and development of tourism, while knowing its importance to the overall economic development of the country. Also attention is paid to the organizational structure of tourism or its willingness to bear the responsibilities of the job, the importance of service as a significant destination activities offered to tourists and consider the need for establishing a tourist information centre.

Does a particular environment have the potential to develop tourism or not, or whether it has content that will enable meeting the desires and needs of tourists, largely indicates on the level of opportunity for tourism development in that area. First of all it is important to determine what kind of content or factors in the area has performed dismissal or meet tourist needs, ie the receptive field.

The concept of sustainable development implies a balanced economic, social and cultural development without endangering the environment in which future generations will enable them to develop the same or higher than the current level. In the endeavour to prevent ad hoc tourism development in order to successfully overcome the daily changes that occur in a turbulent environment, planning for sustainable tourism development occurs as the only way to do it successfully.

VALORIZATION OF THE TOURIST RESOURCE

The tourist valorization as one of the most important and most complex issues in the theory and practice of tourism, implies a qualitative and quantitative assessment of the value of tourism resources and represents the most significant phase in the planning of the spatial development of tourism, all that in order to objectively assess the tourism values of resources . When discussing the

development of tourism in a certain area, priority is given to those resources that have the greatest value and are expected to cause major tourist demand.

Whether a specific environment has the potential to develop tourism or not, or whether it has contents that would allow satisfying the desires and needs of tourists is largely an indicator of the level of opportunity for tourism development in that environment. Above all it is very important to determine the content and factors that the specific area have and in which the dismissal or meet tourist needs i.e. receptive field.

The main characteristic of the receptive space actually is its power to attract potential tourists. Actually we are thinking of space that is rich in phenomena, processes and structures that have some capacity and can meet tourist needs.

The space and resources in the area which are used in the function of the tourism possess a whole range of specifics by which they differ from the resources in other areas. Tourism requires quality space, which means that the use of each resource should encourage various tourist activities.

If resources do not have attributes that will attract potential tourists, or no conditions for a variety of recreational activities, do not have high aesthetic value, i.e. high degree of attraction, they are only resources, but they are not at the same time tourist resources.

Anything that has the ability to meet the tourist needs represents a tourist resource. The tourist resources are those natural and social goods which may be vaporized, to be valued and utilized, but also those phenomena, processes and facilities that tourists visit. Therefore the overall tourist offer should be based on the characteristics and properties of resources in the space because if the space do not dispose with natural or human resources that have a high degree of attraction, it is impossible to be upgraded by anything else.

The tourist resources can be divided and grouped by: attractive action, the origin of the resources and the size of their action. Thus, according to the attractive effect, the tourist resources can be (Stojmilov, Marinoski, 1999):

- **Recreational** - affect the physiological functions, by preventive significance for people's health. These are complex units in nature that occur in different combination of essential components of its composition, such as: relief, water, air and wildlife. These include seas, lakes, rivers, mountains, forests and so on.
- **Cultural** - meet the cultural needs of the tourists, acting primarily on the mental functions. Their attractiveness is contained in the specific shape and in the way of the contents appearance. This group of resources include monumental (churches, monasteries, castles, museums, etc.), the spectacular (fairs, shows, etc.), creative (painting, fashion, etc.) and other resources.

However, according to the origin resources are divided into:

- **Natural resources** that nature created, and within this group can be divided according to origin to: geomorphological, climatic, hydrographic and biogeographic resources.

- **Social or anthropogenic** - those that are the result of human creativity, which are grouped into three groups: monumental, ethno-social and manifestation resources.

And according to the size and attractive effect, the tourist resources are divided into:

- **independent** - resources that possess such an attractive effect, with significant degree of attraction and can independently be presented to the tourism market.
- **complex**, have more attractive attributes and possessing multiple opportunities for tourism activation.
- **complementary** resources - those which cannot or do not have the power to independently attract potential tourists, and therefore fit and increase the attractiveness of the independent resources.

It can be concluded that the carriers of the tourism offer in one destination are a number of different tourist resources. However, it is necessary to define the boundaries within which we should observe the elements of the offer, in other words the institutions within which the specific function in a destination is operated.

Tourist resources in a specific tourist destination are objectively given and their attractiveness and existence are of relevant importance for the development of the destination. However, the real valorization of the tourist resources depends mostly of the tourists, from their subjective perception and valuation.

Motivating factor for potential tourists to engage in tourist movements is actually a need to experience something extraordinary, related to the attractive tourist destinations. Anthropogenic tourist attractions or tourist motives actually appear and processes in a destination that attract tourists, but exerted by human activity and creativity.

Having in mind that the basic, independent, leading or major attractions are actually creators or holders of the tourist offer, than it is clear that firstly should be performed valorization of these attractions.

On the other hand, they affect the overall physiognomy of the space because arranging the surrounding area is put in their function, they also treated as a point that has initiated the development in that area, and thus affect the establishment and extent of the profits. This group of attractions can make up and itinerary of tourism in a country.

Afterwards are valorized additional anthropogenic values that are complementary to the main. The aspects of the revitalization of the heritage as well as its operational planning of tourism should ensure the preservation of its integral values, and assurance that the cultural tourist attractions will offer valuable and enjoyable experience.

Furthermore valorization of the anthropogenic attractions include the determination of their international, national, regional or local character. Therefore there is a need to establish those anthropogenic attractions that have an international character, which only local, and how they would managed valorisation of including them in the tourist offer.

It is necessary the valorization of the anthropogenic resources should be observed in the ratio of natural attractions because in the creation of an integrated tourist product should include all attractive elements in certain space which would increase the functionality of such a tourism product. Since the anthropogenic attractions are the result of socio-economic trends, their valorization can not be done without proper achievement of the level of development of the economy.

The anthropogenic tourist motives may be independent and inseparable parts of the whole. They can independently be presented to the tourists, but not individually, but rather together, because they don't possess the same degree of attractiveness to be the basis of tourism development. They are attractive, but their attractiveness is multiplied unless are presented as a whole or a set.

The tourist valorization of the anthropogenic values is the basis for economic policy in the field of tourism (tourism policy), their marketing organization, management and environmental monitoring, that which lately is particularly topical.

Furthermore, based on previous analysis should be able to distinguish those motives which are forgotten and require rehabilitation and reactivation, the motives that are not fully utilized, such as archaeological sites, monasteries, various manifestations et seq., as well as those motives that are really exploited. All these activities should be undertaken in order to run a proper tourism policy which would lead to proper development of all regions in the country that have already active tourist, and those that are prepared to be activated and actualize.

NECESSITY OF MANAGING THE TOURIST RESOURCES

The problem of managing the tourist resources or tourist management, is gaining greater importance in order to achieve the integral component of the tourist resources profitable use, their conservation, or theirs using without exploitation and development.

That is why there is a need to consider the importance of managing the development of the tourist resources. It involves giving special attention of human resources in tourism or on their competence, ability and motivation for involvement in the planning and development of tourism, knowing at the same time its economic importance to the overall development of the country.

It also devotes attention to the organizational structure in tourism, i.e. its readiness to bear with the business responsibilities, the significance of services as important activities that the destination offers to tourists and understanding the need for the establishment of a tourist information center.

The choice of quality tourist resources is a precondition for successful implementation of the established program and goals. Namely, tourist activities, hotel and catering facilities, financial resources and all other aspects required for comprehensive tourism program are stationary, while they begin to be managed by

the human resources and connect into a broad, comprehensive tourism program. A mistake that is usually done is that it thinks that leadership is the last aspect that should be considered into tourism development. Although there are opinions that the ability for managing is an innate characteristic of man, however the true leadership skills and is a way of skills and behavior that involves capability, by assisting others to reach their potential as members of the team. Good leadership is vital, and should make efforts to recruit managers who have already achieved the respect of colleagues and who are able to effectively use all available resources.

The manager must be responsible in every moment of development of the organization which builds and assembles tourism policy. He does not need all the final decisions adopted by itself but rather it is better to consult with other associates. The role of manager covering activities and responsibilities required by the organization commits him for a particular job.

In circumstances of market economy and turbulent conditions surrounding, the manager should have a lot of knowledge and energy in order to successfully managing. Thus on the surface comes the ability of managers from which depends the success of the operation.

For successful operation it is necessary to provide tourist personnel with technical knowledge for tourism, with the ability to successfully communicate with others and a sense of responsibility in the work. It should establish short and long-term goals, but also to develop plans to achieve them.

Must also work to establish a sense of community, through the development of the objectives of all community members, especially where tourism programs can disrupt various interests. Therefore, in organizational activities should be include representatives of all interested groups.

NEED FOR PERMANENT TRAINING OF HUMAN RESOURCES

Taking into consideration the fact that the success of work in the service establishments on one hand, and also the level of quality of service on the other hand, largely depends on the quality of human resources engaged, it should be underlined the importance of correct treatment and appropriate investment in the human resources. In order the work in service establishments to be performed in the most efficient way; especially employees should pay attention to the technical skills necessary to achieve the stated goal. The best way to provide quality service by employees is the right people to be positioned at the appropriate working place.

Human Resource Management in the tourism industry takes up first place, if we have in consideration the fact that work in companies specializing in tourism and hospitality can never get completely mechanized, when it is known that the leading force are actually the human resources. These resources create profitability as primary criteria for successful management. Therefore the management should

always emphasize the integration of people and the ability to guide the company. These are accomplished successes of present as well as future management of tourist resources.

The opinion that acquired formal education of human resources in service business is a sufficient pre-condition for successful accomplishment of the tasks is no longer valid. This kind of assumption makes questionable the following items: the quality of the offered services, the opportunity to use innovations, the image/reputation of service. A contemporary worker in service sector has to follow the changes in the technology of data processing, as well as the growing range of new services. On the other hand, the employee training in service companies is a permanent task of human resource managers. Changes in service business, as for example change of ownership, introduction of new instruments, techniques and strategies, increase of competitiveness etc., all in a certain way increase the risk in the tourism and in a service business.

The management team makes selection of high quality human resources in order for further improvement. Special attention should be paid to the selection of employees who best represent the service business, which means that those employees represent the enterprise. That's why it is important to choose people who have positive energy and have a positive approach to work (they think positive not only for themselves but also for the company).

With the training, employees should be able to perform any skill, and that's why these programs should be practical and designed to enable successful or efficient learning of the necessary skills. Priority place have the most important skills necessary for successful performance of the work, followed by the less important skills.

The appropriate choice of a trainer conditions the successful implementation of the training program. All potential trainers should have the ability to communicate with people, but also the ability to properly implement their knowledge by applying high standards. It should also be pointed out the importance of the trainer's experience, because it increases opportunities for proper selection of appropriate ways to motivate employees, and also the possibility to indicate practical examples. The practical experience increases the reputation and the rating of the trainer.

Successful trainers have the ability to understand human resources with whom they cooperate in a real sense, have the patience to listen and respond correctly to the questions. They are visionaries, have organizational skills, they control the activities of the group, learn on mistakes and also use the resulting knowledge to improve the performance of their students.

Special training is needed of the supervisory personnel in order to enable them to carry out the assessment. The supervisors are responsible for the assessment of employees in the performance of their duties. Specially determining the areas where there is a need for training and development, and on the basis of the results they can plan changes in the operation of human resources in form of promotion, transfer and firing workers.

According to Nikolić investment in the education of employees on average is paying off about five times more than the investment in equipment. Accordingly (Nikolić, M., et al. 1997):

- All employees can study, but not equally learn, because they differ by level of prior knowledge, capacity, speed and extent of memory.
- The individual should be motivated to learn (be aware that there is a need for education to have a desire to learn and become familiar with what is needed to learn).
- Considering the fact that learning is an active process, as many senses should be involved in the process.
- The greatest success in learning is achieved when it is done under mentorship because running candidates accelerate the learning process and provide feedback (whether it is the manner and scope of learning in order).
- Is taught using a variety of manuals, literature, computer programming packages and so on.
- Time is needed to assimilate learning, acceptance and gaining confidence in the implementation.
- Methods of learning should be as varied to avoid monotony. In this sense, even the computer simulation becomes dull over time, if not changed and supplemented by other methods.
- Individual should see the advantage of permanent improvement (promotion, recognition, salary increase etc).
- Should establish standards and criteria for the speed and quality of learning.
- Methods of teaching should be adjusted depending on the level of education of the candidate, age and specifics of the job.

The three basic, primary aims of the human resource management (HRM) are the following: (1) attracting effective workforce, (2) development of potentials of the effective workforce and (3) long-term retainment of effective workforce in service companies. The completion of these three tasks of human resource management requires forward planning skills, predicting, operation analyses, recruiting, selection, training, professional development of workforce, performance estimate, appropriate pecuniary compensation and provision of additional benefits, as well as provision of appropriate way of employment termination and retirement.

With its dominant role in creating a service product, human factor has the decisive role in the operation of a enterprise. Making benefit of their own abilities, the available capacities and natural values of a location, workers plan, create and design a offer, they create and control the quality of services, they manage the work process, make decisions. Both the quality and productivity of their work, and the economic benefits they gain, depend on employees' skill and ability. This especially refers to managers because of theirs key role in company success in a conditions of competition which depends of theirs work and of theirs employees work. Managers are the essential element for realizing their effects and also for the effects which realize their employees. Employees have to be trained for technical aspects of their work, and managers have to be trained for managing, decision

making and predicting. The lower level service staff on the enterprise's organizational structure is the ones that make direct contacts with the guests most frequently. So, managers have to attract effective workforce, develop their potentials and retrain them permanently.

The opinion that formal education gained and individual's practical experience were sufficient to qualitatively carry out work tasks prevailed for a rather long period in the sphere of the service companies. The need and importance of staff training has not been realized. Such an assumption brings under doubt the quality of the offered services and the image of the service enterprise.

The need of both recruiting competent employees for adequate jobs and their permanent training and improving their skills and knowledge is nowadays becoming more relevant. The training system allows for each employee to increase work results, and to increase business efficiency and effectiveness of the enterprise as a whole. Training gives employees the opportunity to enhance their skills, which, on the other hand, gives them self-esteem, satisfaction and confidence in carrying out the work assignments. Training is carried out using various methods and techniques.

METHODS OF TRAINING OF HUMAN RESOURCES AND EFFECTS OF IMPLEMENTATION OF THE PROGRAMMES

The development of human resources to a particular enterprise is conducted through several forms of learning, and most importantly is that the human intellect should be jointly invested both by the enterprise and the individual. When it comes to the enterprise, we should mention that the learning process may include all employees in different ways and with varying intensity. Organizational learning, thus, is a collective process, but implemented primarily as individual learning which the organization provides and encourage. (Argus, 2004)

Encouraging learning in the company is done in order to properly implement the development policy or a particular development strategy. That's why the organizational learning is defined as "a process of coordinated systematic change where individuals and groups have disposal of mechanisms of approaches, building and using organizational memory, structure and culture in order to achieve long-term development prospects of the organization." (Armstrong, 2001)

The main division in creating training programs can be made on the basis of whether it is for training of the manager personnel or training of direct executives (non-manager personnel). Methods for training of non-manager training personnel are applied for training of the direct executives. They are divided into two groups: training methods for the workplace and training methods outside the workplace.

Methods for training the managers can be divided into two groups: *methods for development of managers in the workplace and methods for training managers outside the workplace.*

Methods for training managers *in the workplace* are based on gaining experience in the process of execution of the manager work. It is a real experience that is acquired through practical work in realistic situations, and often managers are taught on the basis of their own mistakes. According to Sherman, that group includes the following methods: (Rakičević,2004)

- Immediate counseling and mentoring at work – the supervisor takes over the role of the instructor, gives advice to the subordinate during work, guidance, suggestions and comments, so he can be trained to undertake more complex manager work.
- Assigning deputy or assistant - the deputy (assistant) is delegated a part of the manager's job. Thus, the deputy is trained to take the post of manager because this place will be released (for promotion of the manager or retirement).
- Rotation of work - candidate changes jobs at different levels of management.
- Lateral transfer - like job rotation, provided that the manager experience is acquired by transfer of different jobs at the same management level.
- Assigning projects - the candidates are awarded projects, they take up the place of a leader of the project in order to demonstrate their ability to plan, organize, manage human resources, manage and control the project work.
- Attendance at meetings of the personnel - candidates attends hearings and decisions on certain issues for which they have no experience. Carefully listening to the ideas and opinions of the experienced managers, they gain experience for future.

Methods for training managers *outside the workplace* are applied at individual and group basis, according to specially designed programs. They consist of the application of several techniques that can be applied cumulatively:

- Method case study - it is actually for practical examples or cases of business practices. Moreover, defines the problem to be solved, use the data that are available, and contribute to the problem, propose an appropriate solution and its validation. This experience can be used to solve new business problems.
- Training "in basket" - a method for simulating a real situation. It consists in solving problems and recommending appropriate decisions, setting priorities in solving problems where managers are time limited.
- Group discussion without host - it discusses the problem to be solved, where the initiative, ability to guide and skills to work in a group are assessed.
- Manager games – they play certain games based on example of a hypothetical company.
- Role play - to simulate a situation in which participants assemble texts and play (act) those persons.

- Laboratory training - raises the experiences, feelings, emotions and perceptions regarding the work and enterprise, in order to increase the ability to understand the individual and the group.
- Modeling of behavior – is applied to teach the candidate how to behave in the workplace.

With the implementation of various programs for education and professional training of the employees more positive effects should be achieved. What should primarily be emphasized is the realization of the goal, that of improving the quality of service. On the other hand, because it's a question of education that includes multiple modes of implementation it should also be pointed the possibility for increasing the sense of teamwork, cooperation and collegiality. As the result of that it is achieved smaller conflict situations between employees on one hand and reduction of fluctuation of personnel and absence from work on the other side.

Improving collaboration and interpersonal relationships is noticeable among the management personnel, and between other employees i.e. the direct executives. The improvement of the performance results in cost reduction, increasing productivity, reducing the need to control that in turn causes increased feeling of confidence among employees, strengthening the professionalism and so on. By creating a positive climate for work or relaxed working environment allows reducing fatigue among employees, increased sense of safety in the work, and also relieve of stress, relieving tension and reducing accidents in the workplace. However, among other things it also performs promotion of health measures and hygiene at work which stimulates sense of responsibility among employees and increases the level of ethics.

Considering the fact that standard education cannot fully meet the needs of the market economy, it is desirable any bigger enterprise to have its own center for education and training. Since it is not always possible to realize that independently, it can be done in cooperation with a specialized educational institution. This will allow permanent education of employees in specialized programs, based on previously determined needs.

TOURISM AND SUSTAINABLE DEVELOPMENT

The concept of sustainable development of tourism means balanced economic, social and cultural development without endangering the environment (ecologically), allowing the development at the same level or higher level. This concept of sustainable development gained its full affirmation at the UN Conference on Environment and Development in Rio de Janeiro in 1992 where it is clearly emphasized that the environmental protection is an integral part of the overall human development.

Sustainable tourism actually means applying the idea of sustainable development in the tourism sector - which means that the tourist development

should satisfy the current needs of the tourists, while taking care to conserve resources for the future generations, or to meet tourist needs in the future.

Sustainability suggests maintaining the existing situation, but the *development* means gradually moving forward from a lower to a higher level of advancement. That means if sustainable tourism development cannot ensure progress, then it should ensure the maintenance of the status quo. If the natural and socio-cultural environment of the destination is not too under stress, as can occur in wild or rural areas, then it is not problematic and the access to the sustainability of the status quo is guaranteed. But if these areas are degraded, such as failing urban centers or polluted beaches, then increased access to sustainable tourism is necessary to correct the unsustainable status quo.

In order to achieve sustainable tourism development, a certain intergenerational unity is required, that proposes the activities of present generations do not reduce the options of future generations. It means that the present generation can now use the resources, but they should be aware that in the future these resources will be needed by other generations, so they need to protect, not to destroy the resources.

The implementation of sustainable development and sustainable tourism encourages the numerous challenges that make it impossible to say whether a particular product or destination is definitely *sustainable*. Therefore tourism managers need to ask themselves why scarce resources must undergo to the sustainability strategy. Bramwell and Lane highlight that active monitoring of sustainability is preferred, not inaction, because inactivity greatly increases the probability of unsustainable results in the life cycle of the destination. (Bramwell, Lane, 1993)

It is necessary to detect the problems and endeavor to identify appropriate solutions and strategies for their solution, and not to observe the situation passively. It should also highlight the need to increase the interest estimating the increased demand for the products of alternative and conventional tourism that support the principle of sustainability.

It is a fact that the indicator is actually indicative of the condition and it is not always a definitive assessment and should be more valued. As long as identify trends moving towards unsustainable conditions, appropriate management decisions should be made, even though the values of critical signs of certain indicators are still speculative.

Finally it emphasizes consideration about the possibility of the minimalist model of sustainable tourism to simplify the parameters of its application and become attractive for destinations and companies that would otherwise have reduced interest in the implementation of a comprehensive model.

CONCLUSION

The future valorization of tourist resources in the market, their exploitation and preservation for future generations depends on more non-market rules, the period of preparation and adaptation of tourism resources for the creation of new tourism product, and the formation of completely new preferences for future participants in the tourism market. On the other hand, there is some uncertainty as to exclude the impact of factors affecting the formation of market relations and market prices of the tourist environment by recognizing only the action of the market valuation of tourism resources and services.

Permanent education in all its forms is one of the most important activities in the enterprises in the area of services. Therefore, an integral part of the work of the management team is training of human resources. Thus directly affects the quality of work or offer of quality and superior service. Well-trained employees are more confident in themselves and their abilities, they remain longer in the company, meet its obligations with greater enthusiasm, and the customers are more satisfied.

Taking into consideration the fact that the concept of sustainable tourism development actually refers to balanced economic, social and cultural development, and no environmental impact, and then it is clear that tourism management should facilitate the development of tourism which will be accomplished without degradation or depletion of basic resources. Activities at the resort management would actually refer to the proper management of resources so they can be maintained and self renewed to the extent of their usage, and then to consider the development of resources. When making the plans it is important to take in count their applicability in practice. During the application it is necessary to oversee the development of tourism in order to be able to determine achievement of goals and recommendations. With surveillance (monitoring) can be seen all the problems that will arise during the implementation of the plan, and also appropriate measures can be taken to resolve the problem before it becomes more serious.

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BASIC POSTULATES OF MASS AND POSTMODERN TOURISM CO-EXISTENTIAL RELATIONS

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ABSTRACT

The second half of the twentieth and the beginning of the twenty first century is the period in which tourism has become a worldwide phenomenon due to its massive scale. Almost all countries of the world, regardless of their tradition, strive to develop tourism, i.e. to be significantly engaged in tourism flows, as it ensures the dynamics of the overall socio-economic development.

In modern conditions, the globalization processes are increasingly shaping economic trends, which is why tourism gains new dimensions. Tourism regions with an accelerated growth rate expand throughout the continents and there is a different redistribution of global tourism trends and destinations reallocation.

The paper aims at presenting massive tourism flows, dating from the mid twentieth century till today, as well as redistribution of these developments in the world regions. At the beginning of the twenty first century, tourism still has the characteristics of a massive scale, but far greater accent is set to small-scale tourism, i.e. alternative and postmodern tourism.

In such circumstances, the relations of co-existental and postmodern mass tourism contribute to arising of brand-new destinations with unprecedented possibilities, which is of particular importance to launching tourism activities, which aim at economic intensification.

Key words: *Mass Tourism, Postmodern Tourism, Tourist Activities, Region, Destination*

JEL Classification: *L83*

UDC: *338.48"20"*

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INTRODUCTION

None of the socio-economic phenomena had such impressive changes as international tourism, especially from the 70s of the last century until today. During this period, there have been considerable qualitative, quantitative, structural, spatial, economic, sociological, cultural and other transformations, as on the side of tourism demand, so on the side of tourism supply. On the demand side, the volume of demand followed by expanding spectrum of motives, desires and needs of tourists, permanently increases, causing growing heterogeneity and complexity of the market. On the other hand, the supply market is expanding rapidly, where the number of receptive countries is growing rapidly year after year.

In the concept of so called sustainable development, sustainable tourism has an important role. In this regard, the task of tourism is to valorise unproductive areas, unsuitable for any other economic activity. The coexistence of all activities enables good relations between them, based on the purchase, sale, lease, concession, flow of labor and capital, stepping on markets, investments, etc.

Recently, in the field of tourism a great emphasis is placed on projects and destinations of small scale tourism, that is, tourism of alternative and postmodern character. New perspectives on tourism development tendencies in the world, start from the fact that small-scale tourism in most cases is more acceptable, ie that it provides sustainability and development. There is a general belief that such forms of tourism have positive environmental, economic and socio-cultural impacts on the tourist destination. However, it should not be automatically assumed that the effects of these forms of tourism are always positive, but this conclusion can be performed only after detailed analysis and with the application of certain indicators (Radosavljević, 2006, pp. 599).

Alternative tourism appeared at the beginning of 80s of twentieth century, as a critique of mass tourism, and also its complement. With the appearance of postmodern tourism at the end of the twentieth century, many of countries have expanded their tourist offer into the broader gravitational zones. Alternative tourism, in fact, occurs as a complement to the mass tourism, and the postmodern tourism "pulls" everything that these two forms have not highlighted.

Destinations of alternative and postmodern tourism are most often associated with natural or relatively intact environment. At the end of the twentieth century was exhibited, on the global scale, the ecological crisis. In conditions of disturbed ecological balance is difficult to meet existential, social, cultural and personal needs. Starting from the fact that mass tourism has created unacceptable consequences on the environment due to irrational, uncontrolled and organizationally unprepared space, modern and postmodern tourism lead to the shaping of tourism development and the environment, that is, resolution of possible segments of the current stage of the ecological crisis.

DYNAMICS OF MASS TOURISM ON A WORLD SCALE

The dynamics of the development of international tourism in the world has been extremely favorable since the second half of the last century until today. Its intensity of growth was faster, from both, the total development of the world economy and the overall volume of trade in goods and services with abroad. By comparison, in the 1950 in the world tourism participated only 25.5 million tourists with consumption which amounted 2.1 billion US \$, but in the 2012, the share of foreign tourists was even 1,035.3 million, which have spent 1075 billion US \$ to meet their travel needs outside their permanent place of residence. In this period, the share of tourists was increased by 40 times, while tourist spending was increased by more than 500 times.

This indicates a great massiveness of tourist movements in the observed period, where a sustained annual growth of international tourism was recorded, with some exceptions due to the influence of factors of economic and non-economic nature.

Table 1: International tourism on a world scale for the reference years

<i>Year</i>	<i>The number of foreign tourists in millions</i>	<i>Chain index</i>	<i>Tourism spending in billions US \$</i>	<i>Chain index</i>
1950	25,50	100,00	2,10	100,00
1960	69,32	274,21	6,87	327,14
1965	112,86	162,81	11,60	168,85
1970	165,79	146,90	17,90	154,31
1975	222,29	134,08	40,70	227,37
1980	286,00	128,66	105,32	258,77
1985	327,19	114,40	118,08	112,37
1990	458,23	140,05	268,92	227,74
1995	565,50	123,41	405,11	150,64
2000	687,30	121,54	473,40	116,86
2001	684,10	99,53	459,50	97,06
2002	702,60	102,70	474,20	103,20
2003	688,80	98,00	525,00	110,70
2004	762,50	110,70	622,00	118,50
2005	806,80	105,81	680,00	109,32
2007	903,20	106,67	856,00	115,64
2008	916,70	101,49	939,00	109,70
2009	881,90	96,20	851,00	90,63
2010	949,10	107,62	927,40	108,93
2012	1.035,30	104,00	1.074,90	103,13

Source: Unković, Zečević, 2006, pp. 240, and UNWTO Tourism Highlights for the reference years

International tourism in the world in the period from 1950 to 2012, has had an exceptionally dynamic development until the beginning of the new millennium. Under the influence of non-economic factors, this successful development was stopped in 2001 and stagnation is present ending with year 2003. In the coming years, to the greatest extent, it compensates the negative effect of these factors. The average annual growth in the period from 1950 to 2000 for the tourist turnover was 5.6 %, and for tourist consumption 11.4 %. The period from 2001 to 2003, reveals stagnation with an average annual rate of growth in number of tourists from 0.1 % and tourist spending of 3.5 %. In the coming years is observed significant positive trend in the growth of tourist turnover and tourist spending in relation to the first three years of the new millennium. The average growth of tourist turnover in the period from 2000 to 2007 was 4.1 %, and tourist spending 10 %. In 2007, tourist turnover has increased by 6.7 %, and tourist spending by 15.6 % compared to 2006.

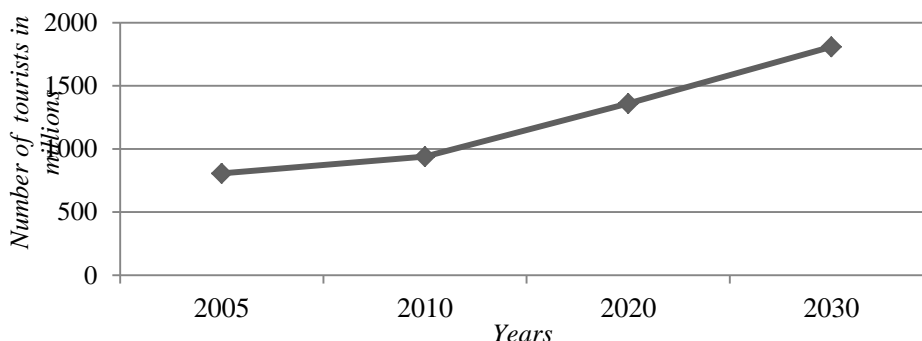
The consequences of the latest economic crisis have not bypassed tourism. This is evident in 2009, as for realized decrease in tourist turnover for nearly 4 %, and in the tourist consumption by as much as 9.4 %. In the coming years there has been an increase in tourist movements and tourist spending. In 2012, for the first time in history, the number of tourists exceeds one billion (1,035.3 million), while in 2011 tourist spending was 1,042.3 billion dollars (an increase of 12.4 % compared to 2010), and in 2012 1074.9 billion US \$.

On the basis of illustrative data, we can see that intensive tourism movements have becoming explosive in the second half of twentieth century. The most important factors that led to such a "massive explosion" of tourism are:

- Increase of social welfare, or national income, which affected the increase in fund of free working hours, and thus the diversity of travel motives;
- The development of urbanization, which led to the escape of population from rural to urban areas, thus increasing the desire and need for rest and recovery;
- The rapid development of traffic, especially automotive, so today the largest number of tourists travel by car on holiday (Kaspar, 1996, pp. 9).

The World Tourism Organization (UNWTO) has made a recent study on the prognosis of tourist movements. It is just a continuation of earlier study started in 1990. Based on the current development trends is predicted that the annual rates of growth for the period from 2010 to 2020 will be 3.8 % and for the period from 2020 to 2030 2.9 %, and that, in this 20 years long period, the average growth will be 3.3 %. In absolute figures, it is anticipated that the number of tourists in 2020 will reach 1,360 millions, and in 2030, 1,809 millions.

Figure 1: The vision of development of international tourism in the world by 2030



Source: UNWTO Tourism Highlights, 2013. Edition, pp. 14

SCHEDULE OF TOURIST MOVEMENT BY WORLD REGIONS

In the distribution of global mass tourism, dominant position is occupied by three regions: Europe, United States and Asia and the Pacific. These three regions in 2000 have absorbed 92.5 % of the total world tourist turnover, or 95.4 % of total revenues realized in international tourism.

Within the framework of world tourism in 2000, Europe takes first place with 54.7 % share in tourist turnover and 48.4 % in the realized income. Second in importance is the region of America with a share of 18.4 % in tourist turnover and 28.8 % in revenue from world tourism. Asia-Pacific region has a share of 16.8 % in tourist turnover and 18.2 % in the distribution of income. Region of Africa in the same year have participated in with 4.0 % in tourist turnover and 2.3 % in revenue, while the region of the Middle East achieved 3.5 % in tourist turnover and 2.3 % in revenues.

Table 2: The share of regions in world tourism in the period from 1950 to 2000 (in %)

Region	1950		1965		1980		2000	
	T	R	T	R	T	R	T	R
World	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Europe	66,6	42,1	74,1	62,0	65,8	60,3	57,1	49,2
United States	29,6	50,5	20,6	29,0	21,4	24,1	18,6	28,0
Asia and the Pacific	0,9	1,7	1,9	4,2	8,1	9,7	16,8	18,2
Africa	2,1	4,2	1,3	2,4	2,6	2,6	4,0	2,3
Middle East	0,8	1,5	2,1	2,4	2,1	3,3	3,5	2,3

Source: Unković, Čačić, Bakić, 2002, pp. 22

In the observed period (1950-2000), Europe has managed to retain a dominant position, with a reduced share in the distribution of tourist turnover and increasing participation in the distribution of revenues from world tourism. The share of North America region was substantially reduced, while the Asia-Pacific region has achieved pronounced increasing.

In the new millennium, there have been significant changes in the regional structure of mass tourism. The reasons are as non-economic factors (the terrorist attacks on the World Trade Center and the natural disasters in the eastern part of the earth's hemispheres), as well as the global economic crisis.

Table 3: The share of regions in international tourist turnover in the new millennium (in %)

Region	2001		2003		2005		2007		2009		2012	
	T	R	T	R	T	R	T	R	T	R	T	R
World	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Europe	57,1	48,4	57,8	53,0	54,7	51,1	53,6	50,6	52,2	48,5	51,6	42,6
America	17,5	25,5	16,2	21,4	16,6	21,2	15,8	20,0	15,9	19,4	15,8	19,8
Asia and the Pacific	17,8	19,8	17,2	18,4	19,3	20,6	20,4	22,1	20,6	23,9	22,6	30,1
Africa	4,1	2,4	4,4	3,0	4,6	3,1	4,9	3,3	5,2	3,4	5,1	3,1
Middle East	3,5	3,9	4,4	4,2	4,8	4,0	5,3	4,0	6,0	4,8	5,0	4,4

Source: Unković, Zečević, 2006, pp. 247, and UNWTO Tourism Highlights for the corresponding years

In the observed period, the largest increase in participation achieved Asia-Pacific region, which has overtaken America region as per tourist movements, as well as per tourist revenue. The biggest decrease of its participation had a European region. That is not a consequence of any non economic factor, but the increasing popularity of other regions: Asia Pacific, Africa and the Middle East. Africa and Middle East have record a constant increase in their participation during the observed years.

In the future, we can expect a much lower impact of non-economic factors in relation to the initial years of the new millennium. That is what one should have in mind when giving long-term forecasts of international tourism development. UNWTO has given perspectives of international tourism development in the world by regions, from the standpoint of economic, social, demographic, psychological, cultural and other conditions.

Table 4: The vision of international tourist arrivals by regions

Regions	Base year	Prediction (in millions)		Average annual growth rates (%)	Share (%)	
	2010	2020	2030	2010-2030	2010	2030
Europe	475,3	620	744	2,3	50,6	41,1
America	149,7	199	248	2,6	15,9	13,7
Asia and the Pacific	204,0	355	535	4,9	21,7	29,6
Africa	50,3	85	134	5,0	5,3	7,4
Middle East	60,9	101	149	4,6	6,5	8,2
World	940,2	1.360	1.809	3,3	100	100

Source: UNWTO Tourism Highlights, 2013. edition, pp. 15

UNWTO estimates, in terms of total tourist arrivals in 2030, are that all regions will achieve higher absolute turnover than in 2010. Looking at the annual rates of growth, can be seen that the regions of Africa, Asia and Pacific and the Middle East will have an average annual growth rate above the world average (3.3 %), i.e. Africa has 5 %, Asia and the Pacific 4.9 %, and the Middle East 4.6 %. Regions of Europe (2.3 %) and America (2.6 %) will have an annual growth rate below the world average, which should condition a slight stagnation of their tourist turnover during this period.

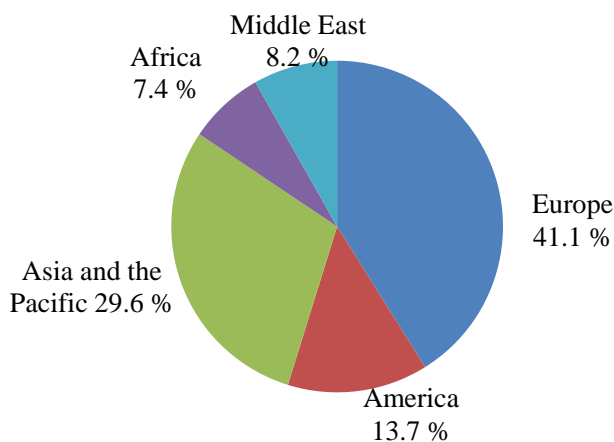


Figure 2: UNWTO estimates about the participation of regions in world tourism in 2030

Source: UNWTO Tourism Highlights, 2013. edition, pp. 15

Although the Europe will absorb the largest number of tourist arrivals in absolute terms (744 million tourists) in 2030, its relative share (41.1 %) will be significantly reduced compared to 2010. The same applies for the region of America, which will also achieve higher absolute growth (248 million), but its relative share (13.7 %) will be lower than in the base year. As consequence, other regions will have greater participation in international tourist arrivals in 2030.

The general expectation is that the European continent will represent the most important tourist region of the world in the next 15 years, despite the fact that its development will be somewhat slower, compared to the world average. This stagnation is not a result of deterioration in the quality of the tourism offer (it has, on the contrary, a better quality year after year), but redistribution by world tourist regions and a tendency to move from mass in the alternative and post-modern tourism.

FORMATION OF DESTINATIONS AS CONSEQUENCE OF MASSIVE TOURIST MOVEMENTS

To popularity of European continent destinations, contributes outstanding beauty and attractions of its countries (Milenković, 1999, pp. 67-72). Thus, in France the main tourist areas are the Mediterranean coast, famous in the world for its beaches and casinos and the Cote d'Azur, consisting of Saint Tropez, Nice, Cannes, Monte Carlo, etc. Switzerland is a country rich in natural beauty. Its mountains, rivers, lakes, glaciers and good climate in winter attract a large number of people in the most famous areas on the Alps: St. Moritz, Davos, Grastad, etc. Italy has a great cultural wealth and magnificent climate all year round. Cities like Florence, Rome, Naples, Venice are very attractive cultural centers that attract people from around the world. Greece is a very popular country for historical attractions, cultural treasure and architecture, but also because of the many islands with favorable climate and hospitable people. The most important directions of tourist movements within the region in recent years, are moving from Italy and France to Spain and Eastern European countries. The climate in Spain is very good, so many tourist centers (Costa Brava, Costa del Sol, Costa Blanca) are open for tourists during the whole year, which contributed that the tourism in the Iberian peninsula is becoming the most important part of the economy. By reaching political and monetary stability Eastern European countries, such as Bulgaria, Hungary, Ukraine, Lithuania, Russia and others, have become very popular among a large number of tourists, because of very cheap vacation.

The American continent has a vast expanse, as well as a large number of people who have the time, money and desire to travel. Hence, the tourist movements towards these destinations are very difficult to sum up. In the US there are three main areas where tourism is highly developed. These are the East Coast, California and Florida. New York is the largest metropolis on the East Coast, which has excellent tourist attractions (the United Nations, Statue of Liberty,

Broadway, etc.). California is known for its national parks, sunny shores and extremely beautiful sea. To its attractiveness for tourists around the world contribute many lakes and the famous mountain range of Sierra Nevada. In Canada, one of the leading countries in tourism, the most famous areas the Quebec and Ontario. Throughout the Quebec St. Lawrence river flows in length of 150 miles. The Province of British Columbia stands out for its natural beauty: fjord lakes, parks and sandy beaches.

In the countries of Central America tourism has great significance regardless of their economic and political problems, which have long been present in this area. So, in Guatemala tourism is the second economic sector, after the production of coffee. Nicaragua, with a lot of lakes, colonial cities and the remains of Indian culture, has well developed tourism. Very interesting destination is the Panama Canal, as well as islands such as Bermuda, the Bahamas, Barbados, Cuba, Puerto Rico, Antilles, etc.

In South America the most attractive destination is Brazil, ie its three potential tourism areas: Amazonia with the river Amazon, northern and south-central region. The famous Carnival in Rio and the largest beach in the world, Copacabana, attract many millions of people from around the world every year. Uruguay has excellent beaches for sunbathing and swimming in the length of 200 miles.

Asia and the Pacific in recent decades have the highest tourism growth, so that recently have become a real tourist destinations. Not only favorable climatic characteristics, with warm seas, specific areas of relict and endemic species of plants and animals, unique relief forms and landscape and environmental wholes, but also the wealth of anthropogenic elements, which are among the world wonders (Taj Mahal in India, the Great Wall of China the Buddhist temples of Thailand and the largest ones in Mecca and Medina), contribute that these parts of the world are the target of global tourist movements and so take third place in the tourist turnover behind Europe and America. To tourism development of Asia-Pacific countries contributes the rapid growth of overall economic activity, which reflects the impact on groups of Pacific Islands (Polynesia, Micronesia, etc.), and on the development of Australia and Oceania, which has the largest number of national parks in the world - 592 (Novović, 2007, pp. 15). For this reason, Australia and Oceania represent a new form of tourist movements, which fastest in the world enhance the direct and indirect impacts of socio-economic system on the formation of the tourism product (farms of kiwi are increasingly being transformed into tourist destinations, eco tourism receives an absolute confirmation of all demands of modern tourism demand, and postmodern tourism finds its place in the extreme and typically adventurous ventures).

On the African continent the most visited is the northern part which has the best and the most attractive hotels, and cultural monuments such as the pyramids in Egypt and mosques in all countries of the region. East Africa is rich in natural beauty, where the most prominent are national parks (the most beautiful reon Serengeti) and natural reserves. Countries in this region have exceptional natural preconditions for the development of tourism, but are still touristic underdeveloped, due to the unstable political situation. The same destiny was shared by the area of South Africa. In

economic valorisation of tourism in Africa, four countries in Eastern and Southern Africa (Kenya, Uganda, Tanzania and South Africa) and Egypt, as the world's largest oasis (the valley of the Nile), went farthest.

The countries of the Middle and Near East: Israel, Turkey, Jordan, Iraq, Iran have a rich tradition, culture, archaeological monuments and religious sanctuaries. These destinations attract a large number of people from all over the world because here the three religions meet: Buddhism, Islam and Christianity. In this area, will always be actual Babylon (Iraq) and Persia (Iran), and history of Phoenicia (Lebanon) and the center of Islam (Mecca and Medina in Saudi Arabia).

POSTMODERN TOURISM AND GLOBAL WORLD TRENDS

Postmodernism, as a form of extremist culture, appears during the 60s of the last century, which indicate a kind of end of modernism and the beginning of a postmodern culture, ie. culture without innovation and genuine courage, which satisfies with democratization of hedonistic logic, radicalization of tendency to giving privileges to "the lowest spheres rather than most noble preferences" (Lipovecki, 1987, pp. 92). Its main characteristics at the time were: student rebellions, anti-culture, fashion of marijuana, porn publications, competition in violence and the like.

Postmodernism also means criticism of obsession with innovation and revolution at all costs, rehabilitating what has been repressed in modernism: tradition, local, ornamental, both in architecture and painting as well as in tourism. Hence, it turned to tradition, heterogeneity, decorativeness, metaphorical and historical memory, and to ethnic. So, affection for everything that is retro, but from its broader analysis, we can conclude that it is not just about recovering the past, deconstruction and destruction of forms, it also concerns the peaceful coexistence of styles, abolition of opposition traditional - modern and local - global, briefly introduction of relaxation in the art space and time also with the modern tourists.

Postmodernism is a theoretical approach that is increasingly being applied on tourism. Starting from the works of eminent theorists of postmodernism Baudrillard, Foucault, Lyotard, Jameson and others, theorists of tourism Mac Kenel, Pfeiffer, Nile, Bryman and others are developing a specific concept of post-tourism:

First, post tourist, according to them, rarely leaves the house because new technologies (television, video, internet, satellite and virtual reality) allow him to travel and tour the world without leaving the room.

Second, tourism has become a highly eclectic conglomerate of various interests which bind to visiting holy, beautiful, sublime, or simply different places. Namely, postmodern tourist has at his disposal much larger selection. For example, one can choose to travel to more remote sites in a tourist place, using appropriate means which

permits entering them. It also occurs increasing in eco-tourism, and special forms of tourism related to lifestyle (ravers, Third Age and gay population and similar).

Third, post-tourists are seen as people who simply and realistically play a series of games, they play with tourism in the framework of the trip itself, accepting the fact that there are no authentic tourist experiences (Čomić, 2004, pp. 11).

Of the many characteristics of postmodern tourists, which can be found in literature, we highlight the following:

1. Postmodern tourists observe tourism as an activity that has meaning by itself and not as a tool for some lofty goals;
2. Postmodern tourists accept conversion of tourism in goods;
3. Postmodern tourists are drawn by signs, especially the most spectacular symbols related to tourism;
4. Post-modern tourist is characterized by the fact that often gets decision to participate in alternative activities, because it creates a feeling that he is prosper as an individual and as a social being. For example, coming into contact with cultural events or goods of cultural heritage of the local community in which he resides, tourist often educates and entertains, while teaching about the cultural past, he sees the present with a new point of view;
5. Postmodern tourist often accepts that non-genuine simulated experience has value, because he believes that there is a very rare authentic experience of the past;
6. P Postmodern tourist is particularly interested in redefining the position of certain minority groups, particularly in developing countries, whose role in history has been the subject of interpretation of Western historians, whereby neglected seeing the flow of historical events by the local community (Rojec, Urry, 1997, Čomić, Kosar, Štetić, 2001, Hadžić, 2005).

The mass movements of tourist flows in the world tend to have a direction North-South, or West-East, while the movements in the opposite direction are still insignificant. The causes of this conditions are various: climatic, economic, historical, cultural, and symbolic value of each opposing side of the world. In fact, traditionally, through myths and religions, sides of the world do not have the same value, that is, contain different symbolic meanings, which were passed throughout history, changing to a greater or lesser extent, but maintaining a dominant feature.

The symbolism of the globe has its importance not only for pilgrims, explorers and conquerors, but also for tourists. Tourist sees the world around him as world of symbols which he interprets and which mean something to him. West traditionally symbolizes sunset, a downward path, dusk, material world, forgetting the spiritual sense, passion, active life, cast out, while the East is dawn, morning, a source of light, spirituality, wisdom, mysticism, rebirth, the original homeland. The north is cold, darkness, turbidity, night, winter, land of the barbarians, and the South is the sun at its zenith, fire, heat, youth, summer, source and fullness of life.

Each of the five continents symbolizes in the minds of the people and tourists different values depending on the cultural stereotypes and lived experiences. Europe does not mean the same to a European who lives in it, an American who is visiting it as a land of the ancestors, and an African who is liberated from it. For Eurocentric view of the world, Asia is a symbol of mysticism and exotics, America new world of the future, and Africa is inseparable from its colonial past and racism. However, the continents also symbolize the world of performances, lust and desire. For example, the dream about Asia symbolizes return to the world, the world of absolute, the secret of overruns, the path of uniqueness, which contains a message of truth and reality.

When it comes to the countries, there are some ancient, such as Greece, Italy, India, China, whose symbolic meaning is crystallized through a long history, then the young countries that have "for relatively short time managed to gain a certain modern symbolic status (USA, Canada, Australia), but also those who do not yet have a clearly recognizable symbolic profile (New Zealand, Nigeria, Mongolia) and representing the white spots on the symbolic map of the world" (Čomić, 2006, pp. 73). The old countries, such as Greece and Egypt, represent areas that consist of ruins, the remains of long ago decayed civilizations. This is about "countries museums, countries in ruins dominated by the aesthetics of ruins, which attract some sort of memorial, melancholic, quasi-tomb tourism that enjoys lamenting on the tragic items" (Urbain, 1991, pp. 164).

Greece in the tourist propaganda presents as a country of half destroyed temples and holy places, gods, broken marble statues and pillars, myths, heroes. Live people and the current life are pushed into the background as something irrelevant for touristic image. Egypt, too, can be marked as "the country of tombs", because what fascinates and irresistibly attracts tourists is not modern life or Islamic culture, but unique monuments such as the Great Pyramid of Giza, the Sphinx, the temples, etc. India is also one of the countries that attracts tourists with its history, culture and religion, as well as colorful and various ongoing life. It largely symbolizes all the values of the East and for European tourists represents the country of contrasts between luxury and misery, a mixture of different races and religions, but also the country in which everyday life is intertwined with the ancient customs and mysteries. But, the United States, are a symbol of power, capitalism, free enterprise, technological development, democracy, present and future, where the past and a brief history are in the background. Tourists come here to hedonistic enjoy large metropolises.

Cities also have ancient symbolic value. Jerusalem is a symbol of peace, justice and unity. Venice is a symbol of sinful beauty that is doomed to die slowly. It is a city of melancholy, dirty water and transience. Today, tourists are drawn to megalopolis cities, such as New York, London, Paris and others that symbolize the hedonistic enjoying in sensory values and material wealth, lasciviousness, dissipation, with simultaneous alienation of spiritual values and other people. The symbolic power of certain cities for tourists is so strong that a large number of countries is equated with its main and largest cities.

Each country or city, is ultimately reduced to what is essential for tourists, according to the criterion of aesthetic value, symbolic power and interests, ie the system of points - attraction. So, there are several typical types of tourist attractions. Pyramids, especially the largest and most famous of Giza, are among the most visited tourist attractions in the world. Cathedrals in Western Europe, created between XII and XIV century, represent the typical attractions within the urban fabric. Castles, palaces and manors, as well as mausoleums and tombs around the world are isolated points in space towards which are directed touristic movements.

Mass tourism movements are done in groups, by bus or on foot, trodden paths, and safe corridors leading from one to the other tourist attractions. When visiting certain countries and cities tourists are narrowly focused on a number of selected points (monuments, buildings, facilities, etc.), representing attractions that in their consciousness represent what is typical for a given space. However, unlike the mass tourists, whose movement takes place between popular points - attraction, postmodern tourists "wandering the cities, trying to find behind the scenes the hidden spirit of the place. Wandering pedestrian who observes and moves as an anonymous individual in a 'kind of border zone', can be viewed as a 'anti tourist', who is poetically facing with 'the dark parts of the city' in which lives poor and marginal population, what allows to experience the authentic life that is not disguised by dominant visual images places" (Čomić, 2006, pp. 83).

The purpose of the postmodern tourists journey are precisely new experiences, longing to experience something completely new and unknown. They speak with contempt about tourist attractions, whether it is concerning monuments, cathedrals, museums or parks. Namely, they cross from the phase of despised sightseeing and recognition in the tourism discovery phase, considering that the truth about the city will be discovered if they are able to "dive into the crowd", to "wander" through the streets and reach the most remote and dangerous neighborhoods by themselves. In this way, they enter into a network of streets, in labyrinths and dead ends, "immerse" in the city "jungle", go down in sewage system and catacombs. These tourists are attracted to a certain dark poetics of cities, what they are looking for are holes in their tissues, cracks in the glaze, hidden corners, their lairs and secrets. They are nomads of dark streets, ethnographers of peripheral neighborhoods, adventurers of night life, lovers of abandoned spaces. On the border of visible and invisible, these tourists touch the mystery of the city, take risks, observe and participate in the life.

ECONOMIC PARADIGM OF COEXISTENCE OF MASS AND POSTMODERN TOURISM

The various landscapes in the world have different potentials for the development of many types of tourism: eco, rural, urban, religious, transit, congress, etc. In all these types occurs permeation of mass and postmodern tourism. The most significant practical examples of the listed types of tourism development are as follows.

Ecotourism is the most rapidly developing in recent years. There it comes to nature lovers who want to learn as much about the environment, its ecology and culture. The most significant examples of penetration of eco-tourism in certain parts of the world are:

- Danube Delta, like most famous and most attractive area of Europe with 564 000 hectares, thanks to its geographical position, is the most important habitat for large number of waders and represents a kind of biofilter of Danube. Uncontrolled development of agriculture, fishing, tourism and other forms of exploitation, have led to the extermination of large number of animal species. The basic assumptions of eco tourism development in the Danube Delta include detailed information about all the natural and human resources in the delta and the definition of the market for eco-tourism. Local residents of the delta have the following functions: to protect all environmental resources from exploiting outbursts of the tourism industry, to provide funds to complete the education of local people and help preserve the Delta for its economic, environmental and social prosperity;
- Australia is the most typical example of a ecotourism capacity functioning in the world. Applying an American model of protected areas valorisation, this country puts eco-tourism in the same category with the other forms of tourism, which allows tourist consumers to combine their experiences from traditionally primordial to high quality tourism of various pleasures. In this way, protected areas of Australia are becoming suitable for all segmented consumer groups and for all stakeholders of the tourism industry;
- Mauritius, an island in the Indian Ocean, with one asphalted highway, where none of the buildings is not higher than the highest tree, succeeded to merge interesting flora and fauna, fishing villages, endless fields of tea in such a whole that nature and human activity act in complete symbiosis. Three spacious wholes from several hundred meters allow possibility of knowing the majority of endemic plant species that grow on this island. Not only that, these endemic species are becoming the most interesting ecotourism attractions (Milenković, 2006, pp. 270-271).
- African eco-tourism becomes the most important in the world, because it connects the most preserved protected natural areas and the most attractive ethnic characteristics. In the old continent operates Corporation for conservation of Africa (CCA), as one of the largest ecotourism companies based on the nature. This company has started to develop high potentials of

ecotourism industry, building top quality accommodation and camps in the wilderness. In its business, it is trying to ensure throughout partnerships with national, regional and local communities, the preservation of ecologically most important areas. A good example of their cooperation is Phinda - a nature reserve for small wild animals, with four ethno-touristic settlements;

- In Brazil ecotourism is very present in the region of Amazonia, as well as in national parks and nature reserves. Best time to visit Amazonia is the period from June to October. The tour of the region includes cruising the Amazon and its tributaries, exploring the natural beauty - the famous Amazonian rainforest, the largest tropical forests in the world, exploring the flora and fauna and the like. A special tourist attraction is Mazaro island, the largest river island in the world. In challenging attractiveness for postmodern tourists should be emphasized the largest swamp area Pantanal, where tourists along with Indian tribes experience direct contact with large anacondas and other customs. Also, area between Honduras and Guatemala should be pointed, where a special group of Gvairo Indians live and every male tourist, if staying longer than seven days gets a woman who must serve him and another for his sensory needs (Novović, 2009, pp. 33).

These examples show that development of ecotourism is in the relations of co-existence with all kinds of tourism, using the surviving elements of the natural environment. Eco tourism, therefore, needs to activate the people towards protected areas of the environment, establishing active relations of tourists, locals and tourist industry.

Rural (green, mild) tourism has been long developing in the world, particularly in the Alpine countries of Europe, and more recently in some African and Asian countries (Milenković, 1994, pp. 137-140).

Austria, in terms of rural tourism development, is the most developed country in Europe. There is made a spatial division of green tourism on the Alpine, Sub alpine and lowlands. The most significant areas of mild tourism are: Tyrol, Carinthia, Julian region, Salzburg province, around Burgenland and on the outskirts of Vienna. In France, where green tourism is highly developed, there is an association that deals with planning and organizing the development of rural tourism. What is specific for this country is that in rural tourism of France mostly participate villages that offer services at relatives' line, or on farms of parents or friends, and much less in other objects (hotels, pensions, purely tourist households). In the area of Germany, green tourism is quite developed in Bavaria, around the river Rhine, particularly in its upstream. As typical examples however, are the following provinces: Baden-Viternberg; Fichtelgebirge, bad Reicheuhall, Ruhlpadding and others. The Netherlands, although a typical lowland country, has created a high quality rural tourism. At 70% from the total area of Netherlands has been developed a kind of rural tourism, with the most frequent excursions and recreation. In the Czech green tourism is developing in the vicinity of cities like sightseeing (around Prague), then in the mountains of eastern Bohemia and southern Bohemia. Lately, Italy takes precedence in the development of rural tourism, because as much as 23% of the total tourist turnover is realized with this

type. Particularly interesting are the complexes of rural tourism offer - Labrie, which means that in one place are possible all the activities related to rural ethnoscience.

In Africa, rural tourism occurs in countries of luxurious nature or in Bedouin oasis in the wilderness spaces. Residents of rural areas in Senegal receive visitors in the villages, on the periphery of large cities, giving them the traditional way of life, local food, photo safari and the like. Such is the case in Kenya, where tourists get the chance to stay in the village, whence moving to conquer the magnificent Kilimanjaro. In these villages is particularly important what postmodern tourists are looking for, and that is when they dine, monkeys are waiting to eat scraps of food.

In Asia, an interesting example is a Chinese province of Huaxi, which receives tourists in small houses linked porches, like in the old traditional villages. What is offered to tourists are old Chinese food, farming without mechanization, hunting and fishing and traditional feasts. In these conditions postmodern tourists will be able to experience the system of forming of the famous mafia groups "Triad", connecting them with a walking tour of Chinese shrines where they are factually and have formed. Postmodern tourists also have the opportunity to visit the bamboo forests of South China and to socialize in photographing with the famous pandas that feed on bamboo leaves.

The cultural and historical heritage of the world spread across all continents (Štetić, 2003).

The European continent has exceptional cultural value. Acropolis, with over four million visitors annually, is the most visited site in the world. Ancient Greece and Rome, in the area of today's Greece, represent invaluable cultural treasure. Acropolis Museum preserves works of archaism and classicism. In the "city of eternity" many attractions, the residues of the Roman Empire are important. Bath of Caracalla is today the largest summer high capacity theater with excellent ambience for performing classical dramas and operas. Coliseum, theatre of Flavius Vespasian, by its size is the largest Roman building. In Rome there are about 450 churches: Santa Maria Maggiore, San Pietro in Vincoli and others. The largest church in the world, Basilica of St. Peter, is located in Vatican, the papal state and center of Catholic church.

On the soil of Africa, Egyptian civilization, concentrated around the Nile, left behind visible traces of ancient towns and architectural monuments. Egyptian religion has inspired and encouraged arts. Mythology has permeated lives of all people, passed down from generation to generation, survived on the walls of temples, tombs, on leather writings, so that today almost every Egyptian knows to tell a story about gods, interesting for tourists.

The American continent is characterized by the Statue of Liberty in New York, a symbol of freedom for hundreds of thousands immigrants who came to the new world. The building Empire State Building, was built in 1931 and is one of the tallest buildings, offering visitors to watch the panorama of New York, which extends up to 80 miles in good weather. Brooklyn Bridge, built in 1883, once the longest bridge in the world, connects Brooklyn and Manhattan.

Asia, the largest continent in the world in which half of world's population lives, is considered the cradle of human civilization. This makes it unusual and unique space of the globe. Civilization of China is considered one of the oldest. The famous Great Wall of China, otherwise built 28 centuries (from the twelfth century BC til XVII century AC) is a monumental world building of all times.

Some large cities, in addition to economic, management and administrative functions, are developing tourism, presenting and capitalizing its motives. The largest number of tourists is recorded in London, Paris, Rome, New York, Los Angeles and other cities. They not only absorb large mass of tourist movements, but create opportunities for involving other parts of the country in active flows of tourist movements. The development of cities from beginning of industrial revolution has formed a new type of tourism - the city (urban) tourism. It, in turn, developed different subtypes, such as education, prestige, congress, business and others, which gives tourism new frames of behavior. Urban tourism, by itself, connects mass (through large excursions, group visits), alternative (in zones for rest and recreation) and postmodern (through extreme and practically applicable forms) tourism.

At the end of the twentieth and beginning of the twenty-first century huge megalopolis are created in the world, including not only the urban area but also their gravitational zones, for example the cities on the east coast of America (New York, Washington, Philadelphia, Boston); zones of Californian megalopolis (Los Angeles, San Francisco, New Orleans); Tokyo with its gravitational zone of 220 km in diameter; Moscow with Moscow region of surface area larger than Vojvodina; Mexico City with reflections on the area of 300 km in diameter; Shanghai in China which covers territory the size of Croatian, Slovenia and Vojvodina together; Sao Paulo in Brazil which sends its tourist reflection even to Rio de Janeiro; Manaus in the Amazon jungle and San Salvador with the highest number of churches in the world; Cairo in Africa which covers with its gravitational zone 2/3 of the Nile and so on (Novović, 2009, pp. 34). These cities with its tourism offer best fit to postmodern consumers, because they are a collection of all modern achievements and changes that tourists want to validate themselves on the run from the alienation, but also to accept all this to save themselves from new world behavior style. Listed contradiction, in fact, shows how much the postmodern tourists eager to escape from the megalopolis, but also how they can not live without it. Therefore, urban tourism is actually an element of prestige, business and education, but with a hint of what needs to bring elements of the environment in cities, which may be a balance between modern and natural.

Religious tourism was occurred at the first forms of tourism activities. The first pilgrimages to the holy places of ancient Greece, Rome and other areas are marked like the first mass movement. By separating the world religions of Christianity, Islam, Buddhism and others, that covered most of the world, new pilgrimage movement towards them was created. Thus the movements towards Greek pilgrimages, the Vatican and Rome, Luvd in France, Fatima in Portugal, Mecca and Medina in Saudi Arabia, the holy Ganges river, Buddhist temples in Tibet, in Jordan, Korea and Thailand, have marked a new form of tourist movements, that is pilgrimages. In today's world there are many shrines that attract a large number of tourists, especially believers with organized processions and religious customs, so they represent not only a center of religious but also education, prestige and cultural tourism.

CONCLUSION

World tourism market has experienced very strong growth in the last 50 years and more, but also, by switching from mass tourism to alternative types of tourism in the period of post-modernism, the great changes in the distribution of tourist turnover, watching by individual states. This redistribution by certain zones has not led to deterioration of the tourist offer quality, but on the contrary, to the higher quality and content of offer volume by the development of eco, rural, educational, health, mountain, adventure and other types of tourism year after year.

In the observed period, from 1970 to 2012, world tourist turnover was increased by more than six times, while ten leading tourist countries significantly reduced their participation, from 65 % in 1970 to 44 % in 2012. On the other hand, all other countries (outside the top ten), that are more or less involved in tourism development, have significantly increased their share in overall tourist trade, from 35 % in 1970 to 56 % in 2012. This data clearly shows that, with the emergence of different types of alternative and post-modern tourism, from year to year, the number of new interesting tourist destinations in the world is increasing. So, tourism brings more foreign currency income to countries, which can be of great benefit for their economic development as a whole.

Orientation on alternative and post-modern tourism is more demanding, because it is based on processes of using and reviving the existing natural, anthropogenic and economic resources. It is best capitalized on the tourist revitalization programs, that prefer the ambiance and authenticity of certain tourist areas, with the encouragement of private initiative, and all that with low investment per unit of the tourist product (Jadrešić, 2001, pp. 208).

In the upcoming years it is expected to continue declining trend in the share of traditional countries in favor of the new destinations. UNWTO has defined eight key factors that must be fulfilled to enter a new destination on the world tourist map. These factors are: political support of tourism development, institutional and legal framework, investments, transport development, promotion and commercialization, quality and public and private partnership (Tourism Strategy of Serbia, 2005, pp. 44).

Potential tourist destinations allow exploring new areas with many new features and values, thus meeting tourist desires and curiosity for new, inexperienced. Based on the analysis of recent trends in the movement of world tourist turnover, as well as the behavior of today's tourists, their habits, needs and desires, the highest rates of growth of tourist turnover should be expected in the following segments: nature-based tourism, cultural tourism, urban tourism, rural tourism, sport (winter and summer) tourism, congress tourism, health tourism, adventure tourism, etc.

The new, upcoming destinations, as well as traditional ones, in the future will have to face the following challenges: a large number of competitors, lower growth rates, more demanding tourists, technology-controlled market, value for money relationship and the like. These challenges must be respected during the touristic development of new destinations, whose tourism policy and strategy, among other things, should

include guidelines for the development of tourism in terms of gradual transition from conflict relationships to relationship of coexistence and symbiosis in tourist movements, in order to avoid unfavorable experiences of developed (traditional) tourism countries (Novović, Popović, Radić, 2014, pp. 267).

New destinations should be regulated and economically adaptable destinations that by possession of natural and human attractiveness run the entire tourism sector, allowing at the same time tourist offer to enrich its own content and higher incomes, thus creating a compact natural and economic entity. One of the significant features of the XX century was a "war" over oil, while there are indications that one of the dominant features of the XXI century will be "war" about healthy natural resources and elements, and healthy natural and living environment. This indicates that for organization of one destination tourist offer precondition is healthy natural environment, which is the basis for high-quality, diverse and meaningful contents of alternative (small, ecological, special, ambient, elite, etc.) and postmodern (adventurous, different, extreme, etc.) tourism.

In developed countries the transformation of mass in various types and forms of alternative and postmodern tourism is successfully implemented. In this way, tourism, as one of the leading economic sectors of today, is developing and expanding every day. Occuring new forms adapted to desires and needs of demanding tourist consumers. Starting from the fact that developing countries have a variety of natural and anthropogenic tourist motives and values, can be considered as suitable ground for the development of alternative and post-modern tourism.

When we talk about the relationship between mass and postmodern tourism different questions imposed:

1. How to convert mass tourism into the postmodern?
2. How much mass tourism brings, and how much it takes to economic development?
3. How mass tourism resolves conflicts with other sectors of economic development, and how postmodern equalizes that development?
4. How much conflicts creates mass, and how much conflicts avoids postmodern tourism?
5. What are the economic relations of mass and the postmodern tourism, that is, how much investments attracts mass and how much a postmodern, ie what is the difference between the profits, accumulative capacity, full employment and inclusion in the international redistribution of tourist movements?

The answers to these questions represent a major challenge for tourism and general economic science in the future, but also for national, regional and local governance structures of those countries that seek to join the world's tourist trade by accepting one and/or other form of tourism. Examples of new destinations have shown that it is best that mass and postmodern tourism be in relation of coexistence, in order to, as painless as possible, crosse from the present formation of touristic product on the basis of mass to the product that determine the alternative and post-modern tourism.

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THE IMPACT OF SPORTS EVENTS IN THE DEVELOPMENT OF SPORTS TOURISM

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ABSTRACT

Sports Tourism means traveling where the primary motivations are actively or passively engaging in sports activities. Sports tourism has become a multi-billion dollar business and one of the most intriguing of the modern day service industries. The growth of sports tourism has been driven by increased global interest in sporting events. Sport makes a significant contribution to the development of tourism in the destinations in terms of economic impacts, urban regeneration, improving infrastructure, and strengthening the tourist image. In recent years, sports tourism recorded an impressive growth. International sports events like the Olympic Games, World Cup and other elite sporting events, affecting the overall economic development. Sport Event of local character, can also have a significant impact on growth and tourism development of certain regions, as well as a huge economic development.

Key words: Sports, Tourism, International Events, Economic Impacts

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INTRODUCTION

Tourism is a social, cultural and economic phenomenon, which entails the movement of people to countries or places outside their usual environment for personal or professional purposes. These people are called visitors (which may be either tourists or excursionists; residents or non-residents) and tourism has to do with their activities, some of which imply tourism expenditure (UNWTO, 2014).

Tourism is the temporary travel of non-residents, who employ various forms of transport to and from a destination where different impacts and benefits are involved for the destination (Hall, 2007).

Sport is defined as any physical activity which is undertaken at a competitive or social level, where a high level of physical skill is used with internal and external rewards being the driving forces (Coakley, 2008).

Sport tourism is when an individual and/or groups of people who actively or passively participate in competitive or recreational sport, whilst travelling to and/or staying in places outside their usual environment (Gammon, Robinson, 2003).

Tourism is a highly complex phenomenon and can be fully understood only by adopting a multidisciplinary approach (Radotić, Mašić, 2014; Candela, Figini, 2012). Specific forms of tourism include travel motivated by special interests of individual attractions and activities such as sports, untouched nature, traditional crafts, wellness, culture, rural tourism, events, festivals, etc. These forms of tourism recorded the highest growth rates, especially in Western Europe and the US (Unković, Zečević, 2013).

By the early nineties, sports tourism was almost not considered specifically in the context of tourism. Later, the concept of developing sports tourism in the tourist theory and practice as a specific phenomenon which includes: Observer (fan) tourism, competitive tourism, recreational tourism, adventure tourism, a nature (eko) tourism (Jovanović, 2013).

In the sport industry, sport tourism is seen as a way to capitalize on the growth and interest in both noncompetitive and competitive sport by aligning forces with sport, recreation and tourism professionals, and organizations. For instance, the more people that participate at a recreation level, the more sport equipment they tend to purchase, the more likely they are to continue to participate at a competitive level, and their propensity to watch sport may also increase (Hudson, 2002).

HISTORICAL CONNECTION BETWEEN SPORTS AND TOURISM

The earliest documented example of sport tourism is that of the Olympic Games which date from 776 BC. Athletic games were an essential part of Greek life and every self-respecting city had its own stadium. The games at Olympia may have attracted as many as 40.000 people from all parts of Greece. Unlike, there was little accommodation and visitors slept in tents or in the open air. The first hostel was established at Olympia in the fourth century (Weed & Bull, 2012; Standeven & Knop, 1998).

The Romans continued the travel element associated with sport, in different forms. Athletic activity become more health and socially oriented.

Sport and tourism in the middle ages is little provided in terms of real sport tourism other than jousting tournaments and real tennis, and even these are rather limited (Weel,Bull, 2012; Standeven,Knop, 1998).

As modest improvements in transportation, enabled people to travel more easily from the sixteenth century. There is no doubt that opportunities for sport tourism also increased.

CLASSIFICATION OF SPORT TOURISM

There are several classifications on sport tourism. Gammon and Robinson suggested that the sports tourism are defined as Hard Sports Tourism and Soft Sports Tourism (Gammon, Robinson, 2003). Gibson suggested that there are three types of sports tourism included Sports Event Tourism, Celebrity and Nostalgia Sport Tourism and Active Sport Tourism (Gibson, 1998).

The "hard" definition of sport tourism refers to the quantity of people participating at a competitive sport events. Normally these kinds of events are the motivation that attract visitors visits the events. Olympic Games, FIFA World Cup, F1 Grand Prix and regional events such as NASCAR Sprint Cup Series could be described as hard sports tourism.

The "soft" definition of sports tourism is when the tourist travels to participate in recreational sporting, or signing up for leisure interests. Hiking, skiing and canoeing can be described as soft sports tourism. Perhaps the most common form of soft sports tourism involves Golf to destinations in Europe and the United States. A large number of people are interested in playing some of the world's greatest and highest ranked courses, and take great pride in checking those destinations off of their list of places to visit.

Table 1: A consumer classification of sport and tourism

Hard definition	Soft definition
National and International events	Hiking
Olympic Games	Skiing
Soccer matches	Cycling tours
Wimbledon	Canoeing
Rotterdam Marathon	Walking

Source: Robinson, Gammon, 1997

Sport event tourism refers to the visitors who visit a city to watch events. An example of this would be during the Olympics. Each Olympic host city receives an immense amount of tourism (Welier, 1992). This occurred in response to a large number of travelers interested in following the teams they support to a wide variety of games and matches around the world. Some of the most popular events to attend include games and matches within Major League Baseball; Premier League Football; and National Football League ("NFL") Football, as well as special events like the FIFA World Cup matches, Olympic Games and the NFL Super Bowl (A Sports Vacation Top 10 List, 2015).

Basically motivation of sports tourists as entertainment, escapism, relaxation, health, stress reduction, the search for excitement, etc. UNWTO is determined that the Germans and the Dutch travel most for sport and recreation. The French are somewhat less interested in sports and is recorded 3.5 million trips, or about 23% of all trips abroad. British Tourism Organization indicated that about 20% of trips from Britain motivated by sport, and that sport is included in over 50% of travel. This is not only a European trend in America sports tourism annually generates over 30\$ billion. In America, about two-fifths of the population (75 million people) visited occasionally sporting events (Jovanovic, 2013; Higham & Hinch, 2009).

Sports tourism is basically contains a range of social and economic benefits as well as costs. The following table provides an overview of the social and economic benefits and costs.

Table 2: Benefits and Costs in Sport tourism

Social Benefits	Social Costs
Community development	Disruption to resident lifestyle
Civic Pride	Traffic congestion
Event production extension	Noise, Vandalism
Economics Benefits	Economic Costs
Long term promotional benefits	Resident's exodus
Induced development	Interruption of normal business
Additional trade	Under-utilised infrastructure
Business development	
Increased property values	

Source: Ntloko, Swart, 2008; Dwyer et al., 2000)

CHARACTERISTICS AND FORMS OF SPORT

The characteristics of sport are (Mašić, 2006): The pursuit of maximum expression of human possibilities; Orientation of training towards the development of capabilities of which depends on the sport result; concrete result.

Forms of sport are: Basic - mass sport; Sports younger category or perspective sport; Professional sport.

Basic - mass sport includes a large number of participants. The priority of this sport is to maintain an optimal level of physical fitness. The results achieved may vary. Training and competition needs to be harmonized with the obligations of athletes depending on its sex, age and engagement (Mašić, 2006).

Sports younger category or perspective sport, includes younger athletes who have undergone specific selections that have preconditions that through systematic trainings achieve the best possible sporting results. Athletes in this category have a certain amount of talent, skills and qualities that are through training can lead to the level of professional sportsmen.

Professional sport is oriented towards achieving top results. The goal of top-level sport is overcoming the national record and striving towards achieving international records.

STRUCTURE OF SPORTS COMPETITION AND TERM OF SPORTS EVENTS

Competitions are a form of sporting activity in which athletes individually or as a group trying to outdo themselves and others, while respecting the rules of the sport (Krsmanović, 1997).

The essence of sporting competition represents the sport's battle. All athletes in the sports competitions have only one goal, which is to be better compared to the opponents, while respecting all sports rules. Vrhunski sportisti u takmičenju vide mogućnost za postizanje što boljeg sportskog rezultata. Tokom takmičenja sportisti nailaze na niz prepreka. Jednu od tih prepreka predstavlja protivnik koji želi da postigne isti cilj. Poseban problem predstavljaju nepredvidive okolnosti tokom trajanja sportskog takmičenja, u takvim okolnostima sportista mora da donese valjanu odluku u pravom trenutku, jer se nepredvidive situacije stano menjaju (Krsmanović, 1997).

Major event can be any event or project beyond the daily flow of activities in the sports facility. These events can be international, national, regional and local character, can also include sports, arts, theater, festivals and more. Major event can be Major event can be competitive, dedicated to the collection of financial funds, achieving social goals or simply designed to have good time (Radotić et al., 2013).

The main factors that determine the importance of sports events are (Tomić, 2001): the frequency of a sports event, the size of the event, the content of the event, authenticity, visitor profile, the concentration of events in sports arenas, infrastructure and facilities management.

ECONOMIC IMPACT OF SPORTS TOURISM

The economic relevance of tourism is remarkable. United Nations World Tourism Organization (UNWTO) estimates that tourism is roughly 9 % of the global Gross Domestic Product (GDP) and 8 % of world employment (Blanke & Chiesa, 2013; World Travel & Tourism Council, 2011).

Travel & Tourism is one of the world's largest industries accounting for 9% of global GDP. This is more than the automotive industry which accounts for 8.5%, and only slightly less than the banking sector which accounts for 11% (World Travel & Tourism Council, 2011). The rapid rise in global demand for Travel & Tourism over the past few decades has been spurred by the rise in living standards, in turn fuelled by growing wealth, coupled with the increased affordability of air travel.

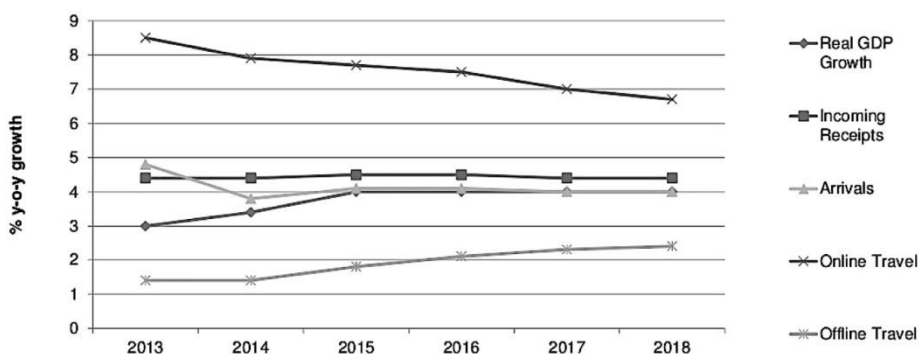


Figure 1: World economy and travel performance % value growth 2013-2018

Source: WTM London 2014

According to the World Tourism Organization (UNWTO), international arrivals worldwide have more than doubled since 1990, rising from 435 million to 675 million in 2000, and to 940 million in 2010. And these figures do not take account of domestic tourism, which, by all accounts, generates up to ten times more arrivals than international tourism (UNWTO, 2014; World Travel & Tourism Council, 2011).

Sports tourism has become a multi-billion dollar business and one of the most intriguing of the modern-day service industries. The growth of sports tourism has been driven by increased global interest in sporting events. By 2011, travel and

tourism is expected to be more than 10 percent of the global domestic product. Trends in tourism over the last decade have shown that sports tourism is emerging as a very significant segment of the global tourist market (Dehnavi et al., 2012).

The Olympic Games are the biggest sporting event in the world. There is no doubt that the Olympic Games are a turning point for the host city, looking at the period before and after the Olympics Games. Olympic Games provide the host city to expand tourist capacities. Games attract many visitors, spectators and participants in the game.

Table 3: The number of visitors

Host city	Visitors	Olympic team	Total
Los Angeles	688.760	28.460	717.220
Seoul	240.000	39.332	279.332
Barcelona	422.666	55.000	477.666
Athens	895.557	72.543	968.000
Sydney	418.000	57.000	475.000

Source: ('Olympic Games | Winter Summer Past and Future Olympics', 2015)

Although the economic effects of Olympics Games, in general, are very large, some of them leaves the territory of the country of the host city. The table presents the direct economic effects of the Olympic Games in Salt Lake City 2002., for the period from 1996. to 2003.

Table 4: Direct economic effects of the Winter Olympic Games in Salt Lake City 2002. (from 1996 to 2003.)

Source	Direct effects	Part of that has left the territory	Actual direct effects
Organization Committee games	1.240.000.000 \$	436.000.000 \$	804.000.000 \$
Infrastructure investments	435.000.000 \$	109.000.000 \$	326.000.000 \$
Costs visitors	348.000.000 \$	231.000.000 \$	117.000.000 \$
TV transmitted	99.000.000 \$	50.000.000 \$	49.000.000 \$
State grants	17.000.000 \$	0 \$	17.000.000 \$
Total	2.100.000.000 \$	800.000.000 \$	1.300.000.000 \$

Source: Winter Olympic Games - Impact, Images and Legacies, Travel and Tourism Research Association, SAD

A study by VisitBritain and Visit London measured the potential value the Olympic games for both London and the UK from 2007 to 2017. This was achieved by analysing past sporting mega events to identify variables and patterns of visitor figures. The games have been forecasted to generate around £2.34bn in tourism expenditure between 2007 and 2017 for the UK. However, the effect of displacement will decrease the overall expenditure to around £2.09bn. London

alone is estimated to generate around £1.47bn alone after displacement is taken into consideration, leaving £620 million to be spent around the UK over a ten year period. It is estimated that 15% of this figure for the UK will be generated during the pre-games period. The games themselves will account for 31% and the remaining 54% become a legacy effect after the games (Visit Scotland, 2012).

The net impact of the Olympic Games on the tourism industry in the UK during 2012 is estimated to be £890 million, or £598 million if spending on Olympic and Paralympic tickets is excluded, with a number of longer term benefits also expected. In total, over £2.4 billion was spent by visitors attending Games-related events, including sporting events and cultural events. According to the International Passenger Survey, in July, August and September 2012, over 800,000 overseas visitors either attended a Games-related event or said that their main reason for visiting the UK was related to the Games. These visitors are estimated to have spent nearly £1.1 billion in the UK during their stay. Most of these overseas visitors came from Europe and North America and the majority reported that the Games had a significant influence on their decision to visit the UK and that they would not have visited the UK otherwise (Thornton, 2013).

Table 5: Total net additional visitor expenditure due to the Games by type of visitor

Ticket sales	Expenditure by visitors attending Games events (£m)		Expenditure that is additional, removing expenditure by visitors that would have come to the UK anyway (£m)		Net additional expenditure taking into account estimates of visitors staying away (£m)	
	Including	Excluding	Including	Excluding	Including	Excluding
Overseas visitors	1.090	975	674	604	305	235
UK overnight visitors	383	271	260	184	268	184
UK day visitors	974	542	325	179	325	179
All visitors	2.447	1.788	1.259	967	890	598

Source: (Thornton, 2013)

Economic and social impact of the 2014 World Cup in Brazil has extreme importance to the development of the entire country. Cup's direct impact on the Brazilian Gross Domestic Product (GDP) is estimated at 64.5\$ billion for the period 2010-2014 – an amount equivalent to 2.17% of estimated GDP for 2010, namely 2.9\$ trillion. As the World Cup is a one-time event, most of its systematic impacts will not be permanent. In fact, once the investments have been concluded and the World Cup has taken place, the positive impacts will remain based on the stakeholders' ability to benefit from the event's opportunities and legacies. Therefore, the evaluation in the first part of this study is limited to the period 2010-2014 (Ernst, Young, 2011).

The sectors mostly benefiting from the World Cup will be construction, food and beverage, business services, utilities (electricity, gas, water, sanitation and

urban cleaning) and information services. Together, all these areas will increase output by 50.18\$ billion. Second to none on the list of benefiting segments, civil construction will generate an additional 8.14\$ billion in the period 2010-2014. Total output from this segment for 2010 is estimated at 144.6\$ billion. Other economic segments that will take advantage of the World Cup are, for example, business services and real estate services and rental. Of the total 29.6\$ billion in estimated costs relating to the World Cup (including visitors' expenses), 12.5\$ billion will originate in the public (government) sector (42%) and 17.16\$ billion will derive from the private sector (58%) (Ernst, Young, 2011).

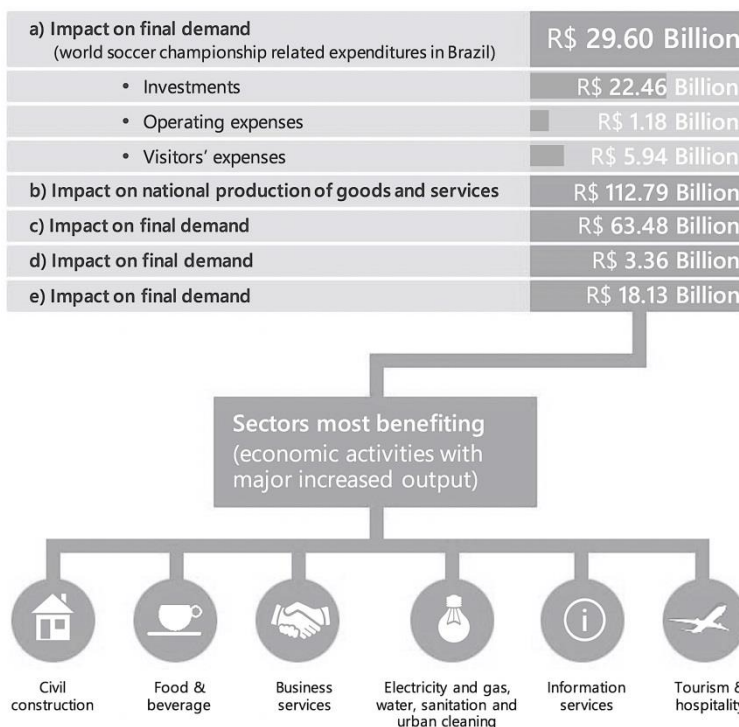


Figure 2: Consolidated impacts of the 2014 World Cup in Brazil

Source: (Ernst & Young, 2011)

Sport Event of local character, can also have a significant impact on growth and tourism development of certain regions, as well as a huge economic development. A good example is the Chesterfield County in Virginia. Sporting events attendees 156.113 visitors to the Chesterfield county in the 2014. Sports tourism had an economic impact of 25,3\$ million in Chesterfield for 2014. Chesterfield County has implemented the following types of sports competitions: soccer, swimming, cycling, marathon, hiking, hockey, children's sporting events, family activities and other sports ('New athletic facilities boost Chesterfield sports tourism', 2015, 'Sports Tourism, Chesterfield County', 2015; Gregory, 2015).

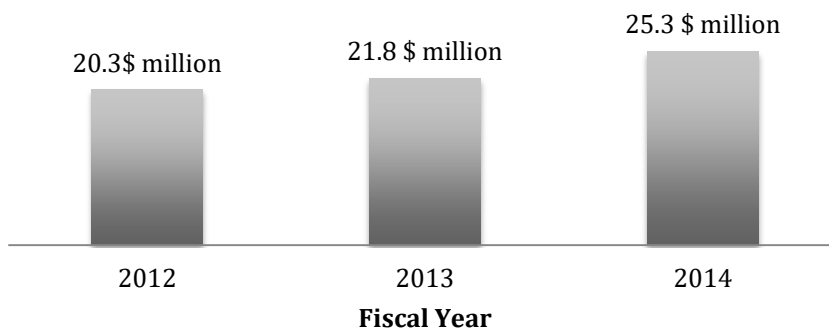


Figure 3: Local Economic Impact of Sports Tourism in Chesterfield County

Source: ('New athletic facilities boost Chesterfield sports tourism', 2015, 'Sports Tourism, Chesterfield County', 2015)

BENEFIT OF MAINTENANCE SPORTS COMPETITIONS IN LOCAL COMMUNITIES ON A CASE STUDY OF EYOF

European Youth Olympic Festival (EYOF) was made in 1991. EYOF sports competitions are held every other year. The main focus of sports competitions is assembling and engaging young athletes from 48 countries. The festival consists of summer and winter sports competitions. First time summer competitions were held in Brussels in 1991. and winter competitions in Aosta in 1992. The best athletes from festival directly qualify for the Olympic Games.

The city of Belgrade was elected for the host of European Youth Olympic Festival in 2007. Organizational preparations were carried out in thirteen stage. The total number of people who participated in the competition was 2.114. The festival was attended by 940 athletes (primary sports athletes) and 1.174 other indirect participants.

Table 6: Participants of EYOF Belgrade 2007

Direct participants		Indirect participants	
Sport	Number	Title	Number
Athletics	200	Accommodation	50
Bicycling	41	Transport	120
Gymnastics	92	Medical Service	50
Judo	162	Contact with guests	210
Swimming	79	Contact with media	70
Table Tennis	78	Ceremonies	87
Tennis	28	Security	200
Basketball	36	Informatica sector	20
Handball	58	TV broadcasting	30
Volleyball	132	Logistics	210
Water Polo	34	Cultural program	127
Total	940	Total	1174

Source: (Radotić, 2007)

At the EYOF 1300 volunteers participated: 1.000 general volunteers and 300 sport volunteers. Volunteers were deployed in all thirteen areas of organization. The volunteers were young people from Serbia and other countries.

Belgrade InterContinental Hotel has hosted 150 olympic family member (IOC, EOC, NOCs and VIPs) and 120 judges and referees (Coordinating Commission members, International Technical Delegates and delegations of the future EYOF host cities).

It was built olympic village specialized in the accommodation of athletes as part of the media and volunteers.

For sport competitions and trainings have been engaged all sports facilities in Belgrade who fulfilled all sports standards. Total has been used 13 sports facilities, 10 of them for competition and three for training.

These European Youth Olympic Festival had a huge economic impact on the city of Belgrade. The benefits of international sports competition is reflected in: demand for local hotels, restaurants, food, transportation and other goods and services. Tourists can stay longer to see the destination. Sporting events can be used for promote tourist destinations as well as for better brand positioning. European Youth Olympic Festival is for exceptional media promotion of the city and the state. In order to fully realize the benefits requires great cooperation between local communities and organizers of sports competitions.

CONCLUSION

Based on the UNWTO research, tourism is one of the top five export categories for as many as 83% of countries and is a main source of foreign exchange earnings for at least 38% of countries.

A robust tourism industry can have direct economic impacts in the region where the attraction is located. Tourism accounts for 9% of global GDP and more than 260 million jobs (100 million direct) based on the analysis of the UNWTO.

Sports-related travel is a \$182 billion industry, generating over 47 million hotel room nights annually. Sport contributes to the development of tourism in the destinations, in terms of economic impacts, urban regeneration, improve infrastructure, offering enrichment and strengthening of tourist image. Sport Tourism is one of the most prolific industry and world economy components.

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POTENTIAL QUALITY INCREASE OF HEALTH AND RECREATIONAL TOURISM PRODUCT IN THE AREA OF FRUSKA GORA

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Vlado Radic PhD⁵⁰

ABSTRACT

It is a common fact that there are few undiscovered, easily accessible regions of the untouched nature in the world, which is an excellent opportunity for the Republic of Serbia as a promising tourist destination. The priority should be appointed to the area of Fruska Gora, with a high-quality diverse basis for the development of health and recreational tourism.

The specific characteristics of the locality, favorable climate, hydro-graphic potentials, as well as other natural elements can represent a good ground for the development of the before-mentioned type of tourism in the future. Accordingly, current tourism trends and employees education are the primary factors for the pace of tourism development, in terms of guidance to the long-term quality and complex interaction between tourism offer, demand and the environment in general.

This paper strives to examine all aspects of the present situation and the possibility of developing high-quality health and recreational tourism product of Fruska Gora, in terms of the increased tourism demand for healthy and preserved natural areas.

Key words: *Quality, Health and Recreational Product, Tourism, Tourism Trends, Education of Employees*

JEL classification: *L15, L83*

UDC: *338.48(497.11 Фрушка Гора)*

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INTRODUCTION

Tourism has become a worldwide phenomenon, an integral part of life of dominant part of the global population (Cerovic, 2002, pp. 22), which carries with it a period of significant changes. The need for the tourism is part of the existential needs. None of the socio-economic phenomenon had such impressive changes as an international tourist turnover, because tourist movements and trends are unstoppable.

It is known that for the development of tourism are not sufficient only natural and anthropogenic values, favorable geographical position, interesting monuments and more. It takes very extensive investment in facilities of supply, basic infrastructure, propaganda, traffic and most importantly - quality products and tourist destinations. It is known, also, that the quality of tourism services is estimated during their consumption when consumers through their satisfaction, by subjective assessment, estimate their level of quality. Precisely in this is the specificity of tourism services, because users evaluate behavior and friendliness of the staff, as well as the appearance and warm environment (Cooper at al., 2005, pp. 589). At the same time, it should be noted that providing a consistent level of quality, in the functional dimension, creates the most difficulties (Cosic, 2007, pp. 85). This system is trying to define the values that should be accepted to the fact that quality becomes an integral part of corporate culture (Cooper at al., 2005, pp. 582).

Because of adjustment of the tourism industry to worldwide economic, technological, communication, information, climate, socio-psychological and other changes that affect the quality of the tourism product, the "rules of the game" and the key success factors in the tourism industry are changing. It shows the emergence of new destinations on the global map of tourism. Changes in the duration of life, working time, lifestyles, and ways of choosing and buying tourist travels, especially prices of transport services, are revolutionary changing until yesterday prevailing paradigm of one-off travel because of holidays. Diversification and constant innovation of products, experiences and emotions, the search for new experiences, traveling for culture and education, have become new standards of growth and development of tourism, as well as market facts, without which it is no longer possible to participate and find its place in the global tourism industry.

The process of globalization imposes different trends in all segments, as well as in the tourism industry. The positive achievement of this process is the awareness of an imminent protection and preservation of the environment, and the consequent health-recreation tourism, as a kind of organized movement of people to meet the needs of living in a "pristine nature", ie satisfying the needs for the clean water, food and air.

In the Tourism Development Strategy of the Republic of Serbia (2006, pp. 9) it is stated that the growth and development of tourism affects a series of accelerated democratic political, economic and institutional changes in the direction of faster joining global integrations. In the world remain little known, easily accessible wilderness areas, so Serbia as a promising tourist destination should use this situation and point out and develop health-ecological regions (Novovic, Popovic,

2012, pp. 503). Among them, priority should be given to the area of mount Fruska Gora, which has the quality and diverse basis for the development of medical and recreational tourism.

NATURAL AND TOURISM POTENTIALS OF FRUSKA GORA AREA

Fruska Gora is a mountain that offers a wealth of nature and many cultural monuments. Traces of life in Fruska Gora date from the Neolithic period. In antiquity it was inhabited by the civilian and military settlements, and in the middle ages were raised numerous monasteries. On its base and slightly wider environment, there are more urban settlements, which are the main centers from which tourists move. These are Novi Sad, Backa Palanka, Beocin, Sremska Kamenica, Petrovaradin, Sremski Karlovci, Indjija, Ruma, Sid, Sremska Mitrovica, Stara Pazova and Belgrade (Vidic, 2007, pp. 37). For Fruska Gora are characteristic the excursions and exclusive movements and stays of weekenders. The famous sightseeing points are Strazilovo, Iriski venac, Zmajevac, Brankovac, Crveni Cot, Letenka, Osovlje, Andrevlje, Testera and Ravne. The most famous weekend resorts are Slankamenacki vineyards, Janda, Koševac, Glavica, Provalija, Popovica and Koruška (<http://www.pkv.rs/book/export/html/106>).

Fruska Gora with all its physical-geographic, socio-geographic, infrastructure and superstructure characteristics and resources provides an opportunity to develop many still actual and in the world highly propulsive forms of tourism, as branch of industry that is highly competitive and record continuous growth and development.

Fruska Gora National Park includes the eponymous mountain and covers area of 25.393 hectares, where areas of forest cover over 90% of the space while at around 5000 hectares are present meadow habitats, a mountain in the southern part of the Pannonian basin in between two rivers the Danube and Sava, in the northern region of Srem.

Fruska Gora was declared as national park in 1960, and its areas make the fragmented whole consisting of 5 major and 19 smaller complex (the Provincial Institute for Nature Protection APV, 2011, pp. 4).

For Fruska Gora, one might say that shares the fate of the majority of local governments in the Republic of Serbia who have been, and still are affected by the economic crisis. In recent years by the municipal authorities, through various strategies and plans, are defined priorities of certain forms of tourism, where is under development incentives included health and recreational tourism. One can freely say that Fruska Gora, unfortunately, represents a relatively new health and recreational tourist destination, but with a variety of potentials that can be efficiently utilized and put into operation of the development itself. The available ecological resources and tradition provide great opportunities and advantage to the development of health and recreational tourism, in a way that will ensure the recognition of the region.

Our civilization has liberated us from physical labor, but it has pulled on the disease burden, such as a variety of cardiovascular diseases. The number of so-called diseases of welfare: diabetes, high blood pressure, cancer of respiratory organs as consequence of smoking, alcoholism, mental illness, as well as many others, has also increased (Novovic, Popovic, 2012, pp. 503). Therefore, the free time and vacation are an opportunity that organism "recharge its batteries", or rebuild the physical and mental strength. In the modern process of the tourist offer transformation, the health and recreational tourism is much more than healing. This implies diversification of supply, enriching the content of visitors stay and the creation of a number of different programs (prevention, rehabilitation, wellness, etc..) for the various needs of modern tourists.

Due to these facts, and proceeding from the envious resources available to Fruska Gora, special attention should be paid to the development of health and recreational tourism. This space, with respect to the preserved natural and ecological potentials, especially moderate continental climate, clean air, healthy drinking water, etc., allows recreation in physical and psychological sense, performing in this way a significant impact on improving the health and working abilities of tourists. Unlike the other forms of tourism, the development of health and recreational tourism does not require significant financial investments, which can be a favorable circumstance, in terms of the current global economic crisis.

The key to success is in the quality of health and recreational tourism product, as well as the quality of environmental management. Hence, it has been creating the concept that emphasizes the importance of quality of life for consumers and not just the economic aspects of activities in the tourism development, but also those that focuses on its surroundings and healthy environment (Novovic, Popovic, 2012, pp. 506).

Fruska Gora is an area of high contamination. Unlike areas of high contamination, there are also uncontaminated spaces, as ideal places for the satisfaction of human health and recreational needs, one of which is Vrdnik Spa. Vrdnik spa has numerous and various natural elements with significant health and recreational functions (thermal mineral springs, rare gases, favorable climate, rich vegetation and the like.) which from long ago induce great interest of tourist attention.

Table 1: SWOT analysis of the Fruska Gora National Park tourist potential

Advantages	Disadvantages
<ul style="list-style-type: none"> • Favorable geographic and tourist location, closeness of Danube, as one of the important tourist resources in Europe, as well as proximity of the most important tourist generating markets in the country (Novi Sad, Belgrade). • The status of national park is a kind of brand in the tourist offer and the sign of quality tourist offer. • Geo and biodiversity as a function of potential tourist offer. • Treasury of cultural and historical heritage as a potential for the development of those types of tourism, which are based on these resources. • Tradition of excursion, relaxation, health, and recreational tourism development. 	<ul style="list-style-type: none"> • The lack of tourism development in comparison to the potentials. • Low quality of the material base (inadequate tourist signalization, inadequate accommodation facilities). • Undeveloped marketing and tourism propaganda. • The absence of specific tourism products and programs, especially those that promote nature conservation and the development of health and recreational tourism. • The lack of tourism development plans and strategy documents for the whole mountain, as well as certain segments of tourist offer.
Chances	Threats
<ul style="list-style-type: none"> • Incentives in the development of tourism in those areas in which Fruska Gora has the most potential (cultural, eco-tourism, health, recreation, tourism in mountains, sustainable tourism). • The possibility of remediation, reconstruction and modernization of existing hospitality and tourist facilities. • Possibility of diversified tourism offer according to the existing resources National park. • Possibility of building a tourist infrastructure that could benefit the local population, which would be a concrete contribution to the sustainable development of the mountain by the tourist industry. • The use of foreign investments for developing tourism (through projects of the European Union). 	<ul style="list-style-type: none"> • The irresponsibility and negligence of individuals towards the natural heritage of Fruska Gora. • Competition from other mountains in Serbia that have already built a prefix of desirable tourist destinations. • Insufficient attention from scientific and expert public about the tourist affirmation of Fruska Gora. • Freight vehicles traffic, which is not desirable to sustainable tourism destinations. • The presence of economic activities (mining, forestry) that are not in accordance with tourist activities and their favoring in compared to the tourism potential.

Source: Government of APV, the Master Plan for sustainable development of Fruska Gora, 2011, pp. 200

Fruska Gora has potential for tourism development, but the capacities are not sufficiently constructed, as shown in Table 2.

Table 2: Overview of accommodation sites in the area of Fruska Gora

Type of accommodation	Number
Hotels	12
Pensions - overnights	4
Motels	1
Childrens resorts	2
Mountain lodges	11
Camps	2
Apartments and rooms	15

Source: PE National Park Fruska Gora, 2014, pp. 29

The table base is incomplete and it is not possible at this moment to give precise information regarding the number of beds and the number of accommodation facilities that are located in the territory of Fruska Gora (PE National Park Fruska Gora, 2014, pp. 29). The owners of facilities for accommodation, excluding hotels, do not engage in the application procedures for categorization, because of extensive documentation, which is needed, but also because of proceedings costs.

The main products of today, which are followed by the national statistics in Serbia, are spas with climate health resorts, mountains, and administrative centers. We should emphasize the main city destinations such as Belgrade, Novi Sad and Nis. The most significant spas are Vrnjačka, Soko Banja and Banja Koviljača in inner Serbia and Kanjiza in Vojvodina. While the main mountain destinations are Kopaonik, Zlatibor and Divcibare in inner Serbia (Horwath Consulting Zagreb and Faculty of Economics, Belgrade, 2005, pp. 14).

Unfortunately, Fruska Gora besides its natural and tourist potentials has no priority in the strategic development of tourism in Serbia.

The recent development of tourism in the area of Fruska Gora has for years downward trend. Once a well-known mountain, health and recreational zone of Belgrade and Novi Sad, with intensive use of space, experiencing not only stagnation, but also a constant decline of all tourist activities. The space is unkempt, disorganized and unmarked (APV, PP special purpose areas, Fruska Gora, 2004, pp. 32).

The biggest problem of the previous development is that:

- leaders of the tourism development are not clearly defined,
- users of the space do not bear the consequences of insufficient and inadequate use of space,
- untill now were not implemented adopted development programs.

There are no serious activities related to the development of tourism in the Fruska Gora, because the modern market requires concrete development programs, which offer attractive programs, specific and rare.

The objectives of the activities should be focused primarily on:

- equipping, development and spatial use, which should be aligned with the principles of sustainable development. This includes: meeting the needs of protection, preservation and improvement of region and the providing conditions that staying in the area is improving the quality of life for visitors;
- preference for such tourism product that is competitive in the market - either as a specific or scarce on the tourist market;
- tourism development designed to run continuously in time and space (to choose the tourist product that can be started immediately without financial investments);
- spatial distribution of sites with existing network of facilities and schedule of resources;
- preference for such products that can be placed on the tourist market. As the most suitable, can be selected health-recreation and cultural-educated (APV, PP areas of special purpose Fruska Gora, 2004, pp. 67).

Natural and man-made values can ensure the development of various forms of tourism, but what currently an area of Fruska Gora has, where you do not have to start with an initial investments, according to economic, motif, spatial and environmental criteria, is recreation, health and ecological tourism.

In accordance with the natural conditions, these forms of tourism can be organized throughout the year, at different locations, with different activities, and therefore different effects (APV, PP areas of special purpose Fruska Gora, 2004, pp. 68).

POSSIBILITY OF HEALTH AND RECREATIONAL TOURISM DEVELOPMENT IN FRUSKA GORA

In the SWOT analysis there was no phase of collecting and analyzing socio-economic data, so it necessary to deal with the research and with collecting input information from available official sources and from the process participants.

Besides anthropogenic tourist values, easily recognizable, stylish defined, architecturally and artistically designed wholes of different purposes are standing out by certain characteristics. A collection of natural, rural, urban, cultural, industrial heritage and contemporary achievements, gives special feature of this spatial whole.

With a comparative advantage in relation to other forms of tourism in the area of Fruska Gora, can occur the most popular and highest quality tourism product, identified as the most efficient and profitable type of tourism - health and recreational tourism. In order to achieve this, it is necessary to synchronize previously with the project partners regarding the implementation of

methodological approach in the process of developing quality health and recreational tourism (Popovic, Novovic, Vukadinovic, 2013, pp. 126). It is important that understanding of this type of tourism (in view that priority goals are not directly focused) recognize the need to create a new strategic plan. It should include a long development period, in order to ensure time compliance with the period of implementation of health and recreational product development (Popovic, 2012, pp. 13).

Situation analysis indicates that Fruska Gora has very good preconditions that are not fully used, nor promoted for the development of profitable health and recreational values:

- natural resources (thermal and healing water, closeness of rivers and lakes)
- rich historical, cultural and industrial heritage,
- favorable geographic position (especially regarding the use of transport infrastructure)
- the traditional hospitality of the people,
- existing tourist agencies,
- existing tourist infrastructure,
- multi-ethnic character and multicultural traditions of the region,
- growing awareness of the main actors about the benefits that the development of health tourism sector brings the overall economy.

Fruska Gora, one of the most beautiful and richest in forest mountain in Serbia, is important natural and health resort. Its beauty is compared with the most attractive parts of Switzerland and can freely wear the epithet of air and thermal spa. Government of Republic of Serbia has put Fruska Gora mountain area under protection as a National Park (APV, PP area of special purpose Fruska Gora, 2014, pp. 58). Therefore, because of exceptionally favorable climatic characteristics and configuration of the ground, it must get priority in the development of medical and recreational tourism, with the vision of not only local but also regional and international affirmation.

Healthy mountain climate and natural conditions make this tourist area popular and attractive tourist destination, an exclusive eco-oasis, and business and cultural center. The wider space of Fruska Gora area has resources of such natural characteristics with preserved quality of the environment, which, among other things, enable the development of medical and recreational tourism at a high level. This development presents special health and recreation program of intensive recovery, what already exists in other regions of the world (APV, PP area of special purpose Fruska Gora, 2004, pp. 32). Pursuant to natural resources in its possession, the mountain Fruska Gora, is ideal for rest, recuperation and recreation in health and tourist purposes. The mountain offers a lot that requires modern climatology, namely:

- vast expanses of forests, as deciduous so and coniferous ("oxygen factory");
- higher air flow due to the large dissected relief, as well as the famous wind roses, or the ventilating with the collision of air masses;

- numerous sources of drinking water, which belong to the first group of high-quality water with adjusted temperature that allows refreshment, but also the experience of the space. Particular importance it can have for the English-speaking tourists (Germany, Belgium, Netherlands, United States), where such water in every tourist facility indicates symbols of welcome;
- height above sea level that works the best on the human body. For health resorts the best height above sea level is from 300 m to 600 m, which is suitable for a picnic and recreational tourism with the addition of the weekend and sports and recreational activities;
- climate at altitudes from 300 m to 600 m, ie a moderate mountain climate, is suitable for the treatment of chronic respiratory diseases, myocardium, diabetes, gall stones, recovery after a heart attack, nervousness (Dukic, 1997, pp. 124).

Listed characteristics of climatology stand out the most precious what Fruška Gora can offer to tourists - clean air, which is a big advantage of this area, because the modern world is evidently threatened by increased pollution of the environment, reduction of the ozone layer and warming of the Earth.

Recreational aspect of tourism builds on the health and makes complementary whole with it, so it need to be noted. Recreational aspect of tourism builds on the health and makes complementary whole with it, so you need to be noted. A developed network of roads and access to numerous natural and anthropogenic tourist values allow wider tourist movement and organizing a picnic and recreational tourism. Starting from the fact that people were briefly forgotten about the importance of nature for humans, but they are still coming back to it, it is concluded that there are huge potentials for the development of both health and recreational tourism in this region.

Health-tourist travels are not limited in time (referring to periods of the year - summer, winter) and can be performed throughout the year. As such, they are organized for a longer stay, and bring significant economic benefits and increase in employment and capacity utilization. This form of tourism has the best prospects of development in Fruška Gora area in the near future. All capacities that are now in function, with the necessary adaptations and building new ones, will contribute to its faster development.

Fruška Gora has long been gained the title of extraordinary place for the development of health and recreational tourism, due to specific environmental values that this region possesses. In addition to the rich forests and diverse relief, for the development of health and sanatorium tourism in Fruška Gora region are also important, mentioned mineral springs, which are affirmed spa resort. With the expanding of its offer, the natural environment and the construction of sports and entertainment facilities, spa extends the tourist season so that, in addition to the health, gains also recreational function, which achieves significantly higher financial effect.

Thing which Fruška Gora has (associated with health aspect of tourism) is a place of Vrđnik, which binds significant thermal mineral water. "Especially

interesting is the spring of sour and thermal water. Source of sour mineral water is located in the valley of Vrdnik creek. This source was discovered in 1953 and gave about 50 liters of water per minute, temperature 15.5 °C (http://www.sr.wikipedia.org/sr/fruška_gora). The second source of thermal water appeared when water flooded the south pane of brown coal mine in Vrdnik. Water is classified as a sodium-magnesium-hydro-carbonate-sulfide homeothermic. The water temperature is 32.8 °C, and is successfully used in the treatment of rheumatism, for the postoperative rehabilitation and more.

The beginning of health tourism in Vrdnik dates from the time shortly after the discovery of waters. Vrdnik miners had even before World War II dug two basins, and after World War II an indoor pools were used for the medicinal baths. Later, the water begins to use with the modern methods of treatment, so the Vrdnik became a health spa and recreation center (http://www.sr.wikipedia.org/sr/fruška_gora).

The healing properties of mineral springs in Fruska Gora began to be used from the time of the Roman Empire, then the Turkish Empire, and later the Austro-Hungarian Empire. Archaeological excavations revealed that the mineral water springs were located at Erdevik, monasteries Grgeteg and Velika Remeta. Today the most famous springs of hot and mineral water are in the spa Vrdnik. Vrdnik spa is a village and spa resort, located in the northwest part of Serbia, on the southern slopes of Fruska Gora, at an elevation of 200 m, within the National Park "Fruska Gora". Populated with about 4000 inhabitants, Vrdnik is an oasis of peace and tranquility, only 27 km from Novi Sad and 70 km from Belgrade (APV, PP areas of special purpose Fruska Gora, 2004, pp. 21).

Natural curative factors: invigorating effects of Vrdnik are clean air, mild climate and therapeutic and recreational baths with mineral water/temperature 32.8 °C /, rich in sodium, potassium, calcium, magnesium, chlorine, sulfates and nitrates (Popovic, 2012, pp. 88).

Medical indications: rheumatism, peripheral nervous system, spinal correction and rehabilitation, balneotherapy-climatic recuperation (Popovic, 2012, pp. 88).

Method of treatment: within the spa is a modern, fully renovated hotel "Termal" (***). It has 260 beds, restaurants, conference hall with 500 seats, a sunny terrace, three indoor and two outdoor swimming pools with thermal water from 26 to 36 °C and a modern therapy block for the hydrotherapy, electrotherapy, kinesiotherapy, fitness center, areas for saunas and manual and vibrating massage. Thanks to the invigorating spa characteristics and associated services in the hotel, it is suitable for sports training (Popovic, 2012, pp. 89).

It should be noted that in 2012 started working the hotel "Premier Aqua" (*****) and thus open many people possibilities that on his behalf demonstrate their knowledge and skills in the global tourism market. With the opening of private A category hotel (*****), were created quality values in Vrdnik, based on the positive ecological, social, cultural and economic impacts. The purpose is clear, it has been enhanced the competitiveness of Vojvodina's tourism offer in the domestic and international market,

product quality, and also strengthened the capacity of health and recreational tourism at Fruska Gora. As saying representatives of local authorities - "Health above all" - should be the highest strategy goal of development of quality health and recreational tourism product on Fruska Gora.

The vision should be directed towards promoting the diversity of the oldest national park in Serbia through:

- integral tourism product with strong local community;
- continuity of work with organizations, institutions, the private sector and the local population on sustainable development;
- awareness of the importance of health and recreational tourism, as a key factor of economic production;
- raised quality and quantity of the tourism product;
- enhanced activities for presentation and promotion;
- increasing the number of tourists who stay longer;
- increasing the volume of consumption that has a positive impact on the local economy;
- control of visitors and traffic;
- open job vacancies;
- satisfaction of both groups, local residents and tourists (National Park Fruska Gora, 2014, pp. 45).

ECONOMIC QUANTITATIVE AND QUALITATIVE ATTRACTIVENESS OF FRUSKA GORA RELIEF

Evaluation of natural resources for the tourism development needs in the area of Fruska Gora, we will provide by econometric methodology that has long been accepted in the world (Milenkovic, 2000, p. 94).

The equation for calculating the economic attractiveness of relief is:

$$K_h = \left(\frac{H_i}{H_m} \right)^{\frac{1}{h} \cdot \frac{H_w - H_{wi}}{H_w}}, \text{ i.e. } \log K_h = \left(\frac{H_i}{H_m} \right) \log \frac{1}{h} \cdot \frac{H_w - H_{wi}}{H_w}, \text{ where is:} \quad (1)$$

H_i - maximum altitude of tourist place;

H_m - maximum altitude of the region, zone, and larger space in which that place is located;

H_w - maximum or minimum difference between the highest and lowest point in the region, zone or country;

H_{wi} - maximum or minimum difference between the highest and lowest point of the observed tourist places; and

h - measures of the intensity of parsed relief, which has value from 1 to 5.

If $h = 1$ the relief has poor granularity and belongs to flatlands type. This relief is in economic terms suitable for all economic activities, with the application of scientific and technical achievements. If $h = 2$ then the relief belongs to knoll area, with the possibility of so-called catchall production development. When $h = 3$ the relief belongs to the hill type, with the development of specific economic sectors. If $h = 4$ relief is a mountain type, with prevailing development of forestry and tourism. When $h = 5$ relief belongs to high mountain i.e. the type of degradation with high granularity.

The coefficient of attractiveness of relief has the following limit values:

- If $K_h = 1$, relief allows the development of any economic activity, but with a simple reproduction;
- If $K_h > 1$, in these forms of relief should not be developed any economic activity, because due to the effects of negative factors they will be cost ineffective; and
- When $K_h < 1$, in the analyzed area should be developed economic activity, because of the positive effects of relief they will be profitable.

As a tourist destination (H_t) in the area that is relevant to the development of health and recreational tourism, we will take settlement Vrdnik. In the settlement of Vrdnik, maximum altitude is 267m and minimum 181m. The maximum difference in altitude of settlement Vrdnik is (H_{wi}) 86 m (267 - 181). Maximum altitude of wider zone, in this case the area of Fruska Gora (H_m) is the top Red čot at 539 m, while the lowest altitude is in the settlement Čortanovci with 156 m. The difference between these two points is the maximum altitude difference of Fruska Gora area (H_w) and amounts 383 m (539 - 156). Relief belongs to mountain type, with prevailing development of forestry and tourism, and $h = 4$. Now we have all the elements to calculate the economic attractiveness of relief (K_h) for the settlement Vrdnik:

$$K_h = \frac{H_{wi}}{H_w} = \frac{86}{383} = 0,2245 \quad (2)$$

If the coefficient of relief attractiveness is calculated for certain tourist areas with similar natural and tourism potentials, we get the following results:

Table 3: The coefficient of relief attractiveness for certain mountain areas

<i>Areas</i>	K_h
Fruška gora	0,87
Zlatibor	0,89
Tara	0,90
Golija	0,94

Source: Author's calculations based on formulas derived by areas

Due to limited paper length, for other areas and other coefficients of quantitative valorisation we give only the final results.

Calculated coefficients range about 0.90, and such fields are from the standpoint of relief suitable for the development of tourism in mountain, spa and climatic areas, with special emphasis on recreation, health, mountain, pleasure, research, business and stress, attractive tourism etc. Coefficient of the relief granularity shows that the relief of these areas is suitable for the development of so-called catchall production and specific economic sectors.

Per calculated coefficient of relief attractiveness, Fruška Gora is not inferior to other areas but poor hearing of tourism development holders leads to stagnation and downward trend in influx of tourists.

INCREASE IN QUALITY ON HEALTH AND RECREATIONAL TOURISM PRODUCT

Strategy of quality health and recreational tourism product development should point out that there are interactions among the constituent elements of the tourism market, which cause that it is treated as specific. At the same time, the strategy should focus at necessity of applying marketing concept in business policy of tourism enterprises, other economic and non-economic subjects, as well as organs and institutions that coordinate the development of health tourism.

Respecting the strategic development concept of health tourism at Fruška Gora, would lead to the emergence of the concept of "total quality product", which starts from the standpoint that offer means much more than a product with all the functional and aesthetic properties.

Total quality product in health tourism should be seen as the sum of components, because accepting such understanding the offer can be further defined. The object of exchange in health and recreational tourism can imply many things: travel, accommodation and food service, treatment services, sale of souvenirs, merchandise and so on. Also, the product includes the cleanliness of rivers, mountain landscape, climate conditions, hospitality of tourism workers, the availability of cultural and historical heritage and the like.

At first glance, it is clear that the offer in health and recreational tourism may not be unique, because nor are unique the needs and demands of consumers. Thus, the total product that will be consumed by tourists will be complex, composed of larger or smaller number of different elements. Such product must have its use and exchange value. Health and tourist product is actually a composite product, as "an amalgam" or mixture of attractiveness, accommodation, treatment, transport and environment.

What will be the content of such package depends on the preferences and choices of each individual tourist, what is strongly influenced by the motives of the trip. That is why is often said that the health and tourist product can be viewed as a "personal experience" that can be, and actually is, different in each case.

It should be noted that today, in the management of tourism services quality, special attention is paid to quality management. It involves the shaping, management and development of enterprises and organizations responsible towards the environment and the interaction with natural environment, which should be treated responsibly in decision-making processes in all business activities (Muller, 2000, pp. 147).

In this context, in order to protect healthy and preserved natural environment, it is necessary to provide a range of useful activities that are already applied in modern conditions, in order to minimize conflicts that may arise from economic premises and ecological requirements of business (Cosic, 2007, pp. 223).

These activities also reflect the importance of quality management in the future development of health and recreational tourism in the area of Fruska Gora, and need to be some kind of recommendation to be followed, no matter which company or organization it comes to (Novovic, Popovic, 2012, pp. 506).

Quality management is based solely on the quality of work process, which seeks to ensure continuous improvement of the identified processes through:

- improving conditions for accepting and stay of tourists,
- education of employees in health tourism,
- professionalism in the work of tourist workers - only by professional attitude and recognizing the needs of guests, it is possible to guarantee the satisfaction of their demands.

To ensure the smooth functioning of the identified process, it is necessary to define the responsibilities of the top management for the purpose of their action on the development, implementation and continuous improvement of efficiency.

Quality management should ensure consistent application of prescribed work procedures, analysis of achieved results and continuous improvement of business processes. Because, if not, the imagination that the success is if the capacity of a particular organization (spa, resort, hotel, restaurant) is up to 50%-60% filled, resulting in decline of work criticality, which, inevitably, leads to a negative result. An example of Switzerland, Austria, Turkey, Hungary and other famous destinations in the world says that they are for several decades dealing with offer improvement, taking care of needs and demands of tourists and adjusting to them. The services they provide are similar to the services on the other destinations in Europe and worldwide.

What, then draws tourists in their spas, wellness and spa hotels? The new view on tourist, ie, continuous monitoring of his demands, survey on services and expectations and, accordingly, change of habits, introduction of innovations, staff training, etc. After all, the purpose of introducing the quality management system (in this case in service activity) is constant enhancing and improving processes and procedures. If you do not understand this at the beginning and belief on introduced quality management system is only "frame on the wall", then you can not expect better results.

Travel, sanatorium, health or recreation "industry" does not have as product just a room, a bed, a restaurant, swimming pool, sauna and gym for the workout. In addition to the expected kindness, willingness to big compromises, and in addition to the necessary knowledge, and especially the monitoring trends in this area, success can not be measured by relatively low turnover or occupancy of capacities.

Also, success depends not only on top management, but from all in chain of providing services - doorman, reception, maids, cooks, cleanliness of the pool till the possibility that guest consumes a new quality of these services - by visiting monasteries, walking or biking along marked trails in nature, eating ethnic products (cheese, cream, wine, brandy, etc.), panoramic flight (small plane or helicopter) and so on.

Today, of course, it involves the availability of Internet in hotel rooms and restaurants, the range of mobile telephony and others. The guest who is accustomed to such benefits will be disappointed if that can not be consumed every day, so "plentiful food" will not be consolation for the, perhaps, missed business engagement, conversation or agreement.

The infrastructure is a very important factor in this industry, and if the owners, directors or service providers do not understand that, they will not realize that infrastructure costs and has its price that is often overlooked as a factor of success or failure. Investment (or no investment) in infrastructure has led many famous destinations to the collapse and bankruptcy. If you for decades do not invest in restoration of beds, windows, doors, bathroom elements, if the "draft on the pool" does not provide enjoyment in warm water, if for decades was not altered menu in the hotel/restaurant and everything is still based on the big portions (which today is not a hit), the customer will look for other destinations, and wont come back to the places where he did not feel comfortable.

TOURIST MOVEMENTS AND PROFESSIONAL QUALIFICATIONS AS IMPACT FACTORS OF HEALTH AND RECREATIONAL TOURIST PRODUCTS QUALITY

Tourist movements represent one of the major factors for the development of tourism and, consequently, allow tracking trends and parameters for the development of selective forms of tourism. Through tourist movements follows an evaluation of the various sites and the level of their development, as well as a single tourist destination.

However, monitoring of tourist movements in the area of Fruska Gora was carried out based on the data of the local tourist organizations and the Republic Statistical Office. This data represent only approximate data and may not be used with 100% accuracy (APV, the Master Plan for sustainable development of Fruska Gora, 2011).

The number of tourists who visited the area of Fruska Gora ranged from 2010 to 2012, the following trend: 2010 - 33.040 tourists, 2011 - 29.734 tourists and 2012 - 33.993 tourists. Seen based of the visitors' structure from 2010 - 25.440 domestic tourists and 7.600 foreign tourists, 2011 - 22.447 domestic tourists and 7.257 foreign tourists, and 2012 - 23.829 domestic tourists and 10.164 foreign tourists (National Park Fruska Gora, 2014, pp. 36).

These data show that Fruska Gora has no adequate number of visitors (Strategy for Sustainable Tourism NP Fruska Gora, 2014, pp. 36), and therefore this area is not competitive, compared to other spa-mountain resorts.

Seasonality significantly affects the number of visitors staying on Fruska Gora. Therefore, in the summer months most visitors are the lovers of nature, recreation, relaxation and health.

For the development of high-quality health and recreational tourism product in the area of Fruska gora, this must be taken into account. How would all seem technically perfect, it is necessary that with health and recreational tourism product, primarily pay attention to the following:

- ***design of physical characteristics*** - such as, for example, size and equipment of rooms, size of restaurant space, look of reception, availability of swimming pools with thermal waters, available rooms for the necessary treatment of tourists, the location of all available facilities and the like;
- ***concept and style of behavior*** - with regard to all activities at the hotel. The image is created from the moment of equipping the hotel and generated during its operations through activities related to diet, treatment, pouring drinks, technology, processes, and through all the instruments of business policy. Particularly noteworthy is the behavior of the staff and doctors in communication with the guests;
- ***all other elements*** - that will contribute to the expected benefits, and which are reflected in the adopted system of reservations, check in, possibility of transfer and sightseeing, appearance of staff and doctors, which together provide the basis for satisfaction (Popovic, 2012, pp. 129).

Tourists precisely seek that in the hotel exist elements that provide additional satisfaction (such as relaxation, vacation, full satisfaction), in addition to those formal elements, which are reflected in the quality of rooms (bathroom, TV, phone, etc.). Because of these shortcomings the area of Fruska gora (Vrdnik spa), has no good response to a given offer, regardless of the possibility of deferred payment and cheap arrangements (referring to the hotel "Termal" (***)). In contrast, high prices and luxury in A category hotel "Premier Aqua" (*****), also face aversion due to the inability of clients (guests) to pay a high price for the service provided.

Here comes to the fore so called diversification of supply - a lower level of supply are following lower prices and a higher level of supply are following higher prices! It is normal to expect that investments in quality contents, rich and diverse offer will cost more. It is normal, too, that guests who come for treatment and necessary physical therapy do not have a lot of financial resources, even if the arrangements are with deferred payment. The commitment to provide tourist services should take into account to whom they are needed, at what level (quality and price) and what should be enriched, improved and updated.

To guests who have health problems is not much important access to global networks, exceptional food offer in restaurants or tasting wine and other products in the environment. To them is the most important to recover, to raise the level of health and to return pleased with the provided health service.

Guests who are in the mood for recreational tourism certainly do not have financial problems, so they need to provide a different range of services and to persevere in their diversity. Tourist-recreationists care about their health, so offer of drinking water at the springs, arranged paths for walking or biking, possibility of excursions in the surrounding area, etc., represent a necessary daily cocktail of services, whose planning and implementation must not be entrusted to someone who is not experienced in this area.

Here the education of employees, along with other attributes (courtesy, communication, willingness to deal) is the primary factor of success or failure.

The knowledge, skills and abilities of employees from the research team all the way to manual workers can develop a thousand different ways to improve the efficiency of health and recreational tourism (Stewart, 1997).

Professional ability and training of employees in health tourism in Western Europe is very thoroughly elaborated. For now, in our country there is no such form of education that can secure management of the institutions concerned - thermal spas, medical spas, medicinal climate institutions and medicinal hotels - for the new challenges that are on the doorstep. That is why the professional ability and professional development are the first of three basic elements or factors of tourism development (Vujovic, 2008, pp. 271):

- the professional capacity - staff,
- spaces,
- material base.

Worldwide, there have been strengthened new forms of tourism education, health-related, for the preservation of health (wellness), for recreation and rehabilitation. It forms this kind of "health industry" within which the large health centers - in addition to treatment - will offer complex services to protect the health of body and mind. Unfortunately, Serbia has reacted partial and with delay on the changed requirements in education.

The main objective should be based on the formation of networks, which can unite the creation of new jobs, mobility within regions, adult education at the global level, and all this within the framework of Republic of Serbia. Professional adult education can provide the ability of workforce adjustment and the

competition of business entities by forming models for reception and preservation of job positions with the expansion of services in the labor market, within Serbia, and the formation of network for complex education and services.

For the professional training of existing workers regarding medical tourism, and the new generations that will work in the priority sectors of economic and social activities, is primarily needed to provide:

- specialization in certain segments of the given activity,
- knowledge of at least one foreign language and knowledge of the local language,
- knowledge of telecommunication achievements at the required level.

These needs can be achieved through:

- attractive education programs that will attract young people to be educated for mentioned purposes,
- education of employees through various forms of stimulation,
- conditioning of listed predispositions.

The basis for the pleasure of tourists means observing health and recreational tourism product from two angles:

- firstly, as seen by its producers, ie. those who offer it on the market;
- secondly, how it was as seen by users.

It is not necessary to remind that the second viewing angle is very important to the success and quality of the overall health and recreational tourism product, precisely due to difficult placement caused by very strong competition in the market.

CONCLUSION

In the strategy of development of Serbian tourism, health and recreational tourism is positioning itself as one of the leading forms of selective tourism offer with prominent development perspective, considering that in world has recorded an increase of 15-20 % per annum. Unfortunately, the results suggest the lack of relevant contents of health and recreational tourism on the territory of mount Fruska Gora, as well as its organized offer, although the area has tradition and outstanding natural and social resources. The specific knowledge is required in order to listed comparative advantages could have quality market position to achieve competitive advantages.

What is needed for a big step forward and the development of quality health and recreational tourism product in the area of Fruska Gora is knowledge, promotion and understanding, both by the entrepreneurs themselves (which must recognize the importance of merging in offer design and upgrade), and by the legislative bodies.

In the area of Fruska Gora were imposed numerous challenges for the future, which first have to start from the harmonization of legislation, registration and unique register of services, synergy connectivity - all in order to enable the creation of high-quality health and tourism product.

The development of medical and recreational tourism in the area of Fruska Gora has to be one of the important projects, which need detailed access, inspecting and broader aspect, which includes two key factors of sustainable development: human potential, and quality service.

Although the development of health tourism in our country is in early stages, looking at what is the global industry today and what the competition is doing, strategically speaking, the most convincing step is review towards education of people, who will know to deal with a multi-disciplinary task of managing this industry.

High-quality health and recreational tourism product for tourists represents the elixir for the soul and body. In addition to medical rehabilitation of stationary and ambulatory type, it provides of course hotel and catering services, recovery of workers and pensioners, sports and recreational activities and other services of new forms. To traditional health services should be added packages that recognize needs of the customer to satisfy many interests, including all aspects of the destination, local culture and heritage.

Health and recreational tourism in the area of Fruska Gora can become the first (most important) European destinations based on thermal waters (that is the hotel "Premier Aqua" and Specialized Hospital "Thermal"), as it includes in tourism healing and wellness services, and production of multiple industrial products, which are connected vertically to the previous one.

Stacking with the basic objectives of the European Union, ie, to improve the living standards of the population, to foreign and domestic tourists should be offered such services, devices and technologies that enable the extension and improvement of life. All this should be done in a convivial way with professional associates.

High-quality health and recreational tourism product in the area of Fruska Gora is reflected in finding uniqueness, through the creation of special looks, by connecting companies - involved in the respective industrial sector - in health industry cluster, strengthening, improvement and construction of cooperation and communication among the mentioned factors.

No matter what the focus in work is on the physical, geological, climatic and health characteristics of Fruska Gora, the same (or similar) situation is with other tourist destinations/capacities in Serbia. We are witnessing that in recent years Serbia is on the list of countries where there are things worth seeing, where is the best time and in which it is possible to achieve an excellent quality of service. Likewise, some destinations have become world famous (Belgrade - concerts of world famous musicians, New Year's Eve party, famous restaurants, clubs, Novi Sad - EXIT, Zajecar - Guitar festival, Kopaonik, Zlatibor, Mokra Gora and Šargan).

Tourist and other employees have invested primarily resources on the improvement, replacement or building completely new infrastructure, education and change in the environment, on providing services on a global scale, and the results were there. In the field of tourism and health and recreational activities, competitors to Fruska Gora (and Serbia) are Slovenia, Hungary, and Croatia to some extent. Nevertheless, they are not competitive in terms of prices, better nature, and kindness. They are competitive, and a lot, in terms of quality of provided services, according to modern products that satisfy a large number of guests.

On us and all the tourist workers, along with doctors and their professional organizations, is to find what separates us from others in a positive way and to persist on that in changing the overall image of - state, people, institutions. Only such approach can result in a greater success, effectiveness and quality of service on Fruska Gora.

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EVOLUTION OF TIME-SHARING: FROM AN INNOVATIVE LEGAL CONCEPT TO A MODERN TOURISM PRODUCT*

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ABSTRACT

Time-sharing (timeshare contract) is relatively recent legal concept. What makes it different from the other contracts is, at first place, its time dimension. By concluding the timeshare contract, consumer acquires the right to use specific or specifiable timeshare facility (object) within fixed or flexible timeshare intervals during the year, for the total period defined by contract. Over time, timeshare has evolved. From contract with precisely determined contractual elements (period of use, duration of the contract, type of accommodation units) became flexible tourism product, which includes a large number of services and a large number of stakeholders. The main goal of this paper is therefore, to point out all these significant changes, which were initiated in practice, and then accepted and legally enshrined in legislation.

Key words: *Time-Sharing, Timeshare Contract, Consumer, Tourism Product, Development*

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INTRODUCTION

The emergence of timeshare contract in practice, back in 1960s, and its legislative shaping was followed by a dynamic process of development. During this development process timeshare contract changed its content, by introducing new and amending existing timeshare forms. Time-sharing eventually evolved from a contract with precisely defined elements (period of use, duration of the contract, type of accommodation unit) to a flexible tourist product, which includes a significant number of services and a considerable number of stakeholders. Still, development and modernization of timeshare contract is an ongoing process. Therefore, the goal of this paper is to give an overview on the evolution of time-sharing from practical (formation, practical development and classification of various timeshare legal forms) and legislative (development of legal framework at EU and national level) perspective.

FORMATION AND PRACTICAL DEVELOPMENT OF TIME-SHARING

With the rise in living standards in the early 1960s, individuals increasingly expressed the need to purchase adequate facilities for vacation (seasonal houses, summer houses, cottages). In this way, the owners were able to use these facilities to the extent and in the manner that suits them, without the need to rent adequate accommodation each year. Yet, they had to cover the expenses related to the maintenance of the building and payment of property taxes, provided they had the opportunity to reduce their costs by renting the facility during the year. In practice was, however, quite difficult to find the interested persons without a significant investment of time, money and technical assistance, which led to the development of vacation condominiums (joint ownership), first in the US and then in Europe (Barron,1984, p. 866).

The condominium is a combined form of individual and joint ownership of the flat and the corresponding ideal part of the common property within the whole consisting of one or more residential/tourist facilities. Common properties are: interiors (stairs, cellars, utility room, laundry room, garage) and external surfaces and objects (garden, swimming pools, playgrounds), as well as land (Van Der Merwe,2015, p. 72). The benefit of this type of accommodation is reflected in a much lower price than what is necessary for the acquisition of ownership rights, because instead of property rights over the whole facility, the owner acquires the property right over a part thereof (suite). Another advantage of the condominium is a separate body that manages the facility and which plays an important role in renting out the available units during the period it is not being used (occupied) by its owners. With the assistance of management, condominium owners can advertise their units individually or collectively, through the so-called rental pools. Pool

arrangement simplifies the whole renting process and ensures that total rental sum is evenly distributed among the owners who submit their apartment to the rental pool, regardless of what portion of the whole fund the rents from that particular apartment constitutes or whether it is rented at all (Barron, 1984, p. 867).

In the early 1970s, the United States has been affected by condominium market crisis due to growing construction and administrative costs and weak demand (Roodhouse, 1975, pp. 35, 38). At about the same time, a new vacation concept emerged in Europe, which was cost-effective and attractive both to traders (investors) and consumers (Kessler, 1984, pp. 1356-1357). According to that concept, group of persons (friends, acquaintances), who individually did not have the necessary capital, were able to buy only fraction of time (timeshare interval) during which they could use certain facility (apartment, villa, ship etc) alternately or at a certain time period (one or more consecutive or separate weeks) (Dragašević, 1990, p. 269). Unlike the concept of condominium by which ownership right is constituted on the part of real estate (apartment, room), timeshare concept provides acquirer with the time-limited „ownership“, i.e., with the time-divided right to use vacation facility. While condominium owner has continued access to accommodation unit for the entire contracted period (Ninemeier, Perdue, 2005, p. 149), timeshare user has the right of occasional access to a certain facility in a particular period during the year, for a certain total number of years. Condominium owners have the freedom to arrange and renovate accommodation, while timeshare users do not have such freedom.

Some authors the roots of this business (vacation) concept link with the formation of “Eurotel” back in 1959, the hotel chain which operated on the basis of condominium concept, but it soon enriched its tourist offer with new content, including the possibility for individuals to gain a time-limited right to use hotel rooms, for the vacation purpose (Pollack, 1982, p. 283). Along with the right to use tourist facility within the agreed period of time during the year, for a certain total number of years, individuals were entitled to use other locations within that chain at reduced prices (Savage, Lancaster, Bougopoulos N. C., 1994, p. 721). According to the other sources, the country of timeshare origin is Switzerland (http://www.arda.org/uploadedFiles/ARDA/Who_We_Are/Who_We_Are/Inside_Arda/Industry%20Timeline.pdf), where company Hapimag, founded in 1963, provided its members with the possibility of using the accommodation within a wide network of tourist facilities (https://www.hapimag.com/dms/en/Unternehmen/Hapimag_Geschichte_2013_EN/Hapimag%20Geschichte_2014_EN.pdf). However, the prevailing attitude in theory is that timeshare concept was in fact created between 1964-1968 in France, when company *Société des Grands Travaux de Marseille* began offering accommodation on timeshare basis in Superdevoluy (*Superdévoluy*), with the attractive slogan: “Do not book a room - buy a hotel, it is cheaper” (Edmonds 1986, p. 15).

Despite of the different attitudes in legal theory regarding the timeshare origin, it is an undeniable fact that the practical application and development of this concept began in the late sixties and early seventies of the XX century in the USA (Upchurch, Gruber, 2002, p. 213; Šimičić, 1987, p. 116). Namely, American

timeshare model was first implemented in 1969 in Kauai Kailani in Hawaii, and following year the first facility dedicated to this type of business was built near Lake Tahoe in Nevada (<http://www.buyatimeshare.com/history-of-timeshares.asp>). Bearing in mind the growing crisis in the condominium market, timeshare proved to be a suitable alternative for investors who were not able to sell constructed accommodation facilities due to weak demand. Instead of selling apartments in the exclusive ownership, investors began selling time divided right to use apartments, and therefore significantly increased their profit, while at the same time consumers were able to acquire that right at a much lower price (Barron, 1984, pp. 869-870). The abovementioned factors have largely contributed to a boom of timeshare concept in the United States. This is corroborated by the fact that since 1973, when there were only eight resorts built on timeshare basis in the USA (Savage, Lancaster, Bougopoulos, 1994, p. 722), that number increased to 1,548 cabins in 2011, with approximately 194 200 units, representing more than 50% globally (http://arda.org/uploadedFiles/ARDA/News_and_Information/Industry_Information/2012%20state%20of%20industry%20fact%20sheet.pdf).

In order to meet user needs for the new content, timeshare eventually evolved into a tourist product that includes a large number of services. One of the important factors for popularization of time-sharing during the seventies and eighties was the possibility to exchange timeshare rights, as well as the possibility to choose the period of use (timeshare interval). Namely, when timeshare first appeared on the market, acquirers were only entitled to use specified accommodation unit in the agreed time intervals during the year (fixed timeshare forms based on a system of weeks). Potentially, timeshare purchasers may have been able to use the units of a certain type (e.g. double room) in the network of trader's facilities (resorts). This is practically the beginning of the timeshare exchange system, because in certain cases mentioned above, consumers could internally exchange their timeshare interval. The establishment of the first exchange company in 1974 (Resort Condominiums International - RCI), facilitated the exchange of timeshare intervals (of equivalent market value) outside the network of trader's resorts. In this way, through the external exchange system, consumers were able not only to use specified accommodation in initially agreed timeshare intervals, but also to change location and time-period of use of respective accommodation units, which are offered in the timeshare exchange market.

The next phase (step) in the evolution of time-sharing began in 1981 by giving users the possibility to opt for a floating time intervals and a specifiable type of units, which enable development of flexible timeshare forms (http://www.arda.org/uploadedFiles/ARDA/Who_We_Are/Who_We_Are/Inside_Arda/Industry%20Timeline.pdf, p. 2.). In contrast to fixed timeshare forms, where contract parties need to clearly define timeshare object and period of usage, flexible timeshare forms allowed contract parties to make this contract elements identifiable, by indicating the season (high season, mid-season, low season) and the type of timeshare object (e.g. single room, double room apartment) (Goetz, H., 2011, p. 8). This innovation eliminated the risk for the purchasers to lose the right to use timeshare units, due to their inability to go on vacation in a specified period during the year.

However, timeshare concept based on a system of weeks has not proved to be flexible enough, especially when it comes to reservation of accommodation and exchange of timeshare intervals. In practice, it often happened that all capacities have been already booked in the requested time period which prevented timeshare purchasers to take advantage of floating timeshare intervals. Furthermore, the process of exchange of timeshare intervals was complicated and impractical from the perspective of purchasers (Kelley, 2013, p. 31). Namely, right of exchange in this system is limited by the availability of the another week of the same or lesser value, whereby the value of weeks, and thus the exchange (trade) power, depends on the attractiveness of the location, resort, accommodation units, period of use and other factors (Keahey, Cook, 2013, p. 29). All these issues have caused discontent among purchasers, which has led to the development of the point based timeshare concept. Although one of the pioneers of timeshare industry, "Hapimag", is considered to be the originator of this concept, Disney's Vacation Club (DVC), since 1992, significantly contributed to the popularization of the point system worldwide (Goetz, H., 2011, p. 8). This system is characterized by the fact that purchasers, instead of weeks, buy certain number of vacation points which is proportional to the value of chosen type of accommodation and the number of vacation days (Stringam, 2010, pp. 37-54). This system is enhanced in 2000, when timeshare exchange organization (RCI), provided its members not only with the opportunity to exchange their week intervals, but also to trade their points. Advantage of point system is reflected in a greater flexibility, since purchasers have wide range of different options, such as to choose place and time of travel, type of units, length of stay, etc (Kelley 2013, pp. 30-31). In addition, points can be used for transport services (e.g. airline tickets, rent-a-car), but also for health tourism (spas), entertainment, hotels, cruise tours, sport activities. Thus, members have an option of using points according to their needs, and at the same time they can save, borrow, rent, sell or even donate points.

Finally, renowned hotel chains such as "Marriott", "Hilton", "Hyatt", "Disney", "Sheraton", "Ramada", "Four Seasons", "Ritz-Carlton", "Radisson", "Westin" and others, have contributed greatly to the credibility of timeshare industry (Hitchcock, N., 2001, p. 232). "Marriott" in 1984 became the first hotel brand within which was established separate home club (Marriott Vacation Club), specialized for offering capacities on timeshare basis (<http://www.marriottvacationclub.com/timeshare-ownership/why-marriott-vacation-club.shtml>). This has enabled further timeshare development and increased the number of users, which prompted interest of other hotel chains for a breakthrough in this market during the 1990s. Today time-sharing is offered within different packages, customized to the user needs and their lifestyle. These packages include different types of family, city, cultural packages, and the packages in which the emphasis is on active holidays, relaxation, vacation in nature, exotic destinations.

In Serbian legal practice, timeshare has never enrooted, even though there were several attempts. One such attempt was in 2000, when the "Genex Group" began selling capacities of "Apartments Konaci" on timeshare basis, in order to increase its utilization. Apartments were offered for a period of 99 years, with the

slogan, “Kop for century” (*Kop za vek*) (<http://arhiva.glas-javnosti.rs/arhiva/2000/04/09/srpski/E00040803.shtm>). Genex decided to sell the floating timeshare intervals, but in a package of at least two weeks, one of which could be used not just within one particular season, but in a different time periods classified in four seasons. Purchasers were allowed to change the usage dates (timeshare intervals), but only within a single season, provided that there were free capacities. If this was not the case, timeshare purchasers could exchange their timeshare interval with other purchasers, after the formation of club of timeshare purchasers. In addition to the total timeshare fee that had to be paid for the whole contracted period (99 years), purchasers were required to pay an annual fee at the end of each calendar year for the following, which included unit maintenance and costs arising from the weekly usage of apartments (70 DM per week). Protection of timeshare purchasers was, inter alia, ensured by registration of usage rights in the land register. This right was guaranteed regardless of status changes of the “Genex Group”, and it could be inherited, sold, leased or given away. Total timeshare fee varied depending on the number of purchased weeks and season in which accommodation unit is used. Thus, timeshare fee for combination of two weeks in the “white” and “blue” season amounted 6 500 DM, without taxes. Fee for two weeks in “white” and one additional week in “blue” season amounted 10 000 DM, and for total of four weeks in different colour-coded seasons (“red plus”, “red”, “white” and “blue”) purchasers were required to pay 32 500 DM. In order contract to be binding, the entire sum was to be paid within five days. Bearing in mind economic situation back then, the fee could be paid through the Genex bank either in DM (according to the official exchange rate), or dinars (black market rate). The intention of the “Genex Group” was to sell about 50 percent of hotel capacity on timeshare basis, through the company “Jugoturs” and other tourist agencies, as well as through real estate agencies as intermediaries. However, this was yet another attempt to implement timeshare concept in Serbia, which did not have positive outcome.

LEGAL FORMS AND CLASSIFICATION OF TIME-SHARING

Legal form of time-sharing is not standardized. In practice, various timeshare forms have been developed, and therefore timeshare product is becoming more diverse and segmented. All those forms can be classified in different ways. Depending on the initial criteria used in the classification process (which may be the system in which timeshare rights are exercised, determination of accommodation and the period of occupation, legal nature of the rights acquired by timeshare contract), it is possible to distinguish: 1) timeshare based on the system of weeks and timeshare based on a point system; 2) fixed, flexible and mixed timeshare; 3) “ownership” and right-to-use timeshare forms.

1) In a system based on weeks, a week is the most common time interval for which the accommodation is used, but it can vary. It may be shorter (split week) or longer (fractional timeshare interest), and timeshare purchasers may be entitled to exercise their right in a certain (defined or definable) interval every year or every other year (biennial timeshare interest). (Dickerson, 2014, p. 4-157). Timeshare intervals (weeks) can be exchanged for other equivalent interval (week) in another resort, through timeshare exchange organizations. In contrast, many resorts nowadays use a timeshare system based on points instead of weeks. Points provide timeshare users with maximum flexibility, allowing them not only to choose the time-period of their vacation (and the length of that period), location of their vacation, but to choose number of trips and make various vacation combinations (e.g. short breaks mixed with longer holidays) per year (Hitchcock, 2001, p. 235). In addition timeshare users may use points as a currency for various ancillary services (trips, excursions, cruises, car rentals, transportation, package deals etc) (Colvin, 2010, p. 5). On top of all that, timeshare users can exchange their points either through the internal network of resorts operated by the same trader, or through the external network via timeshare exchange organizations.

2) Fixed, flexible and mixed timeshare forms can be distinguished on the basis of whether or not the accommodation and the usage period (timeshare interval) are precisely determined. In case of fixed timeshare forms, both accommodation and period of its usage are precisely determined by contract, and therefore timeshare purchaser is entitled to use the same accommodation unit at the same resort and in the same time interval each year, for a certain total number of years (Colvin, M., 2010, p. 4). On the other hand, under flexible timeshare forms neither period of use nor accommodation unit are determined, but determinable. In this case, timeshare user is entitled to use vacation at any time interval within the certain season (high season, mid-season, low season), defined by contract. When it comes to mixed timeshare forms, either accommodation or usage period have fixed or floating characteristics (purchaser has the right to use specified accommodation during certain specifiable timeshare interval and vice versa) (Desurvire, 1995, p. 199).

In relation to this classification, different types of timeshare intervals can be distinguished, such as fixed, floating, rotating or lottery (Keahey, Cook 2013, p. 30). Unlike fixed timeshare intervals, which need to be strictly agreed, floating timeshare intervals can be used within the certain season (high season, mid-season, low season), defined by contract, provided that reservation is made within a reasonable time before the planned vacation. Confirmation of reservation is on a first-come, first-served availability basis (Holden, 2014, p. 64). Rotating timeshare intervals rotate through the calendar, so that everyone has equal access to the best weeks, i.e., timeshare intervals are evenly distributed among the members. For example, if timeshare purchaser is entitled to use week 16 in one year, next year will be entitled to use week 17, and so on. Although at first glance this system seems to be fair, in practice, it proved to be rather inflexible and impractical, because it can take many years before timeshare purchasers can exercise their right in desired period (e.g. during the summer or during the winter). As part of lottery system, everyone submits their choices for two weeks they want, and then a

drawing determines who actually gets their first choices. The substantial disadvantage of this system lies in the fact that it is highly uncertain whether and when timeshare user will get the opportunity to exercise his right (Keahey, Cook, 2013, p. 31). Due to major disadvantages of rotating and lottery systems, most frequently used timeshare intervals in practice are fixed and floating.

3) With regard to the legal nature of the right which consumer acquires, timeshare can be divided into ownership and right-to-use forms. In the first case, consumer acquires the right of ownership or joint ownership on the subject of the contract (accommodation unit), and in the second case, consumer acquires the right to use accommodation as stipulated in the contract (Bukovac Puvača, 2003, str. 314).

The “ownership” timeshare forms have certain similarities with property ownership *stricto sensu*, but these two categories should not be equated. The “ownership” pattern of time-sharing is common in different countries, including United States, Spain, Portugal, Italy, etc. It provides timeshare purchaser with an interest in real property, carrying with it both the traditional benefits and burdens of property ownership (Berger 1990, p. 133). The main characteristic of the so-called ownership timeshare forms is that timeshare right is registered in the land registry (Simonović, 2006, p. 44). There are several variants of this timeshare form, and most common are: time-span ownership (estate) and interval ownership. Time-span ownership is a type of timeshare ownership where the accommodation unit is co-owned. The purchaser of a time-span estate acquires an undivided interest, as a tenant-in-common with the other purchasers of an interest in the unit, coupled with the exclusive right to possession and occupancy of that unit during a regularly recurring period (Berger, 1990, p. 134). The extent of that right is determined by a special agreement – timeshare plan (Kessler 1984, p. 1357; Šarčević, 1987, p. 75). The purchaser receives a deed to the property, as a documentary symbol of ownership, which allows him to dispose his right by legal transactions *inter vivos* and *mortis causa*, i.e., to rent, assign, sell, contribute, bequeath, or otherwise transfer the right to a third party. On the other hand, time-span ownership carries with it legal responsibilities including: civil liability for damage (injury) caused to third parties on the premises (jointly and severally with each of the other tenants-in-common); contract liability for debts arising out of the unit’s management (Berger, 1990, p. 134). However, liability of the acquirer may be limited either by concluding the liability insurance contract, by agreement of the contracting parties or by statute. Interval ownership conveys to the owner a continuing estate for years which converts into a tenancy-in-common with all of the other owners at the end of the estate’s term, which is frequently either forty years or the end of the estimated useful life of the building. After the expiry of the estate’s term, tenants-in-common can decide either to continue to use property, re-establish the timeshare plan or sell the common property and split the money (Kessler, 1984, p. 1358). A distinct disadvantage of interval ownership is that it limits the purchaser’s right to use the property to a fixed time period each year.

In contrast to timeshare ownership forms, right-to-use concept is one in which ultimate ownership resides in the developer (or his assignee) rather than in the timeshare purchaser (Berger, 1990, p. 136). Right-to-use timeshare forms also have

different modalities, such as: timeshare cooperatives, club membership, timeshare license, timeshare lease. In the first case, the company has the right of ownership or lease of a specific facility (Saft, Stuart, 2001, para. 27:12), and on the basis of membership in a company shareholder acquires the right to use certain accommodation and common areas during the period which is defined by the Memorandum of Association and Statute of the company (Dragašević, 1990, p. 271). The main activity of the company is the construction of a facility or renovation (restoration) of an existing facility, so that it can be used on a timeshare basis by its members (Šarčević, 1987, p. 74). In theory is emphasized that this is a hybrid timeshare form, which combines the best of the ownership and right-to-use forms (Berger, 1990, p. 138). Club membership provides the purchaser with a certificate of membership in a club. As a member of the club and the holder of the certificate, he has the right to use the club's recreational facilities and a particular unit or type of unit for accommodations in the resort for a particular amount of time each year during the term of the membership. The advantage of the club membership system is in its simplicity and flexibility. The entire system usually operates in following manner: 1) upon the construction of vacation facilities, management company is established; 2) timeshare developer together with management company agree to establish a club and stipulate detailed rules of the club; 3) the founders transfer ownership rights to the club; 4) club protects the interests of members by ensuring that founders do not encumber the assets of the club by mortgage or otherwise dispose club's assets, without its consent; 5) by concluding the special contract with the timeshare developer, purchaser agrees to become the member of the club and to respect mutual rights and obligations of the club members (Edmonds, 1986, p. 163; Šarčević, 1987, p. 78). After the expiry of the agreed period of time, purchaser can renew his membership or he may even transfer his membership rights to another person before expiration of the contract term, which is much simpler than transferring ownership rights.

In the common law system has been developed Club Trustee concept, which uses the legal mechanism of trust in order to ensure the position of timeshare purchaser. TRUST is the legal mechanism by which a person, SETTLOR, transfers to another, TRUSTEE, thing or multiple things to manage, either in favor of BENEFICIARIES or for any other purposes permitted by law (Vanbrabant, B., 2006, p. 30). In this three-way relationship, SETTLOR has the role of timeshare developer, and TRUSTEE, to whom the property is transferred, should manage it for the benefit of club members - BENEFICIARIES. On the basis of the membership, club members acquire timeshare right. They receive a club membership certificate and in turn pay the amount that is stipulated in the contract.

When it comes to timeshare license forms, trader (timeshare promoter) sells holiday licence agreement to the purchaser, which entitles him to use specified or specifiable accommodation unit in a certain period during the year for a given total number of years. The holder of holiday licence must reserve the usage of accommodation several weeks in advance. This timeshare form is not encountered frequently nowadays (Edmonds, 1986, p. 20). Finally, in the case of timeshare lease, purchaser acquires the right to use accommodation within the stipulated time

interval each year - the so-called intermittent lease (Dragašević, 1996, p. 426). The construction of lease allows timeshare purchaser to sublease his accommodation unit or authorize another person to use it.

DEVELOPMENT OF LEGAL FRAMEWORK FOR TIME-SHARING

Legal regulations in relation to time-sharing, both at EU and national level, have been frequently changed for two main reasons: one is to translate business practice into legal rules, and the other, more important for the protection of consumers, is to limit or exclude the influence of (unfair) business practice on the formation of the legal relationship between trader and consumer. The need to protect timeshare purchasers from unfair practices (misleading and aggressive business practice) at first resulted in the adoption of the Directive 94/47/EC on the protection of purchasers in respect of certain aspects of contracts relating to the purchase of the right to use immovable properties on a timeshare basis (Mésa, 2010, p. 1). The provisions of the Directive provided a triple protection for consumers, by introducing the obligation to inform, right of withdrawal and stipulating that the contract has to be made in writing. However, the main drawback of the Directive was its legal scope. Namely, Directive applied only to contracts which have been concluded for a period of at least three years, with timeshare intervals which could not be less than seven days a year, while timeshare right could only be exercised on immovable objects. Instead of preventing unfair business practices, abovementioned limitations have only contributed to its development, because unscrupulous traders sought ways to avoid the application of legal rules stipulated by Directive. Provisions of the Directive were circumvented by development of timeshare-like products, i.e., by concluding the contract for duration of less than three years, by including movable objects where timeshare right could be exercised (ships, boats, caravans, cruisers, trailers, etc), and/or by stipulating timeshare intervals of less than seven days per year (http://www.juriscope.org/uploads/etudes/Droit%20civil_Contrat%20de%20jouissance%20d%20immeuble%20a%20temps%20partage_2007_Synthese.pdf, p. 5). In addition, Directive 94/47/EC did not regulate exchange and resale contracts, which left legal gap for committing further abuses (<http://economie.fgov.be/fr/consommateurs/Timesharing/>).

These shortcomings in timeshare regulation, which were a source of unfair business practices, were the reason for the adoption of the new Directive 2008/122/EC on the protection of consumers in respect of certain aspects of timeshare, long-term holiday product, resale and exchange contracts. Current Directive extended the scope of the rules governing timeshare on ancillary contracts (resale and exchange contract) and timeshare-like products (long-term holiday product contract), on which the previous Directive had no rules. In addition, minimum duration of the contract is instead of three years, as stipulated in

the former Directive, set to be of more than one year in current text. It also extended the range of facilities (immovables, movables) on which timeshare right can be exercised by adopting the term “*overnight accommodation*” and indicating that one or more accommodation units can be used (Art. 2. para. 1(a). of Directive 2008/122/EC). In relation to that, unlike former Directive which stipulated that timeshare interval may not be less than one week (Art. 2. para. 1. of Directive 94/47/EC), current Directive does not specify duration of timeshare interval, but it stipulates that overnight accommodation shall be used for more than one period of occupation. Such legal approach prevents unscrupulous traders to circumvent the application of Directive by stipulating timeshare intervals that are shorter than seven days during the year. Apart from that, current Directive contains rules on the: (1) pre-contractual duty to inform, (2) formal character of the contract, by indicating mandatory elements of the contract, (3) right of withdrawal, which can now be exercised in the longer period than the period stipulated in the former Directive, (4) prohibition of any advance payments before the end of the withdrawal period, i.e., before contract becomes legally binding, (5) interdependence between timeshare contract and credit agreement which is granted in the function of acquiring timeshare rights, (6) obligation of member states to define effective sanctions in case of violation of protective rules.

Even though current Directive qualitatively enhanced consumer protection, its adoption was followed by strong criticism of certain associations for consumer protection, which considered that Directive legitimizes unfair business practices. It was emphasized that timeshare-like products, which are in fact a form of “hidden” (“masked”) timeshare, strongly compromise and stigmatize (distort) the meaning and essence of timeshare because: provision of the services is offered at a reduced price, while consumers actually pay regular prices for such services; resale services are offered but never performed in practice; contracts are concluded after several hours of persuasion and pressure; contracts are often concluded as a result of offering of a free week as bait (<http://www.tempspartage.org/directive.php>). It was stressed that timeshare-like products and resale contracts have been created with the intention to attract consumers’ attention, avoid the application of the timeshare rules and make profit on fraudulent grounds. Therefore, it is pointed out that European Commission should have banned these contracts and not to legitimize them. Instead, it protected the interests of unscrupulous traders, and not the victims. Furthermore, it encouraged the abuse and dishonorable acts, which jeopardized timeshare industry. This is, in their opinion, contrary to the declared goals of the Directive regarding the need to encourage the growth and productivity in the timeshare and long-term holiday product industries by adoption of certain common rules.

In Serbian law, time-sharing was first regulated in 1986, by the Act on right to use tourist facility on a timeshare basis (Official gazette of SFRY, no. 24/86, 31/86, 61/88). It was derogated after only four years by the Law on Basic Property Relations (Official gazette of SFRY, no. 6/80, 29/80, 36/90, 29/96, Official gazette of FRY, no. 29/96 and Official gazette of RS, no. 115/05), on the grounds that further deregulation should be done in this area and that long-term lease of tourist facility should be equalized with time-sharing. Fifteen years later, time-sharing was

reaffirmed by adoption of the Consumer Protection Act in 2005 (Official gazette of RS, n. 79/05), as part of the process of harmonization of national legislation with EU law. However, this Act had only two provisions related to timeshare contract. Poor and rather vague regulation caused uncertainties not only for the average consumer, but also for lawyers (Simonović, 2006, p. 46). This large legal gap was removed five years later, with the adoption of the new Consumer Protection Act (Official gazette RS, no. 73/2010), according to solutions contained in Directive 2008/122/EC. By its adoption, timeshare-like products (long-term holiday product) and ancillary contracts (resale and exchange contracts) were introduced for the first time in Serbian legal system, thus creating adequate legal preconditions for the timeshare development in Serbia. However certain issues, inter alia, concerning the language of the contract have not been regulated by this Act. This omission was corrected in 2014, by the adoption of the current Consumer Protection Act - CPA (Official gazette RS, no. 62/2014). Nevertheless, the current CPA did not resolve the most important drawback of the former Act, regarding terminology used to designate timeshare contract and its subject. Namely, our legislator, along with the adopted English term “time-sharing”, has kept the same Serbian term as in former Act – “the contract on time divided use of immovable properties” (*ugovor o vremenski podeljenom korišćenju nepokretnosti*), which limits (narrows) contract subject only to the immovables. Thus, the meaning of the timeshare contract in Serbian law is not in accordance with its meaning at the EU level (right to use overnight accommodation on the timeshare basis), since Directive 2008/122/EC for indication of the contract subject uses neutral formulation “overnight accommodation”, which is wide enough to include both immovables and movables properties (facilities) under its scope. Consequently, protection rules of Serbian CPA do not apply to consumers who acquired the right to use movable properties on timeshare basis, which jeopardizes the basic purpose for which these regulations are adopted at first place, and that purpose is to enhance consumer protection from unfair business practices.

In order to legally regulate timeshare contract on comprehensive manner and in accordance with solutions adopted at the EU level, Serbian CPA needs to be fully harmonized with provisions of the Directive 2008/122/EC.

CONCLUSION

Time-sharing is probably one of the rare examples of contract which emerged in business practice relatively recently (about half a century ago) and yet rapidly evolved from a traditional contract (with precisely determined elements) into a modern (lifestyle) tourism product, where timeshare becomes one piece of a larger jigsaw embracing hotels, cruises, car rentals, package deals and a whole raft of other products and services that can be accessed by a universal points currency (Hitchcock, N., 2001, p. 234). Dynamic process of timeshare development can be seen not only when it comes to its content, a variety of legal forms, constitutive elements, imperative rules aiming to restrict the principle of party autonomy and protect the weaker party (pre-contractual duty to inform, right to withdraw from the contract, prohibition of advance payments, etc), but also with regard to the number of stakeholders involved in the conclusion and the performance of the contract. These stakeholders have a role in development, advertising, resale and exchange, as well as in the management of timeshare facilities (timeshare developer, marketing companies, resale and exchange organizations, management companies).

Furthermore, time-sharing is probably the only tourist contract, which is at the same time so much praised and criticized. Praised for the innovative idea behind this concept and criticized primarily because consumers have been often exposed to unfair business practices at different stages of the business relationship (from pre-contractual to contractual stage). Thus, in order to exclude or at least restrict the impact of unfair business practices, Serbian CPA needs to be fully harmonized with rules contained in Directive 2008/122/EC. Namely, terms that Serbian legislator uses to define timeshare contract (right to use immovable properties on timeshare basis) are not in accordance with its meaning at the EU level (right to use overnight accommodation on timeshare basis). Therefore, this substantial drawback of Serbian CPA needs to be eliminated, in order to ensure legal protection for purchasers of the right to use movable properties on timeshare basis and prevent development of unfair business practices.

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