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Introductory remarks

The first volume of economic journal „Entrepreneurial Economy“ started to be published in 2002. Fifteen volumes, some of which had several issues, has been published until now.

This is the volume XVI.

The journal is published by the Foundation „Entrepreneurial Economy“ of the Postgraduate studies „Entrepreneurial Economy“ at the Faculty for International Economics, Finance and Business, University UDG .

The papers in this first issue of the volume XVI deal with the topic: **Economic Crisis and Economic Development.**

All papers are written in English which is broadening the market of potential readers of this economic journal.

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Quantum Economics

Abstract: *The globalization is breaking-down the idea of national state, which was the base for the development of economic theory which is dominant today. Global economic crisis put emphasis on limited possibilities of national governments in solving economic and general problems of society. Does it also mean that globalization and global economic crisis point out the need to think about new economic theory and new understanding of economics?*

In this paper I will argue that globalization reveals the need to change dominant economic paradigm – from traditional economic theory (mainstream) with macroeconomic stability as the goal of economic policy, to the „quantum economics“, which is based on „economic quantum“ and immanent to the increase of wealth (material and non-material) of every individual in society and promoting set of values immanent to the wealth increase as the goal of economic policy. Practically the question is how we can use global market for our development!

Key words: *Economic quantum, An Individual, Innovation, Globalization, Development.*

Resümee: *Die Globalisierung zerstört die Idee des Nationalstaates, die war die Grundlage für die Entwicklung der heute dominanten ökonomischen Theorie . Die globale Wirtschaftskrise hat angegeben, die begrenzten möglichkeiten welche nationalen Regierungen haben in der Bewältigung wirtschaftlicher und allgemein Probleme der gesellschaft. Ob das gleichzeitig bedeutet, dass die Globalisierung und die Globale Wirtschaftskrise andeutet auf die Notwendigkeit für eine neue Denk waise über die neue Wirtschafts Theorie und neues Verständnis von der Ökonomie?*

In diesem Aufsatz versuche ich zu zeigen, dass die Globalisierung enthüllt die Notwendigkeit, des dominanten wechsels der ökonomischen Paradigmen - von der traditionellen wirtschafTs Theorie (Mainstream), wo die makroökonomische Stabilität das Ziel ist der Wirtschaftspolitik, an die Quanten - Ökonomie, basierend auf wirtschaftlichen Quanten, und das Ziel der Wirtschaftspolitik entspricht der Zunahme des Reichtums der einzelnen in der Gesellschaft und die Entwicklung des Systems das Wertes auf ihr basiert. Praktische Frage ist, wie zu nutzen ist das globale Markt für ihre eigene Entwicklung.

Stich wörter: *Quantum Ökonomie, Individual, Innovation, Globalisierung, Entwicklung.*

Резюме:

Глобализация разрушает идею государства-нации, которая была основой для разработки сегодня доминирующей экономической теории. Глобальный экономический кризис показал, что национальные правительства имеют ограниченные возможности в решении экономических проблем и проблем всего общества. Заодно, означает ли это, что глобализация и мировой

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экономический кризис указывают на необходимость мышления о новой экономической теории и новом понимании экономики? В этой работе я попытаюсь показать, что глобализация вызывает необходимость изменить доминирующую экономическую парадигму от традиционной экономической теории (mainstream), в которой макроэкономическая стабильность является целью экономической политики, до квантовой экономики, целью которой является повышение богатства каждого человека в обществе и развитие системы ценностей соответственно. Практический вопрос, как использовать преимущества глобальных рынков для собственного развития?

Ключевые слова: квантовая экономика, человек, инновации, глобализация, развитие.

1) General remarks

1.1) The Problem

Did the global economic crisis stress out the need to think about new economic theory, new understanding of economics? Did the global economic crisis point out the fact that national governments have limited possibilities to solve many problems in their economy and their society? Why is the number of member countries in „The Board of Directors of the World Economy“ increasing – first it was G-7, then G-8, and now G-20, along with growing aspirations to the „global government“? Does the development of technology, especially new communication technology, make world’s economy „global feudal economy“? If these are some of the vital questions; if this is the reality in which we live, should we, as economists, be enslaved by the books, the ideas or the mysteries from the past or should we find the way out of such ideology through the new ideas?

1.2) The Starting Point

Indisputably, economic theory is becoming more standardized every day (mainstream). Such standardization basically leans onto the idea of nation-state. Contemporary economic theory has developed on the idea of national state during 17th, 18th, 19th and 20th century. Today, the globalization is breaking down the classical national state, i.e. national borders vanish and thus the classical form of national state disappears. But, this leads us to the question whether contemporary economic theory, which is based on the nation-state concept, can survive?

Similarly, economic theories are often protecting the interests of ruling elites or the interests of one nation. Can we think of Adam Smith’s book “An Inquiry into the Nature and Causes of the Wealth of Nations” as of an attempt to protect economic interests of England in North America through free trade? If we blindly transfer

some theoretical concepts valid in well-developed West and implement them in small countries and undeveloped regions, because we believe in their neutrality (speaking of scientific, not political terms), will it bring those small countries to the economic slowdown in most cases? Does it mean that the same measures can be applied in all countries: the big ones, usually “emitters” of these theories; and the small ones, usually absorbers?¹

There is also the question for economists (but not only for that profession): did we use the transition to shape one special and specific theory of economic development? Did we use that unique laboratory to check for validity of some standard economic indicators? Did we notice the germs of life?

Does the economic crisis force us to think on our own and to implement solutions which are somewhat contradictory to the experience?

1.3) The Idea of The Paper

The main idea of this paper is to encourage non-linear thinking and non-inertial discussions; daring and courageous in comparison to usual standards. How can we move from the logic of “rearranging chairs on the Titanic’s deck” to the logic of “jumping into the small rescue boat and going to the coast”? This might look pretentious, but I believe that sometimes it is very useful just to point out the differences among approaches to some problems in order to find new, more efficient solutions for them. A solution can be efficient only if it is vital and comes from the practice and life!

In the paper, I want to emphasize the need to think about the change of paradigm – from the one which treats macroeconomic stability as the goal of economic policy, to the one which considers that main goal of economic policy is to increase individual wealth (understood as material and non-material wealth) and to develop the system of values immanent to the wealth-increase. This new proposed individual-wealth-increase paradigm is related to the development based on economic quantum, and as such, it is the first step to establish quantum economics. In the more general terms, the question is whether we can explain today’s economic reality by existing theory.

¹ Here, I have no attention to write on the „double standards“: a country implements one theory or one concept, and recommend the other theory and different concept to other countries. From this perspective we can say that there are two main groups of economic theories and economists tend to recommend the one. Which one they will recommend depends on the fact who is taking their advice: their children or children in Africa. In most cases they recommend „simple“ theories to the other, while they implement „useful“ theories. (See more: Reinert, Erik „Globalna ekonomija (translation of *Global Economics*)“, Cigoja, 2004, p.p. 14.)

2) The Paradigm – The View on the World

It is not possible to explain economy and economic phenomena out of contemporary ideological context. Throughout the history people felt the need to create some ideological framework and used it to organize their life and activities.

Such ideological framework provided explanations on each “how” and “why” from every-day’s life. Rifkin said that “the most interesting aspect of the dominant view on the world in a society is that, at individual level, people who follow that view, are mostly not aware of the way it influences their activities and their perception of reality around them.”² The dominant view on the world in the society strongly influences our perception and our understanding of reality, that we cannot even imagine any other view on the world.

This prevailing view on the world; the dominant understanding of the world; and the concept we use to explain every-day’s phenomena is something that we call the paradigm.

Thomas Kuhn wrote one of the most influential and the most popular books of the 20th century: “The Structure of Scientific Revolutions”. He looked for the answer to the question: “**In what ways does the science develop?**”

Does the science develop by adding new scientific facts to the existing ones? That increases the quantity of accumulated facts. It is as if we load a barn or pantry, or increase the number of books in our library, and think that it expanded our knowledge...

However, Kuhn said that the science has developed through the changes of prevailing paradigms. The change occurs when current understanding of the world is changing under influence of the new ideas. The change occurs when we look at the world around us in different way.³

² Rifkin, Jeremy „Entropija – nov pogled na svijet (translation of *Entropy – the new view on the world*)“, MISL, Zagreb, 2002, str.25

³ Kuhn derives the notion of paradigm from the notion of „normal science“. This term is used to describe the research which is firmly based on one or more scientific achievements from the past, which are believed to be the foundation for the development of relevant science in the future. Such achievements are usually explained in textbooks – elementary and more advanced one. The textbooks are elaborating the main findings of the dominant theory and illustrate it with examples from the practice... Before textbooks were created these dominant scientific concepts could be found in Aristotle’s physics, Ptolemy’s Almagest, Newton principles and optics, Franklin’s electricity...“ (Kuhn, Thomas „Struktura naučnih revolucija (translation of *The Structure of Scientific Revolutions*)“, Jasenski i Turk, Zagreb, 1999, pp. 23)

This change happens when certain scientific view, certain paradigm gets into the crisis. It is in the crisis when it's not capable to explain many phenomena from ordinary life. Thomas Kuhn asked about the reaction of scientists to the occurrence of such crisis. „... Although they can start to lose faith, and to consider alternatives, they don't give up the paradigm that brought them to crisis... They don't analyze deviations from the rule as potential examples of an opposite paradigm (... explanations of different paradigm)...“⁴

The crisis causes the scientific revolution – the change of former paradigm. Why? The crisis leads to the change! Each change of the world is already the new interpretation of the world. “Nothing can be radically changed, without the radical change of the dominant thought (without the radical change in the way of thinking).” (Žarko Paić)

It means that the change of paradigm is not being done through accumulation of knowledge, but through scientific revolution – the change in the hypotheses that make the foundation of a science. Certainly, the revolution is happening through evolutionary development of new way of thinking! This new way of thinking spread the seed of the revolution which could eventually encircle new theory.

3) Physics – The Foundation of the Paradigm

People were always interested to understand nature and natural phenomena ever since. But for very long time, the human society believed in the world revealed by old Greeks: Ptolemy's world with the Earth as the center of the Universe and the Sun rotating around the Earth... In just one century, Galileo, Kepler and Copernicus brought us into “the other world”: The Earth is rotating on its axis and around Sun... These are the reasons to point out the fact that the science of physics – which discovers and explains natural laws – dominantly influence the view of people on the world around them, i.e. the paradigm. Isaac Newton, who genially discovered the laws of mechanics, established the new view – new paradigm, which is known today as **mechanistic paradigm** or mechanistic view on the world. Of course, it would be unfair not to mention Francis Bacon and Rene Descartes, who laid down the foundations of this paradigm.

Mechanistic approach is the view on the world more adapted to machines, then to people. „I don't find any difference between machines, made by some craftsmen, and the different bodies, created by the nature. ...I consider that human body is the machine. ...My thought makes comparison between a sick man and a badly

⁴ Kuhn, Thomas „Struktura naučnih revolucija (translation of *The Structure of Scientific Revolutions*“, Jasenski i Turk, Zagreb, 1999, pp.89

constructed clock, or a healthy man and a well constructed clock.” (Rene Descartes) The thought of Descartes, later developed by Newton, make the foundation of mechanistic paradigm, which is still, after 200 years, the base of our view on the world around us; the base of our way of thinking.

In the meantime, the development of physics, especially the theory of relativity (Einstein) and the quantum theory (Max Planck) clearly shows defects of the mechanistic view on the world in explaining some natural phenomena, so the science need new approach – so called **holistic view on the world**. The world around us is not understood as the set of the isolated pieces, but as the complex world; not as closed system, but as **the open world of dynamic equilibrium**; not as the world based on the causality principle (cause – consequence), but as the world based on (Heisenberg’s) **“indeterminacy principle”** (uncertainty) and market spontaneity (Hayek).

In addition to previously said, Heisenberg emphasized that today’s world: “is not divided into different sets of elements, but into different sets of relations...”. He created the foundation of holistic approach: objects in focus of analysis are not being differentiated by its nature; they are not essentially different, but their essence is the same. „We can only make differences between the **type of relations** important for certain phenomena. For example, when we speak about the chemical influence, we speak about stable relations completely different from those explained in Newton mechanics... Thus, the world around can be explained as the stable tissue of occurrences in which different types of relations replace one another, overlap and merge until they finally determine the structure of the tissue.“⁵

Can we implement some of the previously elaborated experience in economics?

The science of physics, along with other natural sciences, has discovered that totality of relations and shaped some general principles through the quantum theory.⁶ This theoretical approach, developed under the hat of the science of physics, influence the development of what we call holistic approach and holistic view on the reality.

⁵ Heisenberg, Werner „Fizika i filozofija (translation of *Physics and Philosophy*)“, Kruzak, Zagreb, 1998, pp.84-85

⁶ There is also an opposite opinion that the science of biology, not physics is more relevant for explanation of economic phenomena. Biology is emphasizing the organic approach. It is oriented on qualitative more then on quantitative processes; it is based more on experience and practice, and use inductive approach, while the scientific method in physics is more deductive. Biology promotes implementation of Darwin theory in explaining changes in the society – such as innovations and creative work.

4) Smith and Newton – the Importance of Natural and Spontaneous Forces

Adam Smith's book "An Inquiry into the Nature and Causes of the Wealth of Nations", published in 1776, widely accepted as "The Bible of Economics", is the product of the spirit of the time it was created, as any other creation made by a man. According to the Heisenberg the spirit of time is „also an objective fact, as anything else what is considered to be the fact in natural sciences. That fact brings out certain characteristics of the world non-dependent on the time, which, as such, can be considered as eternal“.⁷ Professor Steve Pejovich has similar opinion, shaped through his interactive thesis.⁸

Adam Smith's book reflects the spirit of the time it was created, which originated from Newton principles.⁹ As Newton, Smith speaks about the world which is perpetually moving. While the unity of physical world is achieved through gravity forces, in the world of economics the force of competition, which is also invisible, plays the role of the gravitation. This analogy explains Smith's phrase "invisible hand". Similar to the equilibrium in closed system of mathematical relations which describe the Newton world, in the economic system, the equilibrium of prices is achieved through demand and supply forces.

In practice, the world of classical economics experienced many restraints and irregularities.

During 19th century these irregularities were considered to be the deviation from the existing paradigm, and their analysts were trying to improve existing paradigm in order to explain some phenomena from experience. This leads to the development of neoclassical economics, well represented through Alfred Marshall's "Principles of Economics" (1890), the book which provided new and convincing interpretation of Adam Smith's Bible.

At the same time, mechanistic paradigm served as the base to develop many other social institutions. The development of national state is of extreme importance for the development of economics as science: economics and national state grew together and we will feel the influence of this union on economics as science – economics as theory and practice in long-term including the decades ahead us.

⁷ IBID, str.86

⁸ See more: Pejovich Steve „Why is culture important?“, Entrepreneurial Economics Journal, Vol.II, Postgraduate Studies „Entrepreneurial Economics“, Podgorica, 2003;

⁹ Boorstin, Daniel J. „Svijet otkrića (translation of *The Discoverers*)“, Geopolitika, Beograd, 2003, pp.666-699.

5) Marx and Keynes – The Rise of Constructivism

The culmination of mechanistic paradigm in economics and, more generally speaking, in the area of organizing social life, was reached in the works of Carl Marx and John Maynard Keynes, whose brilliant mind redirected the history of mankind from the path it took in 18th and 19th century. Their work was related to national state, as the framework for the organization of society. Both of them opposed the concept of national state and supported concept of so-called “world state” in different forms. The importance of what they wrote comes from the fact that it is the culmination of the development of national state in 20th century from the perspective of two criteria: the number of national states according to the Wilson’s right of national self-determination; and the level in which the state capture the society, no matter whether we speak about totalitarian socialistic regimes, or different forms of the welfare state (“the nanny state”). In both cases, nation-state is the base of social organization.

This paper doesn’t get into analysis and explanation of the nation-state. Two starting points are important for the main idea of paper. First, the science of economics and the nation-state grew together. Political and economic activities were taking place in the nation-state framework. That is the reason that the science of economics, a hundred years after it was created, turned into political economics. Kenichi Ohmae claims that the nation-state and economics seemed indivisible, although they were not related one to another in biological and scientific sense. He even says that they had bad influence one to another.

Second, many people, politicians, and intellectuals think that the nation state is an old institution. They forgot the fact that the nation-state, in the form it exists today, was born in mid-16th century, when French lawyer, J.Bodin, came to an idea to revive the idea of Roman empire and unite many small political entities. If any of the existing rulers had promoted some sort of “unifying ideology”, it could have prevented permanent conflicts and wars... The historical context evolutionary created “the national” as the factor of unity. Nationalism, as the principle of organizing society, pushed individualism into the background.¹⁰

However, one of the first operative problems of Bodin’s idea is the lack of bureaucracy – people who would implement the agreements on uniting many smaller political entities. Without bureaucracy, the nation-state was just a “tiger on the paper”. The nation-states needed people who’ll work for it, represent it, protect it and defend it – it needed police, courts, army, and, of course, money, as all of these

¹⁰ Hayek, F.A. „Individualizam i ekonomski poredak (translation of *Individualism and Economic Order*“, Faculty of Political Sciences, Zagreb, 2002

could operate. Collecting taxes became the most efficient way to generate the money for the state, but it required tax administration, custom officers. The demand for police officers, soldiers, judges increased. At the very beginning, it was clear that the nation-state is an expensive ideal. The time has shown that, the larger the government is, the more expensive it is.

Such organization of society needs special organization of economy. The first form of economic policy implemented in the nation-state is mercantilism – economic practice important for the development of nationalism: abolishment of all barriers to free trade inside the borders of the national state, but strict control of the import-export flows (international trade). This was the initial step in the development of **protectionism**, one of the most destructive concepts of economic policy ever. How can we protect from the outside world? The outside world was dangerous for the nation-state.

Adam Smith criticizes mercantilism and protectionism and develops the base of economics as the science. The foundations of economics consist of free international trade, free market and labor division. The end of 18th and 19th century are the age of free market and fast development of Western economies. The role of state should be very limited – to protect property rights and contracts! Sudden development of population and social differences that occurred encouraged the idea of state interventionism aimed to fix the failures of market. Lenin in Russia and, a decade after him, Roosevelt in US implement ideas of Marx and Keynes in practice. No matter how much the difference between them was large, they have one thing in common: the state should take important role in economy, but state interference in economy should be temporary.

Interventionism gave a birth to the social norm: **the state is the God on the Earth!**¹¹ Constructivism is on scene in the “age of masses”, as we often call the 20th century.¹² It will be remembered by two world wars and the cold war.¹³ The fall of Berlin Wall 1989 and the crash of The Twin Towers in New York on September 11th 2001 reflected the need to look for new economic paradigm.

¹¹ There are many variants of modern collectivism (Nazism, communism, nationalism...) which strive for keeping religious-altruistic ethics, but instead of “God” a man should sacrifice for the “Society”... Instead of “the will of God” we have “the will of the *Society*” (Ayn Rand, preface to the book „Veličanstveni izvor (translation of *The Fountainhead*“, Stylos, 2000.godine)

¹² Le Bon, Gustave „Psihologija gomila (translation of *The Psychologies of Crowds*“, Globus, Zagreb, 1989.

¹³ „The opinion that all institutions were created by the man, with intention and plan, was created on the spiritual platform of the century of masses. It is a small step from the belief that things, created without plan, unconsciously cannot be useful, to the belief that, as all institutions were created by the man, we have to have totalitarian power to shape them in the way we want.“ (Hayek, F.A. „Kontrarevolucija nauke (translation of *The Counter-Revolution of Science*“, CID, Podgorica, str.79.

6. Planck and Gates – Revoking Borders

The nation state, as a great human „discovery“, becomes the victim of new human discovery – of the technology! While the steam engine was the technological base of nation-state, it flourished.

The technology develops permanently. Max Planck moved away borders in the atomic world and broke it into smaller elements. Gagarin moved away the borders in the universe. Bill Gates started the revolution in informatics and thus revoked national borders.

Information, or better to say the speed of transmitting information, is changing the world. Globalization, understood as revoking borders and growing interdependence in the world, is taking place.

Many people don't admit the existence of globalization, despite the fact that four important "C's" are globalized: Capital, Communication, Consumers, and Corporations. Aren't these the crucial elements of the national market? The cracks, the ideological ones and the construction ones, on the weakened building of traditional "nation-state" are becoming visible.¹⁴ Can the traditional nation-state survive in contemporary world? Can the protectionist economy be maintained today? These questions should be answered by understanding the essence of processes, through processed thinking, and dynamic changes that already started.

National economies are developing into the global economy! What is the global economy? What kind of impact does it have on economic policies of national states? Does the global economy require the change of economic theory?

7) Global Economy – Invisible uniting into one

Global economy is our reality today. Nobody invented it! Nobody planned it, nor construct it! It was created spontaneously and with no intention. It is the result of the processes driven by human acts and human mind. Increase of living standard on this planet gave bigger importance for the labor division in global terms. If we go into deeper analysis, the essence of globalization can be found in Smith's **idea of labor division**, on one side; and Hayek's **idea of catallaxy** (cosmos, global market), on the other.

¹⁴ Giddens, Anthony „Odbjegli svijet (translation of *Runaway World*)“, Stubovi kulture, Beograd, 2005.

On practical level, global economy is brought down to the question, prosaic at first site: how should we treat the rest of the world – should we close economic system and fear from foreigners, or should we just care how we can use the rest of the world for our own development (capital, market, knowledge). The other side of the same question is how we can look at ourselves from the world market and can we do it with the eyes of global development megatrends.

In philosophical sense, the globalization is founded on the idea of belief in progress, belief in improvements. "Progress is inevitable – as death and taxes." (Kenichi Ohmae). However, this thesis on progress is being questioned and reexamined. For example, old Greeks thought the world is going into "self-destruction"!¹⁵ Does this civilization go into disaster or not – that is not the question I'll answer in the paper, although the question is no senseless. Indisputably, the global economy is a phase in civilization development? What will be at the end of this phase – that is out of reach of my vision.¹⁶ The goal of science is not to foresee or to give final solutions for the future. Our goal, as scientists is to point out possible consequences of some unavoidable process on our reality, our decisions and behavior.

In my opinion the crucial consequences are related to:

- 1) The nation-state and the new role of state;
- 2) The development emphasizes knowledge, individuality and creation.

The nation-state stays without one of its crucial containing elements – without borders.

Borders disappear due to technology development, but also thanks to the international bilateral agreements. The world is becoming borderless. Trade barriers

¹⁵ Hesiod describes human history through 5 stadiums: gold, silver, bronze, heroic and iron. Gold age was the culmination, the age of abundance and fulfillment. According to Hesiod gold age had suddenly interrupted when Pandora opened the cover of the box with all world evils. From that moment, every other age was more difficult and more painful from the previous. The last age, according to the Greek mythology was the Iron Age. Hesiod describes it: „These are the days of the iron human race. Iron Age people cannot rest from the pain and sorrow during the day, neither they can rest from the hands of robbers during the night. The father will not live in harmony with his children, and the children will always come in conflict with older people, the guest will not get along with the host, neither the friend will get along with a friend. Parents will get old and scorned rapidly, fair and honest people, who keep their word won't be esteemed, but the ones who are bad, evil, and arrogant. The justice will be in the hands of powerful people and there will be no longer the truth!“ (According to J.B. „The Idea of Progress: An Inquiry Into His Origin and Growth“, MacMilan, New York, 1932, pp..11-12).

¹⁶ Attali, Jacques „Kratka povijest budućnosti (translation of *The Short History of Future*)“, Zagreb, 2008; Kaplan, James „Ekstremna budućnost (the translation of *The Extreme Future*)“, Clio, Beograd, 2006.

and custom rates disappear because countries all around the world are becoming aware of the fact that they cannot survive, exist and produce one without another – if they are isolated. Borders are the basic tool to control economic flows in national states. Borders were the base of protectionism in the past and they promote nation-state policies – existence of so called strategic industries and national priorities in the development. Weak borders are questioning all of that and many other questions arise. One of such questions is whether it is possible to implement traditional social policy if the development of the nation-state is based on foreign capital.

Global economy is invisible. All processes of global economy are taking place, not in national parliaments, or special licensing bodies, but in computer terminals. For example, use of credit cards enables us to make fast transfer of money, although we don't see the money we spent.

Global economy is cyber-connected. The truth is that the global economy would not exist without modern technology, or internet, which can virtual transfer, from one end of the world to another, not only numbers, but photos, moving pictures, voice, music, video-materials.

Money has great importance in global economy. The belief that money is moving the world is one of the founding stones of global economy. The relation between the price (investment) and profits is the crucial criterion for capital investment. This logic drives capital to jump over borders.

All previously said, processes of uniting into one, which were happening when the nation-state was created (abolishment of all barriers to economic flows inside the nation-state), are happening now on global level.

These processes have no ended. Quite opposite, these processes are still in very early phase. But, they cannot be stopped! Do we go toward, as Keynes said, „the world state“, or toward Hayek's „catallaxy“?

The answer to this question needs more researching and more time. But, at this point it is very important to conclude that traditional role of the nation-state is reduced, and new function that arises require the transformation of current form of nation-state. In addition to this, the costs of sovereignty are growing, as Jacques Attali noticed.

Survival on global market implies the need for permanent education, training and many more new ideas. Global competition is based on new products and services; new, innovative ideas. Ideas are becoming more important for the competitiveness growth and lead us to the increasing importance of knowledge and research for the

development. As the consequence, the democracy is being replaced by meritocracy – the decision making based on knowledge and authority of knowledge, not on authority of majority (as in democracy). This means that contemporary form of democracy is in the phase of necessary changes.¹⁷

The knowledge is individual. As the importance of knowledge is growing, the importance of an individual in the society is growing too. The consequence is the rising role of „tall trees“ for the development. That is the reason why authorities and public opinion must focus on the promotion of the role of an individual in the society. The history shows that individuals, and individual discoveries and achievements moved the world ahead. In addition to that, as Hayek said, the knowledge is dispersed. That's why free market is the most efficient mechanism which gathers the dispersed knowledge and provides its synergy to come in effect.¹⁸

Global economy drives two invisible processes – reduction and change of the role of the nation state; and shift of the focus to an individual and the authority of knowledge. These processes strongly influence our everyday's life, but also organization of economic life and entrepreneurship. There are no doubts that old things disappear, and the new ones are being created. It is the time of the “the rising light”, the time of dawn, when the weather is the coldest!

8) Global economy – the need for new economic theory

Financial crisis has shown that contemporary main-stream theory is not adequate for practical life. The economic crisis made the problems visible and easier to understand, and these problems are treated as extremes, irregularities within the existing economic paradigm. Should we wonder whether these are the couriers of some new economic paradigm? Or is it just an expression of the need for one completely new view on the world and the new view on economic dimension of that world? In my opinion, the new economic paradigm is being born, through scientific revolution, as Kuhn explains it, in economics and not only economics.

¹⁷ Does the globalization reveal the conflict between the capitalism and democracy? The capitalism is based on the freedom – individual freedom first of all. Marx wrote that the freedom of an individual is the prerequisite of the freedom in general. „But, the freedom is, as Kant said, blind, when it turns into the terror of majority over minority, and it becomes worthless when doesn't guarantee equality and fair treatment in redistribution of spiritual and material goods “ (Paic, Zarko, Interview to the daily newspaper *Pobjeda*, May 1st-2nd 2010)

¹⁸ Hayek, F.A. „The Use of Knowledge in the Society“, from the book „O slobodnom tržištu (*The Essays on Free Market*)“, MATE, Zagreb, 1998.

Is the old economic paradigm dying? In other words, does the change of conditions which brought to the development of global economy, endanger contemporary economic theory created in completely different environment?

From the perspective of dominant economic theory, what is endangered by the global economy? What new elements global economy is bringing into existing paradigm? There are two new elements: **the chance (as the probability of occurrence)** i **uncertainty**.

If we go back to mechanistic paradigm, we can make analogy with Newton mechanics of celestial bodies. Thus, consumers can represent planets and Sun; self-interest can be considered as the gravity; and general equilibrium of economic forces, i.e. prices, consumers, and quantity can be compared to planets' movements within the Solar system. Mechanistic approach became the base of economic theory.¹⁹

According to mechanistic paradigm, economics of general equilibrium is one of the basic pillars of classical economics. The notion of equilibrium in economics implies that all economic actors, on the production and on the consumption markets, are in completely balanced position. It is the state of general fairness, where all actors are getting what belong to them according to the "invisible hand" principle. It is the state of the market when supply equals demand; all goods are sold on time, as Marx said; salaries are harmonized with the income of other production factors; labor supply and labor demand are equal; working hours are adjusted, etc. Theoretical model of general equilibrium can be identified with the dominant goal of economic policy today – macroeconomic stability. As general equilibrium is the dreaming ideal of all economists, even the famous ones as Smith, Ricardo, Keynes, Marx, etc, macroeconomic stability is the goal of economic policy of each government in contemporary world.

„The ideas of the economists who died very long ago are managing our practical behavior now” – this thought of John Maynard Keynes well describe the situation we are facing in this crisis.

But, in theoretical context, model of general equilibrium was challenged a while ago.²⁰ There are many reasons that question this model.

¹⁹ Pulic, Ante, "Informacijsko društvo i ekonomija (*Information Society and Economics*), Privredni vjesnik, Zagreb, 1990

²⁰ In the discussion with Schumpeter Hayek is attacking his quantitative approach „When an economist, such as Professor Schumpeter easily get trapped by ambiguous term "information" cannot be considered as simple mistake... It is the warning that there is something fundamentally wrong in the approach which ignores the essential part of the phenomenon we are discussing – and that is the imperfection of human knowledge.“ (Hayek, F.A. „The Use of Knowledge in the Society“, from the book „O slobodnom tržištu (*Essays on the Free Market*)“, MATE, Zagreb, 1998.

The first one is **information**! In economic model (that explains the behavior of economic actors) information are very important element and their importance is growing. Do all market participants have the same information? Or can we say that the information are unevenly (non-linearly) distributed and we get into the problem of information asymmetry? Asymmetric information problem imposes doubts into the concept of equilibrium. Hayek's thesis on uneven and dispersed information – restrained individual knowledge is important here.

Economic behavior depends, not only on capital, but also on **the ideas in economics**. This brings us to an individual – the person and personal qualities of the human being. If this is valid, does it endanger the theory of production based on the assumption of unlimited substitution of production factors? Can we easily replace the human factor of production – individuals, whose ideas are moving forward?

As I already said above, the global economy brings new elements into economic theory – **the chance (as the probability of occurrence) and uncertainty**. Basic conceptual framework of classical economics is founded on determinable results with known parameters. Economic actors reach the equilibrium by following their own interests. However, in the global economy, this interdependence doesn't represent the regularity, which can be described by the rule, but more often is the deviation from the rule.²¹ If reaching the optimum is a matter of pure chance, then the final outcome cannot be known in advance. Pulic says that in the system where the chance (as the probability of occurrence of certain outcome) is one of the parameters in the model which describes the system, the final outcome cannot be determined in advance.

The optimum theory doesn't count for uncertainty. The development of the theory of the second best solution in 1960's was also an attempt to bring economic theory closer to the reality. According to that theory, in the real imperfect world, it is impossible to maintain stable deviation between the existing state of the system and potential optimum (achieved through competition) and to reach the equilibrium. But, approaching the optimum can often mean that you are more distant from it in the real world, because it is very difficult to estimate how the competitors will react to the activities aimed to bring the national economy closer to optimum. All of this makes us conclude that the optimum theory, as one of the contributions of classical

²¹ Frank Knight, the founder of Chicago School of Economics, a man worth of respect, not only by his economic work, but for the ideological foundation of Chicago School from the early 1920s, attempted to introduce uncertainty and risk into microeconomic models. He thought that risk can be expressed through probability of occurrence and it can be measured by the amount of money needed for insurance from that risk. The rest of the risk is beard by entrepreneurs and that's why they have right to earn the profit (Knight, Frank „Risk, Uncertainty and Profit“, Boston, 1921)

economic theory to the science of economics is endangered by Heisenberg "indeterminacy principle". This imposes doubt to the principle of rational behavior.²²

There are many more examples in favor of the need to leave old mechanistic paradigm and change dominant approach in economics. Analysis of Smith's work shows that he didn't write about the market too much – it is mentioned in just two titles of his most famous book. Smith writes about local markets and economics at the time when "people were born, raised and died at the same place". Smith also wrote: "The man is the most complicated "cargo" for transport". At that time the world was filled with obstacles – economic, political and physical, Smith didn't paid attention to trade unions and their influence in the economy.

David Ricardo based his theory of competitive advantages on the idea of marriage between national state and national economy. Keynes did the similar thing, with one difference – in his work the state interferes into economy, and thus endangers the "invisible hand" principle. Keynes "visible hand of state" is the strong theoretical basis for economic policies of many governments today. Keynes theory is in accordance with the interests of bureaucracy, which also have political power (the power of making important decisions that influence economy).

But, Keynes was thinking within the boundaries of closed economy; his work doesn't go beyond the model of closed economy. He doesn't speak about the model in which the economy is closely related to the outside's world (open-economy model). Many facts and features of contemporary reality deny Keynes work. Thus, opposite to his claim that any positive economic trend is followed by the growth of employment, experience of several last decades show that when the employment is going up, the capital markets is going down. Today, the investors are aware that the high level of employment may be the sign of low productivity level, and as such, it can influence lower profitability. The fact that must not be forgotten is that profit is the crucial motive for trading securities. Keynes made an attack to classical and neoclassical school of economics, claiming that the supply and the demand (the market) cannot reach long-term equilibrium. In order to reach the equilibrium, the state (the government) should index the consumption, in order to compensate for the shortage of consumption in closed system of national economy. That was the starting point of Keynes theory: the demand is creating the supply, which was opposite from Say's theory (Say was French economist, known as the French Adam

²² „The view of contemporary economic theory, within the framework of current economic research, is no longer based on the predictable solutions, which would be the result of rational behavior. The probability of occurrence if the most important element of economic environment, which bring us to the high level of uncertainty no matter whether economic actors behave rationally or not. “ (Fausteld, D. „Economic behavior“, Journal of Economic Issues, Vol.XIV, 3/1980.

Smith). Say was claiming that the supply is creating the demand, i.e. that any good produced, will find someone to buy it.

Ricardo's world, as well as the world in the time of Keynes or any other economist in 18th, 19th and 20th century was the world of the nation-state. The time of imperialism (big empires) was gone, and the era of nationalism has come, with the protectionism as the keystone of economic policy. How to protect domestic economy from the outsiders' world – that is the crucial question of economic policies today?

Does the global economy change something in the approach used by national governments in last three centuries?

Does the experience practically validate the philosophy of the dominant economic model, founded on the linear, smooth and one-way directed economic relations? Closed economy implies the linearity of economic relations. This can be compared to the fact that we cannot expect big waves on the lake – big waves as the metaphor for the non-linear economic relation.

What about the ocean waves? What about the open sea waves? Aren't the waves the association for the global economy? Can we understand these big waves the chaos and non-linearity, as the development in leaps?

9) Quantum Economics – Theoretical Foundation of the Global Economy?

From theoretical point of view, the global economy has all characteristics important to understand the need to change dominant approach in economics and economic policies today.

If the mechanistic paradigm was the base for the model of national economy developed in last three centuries, can we use it to answer many challenges of global economy today? Did the global economic crisis open this and many similar questions? Is it possible to solve the problem of the crisis on the national economy level? Why have G-7 turned into, first, G-8, and now G-20? Where does the need to change the role of IMF come from?

The discoveries in physics, which brought to the change of the dominant paradigm, cannot stay without influence on economics, both as theory and practice.

It is extremely important to point out the impact of the discoveries in the quantum physics on economic theory. Before the quantum theory, the physicists believed that

the analysis of atoms will show rigid, solid, non-divisible particles; rigid and static substance. Something similar to the substance we see around us, but now projected inside the atom. The atom is the copy of the outside world, the world we feel by our senses, projected into the micro-world. However, it happened to be the false assumption! The atom is the divisible particle – the space within which smaller particles, the electrons are spinning around the nucleus, consisted of protons and neutrons. The later discoveries showed that sub-atomic particles appear in two forms – as a particle and as a wave.²³

This means that the substance is not tied to one place, to one location. The substance is in motion. The place that the substance will take in space is not apriori defined. Every position in space can be achieved with certain probability. The cause-consequence principle, i.e. the philosophy of determinism is not applicable. It is possible to estimate the probability of occurrence of certain position. In order to explain this I'll quote Fritjof Capra: "on sub-atomic level, solid bodies, which are in the focus of analysis of classical physics, are dissolved in the probability patterns". For the first time in history, the science faces the fact that sub-atomic particles are not really the objects, but the relations between the objects, the connection between objects.

All of the above change the picture of an atom, analog to the Solar system and planets. That's why Niels Bohr said that the quantum theory is not related to certainty (determinism) but to possibilities, potentials.

The next step in the development of the quantum theory was made by Werner Heisenberg, who claims that science is subjective, meaning that the result of every experiment depend on the relation between the scientist and the experiment. Introduction of this subjectivity element creates famous Heisenberg's "indeterminacy relation".²⁴ The indeterminacy principle is completely opposite from the principle of causality (determinism). On the other side, the Heisenberg's shift

²³ In order to understand this bilateralism Niels Bohr introduced the notion of complementarities according to which there are pair of values, which are necessary to completely describe the atom (the wave and the particle). The notions of the wave and the particle are two complementary descriptions of the same reality. It is very difficult to understand many notions from the quantum physics not only to non-physicists. On the language problems see more in the Heisenberg's article „The knowledge and the reality in modern physics“ contained in his book *Physics and Philosophy*: „The notion of complementarities introduced into the science of physics by Niels Bohr encouraged physicians to rather use the terms in bilateral sense then in single, précised meaning, which means that they use traditional phrases with not such a clear meaning.“ (pp.145)

²⁴ „In Copenhagen at the beginning of 1927 Heisenberg established the foundation of his indeterminacy principle according to which there is no chance that we can precisely determine the position and the speed of an particle or a ray of energy and the exact moment of occurrence of an event “ (Radvani, Pierre „Istorija atoma“, translation of the *The History of Atom*)“, Klub NT, Beograd, 1997, str.98)

from the objects to the relations had significant influence on the way of thinking. For the first time in the history of science, the quantum theory has established the unity between the subject and the object (the experiment and the scientist), people and nature.²⁵

In addition to this, the quantum theory has shown that sub-atomic particles are not the substance in solid form – they are not micro-grains of the substance, but they are the **probability patterns**, „expected tendencies“, possibilities, potentials, as Aristotle used to say. That's why the substance is not considered as something stationary, but as something mobile, dynamic, perpetually in movement. This means that there are no static structures in the nature, but only stable dynamic equilibriums. Einstein's discovery that the mass is the form of energy and that the energy is the mass, interrupted attempts of scientist, which dated from the ancient time of Epicure, to discover basic structural elements of particles, as these are now considered to be the rays of energy. The particle is the ray of energy, not the dead grain of substance! "The particles are the dynamic patterns, which unites the time and the space dimensions. Their space dimension appears through the existence of the body mass, while the time dimension is expressed through processes. The substance and the forms of its appearance cannot be divided, they are just the different forms of the same space-time reality!"²⁶

Due to the development of the quantum theory, the science of physics establishes the new concept, which starts from the organic, systematic, or, now popularly named, holistic approach. As I already said, in this concept, the world is not understood as machine, composed from many different parts, but as the dynamic unity. Similarly, the principle of linearity, followed in economics, is abandoned (the totality is the composition which can be divided into the containing parts, that have the characteristics of the totality). The principle of non-linearity is introduced. The starting point of this principle is that the totality is exceeding the sum of the containing parts. That's why the features of the quantum theory, unlike the traditional concepts based on the causality and simplicity, are: self-organization, complexity, synergy and chaotic structure!

All of the above indicate the need to change the economic paradigm, which should rely on several principles: (a) openness (free flow of information); (b) the existence of disequilibrium (the form of organization which resists entropy); (c) self-

²⁵ This is one of the unions between the physics and Eastern mysticism, which is in focus of Fritjof Capra's book "The Tao of Physics". „The most important feature of Eastern mysticism is the thought on unity and mutual interdependence of everything, which occurs as the different form of essential unity. All things are seen as interdependent and non-divisible part of the unity of Universe, as the different manifestation of the same final reality.“ (pp.113)

²⁶ Pulic, IBID, pp. 48

confirmation (the possibility to reproduce the elements of system). This paper have no intention to discuss the new economic paradigm, but just to point out that changes in the theoretical science, especially physics, necessarily bring changes in economic paradigm.

Is the global economic crisis and global economy just the proof that we need new, different understanding of economics? Can we explain some facts from the real life with the existing theoretical approach to economics? Can we look at those phenomena from practice as on the current deviation from the prevailing economic paradigm, or as on the announcement of the new paradigm?

I accept the facts of the life: global economy is the reality, not some kind of theoretical dream. Many economic theories were created in completely different conditions in the past. They were created in the framework of the nation-state. Today, an economy is not bounded inside national borders; the world is not just the composition of completely separated and independent nation-states, although this model still prevails. Unlike it, the world is the complexity of interdependent individuals, nations and religions.

The second element of the old paradigm is the belief in causality principle and cause-consequence mechanism. If interest rates go down, it will enhance the economy, as the employers can borrow more money to invest in new projects. When the Central bank increases money supply, interest rates are falling down and stimulate the economy. This causality is the foundation of many economic policies, and the justification of political interference into economic activities. What is going on when the borders are abolished, as in the global economy today?

For example, if you increase the interest rates, will it attract the capital from "the rest of the world"? (Kenichi Ohmae said this has happened in US after Greenspan increased interest rates at the time of Clinton Presidency) This migration of money into areas with higher interest rates is influenced by the fact that globally population is getting old and that pension funds are "full" of money, which don't want to invest in high-risk instruments. In the borderless world the surplus of money supply if issued by Central bank can leave the country, if there are no "attractive investment points" (Slavoj Zizek).

Well developed information systems and fast transfer of information change the importance of stocks in business policy of the company. The claim that the increase of the interest rates will influence companies to accumulate the stocks is not longer being confirmed in practice. It is realized that money i.e. cash is the best form of keeping stocks.

This is also related to new financial instruments, which strengthen the relations between the world's financial markets. Can we say that in these conditions national governments are free to make decision on financial policy? Not only domestic, but first of all foreign subject are potential buyers of government bonds and other public debt instruments.

National governments also don't have complete freedom to make fiscal policy decisions. The effects of government measures depend on the measures of other governments, companies, and consumers all around the world. In such interdependent world the money is moving from one part of the world to another, depending on the level of return – earnings yield. In this moment it is very complicated to think about some kind of supervision, which would control global super-liquidity and the influence of political parameters in certain countries on global super-liquidity.

The dominant approach in economic theory and practice today still rely on the closed model of the nation-state. Keynes is the father of this paradigm. Many think that the global crisis re-discovered Keynes and we should clean the dust from his books. However, it must not be forgotten that the "general" economic theory of Keynes is the response on the crisis from 1929. The key difference is that Keynes is looking the solution within the closed model, not within the model closely related to outside's world, as today's world. Keynes wrote about the development based on the internal market of the nation state, i.e. he tries to define the rules of development on the internal market.²⁷

Keynes work continues the tradition of economic theories that emphasize the importance of labor and employment. Smith was the one who introduced the wealth in economics as something positive, optimistic, while Keynes focused on the unemployment as the most negative phenomenon from the real life. The importance of unemployment in economics is indisputable. But, the practice of global economy shows that in some areas the employment grows, while the securities market is falling. As I already stated the investors may conclude that high employment implies low productivity level that can reduce their potential profits.

Many other relations change if the country bases its economic development on the **world's market**, not on the internal market. In the internal market model, money flows can be controlled and predicted less or more certainly. But, when the economy develops in the global environment with mutual international relations, money can get in or out the country easily and you cannot control or predict it. **Uncertainty is**

²⁷ It is interesting that the same logic is underlying the measures recommended by IMF today: strengthening so called internal development, which is interpreted as the confirmation of protectionism by many.

much higher than predictability. Technology changed the world and thus it changed the economy. For example, in time of Ricardo, the carrier pigeon was very important mean to transfer information. Can the same economic technology be used to explain economic behavior of individuals and companies at the time of internet?

Technology has changed the world and the perception of the world. Sometimes US was very far away, it was the “end of the world”. Different form of communication existed back then – but it was slow. The speed of communication technologies is changing everything. Ohmae says that the technology is changing the geopolitical reality by turning the old nation-states into anachronisms. Don’t we take the information as one of the crucial reasons for the crush of Soviet Empire? Due to modern technologies information has found different ways to get through the walls of control in Soviet Union. Under the attack of information the closed system is forced to open and disappear.

Technology made the world **complex and chaotic.** The features of the substance discovered through quantum physics can be recognized as the practical manifestation of the global economy. There are many parallels between the world of complexity and the world of the global economy. The global economy has many variables that influence one another. It is the system which is naturally dynamic, but not always predictable. Small change in one variable can cause large and unexplainable changes on some other place (the butterfly effect). This interdependence and hardly visible influence endanger and destroy the myth of equilibrium (balance). The prevailing approach in current economic theory says that economic systems are going toward equilibriums, while the theory of complex system proves that classical “equilibrium” is just one of the “points of attraction”. This theory makes difference between many other forms of attractions, which are very complicated to be understood.

As the science of physics before Heisenberg and Bohr didn’t understand complex systems, the complex systems, as the practical manifestation of the global economy are not understood in economics. This non-understanding of the new phenomenon of the global economy requires the new economic theory, the new view on the economics, the new economic paradigm. Can the science of physics be of any help there? Can the experience of physics can be helpful?

The discoveries of the quantum physics did not ignore Isaac Newton and his mechanistic paradigm. In conditions in which it was created, Newton’s theory is still valid. However, the conditions have changed. Newton’s physics can only explain the fragments of the real world. This means that the traditional classical economics, created and married to the nation-state, is valid today in areas where the nation-state

still functions. But the global economy is overwhelming the national economies and it requires the new economic theory, adapted to it.

The global economy has to be considered as the totality, as the whole. It is not just the simple sum of all 200 economies, joined in a pile. It is the unity with the interdependencies within it. The truth is that the model that can describe it still non-existing. But it is expected that the further development of global economy will influence the development of that new economic theory.

If we use the experience of physics, the analogy would be quantum economics²⁸ – where the based on openness, complexity, chaotic structure, indeterminacies, uncertainty, and unpredictability?

10. Economic Quantum – how can we understand it?²⁹

If the nation-state is not longer the framework for economic regulation, does it mean that the role of politics in the economy is reduced? This is very true if we speak about the classical politics! That's how region-states are created (the states where political power is understood differently). The development is closer to an individual, individual knowledge and abilities. The transfer to an individual brings us closer to the **economic quantum!**

How do I understand the economic quantum? This phrase and the way I understand it comes from my associations on the atom in physics. Does the ray of energy or the bundle of energy rays, move the economy, and enhance economic growth and development? Where is that energy? Where is the energy of economic development? Is it the state? Is it a political party? Is it a company? Is it some collective entity?

²⁸ This phrase is taken from Kenichi Ohmae, who used it in his discussion on global economy. Kenichi Ohmae is a physicist.

²⁹ Why have I chosen the phrase economic quantum? If we want to change practice in certain area, we must change our understanding of that practice (reality), and new understanding needs new terms (new phrases will originate from the new approach). The biggest mistake is indeed using the same words to explain or describe different circumstances, different environment, and different activities. For example the term inflation explains completely different reality if we use it to describe the situation in the country which has its own currency as opposite from the "dollarized" country.

Economic quantum should express the unity of the rays of energy emitted by an individual when creating and implementing economic ideas. Economic quantum should be association for the process, the flow, the dynamics – it is the essence of economic quantum. Economic quantum is not a particle, a grain of substance; it is the potential, the possibility, the objective tendency.

On the importance of rhetoric for economics see more: McCloskey, Deirdre „Measurement and Meaning in Economics“, Edward Edgar, 2001.

The economic quantum, as I understand it, is the man of “action, search and creation”. It is an individual, which is expressed “as a particle and as a wave”. This means it is “the particle in motion”, the person who is “trembling creatively”. As we cannot determine the position of atom, we cannot determine the power of the energy rays emitted by an individual who is in creative tremble. It is not equally distributed energy, but the energy in leaps (unequally distributed energy). I understand the variability (leaps, quantum) in the power of energy rays as a metaphor to the ups and downs in a person’s mood during the day.

The economic quantum is the synonym for the energy of an individual, but energy oriented to the innovation and creation. In other words, the economic quantum is made of energy rays of an individual which enable him to produce an idea. **The economic quantum is energy of producing ideas. The idea is energy, as well as the energy is the idea.**

Crucial sources of the growth are moving from capital and labor, as material production factors, to ideas, non-material factors. The truth is that capital and labor are still very important. But, at present time progress and the raise of the ideas on a higher level needs the energy of ideas! The modern product is the idea realized and expressed in material form, and exist as such in space and time. The modern service is the idea realized and expressed in non-material form, which exist only in time (that’s why services cannot be put in stocks). They are provided in the real time, in the moment of their delivery. The idea is the substance of modern products and services. That is the essence and the central point of economic activities in modern time. This way of understanding economic quantum provides the close relation between economic activities and the globalism. The domination of non-material form enables the globalization of activities, which was not possible in traditional industrial production (where the “aggregates” of labor and capital were dominating, instead of the economic quantum). Traditional industrial production has national borders, and contemporary economic activities are becoming global.

The economic quantum is the source of the value added. The idea is the expression of the ability to create. But, the economic quantum includes emitting energy (producing ideas) as well as emitting energy to implement those ideas.

As it was stated above, the discovery that the mass is the form of energy deeply influenced the change of scientific view on the substance. In the quantum physics the mass is no longer being related to material substratum. According to that, the particles are not considered to be the composition with the particular basic structure, but the bundle of energy rays. The energy is being related to action, to processes and all of that implies dynamic. But, if we make an analogy to the economics, the conclusion is that the economists are still looking for that “basic structure”; that we

look for elementary particles, basic elements. For example, Smith thought that the price is that basic element (economics is brought down to determination of price); Marx thought that the goods are the basic elements, the elementary particle of the economics, while Keynes was writing about the savings and investments.

If, instead of this deductive approach – to reduce the economics on one element, we use the inductive approach – **we will understand that all elements are important and interdependent and that they only can function in its totality and interdependence.** Why do we look for the crucial element, then? Is that the result of indirect inheritance of Newton physics which implies understanding of that element (an atom) as the particle in material form? If we should consider all elements and their functional unity – will it be important to look for that crucial relation? Instead of looking for the basic element, should we analyze processes or relations in economics? The interdependence of processes is creating the energy. The interdependence is the network of mutually related processes in the head of an individual. **The economic quantum is that network of mutually related processes in the head of the individual.** These processes are our activities, discovering the new world around us, looking for new spaces, searching for the invisible processes in natural and social world, the process of creation through the energy of new ideas and the energy of their implementation.

In more practical terms, I see the economic quantum in an individual, through his/her::

- a) Self-confidence, the belief in the idea;
- b) Tendency to economic adventure;
- c) Power to implement the ideas;
- d) Enormous energy (hard work asks for emotional, spiritual and physical energy);
- e) Readiness to accept risk – calculated risks;
- f) Tendency to learn by thinking.

What conditions are needed in order to create and realize the economic quantum? What institutional framework we need in order to fully express the energy of economic quantum?

In my opinion, these conditions are as follow:

- a) The environment favorable for economic freedom – because economic freedom environment enables the freedom of competition in an economy. Thus, we can understand the index of economic freedom as the indicator of conscious (political) restriction of the competition in a society. Having in mind that the economic quantum doesn't need external stimulus and the stimulus from the

state, i.e. government measures, but the internal stimulus, which comes from the power of network processes and the network organization, the principle of self-organization becomes very important;

- b) The different role of the state – current organization of the state, as previously said, is not the efficient form of power. The state is, as Pulic said, too big to solve the local problems, and too small to solve the global problems. The number of these problems, both local and global, is growing. The national state level is slowly vanishing and moves into history. The central national state doesn't have significant impact on local and global thinking any more; neither can it solve local and global problems.

The **education** becomes the main problem on individual level. How can we invest in our own knowledge? The knowledge is the assumption of any entrepreneurially oriented individual. The economic quantum is nothing but the permanent growth of the energy bundles, through the connecting processes, the unity and permanent learning; through understanding the practice as the best theory, and the theory as the best practice. This is coming from the previous statements that the contemporary products and services (the practice) are the practical, real, tangible expression of the idea (theory) in material or non-material form, i.e. that every idea (theory) is materialized through the product or the service (in practice).

11. Theory of Economic Quantum and Economic Crisis

The economic crises pointed out the need to develop new economic theory – the theory which can be used to explain the behavior in the global economy. In practical terms, it is one completely new question: how can we use the global market for our development? How can we be the part of that global network, whose behavior is still far from our understanding? This crisis has shown that there are always some creative individuals in the world who easily and fast adapt to the new conditions and adapt those conditions to themselves. On the other side, there are so called “practitioners”, who are stubborn and look for the way to solve the crisis by thinking within the framework which brought the world into the crisis. This is the proof that “practitioners” are just “the slaves of economic theoreticians who survived”.

Has this crisis been the warning that we have to be more creative, and less practical? That creativity should be the result of energy bundles emitted by the economic quantum – the head of the creative individual! Of course, the time is needed in order to shape the theory of economic quantum in the complete quantum economic theory!

This paper has no intentions to contribute to the development of that theory. The goal of the paper was to point out the importance of some elements of economic

reality, revealed by the economic crisis, whose explanation requires the development of new economic paradigm. The starting point of this paradigm will also be the markets, i.e. the Hayek's catallaxy.

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On the Theoretical Implications of the Economic Crisis

Abstract: *By scrutinising the consequences of the ongoing crisis as well as the stimulus packages implemented by governments it appears that time is near to start reexamining the whole approach to the economic system. Fundamental thesis outlaid by the classical economics and the Austrian school are still very much relevant, as the need to face structural disbalances closely related to high public expenditures grows. The issues some EU member states have with the state of their public finances cannot emphasise that challenge enough, though certain state functions keep their legitimacy. At the same time, there is a need to revisit economics and the relations between micro and macro aspect as well as to reexamine aggregates such as GDP. By the token of the idea to establish a general physics theory, it seems that economics need new energy of thought to invent a new general economics theory.*

Key words: *structural disbalance, principle of uncertainty, market process*

Resümee :*Nach der Erforschung von Folgen der Wirtschaftskrise sowie staatlicher Programme der Wirtschaftsgenesung kommt nunmehr die Zeit, den gesamten Zugang zu Wirtschaftssystemen nachzuprüfen. Die grundlegenden Thesen der klassischen Wirtschaft und österreichischen Schule können nicht bestritten werden, während der Bedarf zur Beseitigung von strukturellen, eng mit einem hohen staatlichen Verbrauch verbundenen Ungleichgewichten, wächst. Die Probleme von öffentlichen Finanzen einiger EU-Länder deuten mit Nachdruck darauf, obwohl viele Staatsfunktionen die Legitimität in der Gesellschaft nicht verlieren. Es besteht zugleich den Bedarf nach neuen Auffassungen der Wirtschaftswissenschaft zu den Verbindungen zwischen Mikro- und Makrowirtschaft und Überprüfung von Aggregaten wie BSP. Nach dem Vorbild der allgemeinen Physiktheorie scheint es, als ob die Wirtschaftswissenschaft auch eine neue Denkenenergie braucht, die zu einer allgemeinen Wirtschaftstheorie führen sollte.*

Schlüsselworte: *Strukturelles Ungleichgewicht, Grundsatz der Unbestimmtheit, Marktprozesse*

Резюме: *После изучения последствий кризиса включая государственные программы выздоровления экономики, приходит время пересмотра общего подхода экономическим системам. Базовые тезисы классической экономики и австрийской школы нельзя оспаривать, причем необходимость устранения структурных дисбалансов, тесно связанных с высокими государственными расходами, растет. Проблемы публичных финансов отдельных стран ЕС это дополнительно подчеркивают, хотя многие государственные функции не теряют легитимитет в обществе. Одновременно, существует необходимость в новых подходах экономической науки относительно связи между микро и макро экономиками и*

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пересмотре агрегатов, в том числе ВВП. На основании общей теории физики, кажется, что и экономической науке нужна новая энергия мысли, ведущей к общей теории экономики.

Ключевые слова: структурный дисбаланс, принцип неопределенности, рыночный процесс.

Introduction

Every shock brings changes to the system, regardless of the area it hits. Technological shock determines further development and thus it is directly linked to the economic outlook and it affects further development of the political system. There are numerous historical examples that underpin that case. Probably the most illustrative one is the rise of (from the global point of view) relatively small European nations which managed to eventually colonise the whole world by previously taking part in the military, technological and commercial competition to innovate. Contrary to, as it may have looked, the better organised and lot bigger oriental empires which were reined over by one central authority that by wielding instruments such as official religion and economic flows controlled all the society¹. Also, on the other hand, political shocks have direct impact on the economic trends, but can additionally influence cultural matrix of a society. Socialist revolutions and the social engineering that followed later on represent the obvious example. Therefore, it is logical to conclude that economic shocks significantly affect other characteristics of a society. After the Great Depression there were not only changes to the economic policies, but also arose different set of theoretical reflections. In the practical terms, there has been a significant growth in the public expenditures bringing along various state programmes which deeply affect further development of institutions, but the expectations of the economic agents of a society as well. Perception of an individual about what is expected from the state has changed².

¹ Paul Kennedy, The Rise and Fall of the Great Powers, CID Podgorica and Officila Gazette SCG Beograd 2003, page 12

² Colombatto discusses the issues related to legitimacy of the institutions and individual perception from the historical perspective. Instead of the question how to create better rules, or what the optimal size of the state expenditure is it is necessary to raise the question what it is in the heads of the individuals that makes state interference legitimate. He distinguishes three periods in that analysis. Gregorian era is linked to Pope Gregory VII who tried to use his dictums to achieve supremacy over the secular rulers. The outcome was comprised in the circumstance that there is a law – divine order. Secular period was characterised by the establishment of the relations between the rulers and the succumbed. In order to make states secular the legitimacy had to come not any more from the top but from the bottom. For that reason, the state rises as a protector of institutions in a society and helps implement social contract. The third period is the age of the social responsibility. The rule goes as long as the essential goal of enlarging happiness of the society is achieved. Individuals believe to be living in the context that enables them to seize chances that appear from time to time. As chances are unequally distributed it becomes legitimate to compensate for the vulnerable ones or the ones who are

Undoubtedly, the ongoing crisis will move matters further. The question is only where to. Will the wheel turn back, or will the whole mechanism actually move to a different position? The author of this paper thinks that in the long run both the wheel will turn back and the whole mechanism will move to the new position. In order to follow and analyse that trend it is necessary to apply new approach in studying the relationship between micro and macro economic aspect - the relationship between an individual and the whole system. That can certainly not be a subject of a deterministic and mechanical consideration and projection. The quantum mechanics has responded to many a puzzle, but has not resolved the whole problem. That is why many physicists expect creation of the general theory of physics. Smith, Hayek, Keynes or Marx for example, everyone from their angle attempted to provide for the solution to understand economic system. However, it is evidently needed to look for the synthetic explanation as implications of the economic decisions cannot be discussed only from the aspect of economy. In fact, it is possible, but at the risk of drawing an inapplicable conclusion in the real world.

From times of Thomas Aquinas and universal man in which religion dominated all the researches, step by step it has been specialisation that has taken over as a trend. It has become the dominant characteristic of the human scientific research of nature and society. It is realistic to expect a new trend of synthesis of the individual specialised knowledge to come up, as it becomes necessary to understand people's living context that is formed of many elements with religion being one of the most important ones.

Methodological individualism

One finds it impossible to understand the way society and economic system function without considering the exchange process on the market from the individual point of view. Individuals are principle agents of the exchange process as they make economic decisions. On the one hand, every economic analysis that pretends to provide for the answer to the question of the optimum allocation of resources that cater needs and maximises wellness of the society on the other. By doing so the bottom line is to consider the individuals' preferences.

Within the context framework, decisions brought by other individuals on their behalf, or on behalf of the government in different forms, have direct impact on how we adjust to those decisions. That is why there is no viable microeconomic research unless individual's behaviour is not taken into account. At the same time, no

unjustly left behind. The classic cases are the labour market, health and education. Enrico Colombatto, Social Contracts and Historic Rules, ICER Working paper Series 05/2009

macroeconomic research can be credible unless we understand it is but the aggregation of the individual decisions.

Economic thought since Smith (even before his work) has been aiming at providing response to the question how can individual interests be harmonized in order to improve the wellbeing of a society. The labour division and the affirmation of the free trade principles begin with the consideration of individual views over economic actualities and grow into a macroeconomic picture. The point where classical and Austrian schools of economic thought part their ways is in the classical claim that laissez-faire principles implementation maximises overall wellbeing of a society by expanding its material wellness. Austrian school contrary to it focuses on the position of individuals and how satisfied they are at a certain point in time given the actual economic state of affairs.

In a decision making process all of us assess to what extent the consequences of that decision will be useful to us. By doing that we assess different alternatives in each and every case. Thus it becomes important for the economic analysis not only to consider matters from the point of view of individuals but also to bear in mind the fact that we are all different and with different preferences which suggests our decisions do not necessarily have to be same even if the overall context remains the same. For that reason, when methodological individualism as a principle is applied to an economic analysis it goes without saying that one has to apply the complementary principle of the methodological subjectivism, too.

Some theorists (Mises for instance) saw there the possibility of developing an autonomous science that deal with human activity – praxeology. Opposite to animals human activity is a purposeful one. Additionally, Menger's economic analysis based on subjectivism was the key to understand the way economic thought is supposed to develop further. This is particularly important once we understand that the economic thought stagnated for the most of the 19th century (especially through the second half), or was getting subsided by the socialist doctrine. In parallel to Menger, other theorists also (Jevons and Walras) inquired into the field of subjectivism and preferences. They did it, though, from a different, more equilibrium based mathematical perspective though³.

Business cycle

Economic debate on the role of state in the economic system lasts for centuries. Disorder in public finances was many times in human history merely the first act in

³ Mark Skousen, Vienna & Chicago, Friend or Foes, Capital Press, Regnery Publishing Inc. Washington

a country bankruptcy drama, but not only that. Sometimes it even led to the social failure⁴. The issue of the public finances exposure is currently one of the most highlighted questions in today's economic policy. The response of the most of the countries affected by the crisis has mainly been the combination of the monetary and fiscal expansion – reduction of the interest rates, printing money, expanding public debt and gaping budget deficits. Having intervened to save the economy, now countries become the problem⁵.

The size of the government expenditures, as well as providing finances against future taxes and by the same token level of the public debt become most relevant issues of the modern economic policy. The average public debt of the rich economies has leapt from less than 80% to about 100% of the GDP over two years, while the IMF reckons it will have grown to 120% of the GDP by 2014. Given the budget gap that stems from the actual crisis which ranges in 2009 from 3% in China or Canada, 7-9% in Russia, France or Portugal to over 10-15% in the USA, UK or Ireland, it becomes clear how the problem evolves⁶. Generally, the public expenditures grew dramatically through the twentieth century, especially in the second half of it, under the influence of the economic policy of social insurance. It is necessary to understand, though, that any economic policy has to take into account certain theoretical considerations. Therefore, the growth of the public expenditures has to do with the implementation of the Keynesian economic thought. That is why it is normally recommended to develop economic policy on the basis of the theoretical models.

Ironically enough, one of the leaders of the classical British economic school John Stewart Mill inspired theoretically many socialists to create proposals that, eventually, in practical terms lead into the present situation⁷. Based on the thesis that it is possible to distinct laws of production from the laws of distribution one may create a wide set of measures of the state interference with the principles of the market economy and thus shape any task for the state institutions. In other words, governments venture into the production of different public goods. At the same time, the issue of the budget deficit can be studied from the point of view of the influence of the special interest groups on the lawmakers. Through such a rent-seeking interaction expensive legislation for the tax payers to pay for gets put together and hence essentially affects public finances⁸.

⁴ For details Paul Kennedy, *The Rise and Fall of the Great Powers*, CID Podgorica and Officila Gazette SCG Beograd 2003

⁵ *New Dangers for the World Economy*, *The Economist* Feb 13th 2010

⁶ *Tightening Economic Policy – Withdrawing the Drugs*, *The Economist* Feb 13 2010

⁷ It was Hayek's comment once. Mark Skousen, *Vienna & Chicago, Friends or Foes*, Capital Press, Regnery Publishing Inc. Washnigton page 20

⁸ James Gwartney and Richard Stroup, *What Everyone Should Know About Economics and Prosperity*, Institut ekonomskih nauka Beograd, 1996 page 79

Regardless of whether a certain theoretical model is implemented this or that way, or whether we like or dislike the outcome, unless economic science has practical relevance it is questionable how useful it may be to improve society which is the goal humans stream to. Ivory tower abstracted theoretical models will not help the ultimate purpose of the scientific economic analysis.

At the same time, in today's economic crisis circumstances the level of the public debt becomes unbearable burden on the back of the economic systems of the developed countries⁹. Maneuvering space to pursue economic policy in the circumstance of very high public expenditures and public debt has significantly gotten narrower since the Great Depression of 30ies of the 20th century. Such course of events suggests that measures to prop up the economy are shortsighted unless one sheds more light over the problem of the structural misbalance in the economic system of the western world¹⁰. High quality standard of living, in comparison to other parts of the world, has influenced redistribution of priorities within those societies (in the European countries before all). More welfare state, but smaller growth rates. That so called tolerant growth¹¹ has masked ever bigger structural problems which have appeared and grown over time only to rise in full in time of the recession. Different societies react differently to the certain extent, but the assortment of measures and general policies is more or less determined and heads to the structural dead-end.

Whichever road taken, sooner or later one realises that the problem is to address issues that are imposed by the evolution of capitalism in its fight to resist upcoming challenges over time. The costs of the social insurance (pension system, health insurance system or other segments) and the costs of education dominate total budget expenses. Over the long haul without adequate response the weight of the burden will only grow.

⁹ Troubles that befell Greece, while some other countris may be faced with the same is what stimulates debate on the introduction of the European Monetary Fund in some form. Such a fund would help EU find solutions for the public finances sort of problems without turning to the IMF, which is less realistic option for the time being. The concept was presented by Daniel Gros and Thomas Mayer in their article on the Disciplinary Measures *The Economist* Feb 20th 2010

¹⁰ For instance one can take a look at the health spending that hits about 9% and growing in the OECD countries, while the expected life span after retirement in the OECD countries is almost 20 years for men and over 20 years for women. That underpins debate on further pension reforms in terms of rising the retirement threshold. *A Slow Burning Fuse*, *The Economist*, June 27th 2009

¹¹ Tolerant growth is used as a goal by the politicians in the developed countries. The term was coined by Colombatto and Macey in their paper on the Information and Transaction Costs as the Determinants of Tolerable Growth Levels, Working Papers, ICER, 1998

Without savings and capital investments there is no increase of production in the long term. Shifting focus from those values towards consumption releases the vicious circle. On the other hand, one must not forget that economy is the science that studies ways to satisfy human needs. Contrary to the land and labour two out of three fundamental factors of production which easily get converted into other forms, once engaged capital finds it difficult to shift into other combination of resources. Time preference of consumption (which has direct impact over interest rates) is the key to understand business cycle according to the Austrian business cycle theory. That theory seems to be most consistent one among all generated up to now and it is possible to use it to explain the actual crisis as the consequence of the dynamic growth of all the sorts of assets over long period of time. It was merely a matter of time when that bubble was supposed to burst.

Applying the Bohm Bawerk's theory of capital and interest rates, Mises and Hayek defined the principles of the Austrian business cycle theory. State intervention on the supply side of money, or reduction of the interest rates below so called Wicksell's „natural“ one inevitably affects production to move to those goods it takes longer time to produce. In the contemporary economics dictionary words, bursting bubble helped everyone realise the wrong allocation of resources¹².

Business cycle gets importance when the whole social context is analysed. In times of expansion the need to redistribute grows which inevitably reduces level of the economic freedom and consequently reduces the progress rate of an economy, which suggests there be the need to reform in order to move the cycle once again.

The market process

The market process approach is the basics of the contemporary Austrian school of economic thought. It has developed since Mises and Hayek first added new principles to enrich the Austrian approach into the blazing intellectual debate which took place back in the 20ties over the economic calculation issue¹³. On the

¹² The starting point of the Mises's theory of business cycle is BohmBawerk's theory of capital and interest, Wicksell's hypothesis on the „natural“ interest rate that tells of the natural savings rate in an economy and is different from the actual market one, as well as the Hume-Ricardo assumption there is no inflation in the long term under the gold standard system. Mark Skousen, Vienna & Chicago Friends or Foes?, Regnery Publishing Inc, Washington, 2005 page 168-169

¹³ Old Austrian tradition knew of the following principles: methodological individualism, methodological subjectivism, marginalism, relationship between utility and demand, opportunity cost and time structure of consumption. Mises and Hayek battled vivid intellectual debate over the issue of the economic calculation in socialism in 20ties. The theoretical implication of that debate were two new principles which made difference between the Austrian school of thought and other subjectivistic schools. Those principles were that individuals make their decision in a context of uncertainty and

uncertainty that characterises the context in which individuals make decisions and on the problem of the unawareness of the lack of knowledge which is followed by surprise once discovered one may develop thesis that can be wrapped up in the market process school.

When all of us make certain decisions we normally do it against the pieces of information we have. As we do it we take into account actual state of affairs that is our attitudes, convictions, preferences. On the other hand, present circumstances are also characterised by available technologies, and related to that, available resources. Induced values – prices, quality of products and so on – are the outcome of the combination of existing characteristics. Coincidentally, by making our decision we project preferred future outcome which is to be compared with the real one when happens. In that way a new cycle gets kicked off, and an observed individual uses new knowledge or experience that may cause the change of preferences or convictions. Additionally it may cause the change of technology too, bringing in new dynamism and moving the system away from the equilibrium. In case we are unsure of the quality of a decision we are about to make based on the information we have, we will continue to search for the additional pieces we believe are relevant. At the certain point in time, however, we still make decisions.

However, that sort of ignorance is not the key ignorance that at the certain moment affects the market equilibrium, either towards or away of it. The very knowledge we come to totally incidentally (as though someone turns on lights in a room, and we did not know it was possible at all, that helps us realise many new things) can turn upside down our future behaviour and influence market forces to move towards or away from equilibrium. Normally it is related to the surprise. The ground assumption is in fact that the market is in a sort of a dynamic disequilibrium – contrary to the usual neoclassical interpretation of the equilibrium model. It is entrepreneurs who by taking note of a new chance work to turn them into a profit opportunity. Of course, in their venture they can either succeed or fail. That is exactly what makes them play the key role in the economic system bringing dynamism and development.

When the market process model is implemented to explain the real world, it becomes evident why state interference is doomed to fail. State, that is its bureaucrats, can never resolve properly neither the basic problem of knowledge not the advanced one. Regardless of the invested efforts to search for the best solution constant change makes visible hand artificial approach obsolete on the first day of implementation. Secondly, and more importantly, state cannot resolve the lack of

that the market process means systematic discovery of chances that is linked with the surprise factor. Israel Kirzner, *The Meaning of Market Process*, Routledge, New York and London, 1992

awareness of the knowledge problem which once encountered suggests the possibility of already wasted tax payers' money or the misallocation of resources¹⁴.

It is possible to assess the quality of institutions from the market process point of view, too. The question is whether the existing institutions contribute to meet the needs of the individuals, how valuable they are in increasing our utility, and how much they contribute in discovering chances that underpin the overall development¹⁵. From the economics angle, it is only those institutions that promote private property and economic freedoms which in the true meaning of that word can enhance the society's wealth. At that point, however, we tend to collide with the issue of legitimacy of certain institutions of a society. As usually egalitarian principles tend to prevail (welfare state models tend to possess high legitimacy), the question is how can one help sustain institutions that promote economic freedoms? Colombatto contends that though institutions do not necessarily affect individual preferences, ideas and ideology do. Should institutions function against that perception society may start to crack, loses its cohesion and risks revolt and uprising.¹⁶

All the same, it is a delusion if we believe in the „market failure“. That very failure in fact does not exist. The market is but a mere reflection in a mirror of the decisions we all make. The question of why the outcome is what it is? In a situation in which governments spend half of their GDPs it is hypocritical to put blame on markets for the outcome as if it was an alienated being on its own. Therefore, the economic system and the economic science can not be isolated one from the other if we are to implement basic principle of how feasible theoretical recommendations are in practice. It is pretty straightforward to conclude that the classical or Austrian school of economics principles are difficult to be rebuked as the implementation of those principles in practice leads society to the higher level of economic efficiency (in the enough a long term overall wealth too). However, if fully consistently applied it may be a cause of a trouble and social conflicts. In the best case, one may expect the process of evolution to take place to harmonise existing social models. This is because in dealing with social issues sheer profit approach that kicks off market forces cannot be applied as the implementation of the superior set of institutions depends on our expectations that all individuals will apply the newly discovered and more efficient rules.

To that end there appears a logical question related to the quality of data that helps us draw conclusions on what happens in a society and to compare those results with

¹⁴ Ibid. page 157-159

¹⁵ Ibid page 180-192

¹⁶ Enrico Colombatto, Social Contracts and Historic Rules, ICER Working paper Series 05/2009, page 37

other countries. Dissatisfaction with widely used aggregate such as GDP is growing. On the other hand, important advantage of the GDP is that it is a single tool that enables as simple as possible economic analysis of very complex interrelationships between economic agents. Statistically speaking, GDP by showing direction in which an economy heads to manages to reconcile nicely different approaches of the classical, neoclassical and Keynesian economic thoughts. However, it does not provide with the answer to the key puzzle – am I as an individual happy with what is going on in the economy I belong to. For the same reason, it is the quality of the economic freedoms indicator that is also put to the test as the chief conclusions are derived on the basis of how GDP and GDP per capita perform in the observed countries. Nevertheless some indicators suggest high GDP per capita in some countries it is still an open issue would that be enough for us to decide to move to live there supposedly it is an easy decision to make. With the same level of the GDP for example, the higher standard of living might mean the cleaner environment, or lot less time wasted commuting per day. Put differently, there is a leeway for the GDP per capita to fall as long as some other indicators perform better which keeps us equally rich.

Actually, the question that moves things back to the beginning is whether the implementation of that model from the macroeconomic indicators point of view (at the end of the day GDP per capita is still a derived macroeconomic indicator) is acceptable and applicable the same way in other societies. Manifested throughout the market process it is the very decisions that individuals who as part of a community take that often stem from their preferences that get developed on the basis of beliefs, tradition or habits. What macroeconomic indicators hide is the relationship between informal and formal rules in one society. The distinction gets more acute as one attempts to implement the set of formal rules that has arisen from a cultural matrix of one society into another with completely different tradition and habits¹⁷. To that point, one has to differentiate situation in which formal rules collide with the informal ones which in turn threatens systemic or cultural shock from a situation which is characterised by bad formal rules which need to be changed¹⁸. For the argument's sake, it is often said that the phenomenon of corruption arises from the intention to implement fairly complex EU legislation in countries that are characterised by different behaviour rules, but it may arise from the bad legislation one country has too. Potential solution might be the implementation of the EU legislation with as few as possible procedural steps, barriers or institutions which

¹⁷ Stiv Pejović, Why is Culture Important?, *Preduzetnička ekonomija*, Vol 2, Podgorica, 2003. according to Pejovic the higher the cost of the transition process and the less efficient economic exchange the more acute collision between formal and informal rules – the interaction thesis.

¹⁸ Enrico Colombatto, Social Contracts and Historic Rules, ICER Working Paper Series 05/2009, page 42

preemptively affect dominance of the informal rules and therefore help sustain cultural transition.

One of the most recent researches that have pinpointed its goal in the quest for the more realistic indicators of how one society and its economy perform has been done by the commission led by Joseph E. Stiglitz, Amartya Sen, and Jean Paul Fitoussi¹⁹. Though their scientific background is (post)Keynesian with the purpose to emphasise importance of the public goods and services provided by the state, findings of this commission put new light over usefulness and comparability of the traditional aggregates from the wellbeing of each individual. At the same time, it is difficult to ignore the role of households and their disposable income which appear to be a lot more relevant indicator to be measured and analysed than many other. It is necessary, however, to organise a set of adequate researches in order to draw conclusions on the potentials of the welfare of a society.

New general theory?

On the one hand, the market process model very consistently explains the way market forces function in light of decisions that individuals make. The outcome of how those forces operate can more or less be distorted by the government's action which may cause essential changes of the underlying values and that in turn moves equilibrating forces that generate creation of new induced values. From that point of view the transition process that other ex-socialist countries underwent could be taken as a special case. On the other hand, a human person belongs to society and adjusts its numerous decisions to that notion, as those decisions are reflection of the tradition or habits that characterise certain society. More concretely, most of the decisions taken have previously been either debated or negotiated within the family a person belongs to, as phenomenon of the propensity to spend or save are directly

¹⁹ Joseph E. Stiglitz, Amartya Sen, Jean Paul Fitoussi, Report by the Commission on the Measurement of Economic Performance and Social Progress, www.stiglitz-sen-fitoussi.fr there are 12 recommendations in the related report: when the material wealth is evaluated one needs to focus on income and spending, rather than production; it is necessary to take households perspective; give more importance to the income distribution, spending and wealth; expand the level of income analysis to non-market activities; quality of life depends on objective circumstances which makes it necessary to improve measurement of human health, education, hobbies, environment; indicators of the quality of life in the observed areas are to encompass inequalities appropriately; researches are to be conducted so it enables one to assess links between different domains of life quality for each individual; statistic offices should provide information in order to devise indexes necessary to consider life quality in different aspects; research should supply measures of both subjective and objective wealth assessments; sustainability analysis should supply with quality set of indicators; environmental sustainability deserves separate set of physical indicators. Regardless of quality and scientific background of reports it is questionable how practical those reports can be, and how realistic it is to conduct adequate research on the basis of outlined recommendations.

related to households. This particularly gains importance if one accepts conclusion that economic analysis can explain individual decision making process but cannot explain group decision making²⁰. Schumpeter was particularly concerned about the future of capitalism as he had noticed the action of forces that disintegrate families as according to him the chief reason for households to save, or accumulate capital is to meet the need of providing for the security to one's family²¹. Therefore, it is a logical effort to identify trends that explain how a society as a whole develops and to that end design policies that aim at providing for good trends to last long. Also, should one align with Schumpeter's assessment in relation to the human need to provide its family with security then legitimacy people grant to many welfare models programmes becomes understandable. Especially if one takes into account that there is 3-5% of entrepreneurs in each society who are ready to respond to challenges ahead on the basis of personal responsibility.

An interesting analogy can be found in the physics and laws that depict nature. By comparing micro aspect with the moving of a particle, that is with the quantum mechanics and macroeconomic aspect with the general relativity theory we will come to many answers. However, physicists continue their quest for the final response²². The principle of uncertainty applied to the economics suggests the uncertainty context in which we make decisions, but also the uncertainty of decisions themselves. Entrepreneurship influences our behaviour by having an impact on the way we adjust our decisions in different time intervals to new circumstances. That is why microeconomic values such as saving, investment in knowledge and capital goods define dynamism of any economy. On the other hand, welfare economics has ambition to create policies that will improve the whole society. The outcome, however, cannot be an equilibrium model, as it directly collides with the need of humans to acquire new knowledge²³.

That is why splitting micro from macro aspect is not a sustainable scenario as it leaves behind a huge unresolved void. Neither economic school, nevertheless one personally inclines to it or not, has provided for the final answer. Unless there is a new synthesis of knowledge. That is why the author of this paper thinks it is impossible to isolate economic theory from the general society theory. To Adam Smith the invisible hand was most likely the divine hand that managed to make people harmonise their interests within the moral system they belong to which is the

²⁰ This conclusion was drawn by Kenneth Arrow. Steven Pressman, *Fifty Major Economists*, Routledge London and New York, page 269

²¹ Ibid. page 162

²² Stephen Hawking, *A Brief History of Time*, Alnari, Beograd 2002, page 26

²³ Statics and equilibrium go against the cosmic order. It was not so though before the 20th century when people had thought the Universe was static and unchangeable. Ibid page 19

result of behavioural evolution in a society²⁴. It is not possible to ignore sociological and religious aspect. At the same time, the globalisation process enables to harmonise different patterns of behaviour. If the world manages to avoid clash of civilisations²⁵, it is realistic to expect a gradual evolution towards making a global set of values in the next decades that could reaffirm position of an individual and a family/household, that is uncertainty principle and dynamics on the one hand and the need of humans to rely upon collective institutions in order to reduce poverty, improve health and education on the other. That could make grounds for the new general theory, under the assumption one does not neglect that collective institutions cannot resolve the problem of unawareness of the lack of knowledge and the role of entrepreneurs in resolving it.

Concluding remarks

By scrutinising the consequences of the ongoing crisis as well as the stimulus packages implemented by governments it appears that time is near to start reexamining the whole approach to the economic system. Fundamental thesis outlaid by the classical economics and the Austrian school are still very much relevant, as the need to face structural misbalances closely related to high public expenditures grows. The issues some EU member states have with the state of their public finances cannot emphasise that challenge enough, though certain state functions keep their legitimacy. At the same time, there is a need to revisit economics and the relations between micro and macro aspect as well as to reexamine aggregates such as GDP. It is clear one cannot ignore the need of humans to live in community, but also the fact our decisions are motivated by various reasons and therefore could not be predetermined. Knowledge plays role of energy that moves market forces keeping entrepreneurs awake. Extinguishing that energy is a safe way to suffocate market forces. On the other hand, it is in the human nature to give strong legitimacy to the institutions of egalitarianism which causes the need to unify different scientific research in order to identify the long term trends. By the token of the idea to establish a general physics theory, it seems that economics need new energy of thought to invent a new general economics theory.

²⁴ Mark Skousen, Vienna & Chicago Friends or Foes? , Regnery Publishing Inc, Washington, 2005
page 254

²⁵ Samuel P. Huntington, The Clash of Civilisations and the Remaking of the World Order, CID
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ECONOMIC CRISIS AND PROPERTY RIGHTS

Abstract: *Almost each economist in the world is trying to answer questions related to the current financial and economic crisis at the end of first decade in second millennium. What are the causes of the crisis? Is it a result of a „market failure“, or state interventionism? Is it deregulation or exaggerated state interference into economy that disabled functioning of free-market mechanisms? Large majority of economists saw the crisis, instead of what it is in my opinion – result of state interventionism, as the crisis of free economy and the proof of free market weaknesses. That's why almost every government in the world strengthens its interventionism and interference into economic life as the solution for crisis, and very often anti-crisis measures included even nationalization (especially in banking sector). As if economists disregard the fact, proved countless times through economic history, that private property and economic system based on private property are much more efficient than any form of collective property. That's why I will analyze neither causes nor the consequences of crisis in this paper, but just try to remind and point out the fact that private property and concept of economic freedom immanent to it provide the most efficient allocation of scarce resources and thus enable economic progress.*

Key words: *crisis, property rights, economic freedom, free markets, an individual*

Resümee: *Fragen, auf die fast alle Ökonomen für die Antwort suchen sind in den letzten zwei Jahren im Zusammenhang mit Finanz-und Wirtschaftskrise. Was ist die Ursache der Krise? Ist die Ursache der "Markt-Fehler" oder staatliche Eingriffe? Die meisten Ökonomen haben die aktuelle Wirtschaftskrise, stattdessen was sie meiner meinung wirklich ist - das Ergebnis staatlicher Interventionen, als eine Krise der freien Marktwirtschaft und Zeichen der Schwäche des freien Marktes gesehen. Deshalb als die antwort auf die Krise der Regierungen in fast allen Ländern der Welt war es die verstärkung des Interventionismus und oft die Zufluchts Maßnahmen der Verstaatlichung (vor allem im Bankensektor). Als ob man es aus der sicht verlor, das durch die wirtschaftliche Geschichte der viele Male bewiesen ist, das privates Eigentum und wirtschaftliche System darauf gegründet ist effizienter als jede handlungs Form des kollektiven Eigentums. In diesem Aufsatz versuche ich, die Aufmerksamkeit auf die Tatsache hinzuweisen , das privates Eigentum und auf ihr gegründetes Konzept der wirtschaftlichen Freiheit gerichtet worden ist auf die knappen Ressourcen der effizientesten verwendung so das es ermöglicht den wirtschaftlichen Fortschritt.*

Stich wörter: *Krise, Eigentumsrechte, Wirtschaftliche Freiheit, freie Märkte, Individuum*

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Резюме: Вопросы, на которые почти все экономисты ищут ответ в течение последних двух лет связаны с финансовым и экономическим кризисом. В чём причина кризиса? Является ли причиной "ошибка рынка или государственное вмешательство?"

На мой взгляд, нынешний экономический кризис результат государственного вмешательства, в отличие от мнения большинства экономистов, которые считают, что экономический кризис - кризис свободной экономики и доказательство слабых сторон свободного рынка. Таким образом, в ответ на кризис, правительства почти всех стран мира активизировали вмешательство и такие меры, как национализация (особенно в банковском секторе).

Как будто исчезает много раз доказан факт в экономической истории, что частная собственность и экономическая система на её основе более эффективна, чем любая форма коллективной собственности. В этой работе попытаюсь указать на тот факт, что частная собственность и концепция её экономической свободы направляют ограниченные ресурсы к наиболее эффективному использованию, которое способствует экономическому прогрессу.

Ключевые слова: кризис, право собственности, экономическая свобода, свободный рынок, человек

1. STARTING POINT

The prosperity and property rights are closely related. Until recently, there are no doubts that clearly defined property rights and their protection are very important for the economic efficiency, but after the crisis hit the global world many countries implemented some kind of nationalization programs as the anti-crisis measure, especially in banking and financial industry.

Private property enables individuals to exclusively use resources they own in an efficient way and according to their desires. The exclusivity of the property rights enables the owner to use all benefits and to bear all expenses of the property use. In this process the owner is trying to bring the benefits and the costs of the property use in accordance, in the way that will bring him/her profits. Such behavior is bringing economic efficiency. The increase of economic efficiency leads to better quality of life of every individual in a society. However, the importance of property rights for economic development has been neglected in certain periods of the history of economic thought. Even the promoters of free market ideas didn't pay lot of attention to the issues related to property rights and their protection. This was the reason that the results of many economic development policies implemented in the past were not as expected. This paper is the attempt to point out the importance of property rights in order not to repeat that period when the importance of property rights was neglected.

Why some countries are developed, while others are not? Adam Smith started the history of economic science when he tried to answer this question in his book: "An Inquiry into the Nature and the Causes of the Wealth of Nations". The literature suggests that the most common reasons for economic failures are – the lack of natural resources, inadequate investments into education, culture, religion, history, or geographic position.

Friedrich Hayek said, although it was said in different context, that we were not able to explain the success if we analyzed only those who didn't succeed: "Before we explain why people make mistakes, we must explain why they make success in what they do."²⁶

The goal of the analysis in this paper is to emphasize the fact that the essential difference between the prosperity and the poverty lies in the institutional arrangement that regulates property rights in one society. In other words, a society will be prosperous if property rights are clearly defined, and protected and if the owner can use all property rights freely.

Empirical data show large differences between the real levels of per capita income in different countries. These differences are sometimes very large even between the neighboring countries and the countries with similar structure of natural resources, as well as between the countries which have common cultural inheritance and tradition? What has been the cause of such big differences in real income?

For example, we can analyze US and Mexico. The average real income in US is 4-8 times higher than the average real income in Mexico. Similar to this real income of a South Korean citizen is averagely 17 times higher than the real average income of a citizen of North Korea...

If we look at the economies of neighboring countries throughout the history – Finland and Estonia, then we can see that in 1930's the living standards of the Finland and Estonian people were approximately the same. In addition to this, these two nations have common cultural inheritance, share the same values and have very similar language. No matter for its geographic position on the Baltic Sea, Estonian people consider themselves Nordic people. However, seven decades later, the average Finland income is seven times higher than an average Estonian income. Is this the unavoidable consequence of five decades of socialism in Estonia? If you compare the living standard in the ex West and East Germany, it is practically the same country, same resources, similar education system, the same cultural inheritance, language, religion, history, and the same geographic position. Where did the enormous differences in income in last three decades of 20th century come from?

²⁶ Friedrich A. Hayek, "Economics and Knowledge," in *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948), p. 34.

We could also analyze Hong Kong and Singapore – the city-states which basically have no natural resources, and have borders with much larger countries, much richer in natural resources, but with much lower income. Even the enormous immigrant wave from China didn't slow down the growth of Hong Kong, ex-colony of Great Britain, whose growth rates were above 5% at the end of previous centuries and exceeded the Great Britain's. These, at first glance, paradoxes, survive. Despite very high growth rates of China lately, the real per capita income in China is still 4 times lower than in Taiwan.

Professor Allan Meltzer commented this “real laboratory for comparison between achievements of economic development of neighboring countries” and said that, despite the same culture, language and tradition “the economic results of these countries are significantly different”. **The countries with prevailing capitalistic institutions – private property and free markets are more prosperous and go ahead, while the other ones are stagnating or even going back.** As an example we can say that a citizen of South Korea, at the beginning of third millennium had income level approximately the same to the income of average US citizen at the period immediately after Second World War. However, his “relative” from North Korea survived by collecting fruits from the nature – by eating roots, grass, etc. Although this sound impossible, it is true.

In other words, the availability of natural resources is not giving the answer to the question why some countries are more developed then the other ones. Natural resources are neither necessary, not sufficient condition for the economic development. Some countries are prosperous and have high growth rates despite almost non-existing natural resources, while other are stagnating or going backward although they are overwhelmed with valuable natural resources. That's why Nigeria, which has oil reserves and produces oil, is very poor country with huge debt. Argentina, the country wealthy in natural resources, including oil, was going through the periods of long recession as the result of bad economic policies and wrong institutional arrangements.

The economists are often trying to identify and quantify the relation between the output – the production level, on one side; and investments in capital, human resources and productivity on the other side. Although, the empirical data show the existence of statistically significant relationship, the question being raised here is whether this approach is conceptually correct: both sides of the examined relation are measuring the same thing – the left hand side of the equation measures the income flow, while the right hand size shows the changes in the level of physical and human capital in an economy. Econometricians would describe this situation as the problem of multicollinearity. That is why, if we add one more variable to the equation, despite its “significant” influence on the dependent variable, it cannot be “caught and measured”, because the measure which “catches” the influence of “wealth” is bigger anyway. This approach to economic

research and economic modeling is the reason for non-including institutional determinants of economic growth in economic analysis for very long time.

2) WHY PROPERTY RIGHTS ARE IMPORTANT?

2.1. The importance of establishing formal property rights and their protection

The supreme statement you can make about something is when you say “that thing is mine”. That’s what Valtazar Bogisic, famous Montenegrin lawyer said, a century ago. Some economists claim that property rights, i.e. the right to own something is the natural right of a man.

The right to live, the right to be free and the right to own – are three basic natural human rights. The positive laws, i.e. the written laws are created with the goal to protect these three basic human rights. But it seems that human rights promoters forget that every individual has the natural right, as Bastiat said, to defend personal freedom and individual property

Any economic good can be understood as the bundle of rights. From legal point of view, property rights incorporate the right of the owner possesses (hold) the resource, to control its use and to manage the use of property - transfer it or to exclude others from the property. From economic point of view, it means that the owner of the property has the rights to:

- 1) To make decisions on the use of property, i.e. to choose the way how to use resources he owns and control their use;
- 2) Enjoy any benefit from the use of property, i.e. to collect his part in income distribution;
- 3) Manage with two previous rights or all three, by transferring them, i.e. to exchange the property rights in the market.

That is why any economic activity can be considered as the result of the decisions of individual economic actors on the use of their property rights. The owner will not be able to use his property rights if all economic and social aspects of the use of property are not formally established in the legal system.

Formal establishment and protection of **individual property rights** in legal system was the crucial moment in economic development of US and West Europe during the era of capitalism.

The codification of the natural human right on property has dominantly conducted in the era of capitalism. After the right to property is formally recognized, legally established

and protected through positive law, it became possible to turn property – something that we own, into the capital.

Adam Smith said: **“The capital is not accumulated assets but the POTENTIAL that each piece of assets we own has for the NEW production, new value, and new profits”**

Development concept of all, especially small economies in this millennium should be based on this. The codification and formalization of the natural right to property enabled more efficient property use and provided faster growth.

If we want to learn from history (which is confirmed through economic trends of the present times), then it is clear and non-ambiguous that the most prosperous societies are the one where private property is protected and where property right can be freely used.

If the goal of development in this millennium is the growth of the quality of life and wealth of each individual in a society, then the development must be founded on the affirmation and the supreme protection of private property.

2.2 The institution of property rights

The property is the basic economic institution which determines the nature and the character of many relations in society and the history of civilization can be considered through the prism of property rights. The dominant form of property, as the basic social institution, has been transformed throughout the history of civilization. Dominant form of property²⁷ in a society determines the type of economic system, influences features of many social relations and the way these relations are regulated. Changes in the prevailing form of property change positions and status of many individuals and groups in the society.

The phenomenon of property rights can be considered and analyzed from many different aspects. The property is economic, political and sociologic category. However, property is very important psychological category in Froyd's work, through which people can express and channel the aggression instinct. The definition of professor Andrija Gams goes along with this. The property is “the social category whose goal is to satisfy our needs, beginning from biological, physiologist, to cultural needs and self-actualization. As any other form of natural human rights, the right to property is normatively established through positive law. Property becomes social relation, i.e. institution which regulates the relation between the people and their behavior with

²⁷ When I say dominant form of property I mean by that whether state or private property is prevailing in a society.

regard to the scarce resource. Property rights regulate the relations between people with respect to the key question of economics as a science: unlimited human needs on one and scarcity of resources on the other side.

Property is the legal institution created as the result of the scarcity of resources. Scarce resources are creating the competition between people to obtain property rights over those resources. The criteria and the rules according to which people compete to obtain scarce resources can be different, and today it is being realized through voluntary contracts, i.e. market transactions.

When we speak about the ownership, i.e. property rights, we must mention Professor Steve Pejovich, who is one of the founders of the economics of property rights. He points out two important dimensions of property rights. First, it is wrong to separate property rights from other human rights. The right of an individual to speak or to write about something is his property right, because it regulates the relation between that individual and other people. Second, property rights are always related to an individual. Property rights are the rights of the individual. As already said, property rights don't regulate the relation between an individual who owns the property and the concrete thing he owns, but it regulates the relations between the individual owner and other people with respect to the right to use that concrete thing, which he owns. According to this the institution of ownership regulates the norms of behavior with regard to scarce economic resources. Those norms are to be respected by every individual in social relations.

In order to work, save and invest, in order to found new companies, and expand the existing ones, owners must be sure that they will be able to exercise their property rights fully and that nobody can take their property away from them. The stronger the protection of property rights is the many more people will engage economic activities of any kind. In other words, economic behavior is influenced by the inviolability, transferability and constitutional guarantees of property rights provided by the legal system in a society.

Inviolability of property rights mean that the owner makes the decision what to do with the property he owns. He is choosing what is he going to do with his property, how is he going to use what he owns, but he is also responsible to bear the consequences of his decisions. The use of his property can bring him profit or loss. If we start with the premise that an individual is homo oeconomicus, i.e. if we start with the rationality assumption, he will always look for the most efficient uses of his property. Property rights and their inviolability, act as the strong motivation factor which moves people to use their property rationally, and thus provide the most efficient allocation of resources. People are always paying more attention to what they own, and treat it with more care. Property and the inviolability of property rights make the man economically and

psychologically independent, free and dignified, and provide the most efficient allocation of scarce resources.

Second, not less important feature of property rights is their transferability – the owner is able to transfer some or all rights from the bundle of property rights to other people. The transferability of property rights provides allocation of resources to their most efficient uses.

The Constitution, as the supreme legal act, must provide the legal owner following guarantees: (1) Exclusive right to use the resource in the way and in length, which the owner consider convenient, if the use of the resource doesn't endanger or violate property rights of other individuals in a society; (2) The possibility to voluntarily transfer some or all rights from the bundle of property rights, permanently or in certain period, as the owner consider convenient. These two constitutional guarantees are making the essence of the concept of economic freedom.

Despite empirical evidence, which confirms theoretical claims ("the theory is the best practice")²⁸ on the importance of private property for economic development, institutional and legal framework in many countries put limits, or completely prevent individual to use their property in the way they want through voluntary market transactions. In other words property rights are not unlimited rights.

In practice, property rights are limited by the legal norms which produce certain effects – laws and legal restrictions. More restrictive law reduces the freedom of owner in making decisions on the use of property. The level of restrictions imposed by the law may vary significantly, depending on the character of social and economic system in which the law is being implemented. Thus, sometimes the law defines the price at which certain transaction will be completed. In such a system, the owner is prevented from making the decision on the most efficient use of his property. Such legal restrictions are the obstacle to the free exchange of property rights. On the other side, complete and unbounded property rights provide free exchange and reduce the cost of exchange and production.

This still doesn't mean that the property rights are absolutely unlimited. If full and unrestricted use of property rights of an individual endangers property rights of any other individual in the society, then the expense of its use would exceed the benefits. Only in that case legal restrictions of property rights are economically justified, and can improve economic efficiency. All other legal restrictions of property rights bring expenses' growth and the reduction of economic efficiency. In a word, economically justified restriction of property right is determined by the level it endangers other people's property rights.

²⁸ Vukotic, Veselin: „Opasne riječi (*Dangerous Words*)“, CID, Podgorica, 2006

As already said above, the property rights can be analyzed as the social relation, i.e. as an institution which regulates human behavior with respect to the scarce resources. From this point of view, property rights can be formal (established officially, through formal legal acts) and informal (established through custom and moral norms). Property rights, formal, as well as informal, will be efficient if individual economic actors respect them. When property rights are respected, then it is possible to adopt some norms of behavior related to the use of the property (for example: "don't take anything that doesn't belong to you"), and at the same time it determines the expenses of violating these norms. When you breach the legal norm – you will bear formal legal consequences, you'll pay the fine or go to jail. On the other hand, ostracism and bad reputation are the punishment for those who break informal norms. In any case, the role of property rights is to enable the owner to freely make the decision on the use of property and the allocation of resources that belong to him.

2.3 Bundle of property rights

The term property rights is more frequent in economic literature than the term property, because, efficient use of resources significantly depends on how the rights from the bundle of property rights – right to hold and use the property, the right to earn the income and the right to transfer the property – are distributed among different entities. Different forms of property are exactly the result of the way different rights from the bundle of property rights are distributed, and the dominant form of property in one society determines its economic efficiency.

One of the most significant rights of the owner is the exclusive right to exclude other people from the use of property, and the right not to use the property if he wants. Wider the scope of rights the owner has, wider is the scope of potential decisions the owner can make – how, when and where to use the property. If individuals can freely make contracts by which they transfer and exchange different rights from the bundle of property rights, or create new rights, then the chances that they will recognize and realize available entrepreneurial possibilities are much higher. Wider is the scope of the rights from property rights; more direct is the relation between the use of property and associated profit/loss.

Let's analyze the behavior of an owner of a house with a yard. Property is not the asset of the owner. In other words, the house with the yard is not property itself. Property over the house is the right to use the house. The owner of the house with the yard has many rights – certainly these rights are not unlimited. For example, the owner can plant an apple tree in the yard and sell its fruit. Profit generated from selling apples belongs to the owner. The owner can decide what to do with his profit. In addition to that, if the owner enjoys in untouched nature, he can decide not to do anything with his yard – leave it as it

is and enjoy in its natural beauty. If he makes such decision, it means that benefit, which owner has from enjoying natural beauty of the yard, is more valuable to him than the profits he could have made by planting and growing apples. The owner can use his house and the yard as a collateral, mortgage to get the loan to expand the business with apples or to invest it into education of his children.

By the rule an owner can transfer some or all rights from the bundle of property rights to the other people. Thus, the owner can sell a part of the yard to his neighbor; he can rent a room from the house; the owner can renounce his right to grow the apples to his neighbor with the adequate combination. If the owner wants, he can give the house and the yard to his children or someone else as the present. If the owner makes the will, the house will belong to people he appointed as his successors after his death. Indeed, the will is the mechanism which protects the property after the death of the owner.

It is very important that the owner can exclude all non-owners from the use of his property. If someone trespasses or use his yard in any other way without permission, the owner can ask for the police protection of his property. The owner can sue the neighbor who throw the garbage into his yard, and get proper compensation for the damage. Also, if the government enacts some regulation that put restrictions to the use of the house or the yard, the owner has the right to sue the government and ask for the court protection, i.e. the court and judiciary are responsible to protect the property and to provide adequate compensation for the damage.

This is all valid in the system where property rights are absolutely protected. In such a system wide scope of rights from the bundle of property rights is bringing direct benefits or expenses to the owner, depending on the way the resources are used, so the owner will have incentives to invest, efficiently use and protect his property. In addition to this, the owner will not allow that the use of resource make damage to other people, as he would be responsible to pay for that damage and thus endanger his property.

On the other side, narrow scope of property rights reduces interest of the owner to invest into his resource; it reduces incentives for efficient use of resources, and prevention from misuse of non-efficient use. If property rights are narrow, then the benefits the owner enjoys when uses resources efficiently are not as big as they could be, so the owner will put less efforts in efficient use of his resource. It is not very likely that a person who rent a car on two days will change the oil in the car, but that is the reason some people decide to go into arrangements which don't give them wide scope of property rights – they don't want to spend the resources they have to improve that features of something they rented, but they want to use it in order to improve the efficiency of something that own permanently.

As long as people are able to make these decisions on their own, as long as they are not limited in decision making by formal or informal restrictions, they will act in a way which will improve their position. If the decision making on the use of property is decentralized, then an individual owner has the wider scope of potential choices on the exchange of property rights, i.e. many more possibilities for entrepreneurship.

3) LEARNING FROM THE PAST

3.1. Property rights and economic system

Dominant form of property²⁹ in a society influences features of many social relations and the way these relations are regulated. Changes in the prevailing form of property change positions and status of many individuals and groups in the society. That's why this phenomenon is always just one element of comprehensive change of social system that take place simultaneously with changes in other area of society. Development of market mechanisms is immanent to the societies with dominant private property, while plan and command economy flourishes in societies where collective property prevails.³⁰

The dominant forms of property in the society have changed evolutionary during the history of civilization. Different types of collective property were dominant in the society until the occurrence of capitalism, in some parts of the world even after that. The essential feature of collective property is that certain group of people holds, manages and controls property, and earns profit from its use, but those rights from the bundle of property rights cannot be transferred to someone else. In practice, certain group of people has the right to hold and use the property, has the right to collect revenues from the use of property, but cannot transfer any of these rights to anybody, no matter through sale or as a gift.

According to this basic features of collective property are as follows: non-transferability of property rights; separated rights from the bundle of property rights; collective property rights are obtained through work or according to other criteria an individual needs to satisfy in order to become the member of certain group.

Non-transferability of property rights is the main reason for the separation of different rights from the bundle of property rights. Employees can obtain the right to use the

²⁹ When I say dominant form of property I mean by that whether state or private property is prevailing in a society.

³⁰ See: Vukotic, V. (1993), "*Privatizacija i razvoj tržišne privrede (Privatization and Development of Market Economy)*", Institute of Social Sciences, Center for Economic Research, Belgrade

resources and collect revenues generated by their work. However, transferability of property is completely separated from previous two rights.

In tribal communities all meadows, pastures, orchards, etc. were collective property. Today, collective property exists in the different forms of cooperative companies, where the use of resources and collecting revenues from its use is obtained through work or by satisfying the criteria to join the group (to pay the membership fee, etc.). The other form of collective property in today's society is the state property.

Indisputably, the most efficient form of property is individual, i.e. private property. The basic features of private property are as follows:

- 1) Clearly defined rights from the bundle of property rights, which simultaneously serve as the information system about the rights, restrictions of those rights and compensation fees that have to be paid when property rights are not respected and violation.
- 2) The owner is getting all awards and paying all fines, which are the result of property use;
- 3) Property rights are transferable. The owner can transfer all rights from the bundle of property rights, or just some of them;
- 4) Owners can implement all property rights in practice, which means that the property rights are fully applicable in reality.

These features of private property enable us to make the difference between the owner in formal, legal sense, and the owner in economic sense. The owner in economic sense is the one who use property rights.

The transferability of property rights is the most important feature of the private property as all economic activities are really happening through the exchange of property rights. Transferability of property rights enables the most efficient allocation of resources. The owner is making the decision whether he will use his property rights, and how to use it. In other words the owner has the freedom to choose whether he will keep or exchange his rights from the bundle of property rights. Every decision of the owner has its economic consequences. The owner is the one who bears all risks of the decision he makes. The possibility to transfer some or all property rights gives the owner the chance to minimize the risks of his decisions and to maximize the benefits he would enjoy. People are going into transaction of exchange in order to maximize personal benefits from the exchange.

Besides, the transferability of property rights enables capitalization of future income from the use of productive resources. The capitalization reflects the impact of today's decision on the use of the resource on its present value; the consequences of today's decision realized in the future. Thus, a shareholder can get the profit he might have

expected, and didn't get it as the dividend (majority owners decided to reinvest the profit into the company), by selling his shares on secondary markets at the price which reflects the present value of expected future gains of the shareholder. The transferability of property rights thus enables the owner to sell the right on future gains, i.e. enables easy and cheap capitalization.

When property rights don't have previously elaborated features of private property, then the incentives for exchange are deformed or completely eliminated. That prevents or completely disables the most efficient allocation of resources, i.e. reduces economic efficiency.

In order to enable free exchange of property rights, it is very important to **clearly define it and protect it**.

Clearly defined property rights, which are protected, create incentives for efficient use of resources. If property rights are not clearly defined, the incentives for the exchange are reduced. If there is no certainty about the nature of property rights of one of the partners in the transaction, the risk of that transaction is higher, as it is not certain that the partners will respect all contract requirements.

Without guarantees and the protection of property rights there are no incentives for the most efficient allocation of resources, because people, no matter whether they will be able to achieve their goal with minimal expenses, will not go into exchange of property rights if they can not realize it in practice.

The exchange of property rights is taking place on the markets – goods and services market, labor market, capital market and financial market. Market is the set of contracts, which are the base for the exchange of property rights,³¹ i.e. the mechanism by which other people estimate our value.³²

Only private property rights can be freely exchanged at the market, following the principle of voluntary acceptance of both sides in the transaction. That makes the essence of the relation between property rights and the scarce of resources. It is already pointed out above, that only clearly defined property rights which are transferable allocate the resources to the most efficient uses. That makes the problem of scarcity of resources relative. According to this, private property is the institution which provides the most efficient functioning of the system of awards and punishments, i.e. costs and benefits of the decisions which are made. Each owner is taking the responsibility for the

³¹ Jovanović, A., (1998), Uvod u ekonomsku analizu prava, Pravni fakultet Univerziteta u Beogradu

³² Veselin Vukotić, (2001), "Makroekonomski računi i modeli", CID, Podgorica

decisions he has made and this responsibility principle gives incentives for the efficient allocation of resources.

3.2 Private property – environment for the development of economic freedom

In last two decades of the previous century evidence shows that national markets were opening and economic freedom were growing. Economic freedom is understood as the absence of the barriers to economic activity. **The results of empirical research show that higher level of economic freedom lead to economic prosperity and the wealth increase; affirmation of innovation and entrepreneurship in the society; expansion of trade activities; encouragement of capital flows; increase in the quality of health care; extension of life expectancy; increase in the quality of education,... In a word, higher level of economic freedom brings better living standard for each individual in the society.**

Evident growth of economic freedom caused the development of several methodologies for measuring the level of economic freedom in a society. All methodologies incorporate estimates of monetary and fiscal aggregates, public consumption, and the level of openness of the economy, regulation and tax burden. Besides, the level of economic freedom in a society depends on the evaluation and estimates of the level of protection of property rights, especially estimates on the role and efficiency of judiciary and court system in the protection of property rights and contract. In broader sense, economic freedom and indicators of the level of economic freedom in the society can be understood as the measure of the level of protection of property rights in the society. In other words, economic freedom reflects the possibility of each individual in the society to use all rights from the property rights bundle freely and without restrictions.

Economic activities are the result of the individual decisions of economic actor how they are going to use their property. State interventionism puts restrictions on the individual choice how to use property right and thus reduces economic freedom.

Guarantees of private property rights, freedom of contract, respect of contract and low tax rates enable free, unrestricted and productive use of property and thus make the essence of economic freedom in one society. Economic freedom represent the possibility of an individual to act freely, without state interference and enforcement, the absence of any kind of restriction in making choices in production and consumption of goods and services - of course, here we think of the freedom to make choices in accordance with the law.³³

³³ Friedrich von Hayek, *Poredak slobode (translation The Order of Freedom)*, Global book, Novi Sad, 1998

We can speak about economic freedom only within the economic system with dominant private property, as all economic activities are the result of individual choices how to use property.

On the practical level, economic freedom are understood as the absence of barriers to economic freedom, and each activity by which the state interferes economic life puts restrictions on the choices an owner have in using rights from the property rights bundle. That's why, in more general sense we can understand economic freedom and the indicators of the level of economic freedom in a society, as the level of protection of property rights in a society.

It is already said above that empirical data show significant correlation and causal relation between the high level of economic freedom in a society and the level of economic prosperity and the growth of wealth. Higher level of economic freedom also has significant influence on the affirmation of innovation and entrepreneurship, longer life expectancy, better quality of health care and education.

It is very important to point out once more that in a nutshell, higher level of economic freedom cause better life quality of each individual in the society and increase individual wealth, which is often promoted as the goal of development in 21st century. If this is the case, then the development in 21st century should lean on the high level of economic freedom, i.e. on the promotion and unlimited protection of private property rights.

3.3. The consequences of endangered property rights – lower level of economic freedom

The analysis in this paper has shown that property rights and the possibility to implement them freely, i.e. to freely use the rights from the bundle of property rights makes the foundation for economic development and prosperity of one society. Efficient system for protection of property rights and contracts, through which individuals exchange property rights, enable the development of social values that give individuals the incentives to save, innovate and invest, and thus enhance economic activities bringing benefits to everybody in the society.

Any interference of national governments in economic activities put restrictions on choices individual economic actors can make when deciding how they will use the resources that belong to them. It reduces the freedom of individual economic actors, and prevents them to enjoy as many benefits as they would have enjoyed without the state interference. The final outcome of any kind of activity by which state interfere economic life, even the most "well-intentioned" one, is always the reduction of economic efficiency and consequently lower level of life standard of each individual in the society.

Any measure of state interventions, endanger or put restrictions on the implementation and use of rights from the property rights bundle, and thus disturb or completely disable individuals to freely use property rights over the resources they own. In practice, this is reflected through the reduction of economic freedom. Finally, any measure which reduces the level of economic freedom endangers property rights.

All taxes and contributions, paid by any individual or company in the society, are the clear example of endangering property rights, because the owners, no matter whether they want it or not, have to give the part of the resources they own to the state. This is where the definition that taxes are "legal theft" is coming from. However, other forms of state intervention can also be analyzed through property rights prism.

Very often, state interventionism and interfering market activities doesn't endanger property rights directly, but disables their use in practice, and consequently reduces the value of resources. For example, if the state proclaims one territory protected area, on one side it puts the restrictions on the use of land and its owners (for example, you cannot build a factory on that land...). This can potentially reduce the value of land, as potential buyers and investors are not ready to pay for the land with limited possibilities of use as much as they would have paid if there are no restrictions to the use of land. If this happens, the state should compensate for this loss of value.

We could also analyze the procedure to start the company. If start up procedure is long and expensive the state is preventing the owner to freely use the resources he wanted to invest in business, because the owner cannot use all rights from the property rights bundle in productive manner. High expenses of starting up a business are reducing the amount of resources which will be invested in business, but there is also an opportunity cost associated with this – the owner is losing the profit he might have earned if he had invested resources in productive use. It indisputably reduces economic efficiency of the use of resources, and interrupts the most efficient allocation of resources.

Any sort of government regulation can be analyzed from the perspective of property rights. Regulation is created as an attempt to modify, replace or somehow change the outcomes of free market processes with new outcomes which are more desirable for the government. For example, if we analyze the banking regulation, in Malaysia banks are not allowed to provide certain forms of banking services, in United Arab Emirates foreign banks can not open more than 8 branches, and in addition to all taxes and fees which have to be paid by domestic banks, they have to pay extra 20% of their profit. Almost every country in the world has so called minimal bank reserves requirement, i.e. each bank has to keep certain, legally established percent, of the deposits as the reserve. The minimal reserve requirement prevents banks to use that money freely and invest it in productive purposes. All these forms of regulation are introduced with the certain

goal the government wants to achieve and all of them put restrictions on the use of rights from the property rights bundle, but without paying the damage – lost profit in return.

Property rights are explicitly exchanged on the markets – market of goods and services and capital market. It raises the question on the relation between property rights and labor market. Is the ability to work one specific form of property? In the “Inquiry into the Nature and the Causes of the Wealth of Nations” Adam Smith agreed with the John Lock’s thesis that: “The labor is the property that belong to each individual - it is the base for any other form of property and as such it must be sacred and inviolable”. Having this in mind, can we analyze the relation between the labor law and property rights? From that perspective, the law on minimal wages is directly endangering private property rights, because it restrict the right of an individual to sell their labor (something that they own) to the employer at the price which is lower than some required minimum, despite the fact that the price would be voluntarily accepted by both sides – the employer and potential worker, which are the buyer and the seller in this exchange transaction respectively. The expenses of such restriction of property rights are explicit for the individuals who sell their labor – lost salaries, i.e. lost working places, while at the macro level the expenses are measured by the production loss. In other words, any attempt of trade unions of different kind in undeveloped and developing countries to enforce labor market standards from the developed countries are directly disabling poor layers of population to find the job under conditions which are acceptable for them and for the employers. If an individual wants to work 12-14 hours a day, 7 days in a week, why should anybody prevent it to do so? Why would anybody introduce rigid legal regulation and prevent such an individual to earn money? Why so called “Market Inspection” clerks for example in Montenegro close up the shops in Podgorica in 8 p.m. if the owner and employees agree on the longer working hours – that reduces potential profit of the owner, potential salary of the employee and the pleasure of potential consumer?

State property in economy prevents correct functioning of the incentives system and disturbs the work of price mechanism which allocates scarce resources into the most productive uses. Privatization trend at the end of 20th century was the explicit recognition of the fact that private property is more efficient then state owned property. If profits are going down, the company will do anything to improve the efficiency of the resource use. If the efficiency of using resources is not growing, the company will go bankrupt, and the assets of the company will be sold to those who will use it more efficiently. This is not happening in the state companies, which usually have goals different from the profit maximization. State companies usually set goals in the area of social policy, politics, and non-profit-maximizing economic goals. The state as the owner i.e. as a body which uses resources, collect revenues from its use and has the right to transfer the ownership usually “force” a company to set the goals which will contribute to more generals goals of government. At the same time some goals of the

government can be achieved by giving certain benefits to the state-owned companies – for example state can subsidize for the losses of state owned companies, provide them access to the external sources for investment at interest rates lower than the ones on the market, tolerate soft budget constraints, prevent bankruptcy. This non-market behavior is the cause of inefficient allocation of resources, as the redistribution is not following market principles.

Theoretically state property is transferable, but in practice, in normal circumstances the occasions of transferring state ownership to the private owner are very rare. People who are making the decisions on the use of state property are not bearing the full consequences of their decisions. Along with the fact that state property is practically not transferable is the reason that decision makers are not taking care about the current and future consequences of their decisions. Non-transferability of state property disables the capitalization of future income from the use of resources. It practically means that there are no capital markets i.e. the price mechanism cannot serve as the signal for the efficiency of different businesses and their management. Tax payers bear all expenses of the decisions made in state companies, but they cannot control the work of the decision makers, due to high expenses of that control. The transaction costs of a tax payer's control over the decision making process in state companies would be extremely high in comparison to potential benefits that more efficient business of the state company brought to a tax-payer. Increased efficiency of the state company would bring higher profits, which would go into the state budget and thus potentially reduce the tax burden of a single tax-payer for the amount of the profit-increase divided by the total number of tax-payers in a economy, which is extremely small amount, and doesn't give incentives to control the business of state owned companies. This enables managers of state owned company to act opportunistically and make discretionary decisions.³⁴ As the consequence, the consumption of state owned resources is less efficient. The existence of state owned companies in an economy reduces economic freedom and economic efficiency in the society.

Even the inflation rate can be analyzed from the property rights prism. John Maynard Keynes said that "by generating inflation, the government can confiscate, invisibly or visibly, the significant part of individual wealth". It means that the governments, which print money, increase money supply and thus generate inflation, endanger property rights and allocate resources toward non-productive uses. Inflation brings non-voluntary redistribution of wealth, because the owners of money who are the creditors, i.e. who lent their money are losing the part of purchasing power of that money due to inflation and nobody compensates them the damage. On the other side, the inflation is

³⁴ "Opportunism can be identified with the self-interest which leads into covering the truth, fraud, saducement, lies and theft " – Jovanovic, A., (1998), "*Uvod u ekonomsku analizu prava* (The Introduction into Economic Analysis of the Law)", The Faculty of Law, University of Belgrade, pp.47

enabling the debtors to spend more than they would be able to spend in non-inflationary circumstances, because they are paying their debts with the currency whose unit can buy fewer products than it would have bought at the time they had got the loan. Individuals want to protect themselves from the inflation and that is the reason they will change the way they use their resources in inflationary environment.

4) CHALLENGES OF PROTECTING PROPERTY RIGHTS IN 21st CENTURY

4.1 Shareholders democracy

When we speak about property rights in today's global world, one trend is evident – the trend of so called “shareholders democracy” i.e. democratization of ownership. The transition and the success of some transition countries have shown the necessity to increase the number of owners (people who own something) in population, as it is evident that so called “ownership democracy” contribute to economic development more than political democracy. Along with family and state, property is the crucial institution which regulates the relations in a society. Property determines the way people think and act!³⁵ That's why people, owners should get the chance to open the free market process and understand the essence of global economy, through use of rights from the property rights bundles. This was the starting point of many privatization programs implemented in developed market economies and transition economies in last two decades of previous century, which should continue in this millennium.

“Ownership democracy”, i.e. “shareholders democracy” open many questions related to corporate governance, and the separation of management from the ownership. If an owner of the company (a shareholder) transfers his right to manage company to the third party, we speak about the phenomenon of corporate governance.

Corporate governance system, problems that occur in corporate management and the way these problems are solved are dominantly depending on the institutional framework in an economy. Institutional framework consists of the system of formal and informal institutions in the society. As all other economic actors, the corporation, as the form of business organization which puts in effect the principle of ownership democracy, doesn't function in the vacuum, but develops and evolutionary adapts to the circumstances in the economic environment. From this perspective, property, as the basic economic institution in the society, and the institutional mechanism related to property rights issues, are crucial determinants of the dominant form of corporate governance model.

³⁵ Ibn Kaldun: Mukadima (translation of Muquadima), Svjetlost, Sarajevo, 1985.

In a nutshell, the dominant form of property in one society and protection of property rights are the crucial cause of all potential problems that occur in corporate governance. Thus, in free market environment, where the state doesn't play on the market, but just protects property and contracts, this contract mechanism provides efficient corporate management – managers always act in the best interest of the owner and the basic role of business, which is, from the time of Adam Smith until today, the same – to make profits, is achieved. In such environment we cannot speak about “the problems” in corporate governance, as the contract mechanism prevents their occurrence.

The wave of globalization, i.e. free flows of goods and services and free capital flows around the world impose the need of companies to adapt to new circumstances, and to change their organization structure accordingly. The debates on corporate governance issues are taking lot of time and energy in today's world. The goal of these discussions is to find new corporate governance solutions, new mechanism and new corporate systems which will improve economic efficiency of corporations. Many of these attempts result in creating new regulations, very often rigid regulations. These mechanical changes are usually not good solution. New regulations, which are often recommended by international organizations active in the corporate governance area, don't improve efficiency of corporate governance, but impose new restrictions and prevent owners to make free choice in making decisions on the use of the resources they own. This can additionally distort the incentives mechanisms in corporation. As the result, instead of increase, the corporate efficiency goes down, which decelerates economic development.

The key to solve this problem is the change of institutional arrangements in the society. It is not an easy solution. The time needed to this issue depends on the network of formal and informal institutions in the economy, but the direction is clear.

Instead of introducing new regulations, which protects rights of some groups of economic actors, while endangering interests of the others, the state should focus its activities to the protection of property rights and protection of contracts in the society. Institutional framework shaped so as the main role of state is to enable private owners to use all rights from the property rights bundle freely and to protect contract is paving the road to economic development.

4.2 Conquest of Universe

Achievements of modern science and technologies enable us to see the moment when people will start to use the resources from the universe in very close future. First activities in this area are very expensive and risky, but potential benefits are

unforeseeably high as well. The question which is being raised here is how to define and arrange property rights in outer space? Several very general documents on this issue have already been adopted on the global level, but all of them don't treat this area in the proper way! The important question here is how to arrange and protect property rights in outer space, and how to provide legal certainty to researchers who are interested to conduct research in outer space. Can these solutions give people incentives to conquer the universe and invest in research in this area?

Should people who are brave enough to invest in research of the universe get the absolute sovereignty over the conquered territory similar to the sovereignty the owner have with respect to the resources he owns in the society with absolute protection of property rights? Should the one who conquers new territories in outer space, get the sovereignty similar to sovereignty of national states over their territory, as colonial empires had got it few hundred of years ago? There is no clear answer to these questions up to today, but they are getting into the focus of attention.

The scientists foresee that the research of universe will provide new sources of energy (through integrated systems of solar energy), mineral wealth, etc. The right to exploit new resources can become the reason of new conflicts earlier then people expect. Possible conflict can arise between individuals and companies who are ready to invest into research and conquest of the universe, but also between private companies and national state entities – who has the exclusive right to exploit potential resources.

If people respect principles and establish the mechanism of absolute protection of property rights over spaces and resources in the universe, it will enable the most efficient allocation of resources. How far away is the day when we will have an apartment or house in the universe, on some other planet? Should we think about it and prepare for it today? But, one thing is certain – formal establishment and protection of property rights in this area would reduce risk and encourage potential investor to invest in the research of universe.

5. CONCLUSIONS

Almost each economist in the world is trying to answer questions related to the current financial and economic crisis at the end of first decade in second millennium. What are the causes of the crisis? Is it a result of a „market failure“, or state interventionism? Is it deregulation or exaggerated state interference into economy that disabled functioning of free-market mechanisms? Large majority of economists saw the crisis, instead of what it is in my opinion – result of state interventionism, as the crisis of free economy and the proof of free market weaknesses. That's why almost every government in the world strengthens its interventionism and interference into economic life as the solution for crisis, and very often anti-crisis measures included even nationalization (especially in

banking sector). As if economists disregard the fact, proved countless times through economic history, that private property and economic system based on private property are much more efficient than any form of collective property. That's why I will analyze neither causes nor the consequences of crisis in this paper, but just try to remind and point out the fact that private property and concept of economic freedom immanent to it provide the most efficient allocation of scarce resources and thus enable economic progress.

It seems that the crisis made economists to forget about the crash of socialism and Keynesian macroeconomic management, which had moved the focus of economists again on the property right issues and its role in society. I say again, because Adam Smith, the father of economics in his book "An Inquiry into the Nature and the Causes of the Wealth of Nations" while looking for an answer why some nations were rich, and other were poor, said that private property, division of labor and free trade are prerequisites of economic development.

Today, as well as in the time of Adam Smith, some countries, for example in Africa, wealthy in human and natural potentials are facing the high level of poverty, while on the other side the countries that lack natural resources, as for example Hong Kong, are very prosperous. Today, as well as in the time of Adam Smith, the dominant form of property in the society and the property rights arrangement enable/disable economic progress. The history of civilization and contemporary economic trends show that the most prosperous societies are those in which property rights can be used freely and without restrictions. The possibility of an individual to freely use all rights from the bundle of property rights makes the essence of the concept of economic freedom.

That's why any economy which strives to prosperity, must shape its response to the crisis on the guarantees of private property rights, freedom and protection of contracts and low taxes. In a word, the development concept, which will enable the society to go out of the crisis, provide higher level of living standards and better life quality of each individual is the concept of economic freedom.

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Fiscal Crises (2010)

Abstract: *Economic crisis dramatically detrained budget balances. Decrease in the economic activity lead to decrease of budget revenues, and overflow of interventionist fiscal stimulus lead to increase of budget expenditures. Budget deficit and public debt, in developed countries, achieved record, non sustainable levels. Biggest financial crisis after World War Two had become biggest crisis of public finance in modern history. Inflation of the government is threatening to become monetary inflation. Radical reform of the scope of the government functions and their expenditure is needed in order to create sustainable development of government. This paper analyzes influence of the crisis on fiscal performances, sustainability of actual trend and possible solutions.*

Keywords: *Fiscal crisis; fiscal deficit; public debt; default risk; fiscal consolidations.*

Resümee: *Die Wirtschaftskrise hat gravierend die Budgetbilanzen verschlechtert. Der Rückgang der Wirtschaftsaktivität führte zur Senkung von Budgeteinnahmen und der anschwellende Interventionismus durch steuerliche Förderungen, wodurch die Auslagen erheblich gestiegen sind. Das Budgetdefizit und der öffentliche Schuld erreichen in entwickelten Ländern Rekordebeträge, die nicht erhaltbar sind. Die größte Finanzkrise nach dem II. Weltkrieg wandelt sich in eine größte Krise öffentlicher Finanzen in der modernen Geschichte um. Die Staatsinflation droht, sich in Währungsinflation umzuwandeln. Es ist eine radikale Reform von Ausmaß der staatlichen Funktionen und deren Kosten notwendig, damit die Staaten einen nachhaltigen Fortschritt sicherstellen könnten. Die Arbeit analysiert weiter den Kriseneinfluß auf Steuerperformancen, Aufrechterhaltung von aktuellen Trends und erwägt mögliche Lösungen.*

Schlüsselworte: Steuerkrise; Steuerdefizit; öffentlicher Schuld, Pleiterisiko; Steuerzusammenlegung.

Резюме: *Экономический кризис резко усугубил сбалансированности бюджета. Падение экономической активности привело к сокращению доходов бюджета, налоговое стимулирование переполнено вмешательством, чем значительно увеличились расходы. Бюджетный дефицит и государственный долг в развитых странах достигает рекордные, неустойчивые суммы. Крупнейший финансовый кризис, после Второй мировой войны превратился в крупнейший кризис государственных финансов в современной истории. Инфляция государства угрожает превратиться в денежную инфляцию. Радикальная реформа государственных функций и их расходов необходима для обеспечения устойчивого развития государств. В работе также анализируется влияние кризиса на финансовую*

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производительность, устойчивость текущих тенденций и обсуждает возможные решения.

Ключевые слова: *финансовый кризис, бюджетный дефицит, государственный долг, риск банкротства, финансовая консолидация*

Fiscal (State) Expansion

The history of the state intervention is featured by the cycles. The eighteen century was featured by the "big" state. Its results were pernicious. In nineteenth century, due to this negative experience, waste number of economists and political philosophers were advocating minimal state, limited to its basic functions (national defense, police and administration). Under the influence of these ideas, the state involvement in the economy of most industrial countries was minimal, with the average spending amounting at around 8,3% of GDP in 1870³⁶, and up to 1913, the public spending level did not exceed 11-12% of the national income³⁷.

Over the time, the reminiscence of the negative influence of the big state was fading away. The new ideas in favor of bigger state role and public spending were prevailing. The need for state redistribution was more advocated the need for the state to lead stabilization policy, active state role in a part of externalities, education, health protection, employment, etc. Up to 1937, the minimal state has mostly disappeared.

The public spending growth was surged by the global crises both on political and economic level: world wars³⁸, depressions³⁹, etc. Under this influence, in the period

³⁶ Tanzi, Schuknecht (1997).

³⁷ Ibid.

³⁸ "The War (II World War) affected the public opinion in the same way as the Great Depression. The crisis has convinced the public that the capitalism is defective; and the War that the centralized government is efficient. Both conclusions are incorrect. The crisis was generated by the state and not by the private entrepreneurship. As for the War, it is one thing when a government would temporarily implement stricter control in order to achieve an objective for which the citizens would be willing to make supreme sacrifice, and it is completely different when a state is permanently controlling the economy in order to improve unclearly defined "general interest" being designed by extremely diversified and variegated goals of the citizens." - Milton & Rose Friedman (1996).

³⁹ "The crises that erupted in mid 1929, was a catastrophe of so far unprecedented scale in the United States. The income in dollars was cut in half prior to the complete crash of the economy. The total production fell by one third, and unemployment reached unperceived 25%. The crisis was not less catastrophic for the rest of the world. As it spread to other countries, the crisis has generated the decrease in production, high unemployment, persuasive hunger and poverty. In the area of ideas, the crisis has persuaded the public that the capitalism is an unstable system destined to generate greater crises. The public was converted by the views which among intellectuals were reaching its peak: the state must play a more active role; it must intervene in order to balance the instability caused by unregulated private entrepreneurship; it must serve as a balance to improve stability and ensure

from 1913 to 1996, the public spending in industrial countries grew at around four times averagely.

In the period from 1913 to 1920, the public spending in the most European economies grew at the average from 12% to over 18% of the Gross Domestic Product (GDP). The similar trend was recorded in the next periods. Thus in 1938, the average public spending amounted to 29%, in 1973 - 42%, and in 1999 - 45,9%. This trend was followed by other developed countries. The average public spending in the OECD countries in 1996 amounted to 48% GDP.

The drastic increase in public spending revealed negative results. Relevant empiric researches have clearly affirmed that the increased public spending is not affecting the welfare growth, on the contrary – it disturbs and decreases it.⁴⁰

From 1990, advocates of the need for restraining and decreasing public spending became numerous and loud. After 2000, the amount of public spending in the OECD countries stabilized at around 47% of GDP. The trend of reducing the state shyly commences in many of the European countries.

security. The change of the public view on appropriate role of the private entrepreneurship, on one hand, and the role of the government on the other, proved to be a major catalyst for the rapid growth of the state, especially the central one, since then and onwards". - Milton & Rose Friedman (1996).

⁴⁰ In finding the answer to the question of public spending influence to social – economic indicators, Tanzie and Schuknecht (1997) have divided the states into the three groups. The first group was represented by the states with the public spending above 50% of GDP. The second group was represented by the states with the public spending between 40 and 50% of GDP, while the third group was represented by the states whose public spending is below 40% of GDP. The first group countries were called the countries with "big" governments (large public spending), the second group was the medium sized government, and the third group were the countries with the small governments. The analysis has shown that the large public spending is not generating the improvement of social – economic indicators, the states with lower public spending are generally indicating advanced values of economic and social indicators than the states with the higher public spending. One of the most in-dept researches conducted by Gwartney, Holcombe and Lawson (1998), has indicated that there is a constant, strong and negative correlation between the public expenditures level and gross domestic product growth. This research has included 23 countries, being the longest members of the OECD in the period from 1960 to 1996. In the period of 37 years, among the OECD countries, there was 81 cases in which the total public spending rate was below 25% of GDP. The average growth rate in the countries in this category was 6.6%. The higher the level of public spending the lower is the economic growth rates. At the level of spending between 25 and 30% of GDP, the average growth rate was 4.7%; spending from 30 to 40% of GDP has led to the average growth of 3.8%; from 40 to 50% of GDP - 2.8%; from 50 to 60% - 2%, and in cases where the public spending was above 60% of GDP, the average GDP growth was 1.6%. A similar analysis was conducted by the same authors, which included 60 countries, including less developed and extremely developed industrial countries for the period 1980-1995. The analysis has reaffirmed the existence of highly correlated negative relationship between the level of public spending and growth rates..

Table 1: Total government expenditures in the percentage of GDP in current prices, 1913-2010.

1870 – 8,3%	1913	1938	1950	1973	1999	2006	2010 ⁴¹
France	8,9	23,2	27,6	38,8	52,4	53,4	56,4
Germany	17,7	42,4	30,4	42,0	47,6	45,7	49,0
Netherlands	8,2	21,7	26,8	45,5	43,8	46,7	50,2
Great Britain	13,3	28,8	34,2	41,5	39,7	45,0	52,4
Arithmetic average	12,0	29,0	29,8	42,0	45,9	47,7	52,0

Source: Maddison (2001), page 135, OECD in Figures (2007), *European Commission, European Economy* (5/2009).

The financial crisis was triggered a new change in intellectual climate and state intervention. The crisis has caused a new cycle of fear and distrust in market forces and the policy makers worldwide have felt called up to help and to resolve problems through the state programmes. Although there are few that challenge the inefficacy of the Kenesian response to the crisis in XX Century, and discerning researchers in consequences of such policy are finding causes of the current crisis, similar recipes were offered as salvific ones. Billions of U.S. Dollars and Euros have been spent at rescuing the financial system, real sector and the expansion of the scope of state functions. Forecasted accelerated economy recovery in 2010, has encouraged the advocates of interventionism and market critics. Many of the wealthiest governments of the world have planned to reallocate over the half of newly created value on behalf of their citizens during 2010. Thus, 2009 and 2010 will be remembered as years with the highest public spending recorded in GDP % in non-war period.

The return of the big state may be illustrated in different numbers. Proportionally higher number of citizens is either paid or supported by the state, and public sector salaries have become more competitive than the market ones. Public employment

⁴¹ Estimate.

did not become just a security shelter but for profitable security. The higher the number of public sector employees, the higher is the size of state regulations. Under the influence of negative demographic trends and the new state interventions, the number of pensioners, social and health insurers is increasing. The state is increasingly taking care over the destiny and future of its citizens. Politicians enhance existing and introduce new taxes, nationalize companies and limit the freedom of business. On the lists of the world's largest companies are increasing those where the state has a directly or indirect controlling stake. The figures are ideologically driven or vice versa.

Fiscal (un)sustainability

In XVIII Century, David Hume wrote: „either the state will have to destroy the state debt or it will destroy the state ". Since states have not only failed to "destroy" the public debt but they increased it to record amounts, it seems that many countries are sliding into their own destruction, due to inability to service their liabilities and promulgate bankruptcy. This would be a mere repeating of old "lessons". The history is teaching us that the fall of most crucial civilizations and empires, such as the ancient Egypt, Rome and Greece may be attributed to (i) the high indebtedness.

With or without a bankruptcy, the negative impact of the fiscal deficits and high public debt has been documented by numerous empirical studies. The research on fiscal deficit impact to economic growth, conducted by the World Bank⁴² for the Eastern European countries and Central Asia (ECA) indicates that the fiscal deficit increases the business environment instability, generating negative impact on investment climate, which is particularly sensitive when the ECA countries are exposed to a strong globalization forces and when they are pursuing domestic and foreign investments. At the same time, Econometric analysis is reaffirming that the lower fiscal deficit is generating higher growth. The World Bank's Study identifies the analysis indicating that the fiscal balances improvement by 1 percentage point of the GDP leads to the GDP average growth increase by 0.4 to 0.5 percentage points or it cumulatively reaches 4.6 percentage points of GDP in ten years.

Regardless of and in spite of historical lessons and econometrically studies, the current economic crisis and the fiscal interventionism resulted in the worst budget balances downward. The budget deficit and the public debt in the OECD countries reached peacetime. The budgetary deficit in the U.S., Japan, UK and Eurozoned countries amounts to ten and above ten percent of GDP. The stock of the public debt in the G7 countries is at the level reached in post-war period. According to the current projections, the public debt in the most developed countries will increase

⁴² The World Bank, Fiscal Policy and Economic Growth: Lessons for Eastern Europe and Central Asia, 2007.

from 75% of GDP, as it was at the beginning of 2008, to over 115% of GDP by the end of 2014. The public debt in emerging market economies, although at a significantly lower level (at around 40% of GDP) also has a strong growth dynamic.⁴³

Table 2: Fiscal Situation and Prospects, as a percentage of GDP%

	Fiscal Balance			Structural Budget Balance			Public Debt		
	2007	2010	2011	2007	2010	2011	2007	2010	2011
Austria	-0.7	-5.5	-5.8	-1.4	-3.3	-3.6	62	78	82
France	-2.7	-8.6	-8.0	-3.5	-6.8	-6.3	70	92	99
Germany	0.2	-5.3	-4.6	-0.8	-4.0	-3.7	65	82	85
Greece	-4.0	-9.8	-10.0	-4.5	-6.9	-6.8	104	123	130
Ireland	0.2	-12.2	-11.6	-1.3	-9.0	-9.0	28	81	93
Italy	-1.5	-5.4	-5.1	-2.2	-2.6	-2.8	112	127	130
Japan	-2.5	-8.2	-9.4	-3.4	-7.4	-9.0	167	197	204
Netherlands	0.2	-5.9	-5.3	-0.6	-3.6	-3.1	52	77	82
Portugal	-2.7	-7.6	-7.8	-2.8	-6.1	-6.8	71	91	97
Spain	1.9	-8.5	-7.7	1.6	-5.2	-4.5	42	68	74
Great Britain	-2.7	-13.3	-12.5	-3.4	-10.5	-9.9	47	83	94
U.S.	-2.8	-10.7	-9.4	-3.1	-9.2	-8.2	62	92	100
Asia	0.1	-3.5	-3.6	...	...	...	37	40	41
Central Europe	3.7	-4.4	-3.9	...	...	...	23	28	29
Latin America	-1.5	-2.4	-2.0	...	...	...	41	37	35

⁴³ The evaluation of the dramatic increase in public debt corresponds to the recent empirical experience. Reinhart and Kenneth (2008) by studying the major "modern" financial turbulences, have concluded that the banking crises in rich and rapidly growing economies have resulted in an explosion of public debt, which at average increased by 86% in most of the crises that erupted after the Second World War. Most of these expenses are not directly linked to the rescue of troubled banks through nationalization and redemption of bad debts, and assuming the payment of the guaranteed deposits, they are rather the outcome of prolonged recession and fiscal expansion, designed to counteract the crisis. The cause is primarily the inevitable collapse of the tax revenues being a result of a deep and prolonged contraction in the economic activity and often ambitious contra-cyclic public spending designed for absorbing the decline.

Source: IMF, *World Economic Outlook*; OECD, *Economic Outlook*. Taken from Stephen G Cecchetti, MS Mohanty and Fabrizio Zampolli, (2010), The future of public debt: prospects and implications, BIS Working Papers No 300.

There isn't a simple and unique rule in assessing the sustainability of public debt. The theory offers several concepts, basically representing the fulfillment of the liquidity and solvency principle. The liquidity principle means the ability of a government to service debt within the maturity period. The state is solvent if it is able to generate sufficient levels of future primary budget surplus⁴⁴, to service debts. Debt sustainability implies that the present discounted value of the future primary fiscal surplus must be at least equal to the value of the existing public debt.

The method for assessing the sustainability of the public debt usually starts from the basic accounting equality linking budgetary revenues and expenditures to the changes in the amount of debt. The basic approach known as the stabilization of the debt through the primary balance is based on the assessment of opportunities to stabilize the share of public debt in the GDP, through the level of primary budget balance⁴⁵. If the current primary budget balance is less than the required one, the fiscal policy would lead to the increase in the public debt share in the GDP above estimated sustainable level, thus as such, it could be characterized as unsustainable. Thus the difference between the current and required primary budget balance would indicate the required of fiscal tuning, being necessary to achieve a constant sustainable level of the share of debt in the GDP⁴⁶.

⁴⁴ The primary budget balance is the difference between total budgetary revenues and expenditures, excluding interest payments on the public debt.

⁴⁵ The public debt level for which the emerging market countries were forced to "admit" their inability to service debt in the past 30 years, significantly differed from case to case. In 55% of cases, the public debt level in a year prior to the unilateral termination of debt servicing, was at the level below 60% of GDP, while in 35% of the share of debt in GDP was below 40%. The average level of public debt in the emerging market economies, in a year prior to "admitting" the inability to service debt amounted at around 50% of GDP. The IMF's Study released in September 2003, indicated that the sustainable share of public debt for emerging market economies (developing economies) is 25% of GDP, compared with 75% percent in developed countries. Such difference is primarily caused by a weak revenues bases and low revenue collection (budgetary revenues in the emerging market economies amount to of about 27% of GDP averagely, in developed economies about 44%, due to inefficient tax system and greater non-observed economy) and the inability of emerging market economies to control their spending during economic changes.

⁴⁶ Although the stabilizing debt principle is being considered useful because is quite simple and suitable for interpreting, it has a basic shortfall because it is based on arbitrary definition of sustainability (i.e., stabilizing the ratio of debt to to GDP). In the current situation where the level of debt is high and when the public finance are very unstable, as well as the overall economic and financial circumstances, the knowledge of the required primary budget balance level aimed at stabilizing the share, may be of little practical use.

Table 3: Average primary budget balance (in %GDP) required to stabilize the public debt/ GDP ratio at 2007 level

	Over 5 years	Over 10 years	Over 20 years	<i>Primary budget balance forecast in 2011</i>
Austria	5.1	3.0	2.0	-2.9
France	7.3	4.3	2.8	-5.1
Germany	5.5	3.5	2.4	-2.0
Greece	5.4	2.8	1.5	-5.3
Ireland	11.8	5.4	2.2	-9.2
Italy	5.1	3.4	2.5	0.0
Japan	10.1	6.4	4.5	-8.0
Netherlands	6.7	3.7	2.3	-3.4
Portugal	5.7	3.1	1.8	-4.4
Spain	6.1	2.9	1.3	-6.6
Great Britain	10.6	5.8	3.5	-9.0
United States	8.1	4.3	2.4	-7.1

Source: Stephen G Cecchetti, MS Mohanty and Fabrizio Zampolli (2010), "The future of public debt: prospects and implications", BIS Working Papers No 300.

In order for the governments to stabilize and sustain the level of the public debt at the level from 2007, they must generate the average annual primary surplus of 8 to do 12% of GDO in United States, Japan, Great Britain and Ireland, or from 5 to 7% of GDP in other countries. With current deficit, expected nominal growth rates and optimistic cost of debt of 5% (the amount of "agreed" price of borrowing for Greece), the achievement of the primary surplus of 10% means fiscal adjustments of over 15% of GDP for many countries. With the Euro, i.e. fixed foreign exchange rate, the increase in unemployment and already generated social pressure, this represents almost impossible mission.

Simultaneously, some studies suggest that with unchanged policy in spending and current trends (interest rates, economic growth), the pressure of aging population would lead to the drastic growth in the public debt. In the next ten years, Japanese public debt would exceed 300% of GDP, Great Britain 200% of GDP, Belgium, France, Ireland, Greece, Italy and United States 150% of GDP.⁴⁷

And while the med-term projections look gloomy, calling for urgent formulation and implementation of public finance stabilization policies, the current problems require

⁴⁷ See: Stephen G Cecchetti, MS Mohanty and Fabrizio Zampolli (2010).

more immediate response. Dramatic increase in deficit and public debt⁴⁸ automatically caused a new wave of distrust and panic on the financial markets. Interest rates on bonds of Greece in April 2010, exceeded ten percent and "pulled" "spreads" to other countries, like Portugal and Spain. Faced with high debt and uncontrolled deficits, many countries are already at risk of declaring the inability of servicing their liabilities already in 2010. This issue is no longer a reality for "banana countries" (politically and economically unstable countries), but also for countries that belong to the group of the most developed OECD member countries. Bearing in mind that Argentina was hit by the greatest bankruptcy in modern history at the level of debt of around 60% of GDP, it is redundant to apply sophisticated analysis to conclude that the financial crisis after the Second World War is turning into the biggest crisis of public finance in modern history.

Facing Fiscal Crisis

Instead of formulating policies to avoid fiscal crisis, even now the facing with the crises is inevitable as well as formulation of policies for stabilization and exit from the fiscal crises. A number of options are being proposed or are imposed as a possible solution.

One option is a currency devaluation or inflation. the debt pressure and unreadiness or the inability (due to social tensions) to reduce public spending, may generate the situation of politicians pursuing for the printer machine. Some analysts suggest that the higher inflation is a acceptable price for reducing real debt value. High inflation in the short run is less painful measures for reducing the public debt, especially for politicians. Inflation may reduce the fiscal problems through the two channels. First one, even completely anticipated inflation means seigniorage that can be used to repay debt. Secondly, the increase in the inflation would lead to reducing the real value of debt that is not indexed.

However, both to the citizens and the economy, the high inflation means the collapse of basic mechanisms and values on the market. The high inflation is distorting the allocation of resources, increases instability and "rent seeking", discourages long term investments and at the end it leads to deceleration of economy and increase in poverty. Moreover, the high inflation does not resolve the debt issue in a mid and

⁴⁸ Large state borrowing adversely affects the private sector through several direct and indirect impacts. Credit rating agencies have long trend of increasing perceived negatively by reducing rating which leads to increasing interest rates for both state and private sector. A big state borrowing directly produces the "CROWDING out" the private sector. Banks prefer to lend States generally accepting the country as a secure creditor and often and due to regulatory reasons (the need for minor reservations), which means that the private sector to pay higher prices or it will not be available funding.

long term run. The perception of inflation will lead to the increase in interest rates, thus any debt refinancing would mean the borrowing at significantly higher prices and higher budget expenditure of the debt repayment. Once the printing machine is in the run, it is very hard to control it, especially under the inflation expectation pressure threatening to surpass the real inflation failing to create positive influence on public debt itself.

Drastic and urgent fiscal adjustments (fiscal consolidation) may be considered as an option generating positive results in both mid and long run, but it is considered both politically and economically hard for implementation. Within this, for sure painful option, a harder way for adjustments is the decrease in expenditures, and less hard is the increase in taxes. The combination of decreasing expenditures and increase in taxes is most commonly used policy. The experience obtained is indicating that the most successful consolidations were based on the increase in current expenditures, especially earnings, transfers and subsidies. At the same time in most of the number of successful cases, the fiscal consolidation was a part of a broader reforms programme which increased the overall governments' credibility.

Being politically and socially difficult and sensitive, requested fiscal consolidation is today considered much more difficult than the previous one. The experience is reaffirming that the negative general economic environment, such as the global recession, is a huge obstacle to a successful consolidations. Simultaneously, the negative demographic trends represent the additional burden. And while the trends, following the Great Depression in 1930, were more favorable than the current very unfavorable ones. The aging of population is creating a huge pressure in the long run to the budgetary balance of developed countries, through the increase in pension and health insurance expenditures, making the fiscal consolidation more "demanding". Furthermore, while previous consolidations were followed by an improved public sector management and large privatization, today this space for improvements is significantly narrowed. After decades of public administration reforms in developed countries, there aren't many policies pending implementation.

Conclusion

Since commonly accepted "cure" are failing in providing results for the serious fiscal consolidation and fiscal healing, thus fundamental reforms of the state, state functions and affairs are deemed necessary. It is of vital importance to reduce the state to its basic "core" functions, and to abandon state transfers, subsidies and expensive social programmes. Thus, the biggest fiscal expansion may be the introduction to the biggest and global settling with the large state. Like stagnation in '70 that preceded the Thatcherism and Reaganism it is to hope that the current crisis lead reducing the Leviathan to desired measure.

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Crisis and the healthcare system

Abstract: *A health economist explains individual behavior as a process in which an individual makes decisions by comparing his current health condition, time, and financial costs on one side with future health history such as decrease of the probability of a disease or death, on the other side. Even though genetic predispositions and risks associated with environment in which an individual lives have a nontrivial impact on the overall health condition, his behavior is usually the single most important determinant of his health condition. By aggregating individual behaviors on micro level, we come to the macro level. On the other hand, macro level, i.e. system and regulations, determines the environment in which the individuals make their decisions, limiting their choice set. That is why it is very important to connect those two levels when analyzing healthcare system from the cost minimization point of view, which was one of the first measures undertaken at the beginning of the global economic crisis.*

Keywords: freedom of choice, society, individual, regulation, healthcare system, healthcare spending, health insurance.

Resümee: *Ökonomen erklären das individuelle Verhalten als einen Prozess, in dem ein einzelner die Wahl macht zwischen aktuellem Gesundheitszustand, Zeit und finanzielle Kosten auf der einen Seite und künftigen Gesundheits Nutzen in Form von Reduzierung der Wahrscheinlichkeit von Krankheit und Tod auf der anderen Seite. Obwohl der Gesundheitszustand einer Person bestimmt wird durch genetischen Erbe das eine Person erhält bei der Geburt, ist das Risiko Umfeld, in dem das Individuum ausgesetzt ist im Laufe seines Lebens, zufällige Ereignisse, wie Unfälle, sowie Entwicklung der Technologie, das Verhalten der einzelnen ist die grundsätzliche Determinante für seine Gesundheit. Aggregation des Verhalten von Individuen auf der Mikroebene, so kommen wir auf der Makroebene. Auf der anderen Seite, der Makroebene, im Bezug System- und Rechtsvorschriften, bestimmt das Umfeld, in dem das Individuum seine Wahl trifft, und damit sein Verhalten zu begrenzen. Es ist daher sehr wichtig, diese beiden Ebenen der Analyse in der Gesundheits-System zu verbinden, um Kosten zu reduzieren, als eine der ersten Maßnahmen, der dazu Wende an Beginn der globalen Wirtschaftskrise.*

Stich wörter: *die Freiheit Wahl, Gesellschaft, Individuelle, Regulierung, Gesundheitswesen, Gesundheitsausgaben, Krankenversicherung.*

Резюме: *Экономист объясняет поведение человека как процесс, в котором человек делает выбор между нынешним состоянием здоровья, временем и финансовыми затратами, с одной стороны, и будущих преимуществ для состояния здоровья, с точки зрения снижения вероятности заболевания и смерти, с другой. Хотя здоровье человека определяется генетической наследственностью при рождении, разными*

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другими обстоятельствами, в том числе несчастными, подвергается рискам окружения, его поведение является основной детерминантой здоровья. Агрегация того поведения на микро-уровне приводит к макроуровню. С другой стороны, макроуровень, т.е. правовая система, определяет условия, в которых человек делает свой выбор. Таким образом ограничивается его поведение. Поэтому, очень важно связать эти два уровня при анализе системы здравоохранения в смысле уменьшения расходов, что является одной из первых мер, употребляемых в начале глобального экономического кризиса.

Ключевые слова: свобода выбора, общество, человек, регулирование, система здравоохранения, расходы на система здравоохранения

Introduction¹

One of the first steps taken at the beginning of the global economic crisis was to reduce and rationalize spending in all areas. Healthcare system is area, which in almost all countries constitutes a significant share of gross domestic product (GDP). Therefore, the economic crisis initialized discussions about healthcare systems in countries around the World.

In this paper, we consider the reform of the healthcare system in Montenegro, and propose steps that should be taken toward a more efficient healthcare system. At the beginning of this paper we explain the theoretical framework used in our analysis.

We are witnesses that issue of the healthcare-system sustainability goes beyond professional circles, and has even become a subject of everyday-life debates. Reform of the entire healthcare system and ensuring its functioning in terms of social and economic development and potential of the country is crucial. Indeed, this reform is needed for the inclusion of Montenegro in the Euro-Atlantic Association. In order for the reform to be successful a series of changes of the old system are required. A new system must follow recommendations of the World Health Organization (WHO) and healthcare development strategy of the European Union. The main objectives of these documents are to add years to life, and even more important, add life to years. Therefore, further development of healthcare system must rely on the financial resources of the Montenegrin economy, which will lead to the selection and setting of new priorities and tasks.

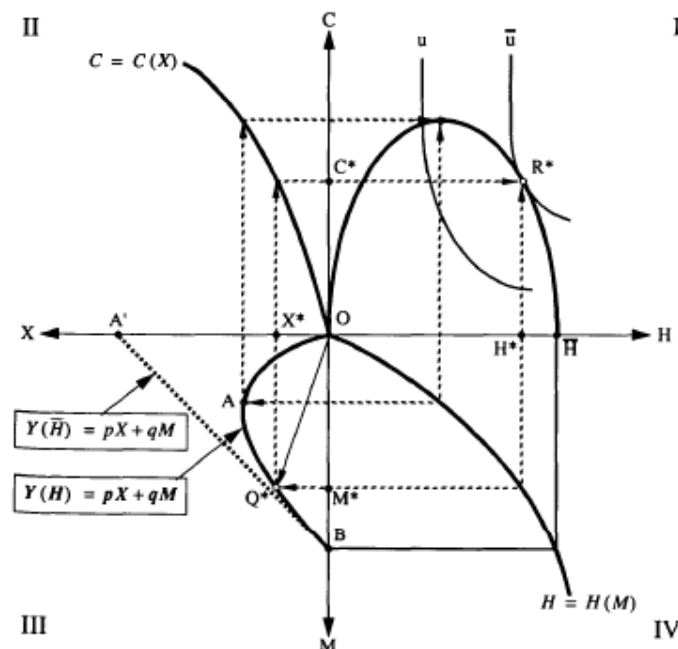
¹ This paper was written in accordance with the following official documents: National Strategy for Sustainable Development, Strategy for Health System Development and Master plan for health System Development. Also, this paper was written in accordance with the millennium goals for health improvement.

1. Theoretical framework

At the beginning we lay out the theoretical framework for the analysis of the behavior of an individual when making decisions concerning his health, and healthcare system. Moreover, we will analyze health from both macro and micro perspectives.

1.1 Simplified microeconomic view of health

For an individual, his health has two functions. On one hand, perfect health represents a value of its own, a target that is to be attained as closely as possible. On the other hand, there are other aims in life. For example, a gourmet who prefers a foie gras to a wholesome salad justifies a presumption that health is traded off for other objectives. And who has never crossed a street on the red light, only to save a little time? However, this rarely becomes obvious contradiction because no one sacrifices his health in an immediate sense. People only allow the probability of living healthy in the future to be a little smaller than it could be. Hence, individuals are those who at the end decide between health (H) and other targets, which we denote as consumption (C). In microeconomics this behavior is presented by an indifference curve, which is shown in the first quadrant of the following graph.²



² In this part of the paper model developed by Zweifel and Breyer was used (“Health Economics”, Oxford University Press, 1997).

Figure 1: Health, consumption and optimal part of income that is allocated to health

As previously stated, health has features that make it specific relative to other goods. There are two most important features. First, a consumptive benefit that one can derive from his income depends on his state of health. For instance, depression makes it almost impossible for a person affected to enjoy nice things in life. Similarly, in the event of a disease of a digestive tract, a foie gras is not a pleasure to a gourmet.

This characteristic is captured in the quadrant I of Figure 1 by the shape of indifference curves. As soon as the ratio of health to consumption becomes small, additional consumption does not bring positive marginal utility, causing the indifference curve in the northwest area of the quadrant I to be vertical rather than negatively sloped.

The second distinction is that only someone who is in good health can earn an income on the labor market. This feature is represented in the quadrant III of Figure 1. This quadrant shows how individuals can divide their budget (disposable income Y) between medical care (M) and consumption goods (X). The prices for medical care (q) and consumption goods (p) are exogenous. A peculiarity of the budget constraint given by

$$Y(H) = px + qm,$$

(1.1)

lies in the fact that disposable income Y depends on health H . If income did not depend on the state of health, the budget constraint would be linear, as shown by the dashed line $A'B$. Point B indicates the point at which entire income is spent on medical care.

Starting at point B , if the expenditures on medical care decrease, the state of health H deteriorates according to the function $H(M)$, shown in the quadrant IV. This decrease results in the reduction of income $Y(H)$ in the third quadrant. Consequently, the quantity of consumption goods rises at a decreasing rate up to the point A . At this turning point, a further reduction of medical care lets health deteriorate so much that associated drop in income neutralizes the savings in health expenditures. Beyond point A , a further reduction of M would result in a loss of income to such an extent as to require a reduction of consumption. And finally, at $M=0$, income would drop to $Y=0$ and with it purchases of consumption goods ($X=0$).

Further, quadrant IV shows the amount of medical care required to guarantee a given state of health. As expected, there is a positive relation between medical care and state of health. An individual's own efforts at preserving his good health

(prevention) are not taken into consideration here.

Finally, quadrant II shows positive relationship between consumption goods (X) and consumption (C), according to the equation $C = C(X)$. This relationship is assumed to depend on households' characteristics, e.g. the ability to use technology. Combined with the equation $H = H(M)$, which is displayed in the fourth quadrant, each point on the budget curve in quadrant III can be assigned a point in the (C,H) space of quadrant I. The set of all these points indicates individual's production frontier. As known in microeconomics, this frontier runs through the origin. This is because, as explained earlier, a very poor physical constitution ($H=0$) is associated with zero income and consequently with zero consumption. At first, it slopes upward with an increasing value of H. This means that, initially, better health enables one to consume more, not less.

The tangency point of the highest attainable indifference curve and the production frontier defines the combination of consumption and health (C^*, H^*) yielding maximum utility. Quadrant IV shows corresponding optimal expenditure on medical care M^* and quadrant II optimal purchase of consumption goods X^* . Finally, point Q^* on the budget curve in quadrant III indicates the individual's optimal budget allocation. Connecting Q^* with the origin, one can interpret the slope of this line as 'optimal health share': the steeper the line the bigger the optimal share of income spent on medical care. This reflection demonstrates that the trade-off between the objective 'consumption' and 'health' can be illustrated as a conventional microeconomic optimization problem.

1.2 Healthcare at the macro level

In principle, functions shown in Figure 1 can be aggregated over all individuals. Therefore, they are valid at a macroeconomic level as well. However, data at the macro level are limited. The two quantities of the greatest importance to the individual, state of health H and consumption C, are collected only sporadically by the official statistics. However, the quantity of medical treatment M^* (or its monetary value qM^*) and purchases of consumption goods X^* (or its monetary value pX^*) are well known. As a consequence, attempts at controlling healthcare usually focus on these quantities.

Why should we control spending on healthcare? In short, when the state is involved in the financing of healthcare, budget decisions are influenced by the decisions of individuals about their own health. As more individuals rely on medical treatments, the costs of the state increase, at least in the long run: financing more students of medical science, higher subsidies for investment in hospitals, higher subsidies for hospitals in order to cover their inability to perform certain surgeries, etc. These

effects exist when an individual decides to buy and use consumption good (garbage collection, construction of roads), but they are not as important as healthcare. On the other hand, public expenditures increase number of voters, allowing re-election of the current Government.

Question of healthcare expenditure growth is becoming increasingly important. In all discussions growth is measured by the growth of health spending share of GDP; it is usually concluded that the share of health expenditures in GDP is "too high". Suppose that a country manages to stabilize this part. The question is what would be gained by that. To answer this question, we will create a simplified transition from micro to macro level, in a manner which will apply all features from Figure 1 to all individuals in a society, assuming existence of a representative consumer. Thus, H becomes a number of years one spent in good health, QM social costs for healthcare, and PX aggregate consumption expenditure (figure 2). Allocation of GDP among these categories is given by point Q^* in the third quadrant, representing the aggregate result of individual decisions. For simplicity, assume that the point which the government seeks to reach coincides with the point Q^* in the initial situation.

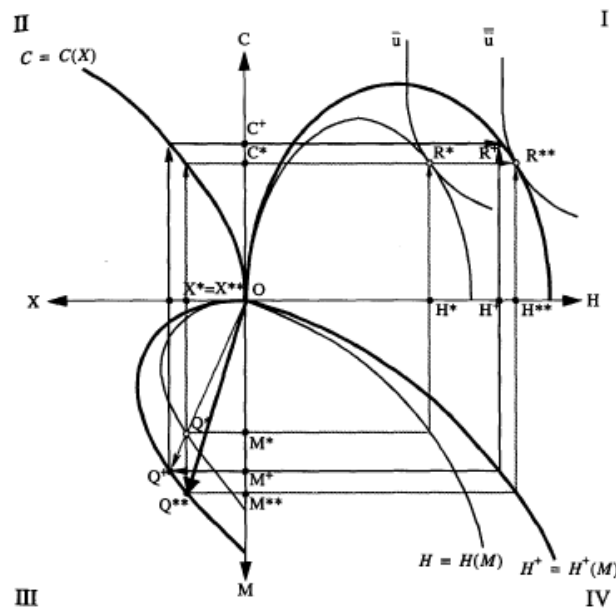


Figure 2: Changes in medical technology and adjusting the optimal share of spending for healthcare

This distribution can now be disrupted by some external shocks (for example, advances in medical technology). The function $H(M)$ then moves to $H^+(M)$ in the fourth quadrant of Figure 2, implying that the same amount of medical care now guarantees better health than before. This leads to a shift towards the outside of the

budget lines in quadrant III. In addition, production possibilities frontier in the first quadrant is moving outwards. Obviously, society can reach a new combination (C, H), which lies to the right and above the old optimum R^* .

Furthermore, suppose that the government was informed about the progress in medical technology, but wants that the share of healthcare expenditure in GDP remains unchanged. This means that they wish that the general allocation between consumption and expenditure on health remains the same, which requires a new point of Q^+ to lie on the same radius as the point Q^* . Therefore, the new (C, H) combination would be achieved, and marked with R^+ in the first quadrant.

If the individuals in society value their health as much as it refers to the relative slope of their indifference curves in the first quadrant, they would chose R^{**} , implying the following changes:

- By assumption, increasing the choice will be used exclusively to improve the health status (a transition from R^* to R^{**}).
- This is achieved through increased use of healthcare (new value: M^{**} , not only compared to the initial optimum M^* , but also in comparison with M^+ , which is determined by the government.
- Because of improved health, there is a growth in operating income and therefore the available financial resources, so the increase in M is achievable without change in consumption ($X^{**} = X^*$).
- New optimal budget allocation Q^{**} for society as a whole, in the third quadrant, indicates an increase in the optimal health share in GDP. This is shown by rotating ray from the origin to the OQ^{**} , which is steeper than the original ray OQ^*Q^+ .

Now, if politicians insist on the existing budget, they are forcing individuals as a group to complete the Q and R^{++} , respectively. This means, for example, that health services are not available due to limited availability of medical schools, either because of their number, or the number of students who are admitted; or that hospital treatment is not available due to lack of medical equipment, which is a consequence of the lack of investment. Thus, individuals reach a smaller utility than the maximal, which is represented by point R^{**} in quadrant I.

An example of development of medical technology is just one of many possible changes that may lead to discrepancies between the share of spending on health desired by individuals and share that politicians consider as desirable. The political determination of optimal healthcare share of GDP should be based on the social utility function, which does not exist. Previously, it raises the risk of emergence of losses in efficiency, which can be accumulated over time.

2. The Healthcare System in Montenegro

Investing in the health sector should not be seen as a cost but as an investment in the implementation of social and economic development, and overall development of society. Experiences of countries around the world show that political will is a prerequisite for the reform of the healthcare system. The development of the health sector affects the part of GDP allocated to health, defines solidarity and other social relationships or changes the structure of the healthcare system and its financing. Therefore, it is clear that any healthcare reform plan has a political dimension.

Healthcare is a set composed of services, products, institutions, regulations and people. Although healthcare has many common characteristics with the other areas of the economy, a set of unusual economic characteristics that exist in the health market is quite large. Some of these features are:

- Degree of government involvement;
- Dominant presence of uncertainty at all levels of healthcare, starting from the circumstances of individual diseases to understanding of how well the treatment works and for whom;
- Asymmetric information: the difference in knowledge between doctors (and other service providers) and their patients, users of medical services. This asymmetry leads to the moral hazard problem.
- Externalities-the behavior of individuals, which creates costs or benefits to others.

Each of these characteristics is present in any other field of economy, but rarely as much as in healthcare area, and never in this broad combination. Uncertainty is present everywhere. Uncertain events regulate the behavior of individuals and the health market. Presence of uncertainty leads to the development of health insurance, which, in fact, controls and directs the use of resources in the economy. The presence of various forms of uncertainty is greatly responsible for a large government involvement in this area.

In order to assess the health situation in the market of a country, we have to consider on one hand, individuals and their health, and on the other hand healthcare system performance. The health condition of an individual can be measured in several ways, including his total wellbeing, health condition, and the ability to perform different actions. In addition to these health characteristics, non-medical health factors cannot be ignored; among them the behavior of individuals, living and working conditions, personal resources, and environmental factors..

When we evaluate the performance of healthcare systems, then we look at availability, acceptability, continuity, efficiency, sustainability, and security of healthcare.

In this paper we consider health as an economic good. The first question that "comes to mind" when thinking about health from an economic perspective is whether health is economic good or not. Can anyone say that surgery or receiving weekly allergy vaccine is "good" in the traditional sense? We think that we cannot consider these or any other services that provide healthcare system as goods in the traditional sense: they are painful, they cause inconvenience, and they have undesirable effects. However, we should think about them from the standpoint of increasing utility. According to traditional economic reasoning, a good increases someone's utility, and given the budget constraint, the individual will try to maximize his or her utility. Thus, we can observe the economic health as economic good: it makes the individual happy (satisfaction of the individual) and increases his utility. Furthermore, we think of it as of a permanent good. Each individual is born with an initial health fund. For example, premature babies or infants with cardiac impairment, or babies born blind, have a very small initial health fund. Almost every action that we take in our lives affects this fund. Therefore, when analyzing the health sector, other than institutions of the system, it is necessary to devote attention to the behavior of individuals. The following graph shows the organization of health systems, and issues that will be addressed.

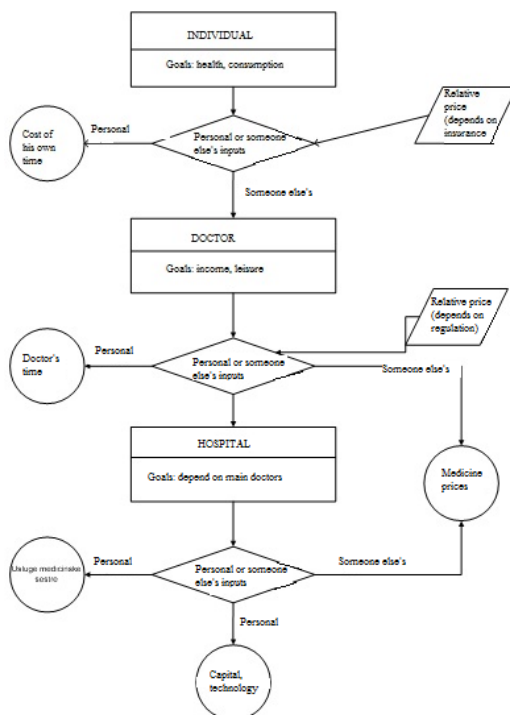


Figure 3: System analysis of the healthcare

Chart starts with the individual and his or her goals, including the goal to live healthy as long as possible while spending as much as possible. How the one will behave in terms of his or her health depends on many factors, which will be analyzed.

However, health is not fully under control of the individual. Impact of the individual's behavior on his or her healthcare spending largely depends on the doctor. He, located just below the individual on Figure 3, plays a role of "gate keeper" at the entrance to the world of healthcare. His choice of treatment in or outside the hospital has a significant impact on the costs that will occur. Also, it should be discussed whether doctors sometime prescribe treatments in order to earn more, although it is in contradiction with the principles of traditional medicine.

Finally, doctors and hospitals determine patients' demand for drugs to a large extent. Circles on Figure 3 indicate the inputs created by healthcare. If there is an intent to engage individuals to replace the doctors' time, and services of the hospitals by their own time in order to improve their health, it can take up to a certain level, but then they simply do not have enough knowledge, and cannot help even their willingness to invest their own time.

2.1 Review of the Healthcare system

The healthcare system of Montenegro had represented part of the healthcare system of the former SFRY (Socialistic Federal Republic of Yugoslavia), which was characterized by irrational and inefficient organization while promoting access to all healthcare rights. In that way a picture that citizens have rights to any kind of healthcare service, regardless of necessity was formed. However the conscience of citizens that every healthcare service has its price and that healthcare cannot free was not formed.

Montenegro has begun a comprehensive reform of the healthcare system, with a loan and technical assistance from the World Bank. Reform of healthcare and health insurance affects all segments and has a big impact on the development of other segments of society.

Montenegrin healthcare system faces problems that require immediate intervention both in the area of finance and management, as well as in the area of the provision of health services. In Montenegro, the share of public expenditures for healthcare in the total gross domestic product (GDP) is 6.45 percent ⁱⁿ 2009, which represents a slight decrease compared to 2008 when it was 6.94 percent. This share follows a trend from previous years and represents a fairly high percentage. Expenditures on

education are 4.5 percent of GDP, whereas expenditures on social protection amount to approximately 3 percent. If we take into account that the share of healthcare expenditures in total budgetary expenditures was 13.14 percent in 2009, then we come to the conclusion that healthcare reform is necessary. Despite the relatively high expenditures for healthcare, a lack of improvement of basic health indicators over the past few years was evident.

Such a high spending on healthcare is significantly above the average of countries with similar income levels. Figure 4 presents the relation of GDP per capita and expenses for healthcare per capita for selected countries in Central and Eastern Europe (CIS)³. Expenditures for healthcare in Montenegro are compared to expenditures in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Macedonia, Poland, Romania, Moldova, Slovakia and Slovenia. Health expenditures of Montenegro are above the average of these countries (pink dot on the Figure 4). The x-axis represents GDP per capita, expressed in international dollars (measured according to the concept of purchasing power parity), while the y-axis represents expenditures on health, also measured in international dollars:

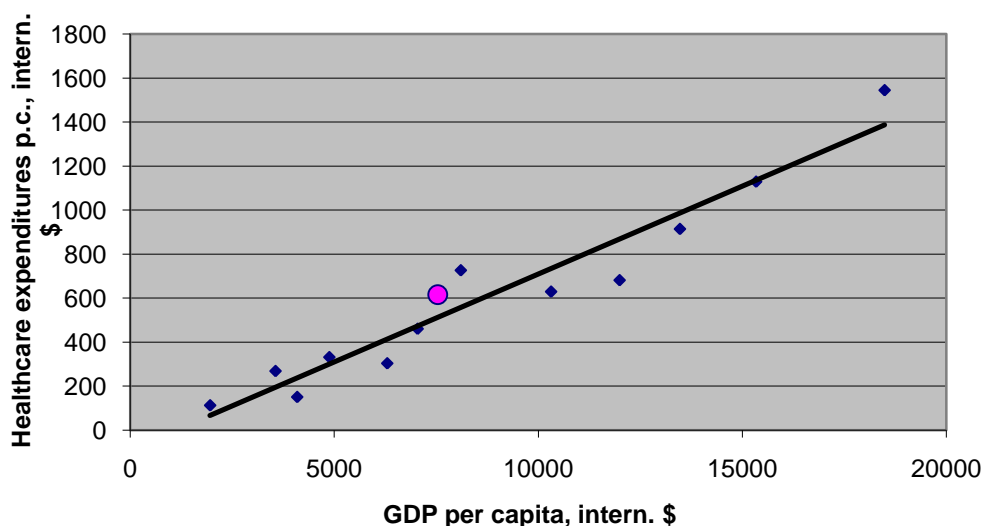


Figure 4: Comparison of health expenditures in selected CIS countries

This graph is interesting for the comparison of the micro and macro allocations of healthcare. In fact, it helps us understand how an individual makes decisions when purchasing healthcare, as oppose to how it does society as a whole. Individual

³ Source: World Health Organization

increases his demand for healthcare when he is sick or when there is an increased *need* for it. That is why many individuals do not find reasonable conclusion (which may partly be derived from the Figure 4), that countries spend more on healthcare because they have more money to spend, and not because they have greater medical needs. In short, individual decisions about spending on healthcare (micro) are substantially different, and are based on various factors, from national decisions that are made through the political process, on which part of the budget or the GDP should be spent for healthcare (macro). That is, when moving from micro to macro level determinants of consumption are moving from "the need for healthcare" to "available income".

Although Montenegro is spending more than countries with similar levels of income, when comparing healthcare expenditures per capita with life expectancy, Montenegro performs relatively well compared to the other CIS countries. This comparison indicates that Montenegro has relatively good health performances for its level of spending. However, they are achieved at a relatively high overall cost. In other words, life expectancy is a consequence of the features of the system, mostly in terms of access to healthcare. While wide access undoubtedly increases the costs, inefficient use of resources also contributes to their increase. This fact is represented by Figure 5 (on the x-axis are presented healthcare expenditures per capita, expressed in international dollars, while the y-axis represents the life expectancy):

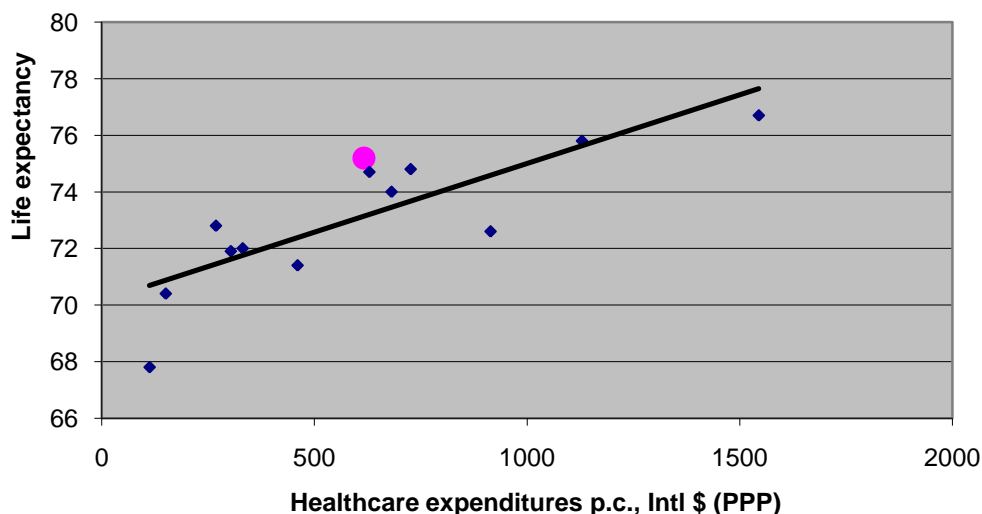


Figure 5: Life expectancy and health expenditure pc in CIS countries

Therefore, in order to make reform of the healthcare sector in line with sustainable development, it is necessary to determine the steps that will lead to the rational use of a significant part of GDP that is used in this area and to enable universal access to quality healthcare system and health protection.

2.2 Health facilities

We will begin analysis of health indicators by reviewing the indicators related to health facilities. These indicators are very important for obtaining an overall picture of the health system. At the same time, they limit an individual in his decision-making about his or her own health.

Health centers, hospitals, clinics, pharmacies, other institutions and facilities dealing with health activity, with their equipment, personnel, and knowledge play an important role in improving the overall health of the population. The role and tasks of health workers are oriented towards prevention of diseases and their inhibition, undertaking and implementation of specific programs and measures for prevention, early detection, treatment and rehabilitation of diseased and injured.

In order to be able to fulfill its obligations and meet expectations, health sector must be well organized, with a sufficient number of personnel, facilities, equipment and other assets, provided with sufficient financial resources for the smooth running and operation.

Existing network of public health institutions in Montenegro is composed of eighteen health centers in different municipalities, three health stations in smaller municipalities (Plužine and Savnik), which are organizationally linked with the health center in Niksic and health stations in Zabljak, which is also connected to the health center in Pljevlja.

Hospital healthcare is provided in seven general hospitals organised at regional principle, three special hospitals for the needs of the Republic and the Clinical centre as the institution of the tertiary level care. In public health system there is also Institute of public health as an institution of importance for the Republic.

The organization and financing of the health protection has been based up to now on the dominating role of the public sector, both in the area of extension of services, and in the area of securing funds for health protection. However, over the last several years the participation of private sector in the field of extension of health services has been increasing. The following institutions are included into organization and extension of health services: Ministry of Health, Fund for Health Insurance (earlier called Health Fund - FZO), public health institutions and private

health institutions. Private health institutions, although they are not integrated in the Montenegro health system, increasingly participate in securing the health services. In Montenegro in 2005 were 173 different healthcare institutions in private sector⁴. Especially high share of private sector is in general dentist services (63 institutions what represents almost 40percent of total private healthcare institutions). Observing certain fields that requires most sophisticated equipment and knowledge we can notice that private healthcare institutions specialized for that field have been located mainly in Podgorica only (for example in vitro fertilization and dermatology).

Apart from institutions that participate in the organization and extension of health services, there also exist Medical and Pharmaceutical Chambers that have as an objective, as institutions within the Montenegro health system, the promotion of work conditions for medical doctors, dentistry and pharmacy doctors, protection of their professional interests, as well as promotion of quality of health protection.

Number of hospital beds comparing with other European countries is relatively small and by that Montenegro is lagging behind European average. Individual comparison shows that Montenegro is ahead of Spain, Ireland, Italy, The Netherlands, Norway, Portugal and other.

One of the basic indicators that can be used for evaluation of healthcare system is provision of population with healthcare staff.

If we consider the number of doctors per thousand people in the region, we note that Montenegro is located approximately at the level of the average of the region. This is shown in the following graph⁵:

⁴ Source: Institute for Health, Statistical yearbook, 2006.

⁵ Source: Institute for Health, Montenegro

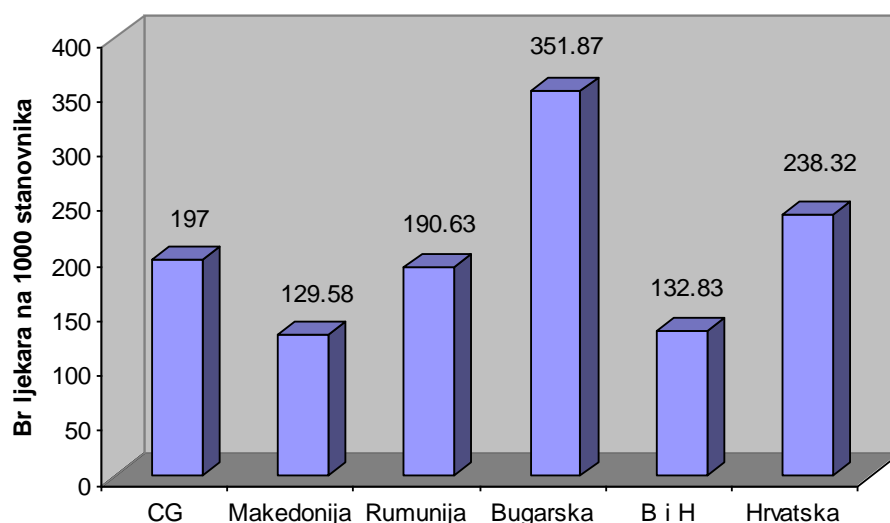


Figure 6: Number of doctors per 1000 inhabitants

It should be noted that the medical staff in recent years has not increased in proportion to population, number of beds and the volume made other health services.

In 1997, School of Medicine was established in Podgorica, which is very important to improve the personnel structure in the health field. Opening of the School of Medicine has made medicine accessible for more students. At the same time, health workers are continuing their studies and specializations abroad, which should increase quality level of healthcare.

2.3 The health status of the population⁶

Generally, it is difficult to measure the health of a population. It would be desirable to have an indicator covering all aspects of health that we are interested in, and which, at the time, would be measured with a certain precision. However, it is not easy to achieve these two objectives simultaneously. For example, data on mortality rates are very precise, but do not adequately cover all aspects of health (reducing pain and improving quality of life, for example). We conclude that there is no single indicator, but in order to understand health of population we have to use several different indicators. This section provides an overview of the most common indicators with the values of Montenegro.

⁶ Source: Statistical Yearbook, MONSTAT (If not stated differently)

Health of an individual depends on the health of an entire country, but also from other factors, such as his behavior and the environment in which he lives. Before we move to the analysis of health-indicator trends in Montenegro, we will explain why it is necessary to obtain a general health measure as well as which are the problems associated with it. Medical science is one of the most advanced in the last century. Therefore, medicine focuses not only on saving someone's life, but even more on improving someone's health. This is difficult to measure. Knowing more about the health of the population, or part of the population, is not a goal by itself. It also helps planning of the allocation of resources in the society, or in the health sector. The health indicators used to assess the needs of society for healthcare, assist in forecasting and progress in treatment or spreading a disease. Also, they help to assess the effectiveness of treatment, and to compare different treatments. As mentioned above, there are a number of health indicators that cover different health aspects. However, a single indicator or index that would incorporate all these aspects does not exist. Therefore, we will use the most important health indicators in our analysis. Traditionally, the two most commonly observed indicators are mortality and fertility rates and population growth, as well as their differences. Since this data is part of official statistics it is easily obtained. The second group of indicators consists of the percentages of patients affected by a certain disease. The third group of indicators consists of indicators relating to the conduct of individuals, as well as his assessment of the system.

According to the definition of the World Health Organization (WHO), "Health is a state of complete physical, mental and social well-being." Thus, health is divided into three components: physical, mental and social health. On Graph 7 presents these three components as circles. We will explain the links of the graph using physical health as an example. Having good physical health contributes to good overall health; there are arrows on the graph that point out from the physical and general health. At the same time, good physical condition creates an environment conducive to good mental state (such as the Latin proverb says: in a healthy body, healthy mind). In contrast, many physical illnesses have psychological origins. In fact, a two-way arrow between the two circles indicates this reciprocal influence. Finally, the health itself impacts health indicators, which is also represented by the corresponding arrows on the graph.

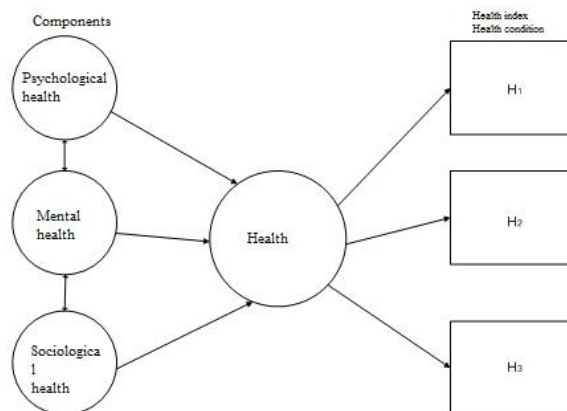


Figure 7: Relationships between health and its components

To be more precise, these three components of health are divided further into subcategories. For example, the physical health of adults is affected by the factors such as walking, exercising, hearing, vision, nutrition, etc. Further, the subcategory running can be divided into more categories: one that can run a mile one that can run a mile without interference, one that cannot run a mile, etc. This simple example shows how difficult it is to measure a phenomenon that seems very simple at first. Therefore, some instruments for measuring health even though universally applicable are not able to detect small changes in health, while other instruments, which are narrowly defined for special purposes, may be used only on small parts of the overall population.

Medicine measures physical health. Examples are: blood pressure, cholesterol level, etc. Mental health must be measured separately from physical health, and it is usually achieved by using various tests. Social component includes a number of contacts and social activities that an individual has, social network on which he can rely, as well as the social role that an individual possesses. Finally, a very important assessment of an individual's health is his opinion about his own health. In case of Montenegro, the data were obtained with the above-conducted research.

It is very demanding and expensive to measure overall health and quality of life. However, many methodological and conceptual problems that occur when measuring health should not prevent us to use and improve existing indicators.

Behavior of basic health indicators in Montenegro was explained in the part that deals with demographics. As mentioned in that part, there is a trend of negative population growth in Montenegro.

Life expectancy in Montenegro is 75.2 years (71.5 years for men and 78.7 for women). It is worth noting that only in the Northern region life expectancy is above the national average. At the same time, according to the analysis of the assessment of poverty, this is the poorest region in Montenegro. This fact indicates that the availability of healthcare is reimbursing to lower living standards which reinforces the importance of reform.

A vital index decreased from 173.4 in 1998 to 154.2 in 2003, while in 2008 it was 144.7.

The above indicators clearly indicate the worsening of the overall health of the population of Montenegro. This deterioration is undoubtedly the result of poor economic situation in Montenegro, as well as lack of financial resources. However, it is also a consequence of the lack of initiatives within the health sector, poor prevention, and bad habits of the population. We have already stated that the above used indicators reflect the healthcare system, but cannot be the only indicators that are used. At the beginning of the chapter we said that health depends significantly on factors not related to the healthcare system, for example, the behavior of individuals. If the mortality rate increased due to increase in the number of people who lost their lives in traffic accidents, we could not infer that the healthcare system worsened.

2.4 Financing of the Healthcare

Public sector in Montenegro has a key role in financing health care which relies on mandatory principle. We can say that Montenegrin health system belongs to Bismarck health systems types. The only institution responsible for compulsory health insurance is State Health insurance fund with the base in Podgorica and branches around Montenegro. Funding of Health insurance refund as the only one responsible for health insurance was the most rational solution due to small number of the insured in Montenegro. Law on health insurance envisages that the voluntary insurance is also the responsibility of the Health insurance fund and it has to provide professional support to all types of health insurance. Because of that professional development of the existing service of the Health insurance fund will be necessary. Revenues of mandatory health insurance are:

1. Contributions for mandatory health insurance: Contributions paid by employers for their employees, PIO fund for beneficiaries of pension rights and allowances based on remaining working ability, Employment agency for unemployed, farmers on base made by cadastral revenue⁷ for tax payments by 20percent rate, central budget for employees in budget institutions and unemployed form Employment agency's lists, self-employed, legal entities and individuals.

⁷ This base can't be lower than two minimal net wages in Republic for month for which tax is paying.

2. Budget resources (alongside contribution Budget finance part of the Institute for health activities and has obligation to consign part of excise revenues)⁸;
3. Donations;
4. Convention resources;
5. Damage refunds;
6. Interest rates, dividends, rents;
7. Other sources, according to the Law.

Following figure represents structure of the Health insurance fund revenues:

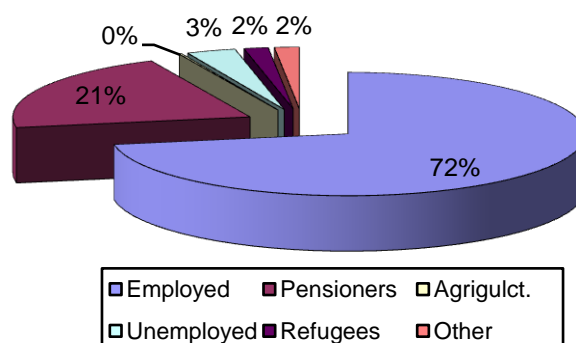


Figure 8: Structure of the Health Insurance Fund Revenues

Almost three quarters of total revenues come from health insurance contributions.

2.5 Health Expenditures

From total healthcare expenditures 99 percent represents Health fund expenditures, whereas 1 percent represents expenditures of the Ministry of Health, Medicine and Pharmaceutical Chambers and part of resources for the Institute for Health.

Health fund expenditures are related to:

1. Provision of Law defined services (ambulance and dispensary services and stationary treatment in and out of Montenegro, prescribed medicines, medicines and medicine material in hospitals and health centers and etc) and they have share of 90-95 percent.
2. Investments, orthopedic instruments, refunds for illness, travel expenditures, daily allowances, resources for professional development, fund's work and etc.

⁸ Because of non-fulfilling those obligations major part of it represents ballast for Health fund.

Right to healthcare protection and those rights' standards comprehends health services on primary, secondary and tertiary level. Observing by protection levels highest expenditures are for primary healthcare protection (around 40 percent). Secondary healthcare makes 33percent of total health expenditures, while tertiary healthcare spends 8percent. This structure is shown by the following figure:

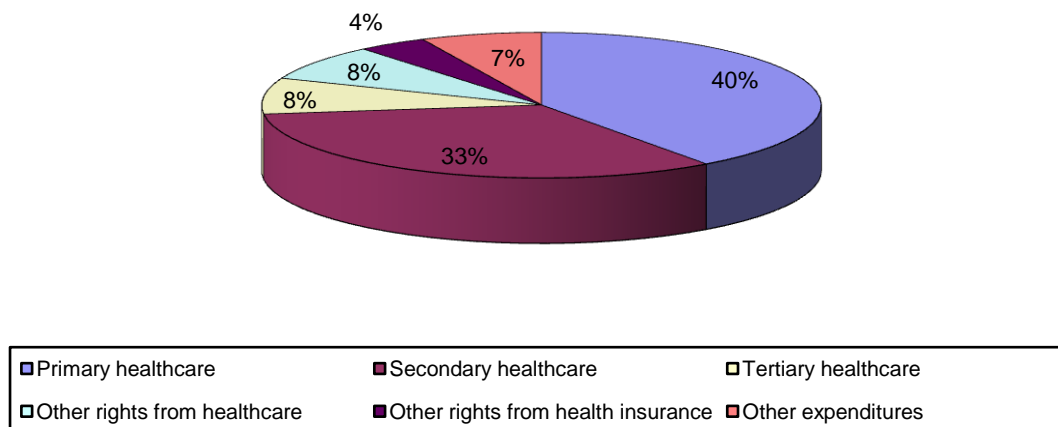


Figure 9: Structure of health expenditures by level of healthcare

3. Activities that should be undertaken

The main line of actions for further development of Montenegrin health system has been defined by Master plan of healthcare development in Montenegro until 2010 and with Strategy of healthcare development until 2020. Political will is necessary for a successful health-system reform. This is the precise aim of these documents. The plan has political character because political concordance for resources and decision methods about health system status is required. Namely, the healthcare development can cause conscious decision to provide more or less GDP resources or to differently priorities aims and tasks, their realization terms, define solidarity and social relation differently or change health system's organizational and financing mode. Therefore, every healthcare plan has its own measures and own political dimension. It results from the fact that the health system is part of social system and it can only perform within its frameworks and in interdependence with other private and social movements and development trends. The health sector should not be considered as expenditure but rather as investment in the overall social and economic development of society.

Some of the most important problems in Montenegrin healthcare system are: excess expenditures (both public and total), undeveloped healthcare control and

improvement system, non existence of qualitative health information system and other better management mechanisms. Primary healthcare does not have important role in prevention, detection, and treatment; employees in health sector have small salaries; public hospital and health-center networks are inefficient; medicine prices are significantly above international standards. Finally, the existence of tremendous informal payments, which finance unregulated private sector, should be emphasized.

A significant number of actions and strategies proposed by the Montenegrin government indicate the Government's readiness to improve legislative framework in order to promote universal approach to qualitative healthcare for all citizens. A challenge for the Government is to redirect its own and quite large public expenditures for healthcare in order to increase its own resource management capacities and increase healthcare system efficiency.

Citizen's poll survey has indicated dissatisfaction with the quality of healthcare services and conditions under which those services have been provided especially in hospitals. The main reason of public sector services quality reduction has not been caused just by poor investment in this sector but also by transition of doctors from the public to private sector. Another problem is that many private health centers are not registered and therefore they do not report full profit, which increases the size of the informal economy. This is especially true for dental health centers. Reform process should devote special attention to this problem and channel the legalization of this sector.

The pharmaceutical area requires more efficiency because if such growth trend continues in next years it will be difficult to finance it. Rationalization of this sector can be done in a number of ways, such as improving pharmaceutical services and improving the pharmacy's information system. Reorganization of the information system would allow easier tracking of the expenditures and medicine- distribution, recruitment pharmacy information system with the aim of following consumption and medicament's distribution, *chosen doctor* institution implementation (part of health reform) in order to have precise medicine prescriptions and Health Fund referent prices. This would lead to 30 percent savings (€7.5 million) in comparison to the existing expenditures for medicines.

Finally, recommendations for the realization of healthcare-system-reform goals are given below:

Primary healthcare reform extension: Primary healthcare is the most available for population. It follows their health, studies factors which have influence on health and provides preventions and treatments for which more sophisticated technology or specialized knowledge and experience are not required. At the same time primary

healthcare is at the base of the healthcare pyramid on which specialized secondary and tertiary services have been upgrading and supplementing their own tasks solving most complicated health needs. Primary healthcare is the “gatekeeper” during citizens’ entrance in health system and pass-through to higher levels for those with real need for convoluted diagnostics and therapies. As expected, these procedures are much more expensive than primary healthcare services.

A good organization of healthcare activities is one that gives priority to primary healthcare which contributes to the overall efficiency of the healthcare system. During the first phase of primary healthcare reforms *chosen doctor* institution had been introduced. They will be the main providers of prevention programs and planned priority tasks for health-condition improvement. At the same time healthcare centers will introduce health strengthening units and develop specialized children ambulances. Therefore, it will make health centers the main healthcare providers for a certain population groups.

The health centers changes will gradually correct development disproportions which represented a big problem so far in the healthcare development. Primary healthcare priorities development orientation will not contribute to the increase of health centers capacities, i.e. increase of the number of chosen doctors. Employment will be adjusted with human resource normative for this activity while health centers which lack staff will have the highest priority.

Universal healthcare approach – Higher attention should be given to private sector payments. They are currently quite high and they are also present in such quantity that affect to healthcare access for a large number of citizens. Cost control measures taken in most countries have shown financial risk increase for services providers and for patients. And if that risk isn’t neutralized with increased productivity it’d quite possible that households will most affected. Therefore, monitoring of the influence of reform measures on household consumption should be introduced. Monitoring should help identify problems and suggest solutions.

Linking private and public sector - Special attention during the reform process should be given to the private sector. As it was stated, large informal payments have been transferred to this currently unregulated sector. The problem could be solved by making contracts about health services provision to those insured with Fund. Existing problem would be solved: patient’s who pay health insurance would use private sector services because public sector isn’t efficient enough to provide satisfaction need on time. That might be a transitory step before voluntary health insurance system introduction. Health saving accounts (HSA) introduction is one of the solutions to this problem which could also be a private health insurance supplement. Individual saving accounts would represent a good strategy for efficient

healthcare services usage. More freedom should be given to individuals to control their investments in health. That could be implemented by adopting such legislative framework which will enable individuals or their employers to open HSA and deposit non-taxable money in this account each year. Account's resources would be used solely for that individual's health expenditures financing during his/her life. That account would be his/her ownership and would become part of his property when he/she dies.

Promoting Patient Choice through Private Voluntary Health Insurance – A very important aspect of healthcare reform is the introduction of private health insurance. That would definitely improve the situation in this sector and contribute to health services quality increase on one side and expenditures reduction on other side. The current system which depends on tax and other contributions weights heavily on the labor force and the overall economy.

Improvement in quality and efficiency through intervention on supply side– Government as owner of main part of network of health services providers should initiate at least two initiatives in order to address inefficiencies in current health services system. First one would be to make hospitals more efficient in order to increase quality of health services as well as making hospital service types and staff more efficient in order to adjust to varied epidemical profile of population. This reform would also imply specialized centers merging in order to achieve economies of scale. Second initiative is the decentralization of primary and secondary healthcare i.e. transfer of responsibility on local governments.

Additional support of private capital entrance in health area: Alongside with current private institutions inclusion in healthcare additional encouraging of private capital entrance in health area should be made; it doesn't only mean new investments but also privatization of certain public institutions.

Inclusion of non-health government departments in health system reform: Part of reform regard to respect of health is very relevant. Better citizen's health conditions wouldn't be achieved if only health service take care about it. Therefore, it is necessary to plan some measures outside the healthcare system. Health is not created in hospitals, health centers or pharmacies. These institutions serve to prevent and treat illnesses that are developed in the social and natural environment where people live and work. Health service does not have any impact on environmental factors that impact health conditions but these factors have an influence on population. Healthcare can't solve environment problems such as pollution, traffic safety, work safety, residential conditions provision, employment, education of people, social problems and poorness solution, alcoholism and other addiction illnesses. All these factors have an important role and influence on health. Therefore, better health and

higher life quality isn't just the jurisdiction of Ministry of Health but also other departments i.e. Government and Parliament.

Inclusion of Ministry of Education in the process of health system reform: By including health education in primary schools and high schools as special subject and/or within other subjects children and teenagers (and their parents indirectly) will adopt basic knowledge of healthy way of living, personal hygiene, health nutrition, necessary physical activities, prevention of illnesses and injuries, sexual education, addiction illnesses (alcoholism, drugs, smoking) and their bad consequences etc. Second mission of this department is increase in general education level and literacy since it is found that uneducated persons take less care of their health than educated.

Inclusion of Ministry of Transport, Maritime and Telecommunications in the health system reform process: Enacting of rules and obligations for bicyclists and motorcyclists (and their co-riders especially children) about protection, helmets usage, obligatory usage of safety belts for all passengers in cars and linear buses, limitation of carbon monoxide in deflated car gases, limitation of alcohol level in blood of participants in traffic, prohibition of driving for people who are under the influence of drugs etc. Besides that, the Ministry of Health will plead for more strict control and sanctions for traffic rules not-obeying which in itself could decrease the number of incidents and health insurance expenditures and might contribute to health improvements. It will be suggested to insurance companies not to accept expenditures coverage in car accidents for participants in traffic who aren't obeying traffic safety area rules.

Education of citizens should be also implemented in order to citizens get information about consequences of their own health decisions.

Developing of healthcare information system: Healthcare Information Systems (HIS) represents one of the basic components in modern healthcare systems. With increase of healthcare expenditures raises the need for overall productivity and health services quality increase.

Organizational structure of healthcare includes different subjects. Every subject should develop its own information system which would be projected to satisfy internal needs as well as needs of other institutions with which that subject is connected.

Current trend in this area is mostly based on two strategies:

1. Connecting of all local information systems into one integral information system of health and
2. Development and improvement of information services' quality within health area.

Conclusion

Montenegro has begun a comprehensive reform of its health system, which is a heritage of the Socialistic Federal Republic of Yugoslavia. According to the health indicators, Montenegro is at the same level as other countries within the region. However, it is noticeably behind the developed European countries. Indicators regarding health capacities are often comparable to the European countries level but there is a noticeable difference when it comes to the service quality.

The first phase of health system reform is related to the primary healthcare development in order to decrease expenditures for secondary and tertiary care.

The main objectives of the reform are: the extension of life expectancy and increased quality of life for every individual. The tasks needed for the realization of these goals that have been achieved already are: increased access to healthcare for every individual, quality assurance services, finance reform, improvement of health infrastructure. Whenever possible, reform should respect individual freedom of choice when selecting healthcare services. It should address and emphasize the responsibility of individuals and health professionals to improve health.

The most important steps that need to be taken in the future reform are: further development of primary healthcare, connection of the private and public sectors, introduction of a voluntary health insurance, supply-side interventions improvements, encouragement of additional entrance of private capital as well as the development of healthcare information system.

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The economic crisis and the investment in knowledge

Abstract: *Sustainable long-term economic growth of most developed countries in the world today is a consequence of a strong technological progress and high levels of investment in education. The globalization of world markets has made that the most developed set standards, not just in product quality but also the cost of production and operations. The application of modern technologies in less developed economies growth is driven by FDI and the relocation of production (outsourcing).*

The global financial crisis resulted in a reduction in investment and employment at the global level and the reduction of expenditures for investment in human capital and research at the level of individual states. Can the economy achieve positive growth rates in the long run at the ever more competitive global market, without improving the quality of existing products, production of new and improving technologies that will affect the price competitiveness and win new markets? If the domestic economy has a low level of savings and investment potential, how countries may attract foreign investment if domestic labor market is not competitive?

Key words: *Development, Knowledge, Human Capital, Productivity*

Resümee: *Steigende langfristige Wirtschaftswachstum der heutigen am meisten entwickelten Länder der Welt ist eine Folge der starken technologischen Fortschritt und höhere Investitionen in Bildung. Die Globalisierung der Weltmärkte hat die am weitesten entwickelten Maßstäbe nicht nur Qualität hergestellt, sondern auch die Kosten für Produktion und Betrieb. Anwendung moderner Technologien in weniger entwickelte Volkswirtschaften durch das Wachstum der ausländischen Direktinvestitionen und der Verlagerung der Produktion (Outsourcing) angetrieben.*

Die globale Finanzkrise führte zu einer Verringerung der Investitionen und Beschäftigung auf globaler Ebene und die Verringerung der Ausgaben für Investitionen in Humankapital und Forschung auf der Ebene der einzelnen Staaten. Kann die Wirtschaft erzielt positive Wachstumsraten auf lange Sicht den immer stärker wettbewerbsorientierten globalen Markt, ohne Verbesserung der Qualität von bestehenden Produkten, Herstellung neuer und die Verbesserung der Technologien, die den Preis beeinflussen wird mehr Wettbewerb und gewinnen Sie neue Märkte? Wenn die heimische Wirtschaft hat einen niedrigen Niveaus der Einsparungen und Investitionen Potenzial, um ausländische Investitionen anzuziehen, wenn der lokale Arbeitsmarkt nicht wettbewerbsfähig ist?

Schlagworte: *Entwicklung, Wissen, Humankapital, Produktivität*

Резюме: *Неуклонный долгосрочного экономического роста в большинстве развитых стран в настоящее время в мире является следствием сильного технического прогресса и высоких уровней инвестиций в образование. Глобализации мировых*

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рынков сделал самые разнообразные стандарты, а не только качество продукции, но и стоимость производства и эксплуатации. Применение современных технологий в менее развитых странах обусловлено ростом прямых иностранных инвестиций и перемещения продукции (аутсорсинг).

Мировой финансовый кризис привел к сокращению инвестиций и занятости на глобальном уровне, и сокращение расходов на инвестиции в человеческий капитал и исследований на уровне отдельных государств. Может ли экономика достигла положительных темпов роста в долгосрочной перспективе все более конкурентном мировом рынке, без повышения качества существующих продуктов, новые производства и продвижения технологий, которые будут влиять на цену более конкурентоспособной и завоевать новые рынки? Если отечественной экономики имеет низкий уровень сбережений и инвестиционного потенциала, в целях привлечения иностранных инвестиций, если на местном рынке труда не является конкурентоспособным?

Ключевые слова: *развитие, знания, человеческого капитала, производительности*

1. Introduction

Global economy faces major challenges, perhaps the highest in the last few decades. The financial crisis, initially created in the U.S., very quickly transferred to all the economies of the world. The economic recession is the rule rather than the exception in 2009 and measured by change of GDP at the global level, there was a decrease of 2.5%. Consumer demand declines, also exports, foreign direct investment is significantly reduced, but unemployment grows and the intensity of protectionist measures. In addition, financial insolvency is problem which is faced by all economic actors.

In the light of new developments, making economic decisions and define the strategy has become the challenge. Worldwide active role of government grows, cases of nationalization of banks were evidenced, subsidies and state intervention in the economy become practice.

However, regardless of the challenges facing economists today, we should not forget the fundamental principles that have provided stable long-term growth in developed economies.

2. Determinants of economic growth

Economic growth is determined by a number of factors, through a set of institutions, policies and other variables which determine the level of productivity. The level of productivity influences the level of income that is standard of living.

Sources of growth can be grouped into three categories¹:

1. Determinants important for the economy whose growth is conditioned by the use of production factors;
2. Determinants that influence the growth through growth of effectiveness;
3. Determinants that encourage growth through innovation.

The first group includes the following components: institutions, infrastructure, macroeconomic stability and health and basic education.

Contributors to the growing effectiveness are: higher education and training, goods market efficiency, labor market efficiency, financial market, technological development and market size.

Innovation (research and development) and the sophistication of the business are factors of growth in developed countries.

The importance of these components is different in different stages of economic development. According to the classification of WEF, in the first phase of development of the economy (BDP pc <2,000 \$), dominant sources of growth are factors of production. Reaching the level of GDP pc from 3.000 to 9.000 \$, growth is determined by the effectiveness. Innovative factors gain in strength in the economies in which the GDP pc is higher than \$ 17,000. Economies which are defined at the level between the groups, considered to be transition countries.

The economy of Montenegro, with GDP pc of approximately \$ 7,000 (2009), belongs to a group of countries whose growth is crucially determined by growth in efficiency. The situation is similar to other economies in the region.

This paper analyzes the following determinants that contribute to economic growth through the growth in effectiveness, including:

- a) **Higher education and training.** High quality education and training are the key factor that allows economies to move from the level of simple production process and primary products. This especially comes into play in a global economy, where growth is happening in those areas where highly skilled and educated individuals have the ability to quickly adapt to constant changes in the market. Importance of continuous training of employees and the concept of lifelong learning has been recognized.
- b) **Technological equipment and the use of technological developments.** Technological changes and innovations that contribute to productivity growth are galloping. The challenge of developing countries is to have the

¹ Typology is present in the analysis of the competitiveness of the economy carried out by the World Economic Forum

potential to accept and use new technologies, and incorporate the advantages of using them to increase productivity and income growth.

3. Knowledge and economic growth in theory and practice

Economic theory provides a range of the evidence that suggests a strong link between the expansion of scientific and technical knowledge that allows steady growth of productivity and income growth in the long run. G. Becker points to the importance of investing in human capital (education, training and development of employees) to increase productivity and income. D. Romer (2001), in analyzing the impact of accumulation of knowledge on economic growth, suggests the possibility that one of the reasons for the low income level of less developed countries is their incapability to use already developed technologies.

Experience shows that all countries that recorded stable growth rates invest significant resources into education and training of the workforce.

Empirical analysis by E. Denison (1985) shows that the growth of the educational level of labor force in the United States contributed to the total growth achieved in the period from 1929 to 1982 by almost 25%.

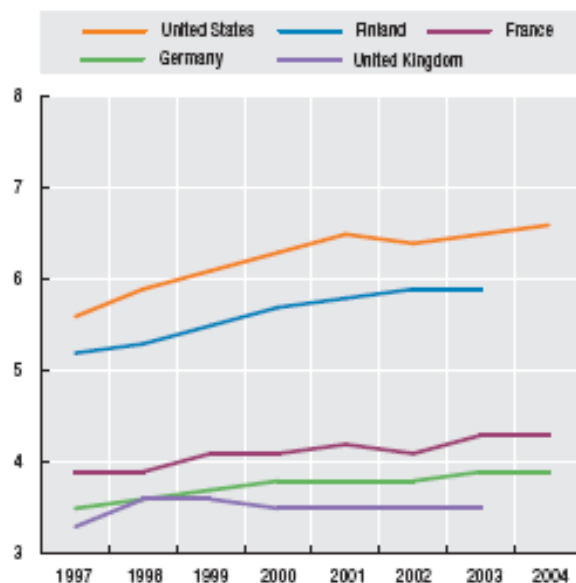
3.1. Trends of investment in skills and productivity

Productivity and GDP per capita are directly related. Therefore, economic development is possible only if there is productivity growth.

Investments in knowledge are primarily motivated by productivity growth through innovations that improve existing technology, education staff and use of information technology developments.

OECD research shows that leaders in the field of investment in knowledge are the most developed countries. At the same time, those economies recorded a constant growth of investment in knowledge, measured by share of GDP.

Figure 1. Investment in knowledge for selected countries as% of BDP

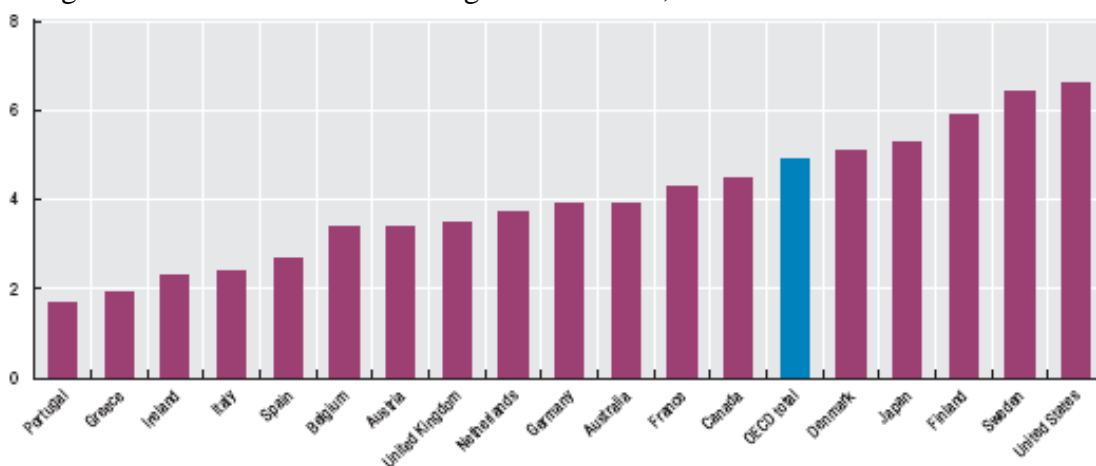


Source: OECD fact book 2009.

The largest growth rates were recorded in the United States and Finland, which are also the economies with the highest level of productivity.

Less developed economies are investing significantly lower share of GDP in knowledge (Figure 2).

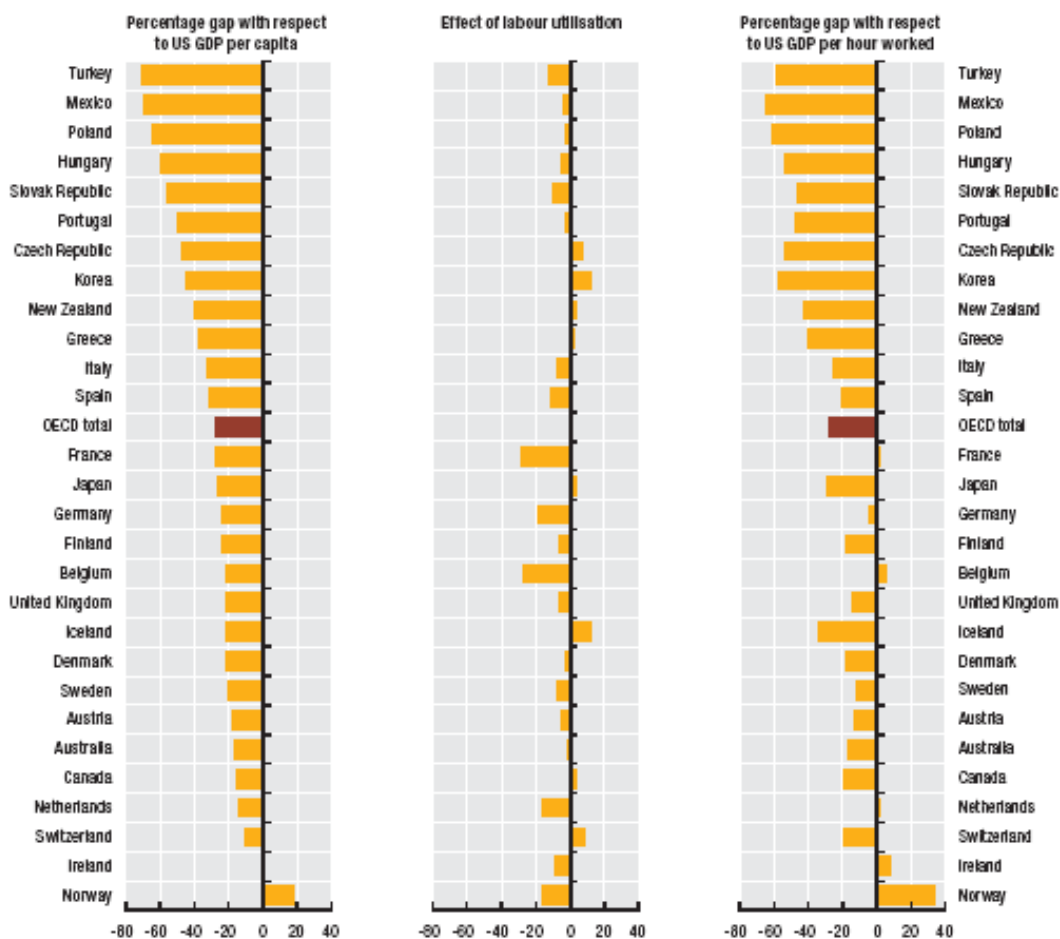
Figure 2. Investments in knowledge as% of GDP, 2004 or latest available data



Source: OECD fact book 2009.

A comparison of the level of GDP per capita and productivity in the U.S. to other economies shows a significant deviation (Figure 3).

Figure 3: Income and productivity, the percentage deviation in relation to the United States, 2007



Source: OECD fact book 2009.

Deviation from the level of productivity corresponds to deviation of the level of income in the analyzed countries.

This further means that productivity growth a key factor of economic development and productivity growth is not possible without investment in knowledge, whether in the area of education or investments in research that will result in innovation and technological progress.

3.2. Analysis of the interdependence between GDP per capita, and investment in knowledge²

In order to provide more detailed analysis of the impact of investment in knowledge of income and economic growth, empirical research was conducted (Bacovic, Lipovina-Bozovic, 2010).

Purpose of this study was to analyze the impact of three key components of investment in knowledge (expenses for R&D, expenditures for higher education and investment in software) to the value of key economic indicators (GDP per capita and employment).

The study used data for 29 countries (EU 27, U.S. and Japan), and tested the effect of investment in research and development (R&D as a percentage of GDP) and expenditures for higher education (PEE, the share of GDP). Data on investment in the software had to be excluded due to frequent interruptions and a series of missing data. For purposes of analysis we use the following variables: the growth rate of GDP (RGDP), GDP per capita (GDPPC, EUR current prices), employment rate (EMPLR) and the rate of unemployment (UNEMPLR).

In the first stage of analysis, correlation coefficients that describe relationship between these variables was estimated. The results are presented in Table 1.

Table 1: Correlation matrix

	GDPPC	PEE	R&D	RGDP	UNEMPLR	EMPLR
GDPPC	1.000	0.313	0.560	-0.304	-0.584	0.519
PEE	0.313	1.000	0.356	-0.211	-0.167	0.303
R&D	0.560	0.356	1.000	0.381	-0.392	0.688
RGDP	-0.304	-0.211	0.381	1.000	0.221	-0.289
UNEMPLR	-0.584	-0.167	-0.392	0.221	1.000	-0.699
EMPLR	0.519	0.303	0.688	-0.289	-0.699	1.000

The analysis showed a significant positive correlation between levels of GDP per capita and expenditure on research and development. Also, although not significantly high, there is a correlation between spending on education and GDP per capita.

There is also a direct link between spending on R&D and employment. A similar interdependence was observed in the case of expenditures for education.

² Analyses was presented originally in paper: M.Baćović, M.Lipovina-Božović: **Knowledge Accumulation and Economic Growth**, ASECU, Podgorica, 2010. As we consider it important for issues analyzed in this paper, we present it here also.

The unusual result is a negative correlation between spending on education and growth rates of GDP. This is explained by the effect of deferred investment in education on the growth of GDP.

On the basis of previous results, fixed effects model³ using panel data for the period 2000-2006, for these countries was estimated. The data were taken from the database and Eurostat⁴.

Dependent variables in the model are GDP per capita and employment rate. After detailed analysis, we noticed a positive effect of investment in knowledge and GDP per capita. In the case of employment, we could not see a statistically significant relationship with employment rates (possibly due to a short series of data), so we present only the part related to GDP pc.⁵

Table 2: Fixed effects model

Dependent variable: <i>GDPPC</i>				
	Coefficient	Std. Error	t-Statistic	Prob.
<i>PEE</i>	0.105223	0.038687	2.719778	0.0074
<i>R&D</i>	0.138798	0.038593	3.596437	0.0004
<i>Const</i>	0.013208	0.002136	6.183721	0.0000
Effects specification				
Cross-section fixed				
R-squared	0.586463			
Adjusted R-squared	0.355267	Mean dependent var		-0.012112
S.E. of regression	0.098437	S.D. dependent var		0.122594
Sum squared resid	1.327515	Akaike info criterion		-1.615921
Log likelihood	175.7772	Schwarz criterion		-0.959745
F-statistic	3.707917	Hannan-Quinn criter.		-1.349714
Prob (F-statistic)	0.000000	Durbin-Watson stat		1.878249

The results confirm hypothesis that the growth of investment in research and development and higher education has a positive effect on the level of GDP. All coefficients are statistically significant.

³ For more details on fixed effect models: Baltagi, B.H., 2001, *Econometric Analysis of Panel Data*. John Wiley & Sons, London;

⁴ http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database

⁵ It is important to note that all variables in the model are previously transformed by taking the first difference of the natural logarithm. The transformation is done in order to eliminate the heteroscedasticity and autocorrelation problems observed in residuals.

More specifically, the 0.138 coefficient is the percentage change in GDP per capita due to unit percentage increase in investment in research and development. Also, the percentage increase in expenditures for education led growth of the same variables for 0.105. Further, the coefficient of determination R^2 (0.586) shows that there is a significant number of variables that affect the growth of GDP per capita, which is not explained by this model.

Based on data from the OECD database⁶, we conducted the correlation analysis between GDP pc (U.S. dollars, current prices) and two indicators of investment in knowledge: share of ICT investment in foreign investments (ICT) and the gross expenditure on research and development as a percentage of GDP (R&D). We evaluated the correlation coefficients for some countries that are recognized as leaders in investment in knowledge. The time period is different from country to country, depending on the availability of data.

Table 3: Correlation coefficients between GDP pc and indicators of investment in knowledge (R&D and ICT)

Country	Time period	R&D, GDPpc	ICT, GDPpc
Austria	1994-2007	0.988	0.350
Belgium	1983-2007	0.853	0.692
Canada	1981-2007	0.922	0.792
Finland	1981-2007	0.963	0.875
France	1981-2007	0.298	0.853
Germany	1991-2007	0.836	0.377
Great Britain	1986-2006	0.915	0.883
Ireland	1981-2006	0.781	0.493
Japan	1990-2006	0.917	0.853
Sweden	1981-2007	0.890	0.813
USA	1981-2007	0.278	0.895

We observed an interesting correlation between ICT and GDP per capita. At the level of individual countries, the connection is very strong, confirming our hypothesis about the importance of investment in knowledge to economic growth.

⁶ <http://www.sourceoecd.org/database/OECDStat>;

3.3. Human capital and foreign direct investment

Literature on human capital formation and foreign direct investment provides answers to several key questions that point to the strong interdependence⁷.

In order to attract any form of FDI, host countries must have a population with a minimum basic level of education. Type of human capital obviously depends on the type of FDI that the host country wants to attract. If the goal is to attract the multinational companies that generate high levels of value added, countries need educated people at the level of tertiary education to meet such demand in the labor market. To do this, it is necessary to have strong cooperation of corporations and universities, and flexibility training programs.

Multinational companies can contribute to increasing stock of human capital in the country providing training for employees, and supporting institutions of higher education. Small and medium-sized companies typically invest less in education of employees than large domestic companies and multinational companies. A key reason is lack of information, financial resources and inability to retain skilled staff.

Multinational companies contribute to the transfer of technology through various channels: education of employees, labor migration, vertical and horizontal connectivity and so on. The ability of the host country to absorb new technologies is an advantage.

State policies are an important component of support to investments in human capital, through support for training, minimization of financial constraints and the support of multinational companies in the process of investing in local human capital.

Finally, there is strong empirical evidence of direct synergetic effect between FDI, investments in human capital and technology transfer. Policies that support flexible strategy of investing in human capital based on demand, multi-national companies in highly profitable areas, and coordination and support to education and training, are more likely to achieve this synergy.

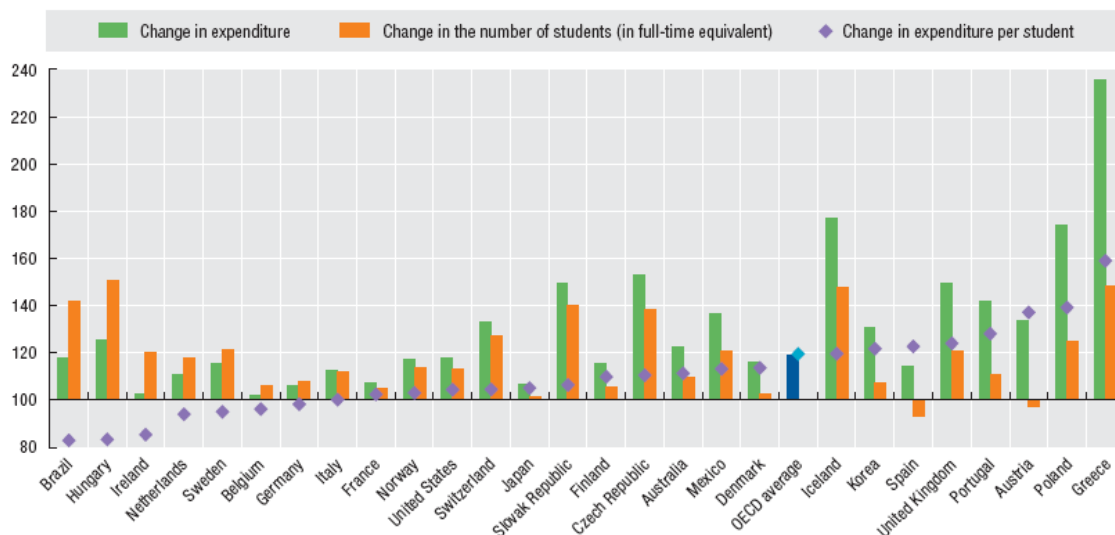
3.4. Trends of investment in human capital

Investment in tertiary education recorded growth in most countries in the world, noting that there are different trends of expenditures for education in absolute amounts and expenditures for education per student.

⁷ K.Miyamoto: Human Capital Formation and Foreign Direct Investment in Developing Countries, OECD working paper no. 211, July 2003.

Theoretical and empirical analysis shows that the growth of expenditure on education per student contributes to the growth of quality education and human capital.

Figure 4. The rate of growth of real expenditure on tertiary education, 2000 = 100, 2005



Source: OECD fact book 2009.

The most economies in the world recorder growth in both, number of students and expenditures for education, while the ratio (expenses / student) in the less developed economies is decreasing, due to expansion of the student population followed by insufficient funding.

In addition to investment in tertiary education, the importance of the concept of lifelong learning and investment in training of workers was recognized.

The importance of specialized training and investment in human resources has been recognized in the EU. On average, on the level of 27 EU member states, the number of employees aged 25-64 years, who participate in specialized training was 33% and 49% of companies provide attendance at courses, of which 54% internally and 89% externally organized courses and training programs.

The data in Table 4. shows that in more developed economies percentage of employees attending training is higher. In countries with low level of income per capita compared to the average, the percentage is significantly below the average (Bulgaria, Latvia, Lithuania, Hungary, Romania, and Greece).

Table 4. Population aged 25-64 years participating in training programs, labor productivity and GDP per capita, 2005

Country	Percentage of employees who attend training	Percentage of companies that provide training	Training provided by the company in accordance with the type of program		Labor productivity, EU-27=100	GDP per capita, EU-27=100
			Internal courses	External courses		
EU-27	33	49	54	89	100.00	100.00
Belgium	40	48	98	99	132.00	121.00
Bulgaria	15	21	58	80	34.30	35.00
Check rep.	59	63	66	80	68.90	76.00
Denmark	35	81	64	96	109.20	127.00
Germany	30	54	72	90	107.40	115.00
Estonia	24	56	40	94	59.00	62.00
Ireland					133.80	144.00
Greece	14	19	38	82	103.50	96.00
Spain	33	38	44	88	102.00	103.00
France	46	71	44	92	123.70	112.00
Italia	29	27	48	86	111.10	105.00
Cyprus	30	47	31	94	84.20	93.00
Latvia	15	30	22	97	49.20	50.00
Luxemburg	49	61	63	87	175.60	264.00
Hungary	16	34	39	94	73.40	64.00
Malta	32	31	63	82	90.70	78.00
Netherlands	34	70	36	95	115.30	132.00
Austria	33	67	43	96	119.90	128.00
Poland	21	24	43	95	65.30	51.00
Portugal	28	32	50	82	68.60	75.00
Romania	17	28	49	74	36.30	35.00
Slovenia	50	61	49	94	82.70	87.00
Slovakia	38	38	37	88	68.80	61.00
Finland	39	70	43	94	110.80	115.00
Sweden	46	72	62	93	112.90	124.00
G. Britain	33	67	67	81	109.70	119.00
Norway	29	55	66	79	155.30	180.00

Source: Eurostat yearbook 2009

A comparison of investment in training and work productivity / GDP per capita has also shown a high interdependence. Correlation coefficients ranging from 0.5-0.56.

In the analysis of economic development, it is important to spot these trends and make an effort to increase investment in the knowledge of employees, not only as a result of initiatives of the state, but above all individuals and companies.

4. Conclusion

The global crisis has resulted in falling output and income in most countries in the world. While at the global level is estimated decline of 2.5%, at the level of the European Union is estimated that the recession has reached a level of 5% of GDP. However, with appropriate measures, the negative trend can stop and return the economy to the path of growth. Experiences of post-crisis period shows that economic policies can prevent the devastation of human capital and support productivity growth, which is a key driver of economic growth.

According to the latest report by the World Economic Forum⁸, all economies in the region are ranked very low by criteria: higher education and training and the ability to use technological achievements. Of 133 studied economies in the region is the highest-ranked Croatian (56 or 43 places), followed by Montenegro (57 and 45), while other countries have much lower positions: Bosnia and Herzegovina (86 and 95), Serbia (76 and 78), Macedonia (70 and 52), and Albania (90 and 89). Innovation analysis showed worse results.

If countries want to be competitive in Europe first, and then in global markets, the economies of all countries in the region require significant investment in human capital, but also in research that will encourage innovation.

Investment in knowledge required significant resources. World financial crisis made them scarce. However, is the solution to reduce spending on education or we need to understand that in the era of knowledge, only investment in human capital and new technologies enable economic growth? The answer is, from theoretically and empirically perspective, clear.

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⁸ World Economic Forum: The Global Competitiveness Report 2009–2010

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CHANGE OF MARKET REGULATION PARADIGM DUE TO THE CRISIS

Far from living in an age of deregulation, we live in the golden age of regulation.

--Jacobs (2000)

Abstract: *This paper emphasizes the significant change in capital market regulation paradigm in Montenegro that primarily occurred due to economic crisis. The authors conclude that the new efforts of states during financial crisis can be usefully analyzed as "regulation by deal" which is opposite to the traditional paradigm of capital market regulation in Montenegro, which is built on the idea of minimal state intrusiveness in private deals. The paper explains competing paradigms of principles-based regulation and rules-based regulation. The authors conclude that Montenegrin capital market is not ready for principle-based regulation due to the fact of opposite interpretation and of these standards by courts, members of boards, legislator and public as a whole, who do not recognize these standards. The authors focus their attention to certain failures and related conceptual issues, which were the subject of special attention in foreign literature. The authors conclude that it should be recognized that one of the major consequences of financial crisis in the capital market should be educational.*

Key words: *Regulation, capital market, financial crisis*

Resümee: *Durch diese schriftliche Arbeit wird die nennenswerte Veränderung im Paradigma der Regulierung des Kapitalmarktes in Montenegro betont, die vorallem wegen der Wirtschaftskrise eingetreten war. Die Autoren schließen, dass die neuen Bestrebungen der Staaten während der Finanzkrise als „Regulierung durch die Vereinbarung“ erfolgreich analysieren können, die der traditionellen Paradigma der Regulierung des Kapitalmarktes in Montenegro entgegengesetzt ist, die auf der Idee der minimalen Einmischung des Staates in die Geschäfte der Privatwirtschaft beruht. In dieser Arbeit werden Paradigmen erläutert - „die auf Prinzipien basierten Regulierungen“ und „die auf Regeln basierten Regulierungen“. Es wird resümiert, dass der montenegrinische Kapitalmarkt wegen der widersprüchlichen Interpretationen und der Unwissenheit dieser Standards seitens der Gerichte, Vorstandsmitglieder, des Gesetzgebers und der Öffentlichkeit zu der auf Prinzipien basierten Regulierung nicht bereit ist. Die Autoren weisen auf die bestimmten Fehler und auf die damit verbundenen konzeptionellen Fragen hin, die der Gegenstand besonderer Aufmerksamkeit in der ausländischen Literatur waren. Die Autoren resümieren,*

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dass es zu bemerken ist, dass eine der wichtigsten Folgen der Finanzkrise auf dem Kapitalmarkt ist - lehrhaft werden.

Schlagwörter: Regulierung, Kapitalmarkt, Finanzkrise

Резюме: В настоящей работе освещается значительное изменение в парадигме регулирования рынка капитала в Черногории, которое в первую очередь произошло вследствие экономического кризиса. Авторы заключают, что новые усилия государства в период финансового кризиса могут быть успешно проанализированы как "регулирование путем соглашения", которое является противоположным традиционной парадигме регулирования рынка капитала в Черногории, которое опирается на идею минимального вмешательства государства в частный бизнес. В работе объясняются парадигмы «регулирования, обоснованного на принципах» и «регулирования, обоснованного на правилах». Можно сделать вывод, что черногорский рынок не готов к регулированию, обоснованному на принципах, из-за противоречивых интерпретаций и незнакомленности с такими стандартами судов, членов правления, законодателей и общественности. Авторы обращают внимание на некоторые ошибки и, связанные с ними концептуальные вопросы, которые были предметом особого внимания в зарубежной литературе. Авторы заключают, что надо заметить, что одно из основных последствий финансового кризиса на рынке капитала должно быть воспитательным.

Ключевые слова: Регулирование, рынок капитала, финансовый кризис

Observed from the aspect of regulation, current status of financial market is everything but unregulated. For each rulebook that was removed from so-called law in books during the last century, many new were adopted. Financial market deregulation demonstrated itself to be restricted element of market governance, and when it actually happened, it was immediately followed by adoption of new rules. In foreign literature dealing with this issue it is correctly stated that: „neoliberalism supports deregulation but it seems paradoxically that it widens and strengthens regulation. If we estimate neoliberalism by the achieved „deregulation“ level, it would be a disaster. If we estimate it by the achieved „regulation“ level, it would be a fiasco.“⁹ It is more common approach that we are participants of creation of a new global governance or so-called regulatory capitalism within which more and more states, not only small legal systems, but also the large ones, like Australia, do not become „rule makers“ but solely „rule takers“, i.e. they use internationalized regulatory solutions.¹⁰ The question remains if the financial market is a fertile ground for developing uniform regulatory solutions and whether such legal transplants must prove themselves to be effective in practice. The answer to this question should be given by the financial crisis that has greatly changed the previous

⁹ See: David Levi-Faur -Jacint Jordana, *The Making of a New Regulatory Order, The Rise of Regulatory Capitalism: The Global Diffusion of a New Order*, Annals of the American Academy of Political and Social Science, March 2005, no.598, p.6;

¹⁰ Ibid;

view on financial markets regulation.

Firstly, the financial market collapsed and then was followed by a mass state intervention, directed towards resolving of emerged collapse. The third phase of each financial crisis is the reform.¹¹ Concluding by the various alternative visions of financial market regulatory system reform, one should not assess as credulous all those who expected some improvement in the market from changes in regulation. However, deciding about kind of reform that should follow require reconsideration of both good and bad sides of the current regulatory system.

1. The role of the state in financial market during the crisis period

It is often said that regulations change relation among competitors: earlier and again, some competitors avoid regulations strike, while others have to live with larger expenses and reduced flexibility of rules.¹²

The role of the state in regulating financial market during financial crisis is probably the best reflected by the idiom of: „extremely strong dealmakers“. ¹³ The role of the state as a dealmaker is a problematic one, because it needs consistency and thus is characterized by „series of improvisations“. ¹⁴ The problem is best described with the expression: „Dealmakers of the investment-banker variant, after all, do not much care about the consistency between deals. In the process they decide quickly, negotiate hard, consider transaction and other costs to the best they can, and then call it a day. Moreover, although contract, securities, corporate, and other forms of law play an important role in deals, strict legal compliance has never been the principal focus of the dealmaker. Rather, risks and legal constraints must be weighed against each other in pursuit of the ultimate private goal—a completed deal. That perspective, too, characterized the government’s response to the crisis.“¹⁵ State leadership, or leadership of certain regulatory agencies in effort to find a solution for financial crisis, mostly turned into negotiations about the best deal, and the State, as a dealmaker, decides on which subjects remain or collapse.

After the state decided, during the financial crisis in 2008, to leave approach of ad-

¹¹ See: Lawrence A. Cunningham - David Zaring, *The Three or Four Approaches to Financial Regulation: A Cautionary Analysis against Exuberance in Crisis Response*, George Washington Law Review, November, 2009, no. 78, p. 39;

¹² See: Geoffrey P. Miller, *Public Choice at the Dawn of the Special Interest State: The Story of Butter and Margarine*, 77 Cal. L. Rev. 83, 86 (1989);

¹³ See: Steven M. Davidoff - David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, Administrative Law Review, Summer 2009, no. 61, p. 467;

¹⁴ See: Richard A. Posner, *A Failure of Capitalism: The Crisis of '08 and the Descent into Depression* (2009), p. 329;

¹⁵ Vidi: Steven M. Davidoff - David Zaring, *Ibid*;

hoc settlements with the financial market participants, the conclusion was that more comprehensive solutions are needed. Access to financial markets outgrew ad-hoc deals, which characterized the very beginning of state intervention in the market at the initiation of the crisis, but did not overcome the ad-hoc market regulation, but remained at that level. The state succeeded, comparatively speaking, to maintain liquidity in the market to some extent, but failed to achieve the goal - financial stabilization through deal-making with the industry.

Actually, this crisis confirmed once more the point of Charles Kindleberger that "financial crisis have its own timeline,"¹⁶ and that government responses to financial crisis also have their patterns, so "The response often begins with the scramble of governments to keep up with fast-paced and deleterious market events, leading to an initial, ad hoc phase in government action, where emergencies are responded to with emergency-style rules and emergency-style process".¹⁷ Only in sufficiently serious cases the next phase follows, consisting of parliamentary discussions and of new legislative authority. This phase is also followed by initiation of criminal investigation leading to subsequent punishment of - several symbolic crisis illustrations – such as high-ranked directors, while the stage of reform comes much later. The reform may consist of either smaller regulatory reorganizations or creation of new laws and reconstruction of financial regulatory system.

Comparative analyses show that during this financial crisis the governments have taken the role of dealmakers, but have not succeeded to solve problems and unintended consequences in today's financial market, which consisted in the fact that free riding in government actions becomes a norm. Actions of regulators and influence of the state into a financial market is primarily reflected in several most significant consequences that can be described in the following:¹⁸

- *Triumph of regulatory agencies over courts*: Legal explanations given by regulatory agencies, as executive power, during financial crisis have had greater impact than explanations given by courts. No court, judging from the aspect of the world wide legal systems, had active role in this domain, but the role was taken by regulatory (administrative) agencies that enforce regulation by the implementation of best and international harmonization;
- *Change from so-called „regulatory model“ towards so-called „governance model“*: financial crisis caused necessity of reassessment of a traditional focus in formal regulation and, and set up main striving for changes exactly on it.

¹⁶ See: Charles P. Kindleberger & Robert Aliber, *Manias, Panics, and Crashes: A History of Financial Crises* 24-25 (5th ed. 2005); cited from: Steven M. Davidoff - David Zaring, *Ibid*;

¹⁷ *Ibid*;

¹⁸ *Ibid*;

While, in traditional approach, law is conceptually based on the so-called top-down approach and on a national level, with powers vested in regulatory agencies, in XXI century it is more common to speak about emergence of a new paradigm by which hierarchy and control –based model is replaced by a model that is more based on collective action of participants in regulation process in which state, financial industry and society as a whole share responsibility for achieving policy goals. Adoption of this paradigm leads towards redefinition of interest bearers' role in establishing of legislation policies and transfer of responsibility to private business, non-profit organizations, and creation of rights, instead of being based on command and control approach from top to bottom, is based on so-called reflexive approach which is process oriented and tailored to local circumstances.¹⁹

- *The state adopted so-called venture capitalist model*-in accordance with this model the nationalization objective has not been achieved, at least not at the beginning of the crisis. The state offered money and reputation to financial institutions instead of share in capital, but it left financial institution management to continue with its operations, which is the main characteristic of venture capitalist model.²⁰ This model brought the state to especially specific situation, because as an external investor it did not have the possibility to manage companies. Although this model was adopted with the aim to prevent future politically motivated interventions of the state in the market, it had a hazardous effect to the role of the state in these companies, because states cannot influence corporate changes within them.²¹

We consider as a true the conclusions highlighted in the foreign literature, that, from the regulatory point of view, this approach to market regulation during the crisis showed that governments were not opened enough in the course of regulation: the state did not reveal its arrangements with financial industry representatives until they were concluded, by which some of the basic regulatory principles of administrative law were excluded. One of the main consequences of such regulation is also the identified phenomenon called privatization of government functions, which indicates that, during the crisis period „states functions are run as a business“, rather than run as a regulatory functions.²² In this domain, the role of regulatory agencies it is especially important since it, in large number of cases, like Federal Reserves in the USA, widened their legal authority to include taking measures for getting out of the crisis and that were out of the, then recognized framework of those limitations. For

¹⁹ See: Orly Lobel , *The Renew Deal: The Fall Of Regulation and the Rise of Governance in Contemporary Legal Thought*, Minnesota Law Review, December, 2004, no. 89, p. 342;

²⁰ See: George W. Dent, Jr, *Venture Capital and the Future of Corporate Finance*, 70 Wash. U. L.Q. 1029, 1031 (1992) i Ronald J. Gilson, *Engineering a Venture Capital Market: Lessons from the American Experience*, 55 Stan. L. Rev. 1067 (2003).

²¹ See: Steven M. Davidoff - David Zaring, *Ibid*;

²² *Ibid*;

example, Federal Reserve's broad interpretation of the set of candidates to whom it could offer measures for overcoming of crisis "has made a mockery of the view that the law should not be interpreted to disturb the settled expectations of those affected by it." "In foreign literature it is, thus, proposed that "rather than concluding that legal constraints have no purchase in emergencies", perhaps the conclusion should be that settled expectations are quickly unsettled in crises, creating opportunities for novel legal interpretations, rather than that crises mean that the rule book no longer applies."²³

2. Paradigm change: from rules-based regulation to principle-based regulation

Financial crisis brought to almost certain conclusion that financial market regulation should be principle - based, but not on strict rules defined well in advance. Contours of „principle based regulation“ depend on precise context, but can be generally shown as abased on the following principles:

- Regulation focused to general principles of operations, not to detailed and prescribed rules and regulations;
- Operations in accordance with principles is mostly evaluated by business operations result;
- Approach to regulation based on risks and continuous, not episodic oversight by the regulator;
- General principles are amended by special rules only when necessary because of interpretation and orientation.²⁴

Principles-based regulation, however, is most appropriate in an interpretive community in which —the interpretive assumptions and procedures are so widely shared|| by the regulator with the regulated parties (in our case, market participants) that the regulatory principles bear —the same meaning for all”.²⁵

Change of securities regulation paradigm implies the change of the approach to this regulation:

Regulator needs necessary information from the market in order to remain relevant, the same like market needs information from regulator, in order to be compliant with new regulatory policies. As a result, “many market participants require more principle-based regulation related to prudential oversight, in order to develop a

²³ *Ibid*;

²⁴ See: Jeremy Hill, Elizabeth K. Brill, Principles-based Regulation: Lessons from the UK Financial Services Authority, Futures & Derivatives Law Report, November, 2007;

²⁵ See: Steven L. Schwarcz, *Regulating Complexity in Financial Markets*, Washington University Law Review, 2009, no. 87, p. 264;

consultative relationship between regulator and market participants.”²⁶

Looking from the aspect of Montenegrin law, the decision should be taken upon the issue of the extent at which in Montenegro we can even talk on the existence of the unique interpretation of the standards and principles interpretations from the regulator, market participants and courts. In the Montenegrin law, there is also a quite evident problem of unequal standards governing operations of participants in the market determined by the legal texts regulating almost similar cases, which will come to the fore in separate disputes initiated by current situation in the market.

For example, Law on Investment Funds of Montenegro prescribes duty of management companies to, while managing investment funds, to operate in interest of investors in investment fund securities and to give priority to their interests over its own interests. Likewise, the same Law prescribes that supervisory board of the investment fund is a supervisory body over investment fund management and that it performs its function in investment fund shareholders’ interest. On the other hand, Board of Directors, as the management body of a joint stock company, by no provision of Business Organization Law has not been put in a position to take account of shareholders’ interests and to focus its management function exclusively and solely to achieve profit, as the primary shareholders’ interest. Therefore, the quite opposite standards have been imposed to the supervisory board of the Investment Fund and the Board of Directors of a joint stock company. Translated into a practical cases, it would mean that the supervisory board can make decisions solely in shareholders’ interests and the Board of Directors must "operate for the benefit of society as a whole"²⁷, what may imply that, in order to do so, must take into account interests of employees within the company. Shareholders’ interests, which are reflected in making profit, are transferred in the background by unequal standards. This also transfer in the background the logic itself and the essence on which the corporate governance is based, and which should be a basis for interpretation of legal standards - a company belongs to the owners of a company, who have their assets invested in the company, and the court should take into account satisfaction of their interest by goalled interpretation of established standards.

Apart from problem of the lack of equal standards related to governance, Montenegrin law is also characterized by misunderstanding of these standards. The question is - what does a standard of "conduct in shareholders’ interest” really mean in our system, i.e. how would it be interpreted by our courts? We are very close to the belief that no court in Montenegro would have advocated the explicit

²⁶ See: Elizabeth Derbes, *The Subprime Crisis: U.S. Regulatory Responses and Lessons Learned* PV.B.3 (2008); citirano prema: Steven L. Schwarcz, *Ibid*;

²⁷ See: (Article 44 paragraph 3 item 1) Business Organization Law;

interpretation of this standard, which is clear to anyone who understands corporate governance at all - the goal of shareholders is profit - and the Board of Directors is required to distribute profit to shareholders. American court practice, yet in early 1919, was ready to state explicitly to Mr. Ford, the owner of Ford Motor Co, that the aim of the company is not to produce cheap products and offer greater employment possibilities and good salaries, but primarily to achieve profit for shareholders, and that the Board of Directors should exercise its powers in that aim.

²⁸ Montenegrin courts have not been ready yet to interpret these standards coherently. There is no direct evidence, but indirect ones are more than evident – no decision has been declared as unlawful by pointing to the fact that that decision was in contravention to the shareholders' interests. It is likely that those decisions cannot be expected soon.

The best example of non-understanding of standards governing this area is the recent convening of shareholders meetings of mutual investment funds, which are called by management companies, and on whose agenda there were proposals of decisions on transformation of mutual investment fund into a management company for investment fund and real estate, decision on dismissal of the supervisory board and the appointment of these persons for the Board of Directors' members, etc. It is interesting, and also quite indicative that Supervisory board members of these funds understood their role in this process in fact only passively. They neither raised their voice on the occasion of proposed "transformation", nor understood their duty to "act in the interests of fund shareholders," in a manner to inform shareholders on long-term and unforeseeable consequences of proposed decisions. Likewise, they have never referred, in the exercise of their supervisory role, especially during proposed transformation, to the provision of Business Organization Law under which a shareholder may not vote on matters for which he/she is directly interested in, i.e. to the fact that decisions proposed for approval at the Shareholders' Meetings of the Fund, at which a quorum would be represented by shares owned by management companies that propose such decisions, cannot only be brought on the basis of management company's voting.

Likewise, supervisory boards, during this financial crisis, have appeared as much more subject to management companies' influence, rather than to requirement to protect fund shareholders' interests. For example, supervisory boards unanimously made decisions giving consent for the consulting services fees, related to sale of shares from the portfolio of the fund, to be paid out of the fund's assets, not out of the company that manages the fund. The logical question that comes by is how the subsequent approval of these payments from the Fund protects interests of fund shareholders? Leaving aside the question of the legality of such decisions, deeming

²⁸ See: Dodge vs. Ford Motors Co, 204 Mich. 459, 170 N.W. 668. (Mich. 1919),

that such decision is legal, is it, as a subsequent one, in any manner in the interests of shareholders?

It seems to us that economic crisis more than directly pointed to and put into the attention problems related to interpretation of these standards. The best proof that standard of conduct in shareholders' interest is not implemented, both in courts and in any other part of the society, is shown in recent example of miners employed at Rudnici Boksita, Nikšić. If we leave empathy aside, we must ask ourselves what is the picture sent by the miners who requested payment of higher severance, reemploying group of workers, etc, although earlier the management of Rudnici Boksita opposed against it. With their protest, miners managed to "force" deputies of the Montenegrin Parliament to adopt urgently amendments of the law by which workers who achieved 20 years of effective employment in Rudnici Boksita can be retired. Are we talking about the need to interpret "standard of conduct in the interest of society as a whole" in a manner that, under pressure, we can always expect changes of any laws that establish standard of conduct and responsibility in this area?

Another consequence of the financial crisis - a change of regulation paradigm has been reflected in Montenegro, as well. Namely, the government enrolled in the conclusion of deals with businesses in order to assist business in recovering high debts. By this, the state has imposed a new aspect, a new type of regulation, popularly known in foreign market regulation as "*regulation by deal*." While traditional paradigm of securities and capital market regulation in Montenegro is entirely based on control of operations, which is completely separated from business management, a new paradigm has just been determined through direct intervention of the state into the business, i.e. by control through business acquisition.²⁹ It remains to be seen and evaluated what will be the consequences of the *bailout* system. However, it was proved once again that the government does not intend to perform governance role in companies in which it intervened - not a single member of the Board of Directors in these companies was not removed from office which takes the state to further unfavorable situations - as "external" investor, one who has left management in function,, the state has very limited role in the implementation of investment policies in these institutions.

We believe that unique interpretation and application of operational standards by the courts and capital markets regulators and market participants are still distant future of Montenegro, and the current situation only shows the first steps towards convergence and harmonization of these standards.

²⁹ See: Steven M. Davidoff - David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, Administrative Law Review, Summer 2009, no. 61, p. 467;

From all above mentioned, it is clear that, for the Montenegrin capital market, a solution advocated by some American authors in considering relationship between regulatory powers and responsibilities is much more suitable, and that is characterized as a hybrid one: the existence of combination of rules and standards in an attempt to achieve both predictability of the system and its flexibility.³⁰ Although very convincing arguments can be provided for change of the approach towards regulation, solely on the basis of the principles related to specific, certain regulatory issues, moving only in one direction could be counterproductive regulatory policy when comes to Montenegrin capital market because it cannot be talked about any, even the smallest, degree of predictability of regulators' regulatory policy because of lack of uniform operational standards.

Implications of principle-based regulation are particularly important in regulatory systems that are oriented towards sanctioning, like the legal system in Montenegro is, in large part. Given that the Securities and Exchange Commission has no powers to decide on compensation of damage issues, principle-based regulation would necessarily lead to increasing number of disputes and litigations and thus to greater uncertainty of litigation outcomes, which is sufficiently questionable in the existing system.

The consequence of unequal adoption and interpretation of standards, which is largely caused by economic and financial crisis, has had its immediate expression in a very apparent triumph of regulatory agencies over the courts in Montenegro. Although this consequence is not only characteristic of our system, but it has also been recognized in other systems, it may not be overlooked that one of the most important manifestations of economic crisis when it comes to the capital market in Montenegro -intentions of mutual investment funds to transform themselves into joint stock companies for real estate – did not have as a consequence an attempt of the courts to resolve the issue, but on the contrary, produced a direct consequence in the response of the Securities and Exchange Commission as a regulatory agency.

Lawsuits were initiated regarding decision of the Commission that prohibit such transformations, but were not initiated before it. Market regulation has found its immediate expression in proceedings before regulatory authorities.

3. Deregulation of the financial market and regulation by enforcement

Implementation of principle-based regulation in Montenegro could lead to a problem, popularly known in foreign literature as „regulation by enforcement“.³¹

³⁰ See: Jill E. Fisch, *Top Cop or Regulatory Flop? the SEC at 75*, Virginia Law Review, Jun 2009, no.95, p.785;

³¹ See: Harvey L. Pitt - Karen L. Shapiro, *Securities Regulation by Enforcement: a Look Ahead at the*

One of the main issues to be solved before the occurrence of financial crisis when it comes to financial market regulation is the question of the extent of normative standards of conduct of market participants to be prescribed by regulations in advance, and to what extent these rules should be applied on resulting situations in order to secure compliance with standards. In ordinary circumstances, regulatory agencies should predefine normative standards of conduct, provide interpretation and guidance for their implementation, and ensure compliance with these standards when it is completely obvious that these standards are adopted and published, but have not become common practice.

However, all rules of the financial market are not so easy to translate into a formal legal rule. For example, it is almost impossible to define comprehensively a notion of fraud in financial market by a legal rule. The courts have often emphasized that the attempt to define fraud in a sufficiently specific way has the effect of encouraging clever players to deceive specificity for its own benefit.³²

Therefore, it is indeed a challenge for regulators to find the right balance between regulation and sanctioning. In most situations, it is much easier for regulator to attack certain practice after its occurrence in the context of specific facts, when implications of the situation are fairly clearly foreseeable, than to regulate standards of conduct and consequences in advance. As often stated, it is simply in human nature to remove once observed irregularity, if it is possible at all, rather than simply use it for defining the scope of future regulation.³³ The consequence of such regulatory policies is to run into danger, which is in the very nature of administrative regulation, and which is reflected in superseding of formal regulatory processes with *ad hoc* sanctioning measures, use of discrete control measures as a means of developing new standards, when needed.

Deregulation of market should not have increased law enforcement and sanctioning as its inevitable consequence, i.e. creation of regulation through law enforcement.

4. What can regulators learn from financial crisis of 2008?

The opinion that excessive regulation is a consequence of financial crisis is generally accepted nowadays. The following conclusion was not adopted out of nowhere: "We deny that the event is a challenge to our normative structures, and we reframe it as injustice, not catastrophe. This is our law's specialty. Law is constantly colonizing catastrophe, reframing it as injustice, expanding the bounds and jurisdiction of law,

Next Decade, Yale Journal on Regulation, Winter, 1990, no. 7, p. 149 et seq;

³² See: *Weiss v. United States*, 122 F.2d at 681.

³³ See: Harvey L. Pitt - Karen L. Shapiro, *Ibid*;

and consequently expanding the zone of human control and responsibility".³⁴ One of the expected reactions of market regulators after the financial crisis is a ban on trading of too complex financial instruments. Merits of such a reaction is the most vividly illustrated by the following words: „To suggest banning financial instruments because they are complex is likely no more valid than it would have been to suggest that the appropriate response to the Lisbon earthquake was to simplify things by demanding that all buildings be no more than one story high, or that the appropriate response to the rapid industrial changes of the late 1800s was to go to bed with earmuffs. The problem, as I see it, is that we have assumed, baselessly, that law, like social science, could expand the zone of human control and responsibility to the point that no amount of complexity is beyond our ability to tame it. But we cannot, and that is the crisis“³⁵.

However, we cannot avoid the fact that securities regulation tends to come after the crisis. The conclusion adopted many years ago is that most of the major part of the new securities regulation in the past three hundred years of English and American history has come right after crashes³⁶ and that “every dramatic change in the structure of our securities laws has been provoked by a perceived failure in the capital markets that stimulated a regulatory response”.³⁷

Cyclical development of securities regulations, which is described by the syntagm, "the crisis – and then - the law" had been evident long time ago and explained by the fact that securities regulation results from general distrust in the capital market which was, during the boom, controlled by the simple fact that large number of people earned large sums of money.³⁸

A boom encourages unwarranted trust in markets, leading to the speculative frenzy of a bubble and then to the inevitable bust. The bust, in turn, leads first to the disclosure of fraud and then to the mirror image of the bubble—a kind of speculative frenzy in regulation.³⁹ All crisis of the capital, however, inevitably lead to conclusion that expected response of capital market regulator in times of crisis, which is inevitably characterized by pressures of the populism, is carelessly balanced costs and benefits of regulation. Carelessly balanced risks and benefits of

³⁴ See: Lawrence Douglas, Austin Sarat & Martha Merrill Umphry, *A Jurisprudence of Catastrophe: An Introduction*, in *Law and Catastrophe 2* (Stanford, 2007).

³⁵ See: Jeffrey M. Lipshaw, *The Epistemology of the Financial Crisis: Complexity, Causation, Law, And Judgment*, *Southern California Interdisciplinary Law Journal*, Winter 2010, no. 19/2010, p. 344;

³⁶ See: Stuart Banner, *What Causes New Securities Regulation? 300 Years of Evidence*, *Washington University Law Quarterly* no. 75/1997, p. 849, 850;

³⁷ See: Joseph A. Grundfest, *Punctuated Equilibria in the Evolution of United States Securities Regulation*, 8 *Stan. J.L. Bus. & Fin.* 1, 1 (2002)

³⁸ See: Stuart Banner, *Ibid*;

³⁹ See: Larry E. Ribstein, *Bubble Laws*, 40 *Houston Law Review*, p. 77, 78 (2003);

regulatory responses causes the regulation of the market to become just a reaction to past market mistakes that led to the crisis, not regulation with the aim to prevent future mistakes. And, more importantly, "post-bust regulators are likely to ignore the benefits of market flexibility and, therefore, to impede the risk-taking and innovation that will bring the next Boom."⁴⁰

Given that it is very likely that the adoption of new regulations at the time of panic has resulted in reduction of the entrepreneurial activity, one of the alternatives available is education of investors. It seems correct to us the conclusion which occurred by analyzing earlier financial crisis of capital markets: the worst damage caused by financial crisis, when it comes to regulation of capital market, is that this regulation does not send the message that education of investors is the most important, but precisely the opposite - it spreads the belief that legislator or regulator may, in some way, make the market safe from fraud and protect investors from themselves.⁴¹

One of the most significant consequences of crisis in Montenegrin market should be educational, and not exclusively and solely regulatory. Montenegrin Law on Securities, like similar laws regulating this matter, contains provision under which one of the authorities of Securities and Exchange Commission is investors' protection. Newspaper articles on a daily basis point to the conclusion of inevitable need of investors' protection. Even the courts in Montenegro, led by non professional rhetoric expressed by this provision of Law on Securities, do not feel reluctant to go even that far to establish responsibility of the Securities and Exchange Commission for compensation of damage inflicted to shareholder due to criminal offense of forgery of personal documents, with reference to the provision under which the duty of the Securities and Exchange Commission is to prevent market abuses.⁴² Rhetoric and need for investors' protection have gone, in our opinion, far away and education appeared to be more than necessary.

Although at first glance it seems very distant, we believe that the relationship between these court decisions and everyday reference to the need to protect some investors whose interests are threatened in the capital market, is very direct. Similar rhetoric is not characteristic solely of the Montenegrin capital market and legal system. It also largely characterizes markets with decades-long tradition, so that reference to the responsibility of all and everyone due to losses in the market should not be the surprise. Practice of establishing liability is perhaps best illustrated by an words of American senator during adoption of *Sarbanes-Oxley* Act, who, answerd on the proposals for the law to explicitly regulate obligation of investors`

⁴⁰ *Ibid*;

⁴¹ *Ibid*;

⁴² See: Sentence of the Basic Court in Cetinje, S.no.281/08 of 24/02/2010;

protection, emphasized: "unless the proposed legislation eliminates original sin, it will not eliminate the fraud", and that one of the main failures of financial market regulation is that regulation "harm investors by inducing a sense of complacency".⁴³ His conclusion is definitely more than obvious and acceptable – "The more we look to the government to protect us from investment mistakes, the less competition there is for truly independent evaluations of investment risk."⁴⁴

Precisely for these reasons, it does not seem surprising to come to the comparison, focused on during the historical development of capital market regulations, upon which the need to protect investors in the capital markets by law, is established on the same basis like the need to prevent excessive consumption of alcohol by prohibition. The conclusion to be reached by analyzing historical conditions and reasons that motivated adoption of new regulations of securities is that capital market regulation is almost always based on the need to "protect people from what they really want to do."⁴⁵

Other than investor protection request, another request for capital market regulation in Montenegro is the request for increase in transparency. After years long request for increase of market transparency may be that the time is to ask ourselves what does it actually mean - to achieve greater transparency level. How can we assess if the disclosure rules are satisfying? The viewpoint expressed in foreign literature seems accurate, by which "after Enron and WorldCom, we conclude that disclosure is inadequate (otherwise prices would not be so high and there would be no crisis). We, therefore, know what reporting is only when we do not see it."⁴⁶

The change of paradigm on which securities market regulation is based on is necessary. Responsibilities for investment decisions by the law should be imposed to those who make those decisions, i.e. investors, and the law and regulatory measure should adopt the certain approach that capital market is, by its nature, made so that investors cannot be protected from wrong investment decisions by anybody, not even by the most ingenious legislator.

⁴³ See: John H. Walsh, *Can Regulation protect "suckers" and "fools" from themselves? Reflections on the rhetoric of investors and investor protection under the federal securities laws*, Journal of Business & Securities Law, Spring 2008, no.8;

⁴⁴ Ibid;

⁴⁵ Ibid;

⁴⁶ See: David A. Westbrook, *Telling All: The Sarbanes-Oxley Act And The Ideal Of Transparency*, Michigan State Law Review, Summer 2004;

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Early warning system

Abstract: *In the last 20 years there have been more than 110 financial crises in more than 90 countries. Those crises very often had devastating economic, social and political consequences. After each crisis the same question is raised: Could these financial crises be prevented, instead of resolving? This paper will give overview of early warning systems and try to answer what is the best early warning system for the detection of financial crises. This model should signal the forthcoming financial crisis and give enough time for the policy makers to react. At the same time, the best early warning system should minimize the number of false alarms about financial crises.*

Key words: *crisis, early warning system, efficiency, indicators*

Resümee: *In letzten 20 Jahren gab es in der Welt mehr als 110 Finanzkrisen in mehr als 90 Ländern. Diese Krisen hatten oftmals zerstörende, wirtschaftliche, soziale und politische Auswirkungen. Nach jeder Krise ist dieselbe Frage gestellt: Ob diese Krisen verhindert, statt gelöst werden konnten? Das Ziel von vorliegender Arbeit ist die Modelle zur Vorhersage einer Krise darzustellen wie auch die Frage zu beantworten, welches Modell zur Vorhersage einer Wirtschaftskrise das Beste ist. Dieses Modell sollte die kommende Finanzkrise andeuten und den Entscheidungsträgern genug Zeit geben, zu reagieren. Das beste Modell der Vorhersage sollte gleichzeitig die Anzahl von falschen Signalen über Finanzkrisen minimalisieren.*

Schlüsselwörter: *Krise, Modell der Vorhersagekrise, Effizienz, Indikatoren*

Резюме: *В последние 20 лет в мире было более чем 110 финансовых кризисов в более чем 90 стран. Эти кризисы зачастую оставляют за собой разрушительные экономические, социальные и политические последствия. После каждого кризиса возникает один и тот же вопрос: могут ли финансовые кризисы быть предотвращены, по системе «лучше предупредить чем лечить»? Цель этой работы заключается в представлении моделей для прогнозирования кризисов. Также, данная работа отвечает на вопрос: что является наилучшей моделью для предсказания финансового кризиса? Эта модель должна быть сигналом для предстоящего финансового кризиса и должна оставить достаточно времени реагировать для принятия решений. Однако лучшие модели прогнозирования должны минимизировать число ложных тревог, что касается финансового кризиса.*

Ключевые слова: *кризис, модели прогнозирования кризиса, эффективность, показатели*

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1. Introduction

“There is no generally accepted formal definition of a currency crisis,
but we know them when we see them.”
(Krugman 2000 p.1).

Great number of financial crisis in last two decades gave new task for economic theory: instead of previous question how crisis could be solved, new question is how crisis could be prevented. In order to anticipate financial crisis decision makers use models for estimating vulnerability of economy. In order to anticipate possible financial crisis great number of early warning systems is developed.

Early warning systems present econometric methods used to anticipate the financial crisis. Those models should help decision makers to anticipate forthcoming financial crisis and at the same time leave enough time to decision makers to take measures for preventing financial crisis.

2. Early warning systems

In the economic theory there is a great number of different early warning systems. Those systems are developed by international organizations as well as by private sector institutions. While constructing early warning system it is necessary to define scope of the model (countries that will be included in model, variables and time dimension of model), decide upon definition of crisis and statistical methodology. There are a few main methodological approaches in constructing early warning systems of financial crisis: qualitative indicators, probit/logit multivariate analysis, signaling approach models and other. On the basis of these approaches numerous models are developed in order to define the best early warning system. The differences between those systems exist with respect to the definition of crisis, methodologies and indicators that are used, as well as results that can be achieved by those models (Edison 2002 6).

2.1. Qualitative indicators

There are a number of early warning system models which are based on qualitative indicators that can signal problems in the financial sector. The use of these models is common practice among supervisors and investors.

Gaytan and Johnson (2005) present a survey of the empirical literature on early warning systems and present a methodology how to measure financial distress. The authors evaluate several models among which are also the ones based on qualitative indicators. The authors indicate that the most relevant of the models based on

qualitative indicators is *Honohan* (1997). Depending of the origins of the crisis (macroeconomic epidemic, microeconomic deficiencies and endemic crises) different warning signals are proposed (Gaytan and Johnson 2002 p. 5).

However, this model and all other models based on qualitative indicators depend on the discretionary judgment of the evaluator. The subjectivity in the interpretation of the dynamics of the indicator is the main disadvantage of these models. Therefore, it is needed to develop more objective models that would include quantitative indicators.

2.2. Probit/logit multivariate analysis models

Another approach uses probit/logit multivariate analysis and in these econometric models the crisis is observed as a binary variable (zero or one). Outcomes that are received by probit or logit estimation present probabilities of the economy facing a crisis (values are between zero and one).

This approach is used for the development of models such as *Demirguc-Kunt and Detragiache* (2000), *Hardy and Pazarbasioglu* (1999) and *Hutchinson and Mc-Dill* (1999). The big advantage of models based on this approach is the possibility of analyzing the explanatory contribution for each of variables and performing statistical tests for inferences.

Bussiere and Fratzscher (2006) examine the role of early warning systems in predicting crises and present the basic methodological approaches of early warning systems models with the evaluation of their performances. They estimate particularly multinomial logit early warning systems and discuss results and performances, with an emphasis on the robustness tests of this model. The authors claim that the policy relevance of this model, the possibility of choosing a time horizon and the probability threshold upon which policy maker can decide, are the main advantages of this model. Therefore, the preferences of the policy makers and level of their risk aversion can be included while estimating the model and decision making (Bussiere and Fratzscher 2006 p. 36).

However, the models based on this approach require large samples and a great number of recessionary occurrences. Also, only a limited number of explanatory variables can be included in the model in order to avoid multicollinearity. Besides that, the methodology used for probit/logit multivariate analysis models is very complex and the data that is used for the estimation has to satisfy a great number of presumptions.

2.3. Signaling approach

The signaling approach uses the “abnormal” behavior of the leading indicators as a signal for potential financial crises. These models estimate the probability of a financial crisis within the following period of time (usually 24 months) conditional on the chosen indicators that are issuing signals at that moment. The choice of the most appropriate period of time is determined by the trade-off between good predictability (shorter periods) and time left for the policy makers to react (longer periods). This approach is used in the creation of models: *Kaminsky-Lizondo-Reinhart* (1998), *Diebold and Rudebusch* (1989), *Goldstein, Kaminsky and Reinhart* (2000), *Edison* (2000) and a number of other models.

The most relevant and famous model based on the signaling approach is *Kaminsky-Lizondo-Reinhart (KLR) model*. The authors of the model define a crisis “as a situation in which an attack on the currency leads to a sharp depreciation of a currency, a large decline in international reserves, or a combination of the two” (Kaminsky, Lizondo and Reinhart 1998 p. 15). Originally the KLR model was developed on the basis of 20 countries from three regional groups: Latin America, Asia and other.

In order to choose and examine the effectiveness of each indicator, the authors used the following two-by-two matrix presented in table 1 (Kaminsky, Lizondo and Reinhart 1998 p. 18):

Table 1. Matrix of Indicator Signals

	Crisis (within 24 months)	No crisis (within 24 months)
Signal was issued	A	B
No signal was issued	C	D

Perfect indicators are the ones that issue the signal if it is followed by a crisis ($A > 0$, $C = 0$) and ones that do not issue signals when there is no crisis ($D > 0$, $B = 0$). Therefore perfect indicators belong to cells A or D. Indicators from those cells (A and D) minimize the noise-to-signal ratio (the ratio of the share of false alarms to the share of good signals received by each independent variable).

The noise-to-signal ratio is calculated for each of these indicators using the data and the two-by-two matrix presented in table 1, in the following way:

$$(1) \quad \text{Noise-to-signal ratio} = \frac{B/(B+D)}{A/(A+C)}.$$

For each country the threshold value is calculated as the 10th percentile of the distribution of that indicator for the specific country. On the basis of these indicators, the authors of the model develop a composite index that presents a weighted average of the individual indicators. Larger weights are given to those indicators that have the smaller noise-to-signal ratio. A created composite index issues warning signals when it exceeds a critical and it presents the likelihood that the specific country will experience a financial crisis.

After examining 105 indicators, explanatory variables that passed the test and that are used for the KLR model can be divided into four groups (Edison 2000 7):

- Capital account indicators: international reserves, the ratio of M2 to international reserves and the domestic-foreign real interest rate differential on deposits;
- Current account indicators: value of exports, deviations of the real exchange rate from the trend, value of imports, and terms of trade;
- Real sector indicators: industrial production (output) and index of stock prices;
- Financial indicators: M2 multiplier, bank deposits, real interest rate, excess real M1 balances, the ratio of domestic credit to the nominal value of the GDP and the ratio of lending interest rate to deposit interest rate.

The model based on this approach gives accurate results from small samples and it does not impose any restrictions on the number of variables that can be included. Many financial crises are not simple isolated events that happen to a certain economy, but are contagious in spreading across markets. However, this model does not allow regional differences within it and it uses arbitrary selections of variables. Also the marginal contribution of each variable cannot be computed and that is the reason why the index composition is subjective.

3. Comparison of early warning systems

The results of all of the above-stated early warning systems are different depending on the model, but at the same time none of the existing models are able to forecast crises with a high level of accuracy.

Heterogeneity of models, their scopes, results and indicators does not allow their simple comparison. Also, data used for development of models are different what makes hard to conclude decision what model is the best. Bellow are presented attempts of different authors to conclude what of early warning systems is most efficient.

Berg, Borensztein and Pattillo (2004) consider the existing early warning systems and examine the question do early warning system have to play any role at all and if yes, which of these models is the best. They focus their research on four models: two long-horizon models implemented at the IMF, the *Kaminsky-Lizondo-Reinhart (KLR) model* and the *Developing Country Studies Division (DCSD) model*, as well as two private, short-horizon models: *Goldman Sachs's (GS-WATCH)* and *Credit Suisse First Boston's Emerging Markets Risk Indicator (CSFB)*. The authors analyze how well each of these models worked in practice since 1999. They present results for each of the four models and they stress the differences among these models with regard to the statistical and economic significance of the indicators, the accuracy of the forecast and the overall performance of each model. Berg, Borensztein and Pattillo state that the *Kaminsky-Lizondo-Reinhart (KLR) model* performs much better than all the other examined models (2004 29). However, the results received by the KLR model are not accurate enough to be used as the sole method to anticipate a crisis.

Besides that, Davis and Karim (2008) provide a comprehensive theoretical overview of the financial crisis and early warning systems. They present the two most important approaches of early warning systems: models based on multivariate logit and models based on a signaling approach, and try to answer which approach gives the better result. The same data they analyze by models based on two different approaches and conclude that the choice of the approach affects the results. They prove that the use of different dependent variables has a big influence on the predictive capacity of the model and that the predictions can be improved by the standardization and lag transformation of indicators. The authors claim that models based on probit/logit multivariate analysis are appropriate for global early warning systems, while models based on the signaling approach should be used only for country-specific early warning systems.

Abiad (2003) presents a conducted survey of 30 different early warning systems (EWS) that have been developed since 1998. He describes the differences between those systems with respect to the definition of crisis, methodologies and indicators that are used, as well as results that can be achieved by those models. Abiad concludes that use of the information about the level and volatility of exchange rates is neglected. This variable should be included since smaller depreciations usually precede crises "by a widening of an exchange rate band, and/or an increase in the volatility of exchange rates and this has not been utilized in existing models" (Abiad 2003 45).

4. Conclusion

Statistical methods used for estimating probability that certain economy will experience financial crisis in specific time period are very useful tools that give signals to decision makers and financial institutions. All economists agree that no matter how sophisticated the early warning system is it will not be able to forecast crises with a high level of accuracy and all economists are aware of that fact.

Although there is a great number of models and analysis of those models, in the economic theory there is no consensus which model gives best results. Depending on the goals that should be achieved by use of models, there are different recommendations. However, *Kaminsky-Lizondo-Reinhart (KLR) model* that is presented in this paper is most frequently recommended for anticipating financial crisis. Models that are currently being developed try to include political and institutional conditions for specific countries, since those are main disadvantages of majority of early warning systems.

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Euro Area Crises: Integration Directed to Political Union as a Chance for Survival and Further Development?

Abstract: *The Euro area is facing with the biggest crisis since it has been established. However, considering historical development of European Monetary Integration, one have to bear in mind that it is not the first and the only one crisis. After the collapse of Bretton Woods monetary system in 1973, member countries of European Community (EC), had many problems because of large fluctuations of intra-European real exchange rates. In order to reduce the risk of significant exchange rates fluctuations, and to face with issues of inflation and unemployment, EC countries with such a problems pegged their currencies exchange rate to the Deutsche Mark, and it was the beginning of the way toward the common currency - the euro. Euro introduction has many advantages. However, this crisis has shown a lot of disadvantages of Euro area, which could have negative contribution to the euro and put it's future under the question. The question raised today is, whether one of solutions to overcome the problem of fiscal indiscipline of several member state of Euroarea is an attempt toward fiscal federalism as one of Optimal Currency Area's criteria? The question is how to make fiscal policy of EU, and especially of EMU member states more centralised, and take at least one it's part from the hands of local politicians, to central European institutions. Does the current crisis in the Euro area bring the Europe to stronger integration – political union, or is it actually possible verification of Friedman's theory which says „that a system under which the political and currency boundaries do not match is bound to prove unstable“.*

Key words: *Economic Integration, Optimal Currency Area, Monetary Union, Euro, Euroisation, European Monetary System, European Central Bank, Stability and Growth Pact, Currency Crisis*

Resümee: *Der Euroraum gegenüberstellt sich mit der grösste Krise seit seiner gründung. Allerdings, mit dem Rücksicht auf der Historische Entwicklung der Europäische Währungsintegration, es ist wichtig zu bedenken dass diese Krise inicht die erste oder die einzige Krise der Union ist. Nach dem Zerfall des Systems von Bretton Woods im Jahr 1973, wurde das System fester Wechselkurse aufgegeben und Mitgliedstaaten der Europäischen Gemeinschaft viele Probleme aufgrund der große Fluktuation des Intra-Europäischen realen Wechselkurses hatten. In der Absicht ein Risiko der Fluktuation des Wechselkurses zu reduzieren und ein Problem der Inflation und Arbeitslosigkeit zu lösen, Mitgliedstaaten der Europäischen Gemeinschaft mit obenerwähnten Probleme, hatten eine Kursstützung zur Deutschen Mark gemacht. Hiermit, versuchten die Mitgliedstaaten einen Rahmen zu schaffen, der zumindest auf Europäischer Ebene ein Mindestmass an Stabilität gewährleisten und bis zur Währungsunion ausgebaut werden konnte. Einführung des Euro hat viele Vorteile. Auf der anderen Seite, diese Krise hat viele Nachteile des Euro gezeigt.*

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Diese Nachteile könnten einen negativen Beitrag zum Euro haben und die Zukunft des Euro als eine Frage stellen. Eine Frage die gestellt wurde ist ob ein Schritt in Richtung des Fiskalischen Föderalismus als einem Kriterium des optimalen Währungsraumes, eine Lösung des Problems der nicht beachtete Fiskalischen Disziplin von einigen Mitgliedstaaten der Eurozone ist? Eigentlich, diese Frage betrifft die Führung der Fiskalischen Politik der EU, besonders die Mitgliedstaaten des Euroraumes in der Richtung der Zentralisierung. Ob die gegenwärtige Krise des Euroraumes Europa zu einer starker Integration – Politischen Integration bringen wird, oder diese Krise ist eigentlich eine Bestätigung der Theorie von Friedman der sagte dass: „das System mit keine Anpassung der Politische- und Währungsgrenzen, sich als unbeständig beweisen könnte“.

Schlüsselwörter: Wirtschaftliche Integration, Optimaler Währungsraum, Währungsunion, Euro, Euroisation, Europäisches Währungssystem, die Europäische Zentralbank, der Stabilitäts- und Wachstums-Pakt

Резюме: *Еврозона сталкивается с самым большим кризисом с момента ее установления. Однако, учитывая историческое развитие европейской валютной интеграции, нужно принять во внимание, что это не первый и единственный кризис. После распада Бреттон-Вудской валютной системы в 1973, в странах-членах Европейского Сообщества (ЕС), было много проблем из-за большого колебания реальных обменных курсов внутри Европы. Для того, чтобы уменьшить риск значительного колебания валютных курсов, и чтобы сталкиваются с вопросами инфляции и безработицы, страны ЕС с такими проблемами “привязали” обменный курс своих валют к немецкой марке, и это стало началом пути к единой валюте – евро. Введение евро имеет много преимуществ. Тем не менее, этот кризис продемонстрировал много недостатков в Еврозоне, которые могли бы оказать отрицательное влияние на евро и поставить его будущее под вопрос. Сегодня поднимается вопрос - является ли одним из способов преодоления проблемы фискальной недисциплинированности нескольких государств-членов Еврозоны попытка идти в направлении фискального федерализма, как один из критериев Оптимальной Валютной зоны? Вопрос состоит в том, как оформить фискальную политику ЕС, особенно более централизованных государств членов ЕВС, и взять по крайней мере одну ее часть из рук местных политиков, в центральные Европейские институты. Приводит ли нынешний кризис в Еврозоне Европу к более тесной интеграции – к политическом союзу, или на самом деле будет подтверждена теория Фридмана которая гласит “что система, при которой политические и валютные границы не совпадают неизбежно оказывается неустойчивой”.*

Ключевые слова: *экономическая интеграция, Оптимальная Валютная зона, валютный союз, евро, еврозация, Европейская валютная система, Европейский центральный банк, Пакт стабильности и роста, валютный кризис*

1. Economic Integration Definition and Types

The economic integration represents a process of merging different types of joint or individual economies into the larger free – trade blocks. There are a number of levels of economic integration starting from the weaker to the stronger ones¹.

One of the strongest types of economic integration is the *Economic and Monetary Union*. The *Economic and Monetary Union* represents a common market with a single currency, i.e. it represents a community of states in which a monetary union is being jointly determined on common market. The European Monetary Union (hereinafter referred to as: the “EMU”) or the Euro area is the strongest economic union between independent nations in the world, being a part of the EU using the Euro as a single currency². The stronger type of economic integration against the monetary union is *full integration*, being the final integration stage, and which in addition to the common monetary policy of integrated group of countries, implies the fiscal policies harmonization and centralization, as well as the harmonization and integration of remaining policies and institutional frameworks of counties. This is actually the political union creation.

2. Economic Justification of Monetary Integration – Optimal Currency Area Theory

Costs and benefits that a country may have from the process of economic integration, especially the stronger forms of economic integration, such as the area of fixed exchange rates depends on the extent to which an economy of a country is being integrated with the economies of its potential partners. Namely, a high degree of the economic integration³ and the area of fixed exchange rates are increasing the monetary efficiency gain⁴, which the country may generate when fixing its own currency against the currency of observed area. The theory which explains the aforementioned relationship is being known as the *Theory of Optimum Currency Area*, explaining that the fixed exchange rates are the most adequate ones for areas being integrated to the greatest extent thanks to the international trade and production factors trends (Krugman P. 2009)⁵. Hence, if an achieved economic

¹ The economic integration level may be categorized into six types: preferential trade zones; free trade zones; customs union; common market; economic and monetary union; full economic integration.

² The Euro area consists of 16 EU member states that introduced the Euro as a single currency.

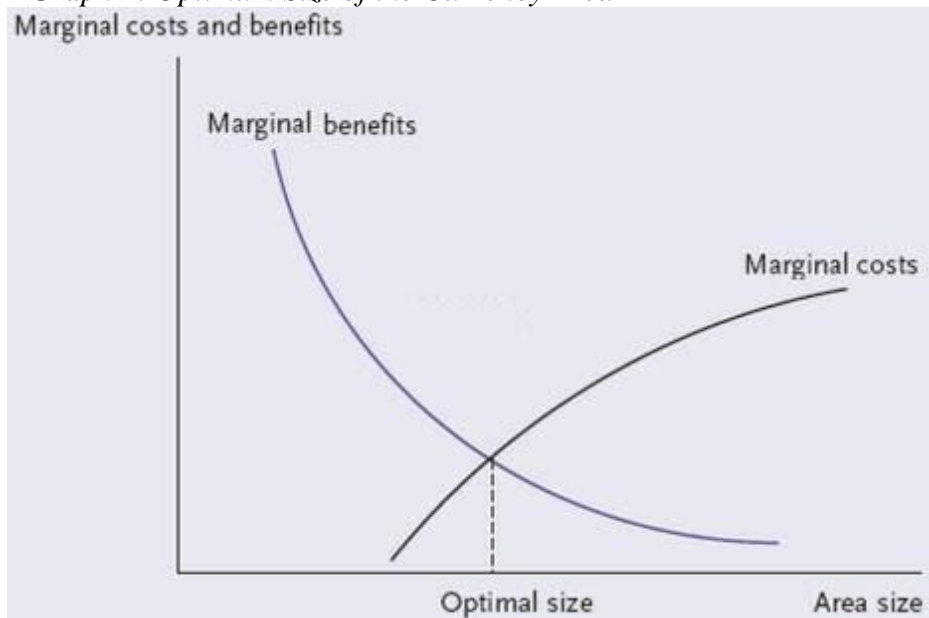
³ The economic integration degree is measured by the intensification of the international exchange and production cooperation, as well as the mobility of production factors.

⁴ Relates to the benefits from eliminating currency risk exposure, accounting, conversional and other transactions costs arising in the absence of the currency union membership.

⁵ Original source of the Optimum Currency Area Theory is the Essay “The Theory of Optimum Currency Area“, American Economic Review 51 (1961), pages 717-725, of the Economist Robert A.

integration degree is high between a country and a region of the fixed exchange rate to which is being linked, it is contributing to the achievement of a larger economic benefits against costs incurred due to the loss of stabilization mechanisms⁶ incurred due to a membership in a given currency area, then a membership in a given area is worthwhile for the country. Actually, in a situation when marginal costs are equal to marginal benefits, the currency area is reaching the optimum size (see the Graph 1).

Graph 1: Optimum Size of the Currency Area



Source: Baldwin R., Wyplosz C. 2006.

The Theory of Optimum Currency Area provides for the review of possibilities, i.e. the readiness of a certain region of becoming the monetary union. The membership criteria in the optimal currency area related to the three economic and three political criteria. The economic criteria are as following:

- **Labor mobility across the single currency region** (*Mundell criteria*). This implies the ability of the labor to travel often, being free from language barriers, etc., when migrating from one to another country within the common currency area. When the labor migration is free, asymmetric shocks are being eliminated⁷

Mundell, professor at the University of Columbia. As the founder of the Optimum Currency Area Theory, Mundell was the Nobel laureate. Mundell, as the Keynesian economist, is the advocate of the single world's currency.

⁶ Monetary policy and currency rate policy.

⁷ Asymmetric shocks arose when something unexpected erupts, "affecting" the entire economy or its part more than other parts. This is creating a problem in implementing the macroeconomic policy due to the fact that the same economic policies in the same economy (integrated region), fail to act in the same manner to an area affected by a certain shock and the area released from the shock.

in the region, being featured by the outflow of excessive labor in other region but within the same currency area, generating the balance.

- **Economy openness** (McKinnon⁸ criteria). The greater the openness of the economy for mutual trade, the lower is the effectiveness of manipulations with the nominal currency rate, decreasing the prices »adhesiveness«.
- **Economy diversification and similarity of production structures** (*Kenen*⁹ criteria). Pursuant to this criterion, if the economy is highly diversified it decreases the occurrence of possibility of asymmetric shocks.

The three political criteria are as following:

- **Fiscal transfers.** If the country B is affected due to the negative effects of shocks that erupted in the country A within the same common currency region, then the interest of the country B is to assist in decreasing the impact of aforementioned shocks. One possibility is to make the financial compensation from the country B to the country A which was affected by the shock. These fiscal transfers lead to the reduction of asymmetric shocks. This leads to a recession in the country A and the economic boom in the country B, because shocks, if they are temporary, are disappearing. If shocks have longer effects, the fiscal transfer effects from the country B, in the country A will be manifested through prices. In any case, the country B, making the fiscal transfer may only generate benefits in the future.
- **Homogeneity of preferences.** When countries in the single currency region have homogeneous preferences related to the priorities of their economic policies, there will be more motivated to transfer their economic policy instruments to the supranational institutions.
- **Solidarity criterion.** If the countries, within the same currency area, are ready for mutual solidarity and sharing of a common destiny, then this commitment is prevailing against the national tendencies and indicates the greater willingness of countries to transfer a part of its national sovereignty to the supranational institutions.

All aforementioned six criteria, represent the arguments that go in favor of establishing the monetary union.

⁸ McKinnon is a professor at Stanford University, who gave enormous contribution in the international economy. He has been known by his critical opinion and assessments of the EMU, primarily because of the absence of the fiscal federalism

⁹ Peter Kenen is a professor at Princeton University, who gave enormously contributed to understanding of the international monetary system and the follow up of the European monetary integration.

3. European Monetary Integration

3.1 Historical Development of the European Monetary Integration

Following the official abolition of the Bretton Woods monetary system in 1973, which was featured by the existence of the U.S. Dollar as the world's reserve currency, the system of fixed exchange rates in the world was abolished, and start to prevail the floating exchange rate system. The fall of the Bretton Woods international monetary system, created the conditions for the intensification of systemic risk in the international finance. After 1973, currencies of European countries have started to fluctuate against the dollar, as well as against each other. Due to the fact that this fluctuation was not in their interest, the countries of the former European Economic Community (EEC), aimed at fixing it, and at the end creating the common European currency. Furthermore, motives that inspired the EU countries to strive towards a single monetary policy, include the strengthening of the European role in the international monetary system, as well as growing of the former European Economic Community into a truly unified market.

In the period from the outbreak of first problems within the Bretton Woods monetary system up to its final abolition in 1973, there have been several attempts for preserving it. Thus, the last attempt to preserve this system was made in 1971, when the margins of exchange rates fluctuations against the U.S. Dollar have been expanded from $\pm 1\%$ to -2.25% . However, since in newly created conditions, bilateral exchange rates of some European currencies had expanded fluctuation range (e.g. DM and the FRF up to 9%), then the current six member states of the European Community, as well as some other European countries (Denmark, Sweden, Norway, Ireland and the UK) opted for maintaining a margin of 2.25% against the U.S. Dollar, or to define the so-called tunnel. Moreover, the same group of countries has limited the mutually bilateral exchange rates fluctuations at the maximum range up to $\pm 2.25\%$. In the light of the above, it was possible to achieve the maximum margin of 4.5% between any of the two currencies of the aforementioned group of countries. This was named so-called the "Snake in the Tunnel", as an attempted of the joint efforts of the European countries in determining the limits of mutual exchange rate trends and movements against the U.S. Dollar. However, the official abolition of the monetary system Bretton Woods in 1973, has abolished the "tunnel", since it completely eliminate the U.S. Dollar convertibility into gold, but the European Union, opted for holding the "snake", i.e. to limit the range of variation of their bilateral exchange rates up to a maximum of 4.5% . However, due to different responses of the EU countries that have accepted the "snake", as a response to the turbulences in their economies (inflation and unemployment) in '70 of the last century, the abolition of this model took place. The main lessons learned from these phenomena were as following:

- If two countries are pursuing in maintaining a stable exchange rate, they must pursue similar monetary policies;
- If a country (Germany) has a stable monetary policy, than the other one (Italy or France) must have an expansive one, failing to maintain exchange rates (Baldwin R., Wyplosz C. 2006).

The idea of creating fixed exchange rates in Europe is being implemented from 1979, by establishing the European Monetary System (EMS)¹⁰, which was characterized by fixing the exchange rates by the member states for the DM, as a measure used to protect from inflation¹¹. However, as the inflation rates greatly differed in certain countries of the EMS (e.g. 5.4% in Germany and 21.3% in Italy in 1980), in a situation of existence of fixed nominal exchange rate, the result was a chronic asymmetry and the fall in the countries competitiveness, such as Italy. Up to August 1993, the EMS suffered periodic exchange rate adjustments, i.e., most of the "fixed" exchange rates within the EMS could fluctuate in either direction to + / - 2.25% compared to the assigned nominal value. This represented the ERM or the exchange rate mechanism, as a system commonly driven fixed or adjustable exchange rates which represented the essence of the EMS. However, due to pressure of the speculative shocks¹², which nearly destroyed the EMS, Italy and Great Britain have abandoned the ERM, in order to preserve the EMS from suffering further complications. In August 1993, the range of possible fluctuations within the EMS was expanded to + / - 15%. Later on, with the Euro introduction and abolishment of national currencies, the EMS was gradually losing its existence purpose. However, as several EU member states have abandoned the idea of introducing Euro, as well as member states committed to the fulfillment of requirements for the Euro introduction, the EMS was readjusted, i.e., the ERM – 2 entered into force in 1998 (with the oscillation possibility of + -15% against the Euro). The ERM-2 was enacted in 1999 with Denmark as the only "old" EU member state, and then accepted by 7 out of 10 new member states that joined the EU in 2004. Namely, the

¹⁰ The EMS member states were former European Economic Community member states, but only those states which applied fluctuation margins, were incorporated into the exchange rate mechanism (ERM) within the EMS. Great Britain joined the ERM in 1990, and then abandoned it in 1992.

¹¹ This is because the German Bundesbank was implementing low inflation rates policy and thus Germany at that time was the country with the lowest inflation rate within the EMS (at around 5%).

¹² After the unification of East and West Germany in 1990, in Germany, country which until then had the lowest inflation rate in the EMS, suffered the increase in inflation rate. Therefore, the Bundesbank, in order to prevent further inflation has raised the interest rates. Other countries, like France, Italy, Great Britain, have tried to adjust to higher interest rates of Germany, to keep their currencies fixed (or with the deviation of 2.25%) compared to the Deutsche Mark. Thus these countries pushed their economies into deeper recession. All this has led to a series of speculative attacks on exchange rate parities within the EMU, and the necessity of applying a wider range of fluctuations (+ / - 15%) within the floating range within the EMS. Actually, the first fluctuation range refers to the Exchange Rate Mechanism I (ERM I), while the second one relates to the ERM II (Exchange Rate Mechanism II).

European Community member states at that time, were gradually abandoning the EMS and were becoming closer to the implementation of the common European currency, as much more ambitious objective than the mutual fixing of exchange rates. Thus, Jacques Delors, the President of the European Commission has made a proposal to reach the European Economic and Monetary Union, that would be reached in three - stages. His report was adopted at the Summit in Madrid in 1989. According to Delors plan, the existing national currencies of the EU countries at that time would be replaced by a single currency managed by a single bank on behalf of all member states. After the adoption of the Plan, the Maastricht Treaty was signed in 1991, based on which the European Community evolved into the European Union, defining the monetary union membership criteria, or so – called Convergence criteria¹³. From January 1999 onwards, the exchange rates of at that time 11¹⁴ EU member states that have introduced the Euro (out of total 15 states), have been irretrievably "frozen" against the Euro.

These countries have transferred the monetary policy management to the European System of the Central Banks with headquarters in Frankfurt. After this, the Euro was introduced in 2001. By this action, the EMU became the first monetary union of politically independent countries that have merged their currencies into one, "reviving" price-spice-mechanism of David Hume¹⁵ from the time the gold standard, being an automatic mechanism that involves strict monetary discipline. After this, Greece has joined the EMU in 2001, than Slovenia in 2007, Cyprus and Malta in 2008, and Slovakia in 2009, thus the EMU has 16 member states.

The Euro introduction has numerous advantages:

- a) It was believed that the common currency will lead to a greater degree of market integration in Europe, than with the fixed exchange rates, because it both eliminates the parity adjustments risks within the EMS and the transaction costs of trade participants due to currency conversion reasons (which are estimated to be at around 0.4% of GDP of the former EU-15). Furthermore, they are price stabilizers;

¹³ (i) **price stability**, where the inflation rate of a country on a yearly basis may be at maximum 1.5 of percentage points above the average inflation rate in the three EU countries having the lowest inflation rates; (ii) **interest rate**, where the average long – term nominal interest rate of a country may at maximum higher by 2 percentage points above the average in the three EU countries having the lowest inflation rates; (iii) **budgetary deficit** may not exceed 3% of GDP of observed country; (iv) **public debt** may not exceed 60% of GDP of a country; (v) **currency stability**, where a country aspiring EMU membership, is entering *ERM II (Exchange Rate Mechanism II)*, e.g. at least two years prior to acquiring the EMU membership, is fixing its currency against the Euro, with possible deviations of +/- 15%.

¹⁴ Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.

¹⁵ David Hume, economist, philosopher and historian of the 18th Century, a critical opponent to mercantilism a liberal opinion representative.

- b) The European Central Bank would replace the Germany Bundesbank, which had a dominant position in the EMS and instead of German dominating interest, other member countries that are beneficiaries of the common currency would be given an opportunity of participating in decision making process in the entire monetary policy;
- c) In terms of free capital movement within the EU common market, it seemed that the costs of keeping national currencies with fixed (and not adjustable) parity, than benefits generated with non – recurring parity fixing;
- d) The EU leaders have thought that the Maastricht Treaty provisions will represent a political stability guarantee within the monetary union.

Prior to the signing of the Maastricht Treaty in 1991, the low-inflation countries such as Germany, wanted to be sure that their EU partners, who, at the time of the "Snake in the tunnel" and the EMS, were faced with the inflation problems and high public spending, will be disciplined on this issue and that will adhere to the Maastricht criteria. Otherwise, the Euro would result in a weak currency, becoming the victim of policies that have encouraged inflation in Greece, Portugal, Spain, France, and Great Britain in the period from the beginning of 70's of last century and onwards. Creators of the Maastricht Treaty were afraid that high budget deficits and debts will generate pressures to the new European Central Bank, forcing it to buy-out the state debt, thereby encouraging the growth in money supply and inflation (Krugman P., Obstfeld M. 2009). As the time pursued the establishment of the EMU, the Euro skepticism increased in Germany, due to the fear that the new currency will not be as strong as the DM.

Therefore, the German Government in 1997, insisted on the creation of the **Stability and Growth Pact, whose main task would be to maintain the fiscal discipline within the EMU**, in compliance with the Maastricht criteria¹⁶. From today's point of view, at the time of the world financial crisis and the Euro area crisis, it turned out that the German doubts were to the greatest extent justified, and that countries that even from '70 of the last century had high inflation and fiscal indiscipline (Greece, Spain, Portugal and Ireland) due to the non-compliance with the Maastricht fiscal criteria (budget deficit below 3% of GDP and public debt below 60% of GDP), represent a threat to stability, perhaps endangering the Euro survival. **In fact, today's crucial problem is because the Stability and Growth Pact was never properly applied in practice**, particularly from the eruption of the great world economic crisis. Hence, some Euro area members, in the situation of the common monetary policy, have led the fiscal policy as if they were the Euro non - users! In the light of the above, it may be concluded that the retention of the fiscal policy by

¹⁶ Paradoxically, Germany was one of countries that did not respect Maastricht's fiscal rules in 2003 (budget deficit accounted for 3.8% of GDP), as well as France. Accordingly, those rules were changed in 2005.

these states at the national level, when the monetary policy was transferred to the European Central Bank (ECB), is obviously representing a major threat to the Euro. It is worth mentioning **the skepticism of Mr. Milton Friedman**, the Nobel laureate, a prominent monetarist and representative of the Chicago school of Economics, as the advocate of the fluctuating exchange rates in reference to the Euro introduction. In one of his arguments on why is he Euro skeptical, Friedman has responded to Neo- Keynesian Robert Mundell, an advocate of fixed exchange rates system in the world and an advocate of the Euro introduction:

“There is no historical precedent for an arrangement related to Euro introduction where a transnational central bank issues a common currency for its members. It involves each country’s giving up power over its internal monetary policy to an entity not under its political control. Such a system could have its advantages and disadvantages but I believe that the euro’s real Achilles heel will prove to be political; that a system under which the political and currency boundaries do not match is bound to prove unstable. In any event, I do not believe the euro will be imitated until it has a chance to demonstrate its viability.....Is euro going to contribute to the creation of political union? I believe that this will happen only if it is going to be proved as economically successful. Otherwise, it is more possible that it will cause political conflicts, than political unity”.

Prior to drawing any conclusions, it is necessary to analyze, what are the additional criteria to be fulfilled in pursuing more stable Euro, or which criteria should be additionally fulfilled to save the Euro and to contribute to the further development of Europe? Is the EMU an optimal currency area? Does the EMU have a chance of evolving into the political union?

3.2 Is the EMU an Optimal Currency Area?

The answer to the question is the EMU the optimal currency area can be obtained by reanalyzing the membership criteria in this currency area.

- **According to the labor mobility criteria, the EMU is not an optimal currency area.** Namely, labor mobility in the EMU is very low, both between member countries, and within the member states thereon. Out from the member states, the largest labor mobility has Belgium (at around 5% of the EU population), while inside the EMU member states, the largest labor mobility has Austria (at around 2% of population). On the other hand, in Canada and the U.S., labor mobility is very high, both between the countries (at around 18% of population in Canada and 12% of the U.S. population), and within their boundaries (from one part of a country to another - United States at around 2.4%, Canada at around 2.3% of the total population). The low labor mobility in the Euro area, may be currently

considered as one of the Influence factors influence surging the unemployment rate¹⁷.

- **According to the criteria of economy openness, the EMU represents an optimal currency area.** Namely, economies openness percentage in the EMU ranges from 26% in Greece to 133% in Luxembourg. Whereas the openness volume of the U.S. economy is 14%, and Japanese 13.5%. This means that the Euro area economies are highly open to mutual trade.
- **According to the economic diversification criteria and similarity of production structures, EMU is an optimal currency area.** Namely, the eurised countries are featured by the similarities in production structure, which is reflected in the high trading inter-sectoral volume within the Union.
- **According to the fiscal federalism¹⁸ criteria, the EMU is not an optimal currency area.** The budgetary transfers within the EU are limited to 1.24% GNI, i.e., the EU is not able to transfer the economic resources of member states having healthy economies to those whose economy is lagging. In the U.S., for example, countries whose performance is weak compared to the rest of the nation, receive assistance from Washington in the form of social contributions and other federal transferring payments, which ultimately originate from taxes paid by other countries (Krugman P. M. Obstfeld 2009). This eliminates asymmetric shocks and provides for the long-term benefits of those who are making fiscal transfers. However, the European Union, due to limited tax competencies, or the fact that fiscal policies at the level of the member states, and not on the supranational level, in practice is able to implemented the fiscal federalism in a moderate level;
- **According to the preferences homogeneity criteria,** it may be concluded that the EMU is probably the optimal currency area, since most Europeans are not against the European project.
- **According to the solidarity and common destiny criteria,** it isn't still possible to precisely determine whether the EMU is an optimal currency area. Namely, the issue being particularly emphasized at the time of the European crisis, is to what extent are the European citizens supporting the political union. The crisis has shown that the protectionism in some member countries of the EMU, becomes more pronounced (e.g., protection of the automotive industry, nationalization of banks, private companies, etc.). This phenomenon is not only inconsistent with the solidarity criteria within the Optimum Currency Area and subordination of the national goals to supranational ones, it is more likely opposite to the principles the EU functioning. Therefore, it may be stated today that the EMU is not an optimal currency area neither by this criteria (see Table 1).

¹⁷ Unemployment rate in the Eurozone in 2008, amounted to 9.6%, and 9.8% in 2009.

¹⁸ The Fiscal federalism in the EMU case, regardless of the nonfederal establishment, would mean to review which remaining tasks have to be implemented at the national level (or at the regional level), and which would be delegated to Brussels's competency.

Table 1: Is the EMU an optimal currency area based on aforementioned criteria

Criterion	Satisfied?
Labor mobility	No
Trade openness	Yes
Product diversification	Yes
Fiscal transfers	No
Homogeneity of preferences	Partly
Solidarity	?

Source: Baldwin R., Wyplosz C. 2006.

Pursuant to the aforementioned, the EMU may not be considered to be an optimum currency area, and whether it will become one it depends on the number of factors. Some of these factors may simultaneously be important for the further stability of the Euro and the crisis overcoming.

4. The Euro Area Crisis – the Current State of Play and Possible Solutions

4.1 The EMU – Current State of Play

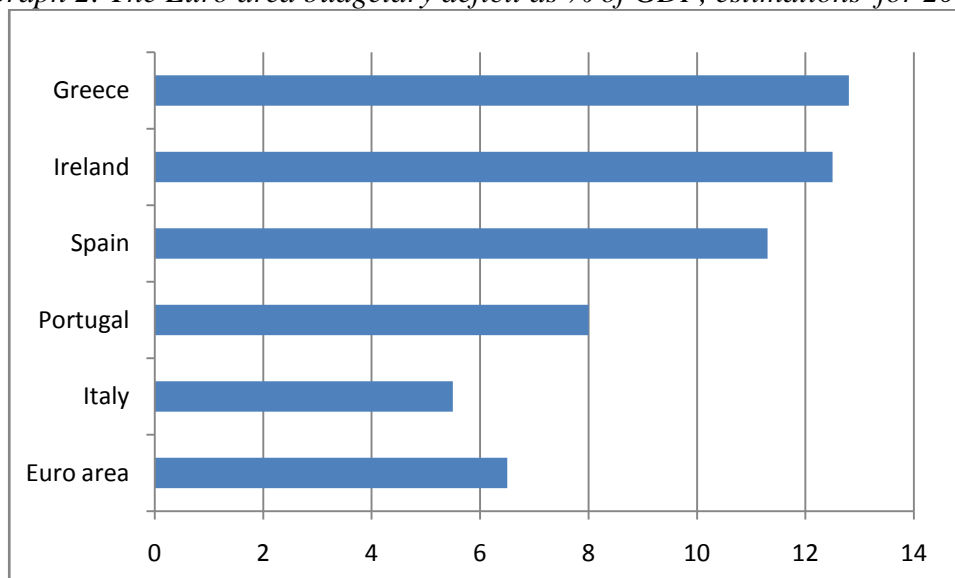
The Euro area is currently facing with the biggest crisis since it was founded. The causes of the crisis are different, being expressed in the internal and external influence factors influence, as well as possible shortcomings in its foundation and allowing the membership of certain countries, which had a high public spending, or which failed to fully meet the Maastricht fiscal criteria (Greece, Italy) ¹⁹. The rise of the fiscal problems, has posed a series of questions to the European leaders. It is necessary to maintain a balance between the need to preserve the central pillar of the European economic constitution and the need to guarantee financial market stability. Every Euro area's country is responsible for its fiscal policy and no one can guarantee for it. However, the crisis in any of the country, especially if it's the one of the Euro area, may generate dangerous transferring and adverse systematic effects. Therefore, today, in the case of the Greek's debt crisis, managing its public finance represents a test not only for Greek politicians, but more importantly for the entire Euro area.

Greece, which as the Euro area's member has generated the budgetary deficit of 12.7% of GDP in 2009, and public debt of 112.6% of GDP, failing to present public finance data in a correct manner at the time of accessing the Euro area, is today in a great crises. The Euro introduction in Greece, attributed to the decline in the interest rate and its costs, facilitating the access to the long – term borrowing on financial

¹⁹ Namely, as the time of accessing the EMU, Italy and Greece public debt amounted above 100% of GDP.

markets, decline in transaction operating costs and the economic growth at around 4% annually (up to 2008). However, the GDP growth was hiding huge public finance weaknesses of Greece. Public spending grew, budget was in downward deficit from 2003, subsequently generating the inflation growth above the Euro area average, causing the fall in competitiveness. The economy was increasingly relying on borrowings in abroad. The current account deficit grew to 14.6% of GDP, in 2008. If Greece would have its own currency (Drachma) all these years starting from 2001, the problems would have emerged much earlier (*Economist*, 2010).

Graph 2: The Euro area budgetary deficit as % of GDP, estimations for 2009.



Source: European Commission, 2010.

Today, the Greece mission is to reduce the budgetary deficit to 3% by 2012, assuming very painful reduction measures in public spending (e.g., freezing public sector wages) and subsequent increase in taxes. The question is, to which extent Greece will succeed, being ranked as one of countries with the world's highest public debt (in % of GDP). Furthermore, in April and May of the current year, EUR 20 billion of debt is maturing for servicing, thus it is necessary for Greece to restore the market confidence. In this regard, the Greeks would certainly ask for help. Meanwhile, Greece is not the only Euro area member which significantly violated the fiscal discipline. Namely, countries like Greece, which have greatly violated the Maastricht rules regarding the budgetary deficit and public debt, such as Ireland and Portugal (with the budgetary deficit rates of 12.4% of GDP and 8% of GDP, respectively). In addition to these countries, Spain is facing problems due to the high budgetary deficit (11% of GDP in 2009), as well as Italy, which stock of the public debt is 114.6% of GDP and the budgetary deficit at around 5.5% of GDP 2009 (See Graph 2, European Commission's).

In the case of Greece, the euro – skeptics claim that any rescuing package or assistance to this country is delaying the imminent collapse of the Euro area. The rescuing of Greece would mean that by applying the same principle, even Spain, Portugal, Italy and Ireland would be entitled to assistance. Would this mean that the Germany, being relatively stable and fiscally disciplined economy, needs to finance high public spending of poorer countries of the Euro area? Even if Greece would succeed in resolving problems through the EU support, its competitiveness is currently much lower compared to the wealthier Euro area economies. Namely, the economy of countries such as like Portugal, Spain, Greece and Ireland are too weak to adhere to the Eurozone rigorous membership criteria. In fact, highly uncompetitive countries, in the situation of the existence of a centralized monetary policy, as large consumers, will have to pursue decline in public spending and inflation, in order to really adapt to the Euro area. However, will the aforementioned be even possible, since it is now clear that the governments of these Euro area members are facing difficulties in controlling their public debt and budgetary deficit? Can this lead to political problems in these countries and the Euro area in general? Was Friedman maybe right? The Greek problem is the Euro area problem. Namely, in early April 2010, the Euro nominal effective exchange rate ratio, calculated against the currencies of the 21 most important trading partner, was 5.3% lower than at the end of 2009. By analyzing bilateral nominal exchange rates, the Euro in the first week of April has depreciated against the U.S. Dollar by 7.4%, against the Swiss Frank by 3.5%, against the U.K. Pound by 1% and the Japanese Yen by 6.1% compared to the end of 2009. The question is, what will be the further Euro weakening if the same Greek situation erupts in Spain, Portugal and Ireland?

4.2 Is There a Chance for Overcoming Problems in the Euro area?

A successful response to the Euro area crisis will require a **political agreement, unity and coordinated actions.**

There are already historical examples in the European Union illustrating successful coordination of specific initiatives with a strong political background, and the result of such coordination, which arose from the crisis, is the Euro itself. Namely, in the part of the document dealing with the historical development of the European Monetary Union, it was described with which problems countries in the European Monetary System have faced with arising from the exchange rates fluctuations. However, unity of the EMS countries was never jeopardized by any inflation related crises, speculative exchange rates shocks, etc. Is the historical experience to the great deal applicable to the current financial problem in the Euro area? It ultimately depends on the political will, because solving the problem of the crisis requires huge costs, but they would be aggravated in the absence of a solution.

Coming back to the **Optimum Currency Area Theory**, it may be concluded that the **fiscal federalism** and the preferences homogeneity criteria's fulfillment, would contribute to resolving the issue of stability in the long run. In fact, fiscal federalism is being mostly advocated currently, as a tool for overcoming the crisis and the long-term stability in the Euro area. Namely, considering the fact that the countries have already abandoned their monetary policy and transferred it to the ECB competency, simultaneously there must a certain fiscal federalism degree. This is because of the external effects, and the fact that inadequate fiscal policy of one country is inefficiently influencing the other country in the same currency area, which is now the case. Furthermore, it is also possible that the fiscal policy implementation will provide for more efficient effects when applied from Brussels to the entire EMU, then being implemented by a single country for its own territory. The Euro area fiscal discipline control, particularly in countries with high public spending and violating Maastricht fiscal criteria for years, is necessary. The basis for the fiscal federalism is prescribed by the Rome Treaty in 1957, in which the Article 108, is prescribing the mutual support provision of member states. In the case of fiscal crises in Greece, the European Union is currently committed in supporting the Government of Greece in its efforts to consolidate public finance, and to clearly define the decline in public spending programme. This kind of the EU support to Greece has not yet become so-called "bailout" or rescuing. It is possible that the EMU cannot actually allow for the bankruptcy of Greece, because considering high economies integration degree, the Greece rescuing would mean the EU rescuing.

Furthermore, one of the long – term solutions leading to the fulfillment of the **work force mobility criteria according to the Optimal Currency Area Theory**, is the reduction in the labor market vulnerability of the Euro area countries. In a long run, it will certainly contribute to the higher labor force mobility within the Euro area, higher employment in the private sector and therefore the public spending decline.

4.3. Euro and Eurised (Dollarized) Economies

"The best policy would be to eschew the revenue from money creation, to unify its currency with the currency of a large, relatively stable developed country with which it has close economic relations, and to impose no barriers to the movement of money or prices, wages, and interest rates. Such a policy requires not having a central bank" (*Friedman M. 1973*). This phenomenon where in (monetary) country's borders, to a greater or lesser extent the foreign currency is being used, is called Dollarization. Depending on the occurrence intensity, the foreign currency use ranges from the unofficial (even illegal) to the official, when the national currency is being rejected. The Dollarization examples in the world are Panama, Ecuador, El Salvador, Liberia, etc. In Europe, this process is recently being called "Euroisation", and it is characteristic for the European countries such as Andorra, Vatican, Monaco, San

Marino, Montenegro, Kosovo, which within their national borders are using the euro.

Montenegro, due to the decades lasting inflation problems, in November 1999, has introduced the DM as a legal tender, i.e., has formed a dual - currency system, together with the Yugoslav Dinar. After six months, the money stock grew and changed its structure into the dominant share of the DM. Thus, the DM, in time became the official currency of Montenegro. The Central Bank of Montenegro is not entitled to the money printing function, but its main role is reduced to ensuring monetary and financial stability and banking sector control. The DM introduction meant lower inflation to Montenegro, increase in competitiveness, attractiveness to investment and internationalization of economic life, and generally the achievement of the general level of economic and political stability in the country. When Germany switched to the Euro, Montenegro has introduced the Euro in 2002. The Euro introduction surge the positive trend in the economy, which reflected investments increase, reducing inflation rates, fiscal stability, increase in the real economic growth rate. The existence of the Euro as a stable currency, in a situation of economic crisis in 2009, was of great importance for Montenegro, bearing in mind the fact that the Central Bank cannot print money. The annual inflation rate measured by the consumer price index in February of the current year, amounted to 0.2%. On the other hand, the fiscal policy within the Maastricht criteria, represents a very important stability factor. However, given the fact that Montenegro is a small and open economy, the international market impacts are promptly being reflected on its market. The current Euro area crisis, has spread to Montenegro, especially on foreign imports expressed in the U.S. Dollars, Swiss Francs, etc., which is currently more expensive. On the other hand, the exports are more competitive. The Euro weakening effects are visible in the financial sector and the overall economy, simply because, today for one Euro can be obtained less aforementioned foreign currency units, than a year ago. Generally, the Euro stability is of great importance for Montenegro and other eurised economies. Therefore, the solution for overcoming the Euro crisis, will be important not only for the Euro area, but for the eurised economies.

5. Conclusion

The current crisis has revealed a number of shortcomings of the EU and the Euro area, and beyond. The financial crisis, is representing a test for the Euro from its very beginning, and underlines the necessity of certain changes at the EU and the EMU level. One of the biggest problems of the Euro area is a constantly high public spending of mostly less developed Euro area members. This situation has contributed to the public finance crisis in Greece, as the Euro area member; hence Portugal, Spain, Ireland and Italy are in unfavorable position. The Euro stability is

threatened and it's depreciating against other strong currencies such as the Swiss Franc and the U.S. Dollar. For the sake of the problem, there are a number of open issues, and one of them is whether the EMU should aim at fulfilling the criteria of the Optimum Currency Area Theory. One of these solutions relates to the fiscal federalism between the countries, the EMU members. It is a step toward creating a political union which, as Friedman has emphasized, may have been achieved only if the Euro economic benefits may prevail the cost. It remains yet to be seen whether the Optimum Currency Area Theory is to be restored and to insist on advocating the fiscal federalism, and to punish fiscal incomppliance. Thus, if the Euro overcomes this crisis, transferring of the fiscal authority part to the EMU supranational institutions, and simultaneous decline in public spending, remains the key issues of its further functioning, in a situation in which the monetary policy is the responsibility of just one institution - the European Central Bank. In the end, it remains to be seen, if by far the biggest Euro area crisis will lead to even greater unification - political union or the Euro, however, will fail to survive in a long run.

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GDP structure in Montenegro in conditions of crisis

Abstract: *The structure is quality component of some phenomena. Looking from that point of view, the structure of economy in Montenegro is indicator of its long-term efficiency and feasibility. Respecting theoretical assumptions, the aim of this analysis was to do the analyses the sources of production, actually the structure of Montenegrin economy from point of view that the structure has in longer period, having in mind global circumstances. Economic structure is shown through participation of production compared to way of production results (product-service) in GDP and through participation of key activities in creation of GDP. The structure is compared with EU countries.*

Key words: *economic growth, structure, business, Gross Domestic Product*

Resümee: *Die Struktur ist die qualitative Komponente einer Erscheinung. Von diesem Aspekt ist die Struktur der Wirtschaft in Montenegro die Wertmeseinheit ihrer langfristiger Wirksamkeit und Erhaltung. Mit vollem Respekt gegenüber den theoretischen Voraussetzungen war das Ziel dieser Analyse - das Analysieren der schöpferischen Quelle bzw. der Struktur der montenegrinischen Wirtschaft vom Aspekt der Potentiale, die die Struktur im längeren Zeitraum hat, wobei auf die globalen Umstände geachtet wurde. Die Struktur der Wirtschaft ist durch die Beteiligung der Produktion in Bezug auf die Form der Produktionsergebnisse (Produkt-Leistung) im Bruttoinlandsprodukt (BIP) dargestellt, sowie auf Grund der Beteiligung von Schlüsselaktivitäten in der Erzeugung des BIP. Die Struktur wurde verglichen mit den EU-Ländern.*

Schlüsselwörter: *Wirtschaftlicher Wachstum, Struktur, Business, Bruttoinlandsprodukt*

Резюме: *Структура является качественным свойством любого явления. Имея в виду предыдущее, структура экономики Черногории является индикатором ее долгосрочной эффективности и существования. Уважая теоретические предпосылки, целью этого анализа было анализировать источники образования и структуру черногорской экономики, с точки зрения возможности существования этой структуры на длительный период, имея в виду глобальную обстановку. Структура экономики показана через участие производства, относительно формы результатов производства (продукт-услуга) в Валовой внутренний продукт (ВВП), как и на основании участия значительных деятельности в образовании ВВП. Структура сравнена со странами Европейского союза.*

Ключевые слова: *экономический рост, структура, бизнес, Валовой внутренний продукт*

* MONSTAT and ISSP

INTRODUCTION

Structure of an economy, from the production position, comprises share of certain sectors and activities in the formation of new value. Documentation and statistical basis used to analyze the structure of an economy is provided by a System of National Accounts (SNA)²⁰. Firstly, through providing data on the aggregate indicator, i.e. Gross Domestic Product (GDP) and its structure by activities, and secondly by presenting the structure of interdependence, i.e. Input-Output Tables.

The structure forming the source of national income is one of very important indicators of achieved level of economic development. From the standpoint of participation of certain branches or activities in the creation of GDP, three sectors are distinguished: (i) primary sector of the economy (agriculture, forestry, hunting, fishing, collecting industry, and mining), (ii) secondary sector of the economy (manufacturing, construction, energy) and (iii) tertiary sector (transport, communications, trade, financial intermediation, education and other services).

Since the calculation of Gross Domestic Product does not include the value of intermediate consumption, because its value is calculated in the final product, for a complete overview of the technological, i.e. structural interdependence, a special part of the SNA, i.e. the Input-Output Tables are used showing flows within the sector of production and they are a basis for creation of structural models. Inter-sectoral tables are aimed at inclusion, analysis and dissemination of information to relevant policymakers in the field of relationships and dependencies arisen in the intermediate consumption, which was created as a reflection of the level of technology in the economy. Therefore, the structural adjustment of economy is adjusting to the technological development of a market economy (Veselin Vukotic, Macroeconomic models and accounts (p. 245-286).

Having in mind theoretical assumptions, the aim of this analysis is to analyze the sources of creation, i.e. the structure of Montenegrin economy, and to identify key

²⁰ The demand for national accounts or national accounting suddenly appeared because of the crisis of 30-ies. Summing up the pre-war experience on creating and using these accounts, British professor, Mr. Richard Stone published a monograph on the macroeconomic accounting in 1946. On the basis of Richard Stones' works, Organization for European Economic Cooperation (OEEC) developed an integrated system of national accounting which was adopted by the United Nations, 1953 year and recommended to member states as a basis for producing their accounts. The latest improvement of methodology was in 2008. System of National Accounts from 1993 (SNA93), and now in 2008 (SNA 2008), is the basis of national accounts, which are further elaborated in the European System of Accounts (ESA95). SNA93 provides a more theoretical framework, while ESA95 includes additional details aimed to approximating European environment and practices. Today, EU member states have a legal obligation to comply with ESA95 in their statistical practice and the national accounts are considered "the heart of European policy."

business that generates GDP in Montenegro. Taking into account the availability of data, the structure of economy is observed through the share of production in relation to the form of production results (production services) in GDP, as well as through the share of key activities in the creation of GDP. The structure is compared with other EU countries. The analysis is based on the latest available data (2008) of the official SNA statistics in Montenegro²¹. Since the input-output tables have not been developed in Montenegro, it was not possible to draw conclusions in regards with the structural interdependence.

1.1 Structure of Gross Domestic Product of Montenegro

The Montenegrin economy measured by the growth rate of real Gross Domestic Product²² grew by the real rate of 5.6% as the annual average in the period from 2002 to 2008. The annual value of produced goods and services increased from 1360 million EUR, amounted in 2002, to 3086 million EUR in 2008. This means that the value of produced goods and services nominally risen annually by an average of about 300 million or an average nominal rate of 14.7%. Gross Domestic Product per capita in 2008 is 4907 EUR, and expressed by purchasing power parity (PPP)²³ is under the EU 27 average, and makes 46% of EU 27 average GDP per capita expressed in PPP. Inflation domestic production was at the level of inflation of consumer goods, with the exception of 2007, when it was 18.1% as a result of growth in sales prices of aluminium and real estate prices. More than half of GDP (55.8%) in Montenegro is created by providing services, while the production in agriculture, manufacturing, and construction generates 24.4% of GDP.

²¹ Statistical Office of Montenegro (MONSTAT), is the institution responsible for implementation and development of SNA and ESA methodology, which has been independently developed and applied since 2000. MONSTAT compile GDP by production and expenditure approach on an annual basis, in constant and market prices.

²² SNA93 (sections 2.171 – 2.174): “Gross domestic product (GDP) at market prices represents the final result of the production activity of resident producer units. Basically, GDP is a concept of value added. It is the sum of gross value added of all resident producer units (institutional sectors or, alternatively, industries) plus that part (possibly the total) of taxes, less subsidies, on products which is not included in the valuation of output. Gross value added is the difference between output and intermediate consumption. Next, GDP is also equal to the sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchasers' prices, less the value of imports of goods and services. Finally, GDP is also equal to the sum of primary incomes distributed by resident producer units”.

²³ Purchasing Power Parity and Purchasing Power Standard (PPS) is a synthetic reference unit, which eliminates difference in prices between countries. Therefore, one PPS buys the same amount of goods and services in all countries.

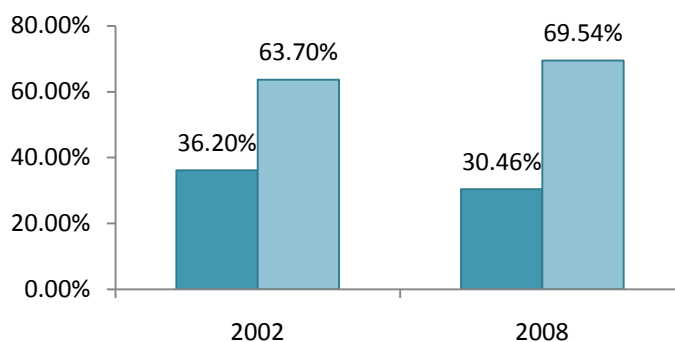
Table 1: Structure of GDP for 2008

	Gross value added (u Eur)	GDP structure in basic prices	GDP structure in market prices	Nominal growth rate	Real growth rate
Products	754262	30.5%	24.4%	18.0%	11.5%
Services	1722329	69.5%	55.8%	15.4%	4.7%
GDP (basic prices)	2476591	100.0%	80.3%	16.2%	6.7%
Tax minus subsidies	609029		19.7%	10.9%	7.7%
GDP (market prices)	3085620		100.0%	15.1%	6.9%

Source: MONSTAT

The direct net effect of the state in the process of production (taxes on products less subsidies²⁴) is 19.7%. If the direct net effect is distributed on the production of goods and services, appears that 69.4% of GDP is created by service industries, and 30.6% is created by production of goods.

Graph 1: Structure of GDP (products-services), 2002 and 2008



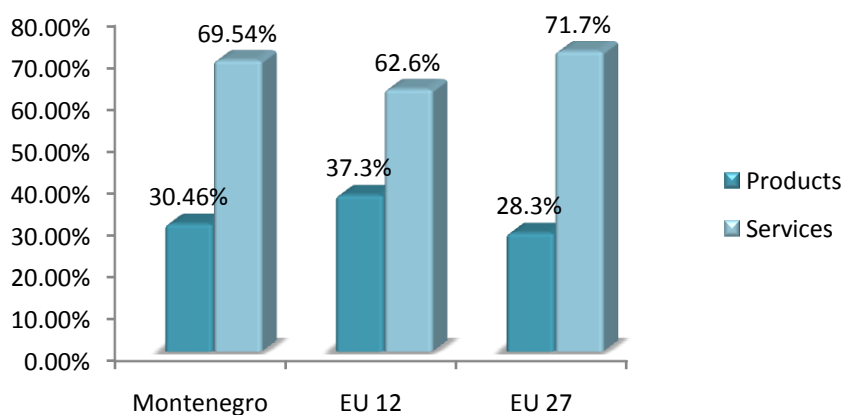
Source: MONSTAT, ISSP calculations

The structure of GDP in Montenegro in relation to 2002 has significantly changed in terms of reducing the share of the production of material goods by 5.7 percentage points, and the share of services increased by 5.8 percentage points. Share of

²⁴Taxes on products (Value Added Tax (VAT), import taxes (tariffs), excise duties on: alcohol, tobacco products, mineral oils, their derivatives and substitutes). Subsidies to the compensation paid to individual households or businesses in order to stimulate production per unit of product. According to the methodology, donations that the state can provide to companies to finance their capital accumulation, or that they compensate for the damage caused to their fixed assets are not included.

agricultural production decreased by 2.9 percentage points, as well as the share of industry by 6.6 percentage points. On the other hand, the share of construction sector increased by 3.7 percentage points. From the point of real growth, in relation to the average growth rate of the Montenegrin economy of 6.9%, GDP in the service industry grew by 2.2 percent or less points (4.7%), while GDP in the production of goods grew more for 4, 6 percentage points (11.5%).

Graph 2: Structure of GDP (products-services), a comparison with the EU 12²⁵ and EU 27, 2008



Source: EUROSTAT, MONSTAT, ISSP calculations

In comparison to the structure, Montenegrin economy is close to the structure of the EU 27 according to the data from 2008. Share of services in relation to the EU 12 in Montenegro increased by 7 percentage points. In comparison with EU 12 countries, Montenegro has the same structure as Estonia and Hungary.

1.2 Share of agriculture, industry and forestry in GDP

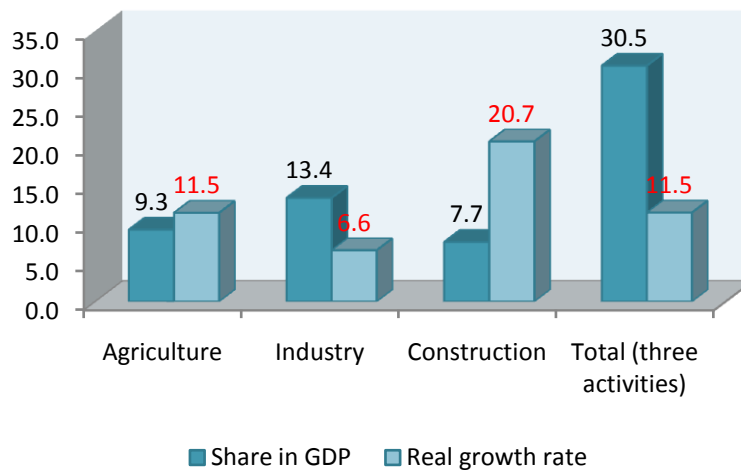
Of the total GDP, 30.5% is created in agriculture, industry and forestry²⁶. I

Individually, the activities in the industry created 13.4% of total GDP in agriculture 9.3% and construction 7.7% of total GDP.

²⁵ Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovakia, Slovenia, Czech Republic, Bulgaria and Romania

²⁶ Compared to GDP in market prices, activities in the industry sector create 10,8% of the total GDP, in agriculture 7,2% and in the area of construction 6,2% of the total GDP

Graph 3: Share and growth of production of goods compared to total GDP in basic prices 2008, in (%)



Source: EUROSTAT, MONSTAT, ISSP calculation

Compared to the average GDP growth of 11.5% in activities resulting in goods, construction industry grew more for about 9 percentage points or 20.7%, agriculture at the level of average, while the industry recorded a lower growth by 5 percentage points compared to the average.

Of the total number of employees in Montenegro²⁷, 20.5% is working in the industrial sector, i.e. 14.6% in manufacturing, 3.6% in the electricity, water and gas production, and 2.24% in the sector of mining and quarrying.

According to the companies in the industry, 40 companies produce 8.3% of total GDP, or 255.1 million EUR, while the rest of 1408 companies create 2.5% or 77.9 million EUR.

From the total of 40 enterprises in the area of industry producing 8.3% of GDP, 20 companies are from the area of manufacturing, 15 enterprises are from the production of electricity, gas and water, and 5 enterprises are in mining and

²⁷ Total number of employees in Montenegro in 2008 according to administrative sources or a regular health record of the Fund, amounted to 166,221, while the Labour Force Survey carried out by Statistical Office of Montenegro, the total number employees in 2008 is 221,900. When it comes to data from administrative sources in them, the term employed include all persons who have established a working relationship with the company, institution or organization or individual employer. While the Labour Force Survey by the term employee includes persons performing any work for money or profit during the survey week, even if the person worked less than an hour. The payment includes a payment in cash or payment in kind, regardless of whether the salary received during the week when the job is done or not.

quarrying. The most important products of Montenegrin industry are electricity, aluminium and ore of which produce about 4.7% of GDP or 145 million EUR.

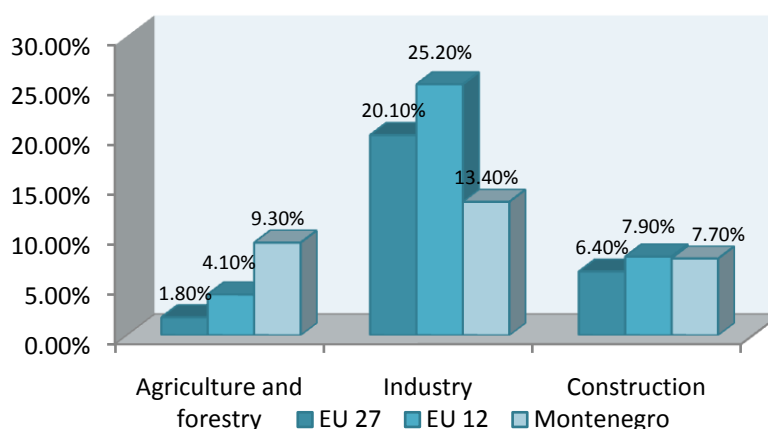
Observing companies in the area of civil engineering, 100 enterprises produce 3.5% of the total GDP, or 108.8 million EUR, while other 1256 companies create 2.7% or 81.9 million EUR.

Of the total number of employees in Montenegro, 5.3% is working for the construction sector. Agriculture makes up 7.5% of GDP or 190.7 million EUR. The total number of enterprises in agriculture and forestry is 120, while a significant portion of agriculture refers to agricultural holdings, where according to preliminary estimates, there are about 70,000²⁸.

From the total number of employees in Montenegro, sector of agriculture is employing 1.6% is employed in the agricultural sector.

Looking at the analysis of share of activities that result in products in a material form, it is clear that the primary sector of the economy (hunting and fishing, collecting economy, agriculture, forestry and mining), whose task consists of the extraction of materials from the nature participates in the GDP with 8.7%, and generates 3.9% of the total employment, while the secondary sector (manufacturing, construction, energy), aimed at processing of material obtained in the primary sector is 15.8% and generated 23.5% of the total number of employees.

Graph 4: Comparing with EU 27 and EU 12, 2008



Source: EUROSTAT, MONSTAT, ISSP calculation

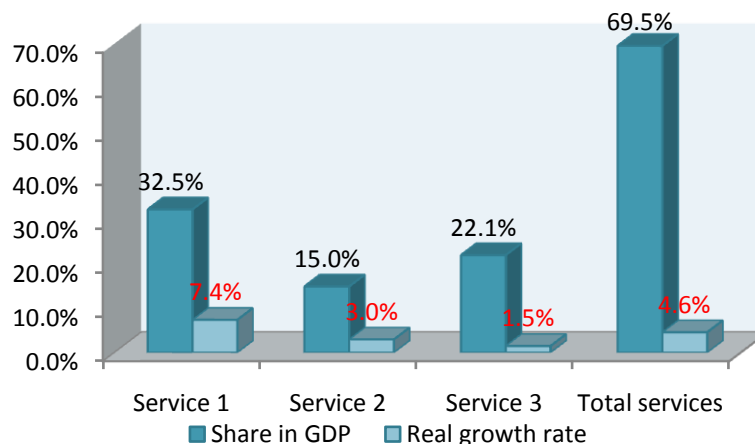
²⁸ The accurate numbers of agricultural holdings as well as value of agricultural production in households are to be produced by the census of agriculture planned for 2010. The last census of agriculture in Montenegro was conducted in 1960.

A significant difference in structure in relation to the structure of GDP in EU 12, Montenegro has when it comes to agriculture and industry. Share of agriculture, forestry and fisheries in Montenegro increased by 5.2 percentage points compared to EU countries 12th Approximately the same share of the aforementioned sectors in total GDP of EU 12 have Romania 7.5%, and Bulgaria 7.3%²⁹. Share of industry in the creation of GDP in Montenegro is less by 11.8 percentage points compared to EU 12. Approximately the same share of the aforementioned sectors in the total GDP, of EU 12 countries is Cyprus with 10.2% and Latvia with 13.7%³⁰.

1.3 Share of services in GDP

More than ½ of GDP or 55.8% is created by activities with result in the provision of services, or 38.6% of GDP is created by four service activities: trade, transport, services related to real estate, and public administration, including defence and social security.

Graph 5: The structure of GDP in basic prices and the growth rate of services, 2008, in%



Source: MONSTAT, ISSP calculations

Services 1

Wholesale and retail trade, transport, storage, hotels and restaurants

Services 2

Financial intermediation, real estate, other business activities

Services 3

Public administration, social security, education, education, health care

²⁹ Of the EU 25, the most important part of agriculture in relation to the EU27 average has Spain 2.2%, France 2.0%, and Italy 2.0%.

³⁰ Of the EU25, fewer shares in agriculture in relation to the EU27 average (20.1%) have Spain 17%, France 13.8%, and Luxembourg 9.9%.

Compared to the average growth rate of GDP of 4.7% of services, the highest increase was recorded in the wholesale and retail trade, transport and storage, i.e. 7.4%.

The share of trade in GDP makes 12.4% of GDP or 382.4 million EUR. Observed by enterprises in trade, 150 enterprises produce 8.2% of total GDP, or 253.1 million EUR, while the other 6238 companies create 3.4% or 129.2 million EUR.

Of the total number of employees in Montenegro, 19.2% is employed within the wholesale and retail trade.

The share of transport, storage and communications in GDP makes 9.4% of GDP or 288.8 million EUR. At the level of enterprises in the area of transport, 15 companies produce 8% of total GDP, or 247.7 million EUR, while the other 966 companies create 1.3% or 41.1 million EUR.

Of the total number of employees in Montenegro, 7.7% is employed in the sector of transport, storage and communication.

The share of catering or hotels and restaurants in GDP makes 4.3% of GDP or 132.7 million EUR. At the level of companies in the area of hotels and restaurants, 55 companies produce 2.5% of total GDP, or 78.1 million EUR, while the other 2151 companies create a 1.8% or 54.7 million.

Of the total number of employees in Montenegro, 8.8% is employed in hotels and restaurants.

Production of government services, education, health care, including compulsory social insurance, generating about 7.8% of GDP or 269.1 million EUR. If we include the production of health services and education, as well as the share of public utilities, and other social and personal service activities, GDP created in public institutions financed from the budget amounts approximately 547.3 million EUR or 22.1%³¹.

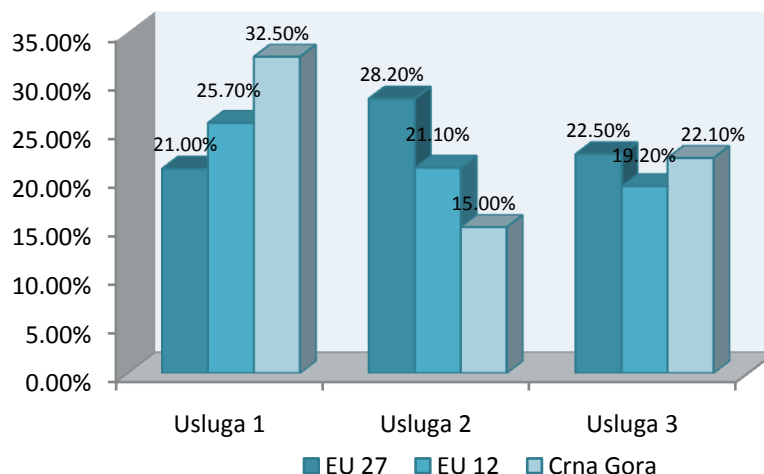
Of the total number of employees in Montenegro 31.3% is employed in state administration, including education and health.

³¹ Iako je proizvodnja državne uprave netržišna proizvodnja, odnosno nema svoju valorizaciju na tržištu, po SNA metodologiji procjenjuje se na način da se polazi od pretpostavke da ako bi se usluge bile prodane po cijeni bila bi definisana po principu pokrivanja troškova. Prema konvenciji BDP državne uprave obračunava na bazi toškova zarada zaposlenih i tekućih rashoda. Način obračuna BDP-a koji stvara državna uprava smatra se najvećim nedostatkom SNA metodologije. Dva su razloga za to: (1) vještački se povećava vrijednost BDP-a, radi se samo o pretpostavci i imputiranju vrijednosti i (2) Povećanje neefikasnosti državne uprave može rezultirati povećanjem BDP-a, što je suprotno ekonomskoj logici.

Share of financial intermediation, as well as activities related to real estates in GDP is 15% of GDP or 371 million EUR.

Of the total number of employees in Montenegro, 5.5% is employed in the sector of financial intermediation, as well as activities related to real estate and other business activities. Service activity analysis indicates that the tertiary sector (transport, communications, trade, financial intermediation, and government services), whose aim is to ensure the functioning of the first two sectors, and also their mutual relations with consumers of goods and services, makes 55.8% of GDP, and generates 72.5% of total employment.

Graph 6: Comparing with EU 27 and EU 12 (share of services in GDP), 2008.



Source: EUROSTAT, MONSTAT, ISSP calculations

Services 1

Wholesale and retail trade, transport, storage, hotels and restaurants

Services 2

Financial intermediation, real estate, other business activities

Services 3

Public administration, social security, education, health care

The share of wholesale and retail trade, transport, storage, hotels and restaurants in the creation of GDP in Montenegro has increased by almost 7 percentage points compared to EU 12 countries, and in the countries of the EU 27 to 11 percentage points. Approximately the same share of the aforementioned sectors in the total GDP of EU 12 countries, Romania has 15.7%, and Lithuania 16.6%.

The share of financial intermediation, real estate, and other business activities in the creation of GDP in Montenegro is less by 6.1 percentage points compared to EU 12.

Approximately the same share of the aforementioned sectors in total GDP of EU 12 is Lithuania (30.1%), and Latvia (29.6%).

1.4 GDP structure by enterprises

The most important share, i.e. the largest source of creating GDP in Montenegro is service activities (transport, communications, trade, financial intermediation, hotels and restaurants, as well as government services), which makes 55.8% of GDP, and generates 72.5 % of the total employment. Primary sector of the economy (hunting and fishing, collecting economy, agriculture, forestry and mining) participates in GDP with 8.7% and generates 3.9% of the total employment, while the secondary sector (manufacturing, construction, energy), participates with 15.8% and generated 23.5% of the total number of employees.

Total number of legal persons on the basis of the calculation of GDP is performed; in 2008 were 17000, of which approximately 60% were registered for trading (40%), and the real estate activities, renting and other business activities (20%).

Table 2: Gross domestic product of Montenegro, 2008

Number of enterprises	Activity	Share in total GDP	GDP in EUR
40	Industry	8.3%	256,106,543
100	Construction	3.5%	107,996,735
150	Wholesale and retail trade	8.2%	253,020,922
15	Transport, storage and communication	8.0%	246,849,680
55	Hotels and restaurants	2.5%	77,140,525
100	Real estate, renting and business activities.	2.6%	80,226,146
30	Financial intermediation	3.9%	120,339,219
15	Other community, social and personal activities	1.0%	30,856,210
120 + Agricultural holdings	Agriculture and forestry	7.5%	231,421,575
625	GDP in basic prices	45.5%	1,403,957,555
	Taxes on products less subsidies on products	11.8%	364,103,278
625	GDP in market prices	57.3%	1,768,060,833
	Public administration	15.3%	472,100,013
625 + public administration	GDP in market prices	72.6%	2,240,160,846
16400 enterprises	GDP in market prices	27.4%	845,460,154
Total economy	GDP in market prices	100.0%	3,085,621,000

Source: ISSP calculations

Of the total GDP, 71% or 2,191 million is created by production of 625 enterprises, agricultural production in households and government services production. The remaining 29% or 894 million EUR is created by production of 16,375 enterprises.

CONCLUSIONS

The analysis of the sources for creation of GDP in Montenegro is indicating the direction of leaving the primary activities for the benefit of the development of other sectors, particularly the service sector, especially in transport, logistics, and specifically business services and branches that are based on knowledge and new technologies. Structure of GDP in Montenegro compared to 2002, has significantly changed in terms of reducing the share of agricultural production of 2.9 percentage points, and reducing the share of industry of 6.6 percentage points. On the other hand, the share of construction sector increased by 3.7 percentage points and share of services (trade, catering, transport and storage) by 4.9 percentage points.

Based on the experiences of new EU member states, we can expect continued downward trend in primary industries also when entering the EU (ex. in Bulgaria, the share of agriculture decreased by 4.6 percentage points in Rumania by 5.1 percentage points, also countries from the 2004 enlargement has similar experience). Also, when joining the EU in almost all new member states had reduced industry sectors, ex. in Bulgaria by 2.4 percentage points and 4.3 percent in Romania. Based on the experiences of the last two enlargements of the EU, we can expect the growth in share of construction and trade sector.

Over 50% of GDP is generated by 625 enterprises, or 4.8% of the total number of companies. From the position of sustainability and development of the economy it means that: (i) high concentration increases the dependence of the economy of a small number of companies and (ii) of great importance small and family enterprises in Montenegro. On the other hand, data (50% of GDP is generated 625 companies) shows that (i) tax rates are too high - according to data from the total of financial statements of the total turnover which was made in 2008, 91% refers to 2000 companies, while 9% of turnover relates to 15,000 companies, indicating underreporting in order to reduce the tax base. For example, when the corporate income tax is reduced to 9%, this is shown in the financial reports with an increase by more than 50% causing also the increase in the number of companies with the most turnover. The same year, the growth rate of GDP rose from 4.2% to 8.6% and (ii) inadequate implementation of legislation in the field of financial reporting - although there is no legal obligation for financial accounts, approximately 35-40% of legal persons did not do it in previous years. In this way, a part of the production remains not covered in the calculation of GDP or it is based on the estimates.

Although the goal of analysis was to identify a business that generates most of GDP, some recommendations for its increase, except to the extent of tax policy and legislation, it is difficult to give. Basically, the reason for this is a lack of information about interdependences or purchase-sale of products for intermediate consumption within the enterprise sector of Montenegrin economy. Therefore, the basic recommendations of this analysis refer to the necessity of inter-sectoral (input-output tables) drafting. Based on them, there could be given recommendations for structural adjustment of economy and enterprises, to calculate the import dependence of each sector, to calculate direct and indirect effects of individual companies/businesses in the creation of GDP.

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Irena Radović, PhD*

A European exit strategy: monetary and fiscal policy interactions

Abstract: *Notwithstanding the fact that the European Central Bank (ECB) and EU member states provided a solid response to the financial and economic crisis in terms of speed and scale, the period of slower growth ahead carries significant challenges in terms of fiscal sustainability and quality of the long term recovery. In view of creating conditions for economic growth, sustainability and stability of the European Economic and Monetary Union (EMU), timely and coordinated exit strategy is crucial.*

The paper addresses these issues and outlines: the current state of play in the Euro area; challenges facing the ECB and EU member states in the period of fragile and differentiated recovery of economic activity across the EU, elements of the strategy for the monetary and fiscal policies moving out of crisis mode and back towards normality bearing in mind the specificities of the EMU framework – the heterogeneity of fiscal policies and economic conditions in member states.

Key words: *European Economic and Monetary Union, global economic crisis, monetary and fiscal policies, exit strategy, sustainability, growth*

Resümee: *Die Europäische Zentralbank (EZB) und EU-Mitgliedstaaten haben schnell und mit massiven Stuetzungsmassnahmen auf die Finanz - und Wirtschaftskrise reagiert. Die erwartete Phase langsameren Wachstums stellt in diesem Zusammenhang eine erhebliche Herausforderung fuer die Sicherung fiskalischer Nachhaltigkeit und Qualität einer langfristigen Erholung dar. Im Hinblick auf die Schaffung von Bedingungen für Wirtschaftswachstum, Nachhaltigkeit und Stabilität der Europäischen Wirtschafts - und Währungsunion (WWU) ist eine rechtzeitige und koordinierte Exit - Strategie entscheidend. Der Beitrag behandelt diese Fragen wie folgt: Die aktuelle Situation in der Euro-Zone; Herausforderungen für die EZB und die EU-Mitgliedstaaten angesichts einer noch bruechigen und gleichzeitig differenzierten Erholung der Wirtschaftstätigkeit in der EU; Elemente einer Strategie für die Rueckkehr zu einer auf Langfristigkeit und Nachhaltigkeit angelegten Geld - und Fiskalpolitik unter Beruecksichtigung der Besonderheiten der WWU sowie der Heterogenität der Finanzpolitik und der wirtschaftlichen Rahmenbedingungen in den EU Mitgliedstaaten.*

Schlagworte: *Europäische Wirtschafts - und Währungsunion, die globale Wirtschaftskrise, Währungs -und Finanzpolitik, Exit -Strategie, Nachhaltigkeit*

Резюме: *Вопреки факту, что Европейский центральный Банк (ЕЦБ) и правительства государств участников ЕС солидно ответили вызовам кризиса в смысле скорости и объема мероприятий, период ослабленного роста, стоящий перед нами , несет значительные вызовы в контексте налоговой устойчивости и качества*

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выздоровления европейской экономики. Необходимо наличие своевременной, кредитной стратегии выхода, для того чтобы создать условия для экономического роста, устойчивости и стабильности Европейского экономического и валютного союза (ЕЭВС).

Данный труд анализирует актуальное состояние в Еврозоне, вызовы с которыми сталкиваются ЕЦБ и государства – участники ЕС на стадии хрупкого выздоровления экономической активности и он является элементом стратегии возвращения налоговой и валютной политики в нормальное состояние, учитывая специфику ЕЭВС – гетерогенность налоговых политик и экономических обстановок в государствах-участниках в отдельности.

Ключевые слова: *Европейский экономический и валютный союз, глобальный экономический кризис, валютная и налоговая политики, стратегия выхода, устойчивость, экономический рост.*

1. Introduction

As a response to the global financial and economic crisis, the world economy has been injected with the biggest post Second World War Keynesian cocktail. This infusion had a powerful effect, preventing the global recession from turning into a depression, but it has also imposed new challenges with regards to sustainability of public finances and the existing model of economic development.

Emergency measures in the domain of fiscal and monetary policies have undoubtedly contributed to the stabilization of the banking sector and the Euro area economies, yet experience suggests that the recovery of economic activity in the medium term largely depends not only on the content and size of the stimulus package but also on its duration. As the premature withdrawal of the measures in place could push the economy back into recession, maintenance of the stimulus package can also lead to new macroeconomic challenges. Therefore, once the recovery is underway it is critical to define the exit strategy - timing, pace, and mode of exiting from crisis-related policies, bearing in mind the need for coordination within the European Union (EU) and beyond.

Design of the exit strategy should be viewed in the context of achieving strong, sustainable and balanced economic growth. Achieving this goal requires addressing challenges of fiscal sustainability, the normalization of monetary policy and gradual withdrawal of support to the financial sector, all of this bearing in mind the specific institutional architecture of the European Economic and Monetary Union (EMU).

The paper analyzes the current state of play in the Euro area, the challenges facing the European Central Bank (ECB) and the governments of EU member states in the current phase of the fragile recovery of economic activity, and outlines the elements of strategy for the return of fiscal and monetary policy to a normal state, taking into account specific institutional framework of EMU - with emphasis on heterogeneity

of fiscal policies and economic conditions in member states individually. Following a review of the response to the crisis and the overview of the situation in the Euro area, the emphasis is placed on the fiscal consequences of the crisis in terms of sustainability of public finances. One of the questions that arises when considering an exit strategy relates to the relevance of a greater degree of coordination between monetary and fiscal policies within the EU.

2. The European response to the crisis

Aware of the risk of financial and economic meltdown the European Central Bank (ECB) and the governments of EU member states embarked on massive and coordinated policy action in response to the global financial and economic crises. Financial rescue policies were aimed at restoring liquidity and capital of banks and provision of guarantees to secure the stability and sustainability of the financial system.

Deposit guarantees were raised, while the ECB has undertaken unprecedented measures via two channels - standard and nonstandard measures. Based on assessment of risk to price stability, the ECB reduced the interest rate for main refinancing operations by 325 basis points cumulatively from October 2008 until May 2009, when the reference interest rate was reduced to its current level of just 1%. Governments provided liquidity facilities to financial institutions in distress, along with state guarantees on their liabilities, followed by capital injections and impaired assets relief. Based on the coordinated European Economy Recovery Plan (EERP) launched in November 2008, a discretionary fiscal stimulus at a level of around 2% of GDP was released - of which two-thirds implemented in 2009, and the remainder in 2010. The EERP goal was to ease social hardship, provide a coordinated short-term boost to demand and strengthen competitiveness and growth potential. The initial value of the package amounted to 200 billion euros (1.5% of EU GDP), of which the Member States were invited to contribute around 170 billion euros (1.2% of EU GDP), and budgets of the EU and the European Investment Bank (EIB) around 30 billion euros (0.3% of EU GDP). Moreover, the Stability and Growth pact was applied in a flexible and supportive manner, so that in most Member States the automatic fiscal stabilisers were allowed to operate unfettered (IMF, 2010).

Twenty months after the beginning of the acute crisis in Europe, monetary and fiscal policy measures continue to operate in "crisis mode" whilst in the meantime new challenges are emerging.

The increase in budget deficit since 2008 is unprecedented in the history of the EU. According to projections it is expected to reach the level of almost 7% of GDP in

2010 and all Euro area member states are expected to exceed the reference value for the budget deficit of 3% of GDP envisaged by the Maastricht convergence criteria (Riet, 2010). The projected increase of public debt goes to 90% of GDP by 2014, in case governments do not take strong corrective measures. Such forecasts are worrisome, especially in the context of the projected increase in public spending as a result of demographic trends in the EU in the medium and long term.

In view of the single monetary policy measures apart from lowering the reference interest rate to its lowest level in the history of the euro, the ECB has resorted to non-standard measures - support through fixed rate tender procedure, additional refinancing operations with longer maturity, the decision to commence the purchase of bonds with collateral, and reducing criteria for the policy of collateral – thereby securing adequate provision of liquidity under favorable conditions, in order to support business and create conditions for economic recovery (von Hagen, 2009). Thus far, such a policy did not result in inflationary pressures, but in parallel with recovery it must take into account the potential inflationary pressures in the future.

Prevailing attitude in the academic and professional circles is that in terms of recovery of economic activity the exit strategy out of stimulus package is necessary with emphasis on sustainability of public finances in the euro area and the need for coordination in the monetary and fiscal sphere bearing in mind inputs provided by economic theory and political specificities of the EU, given that the Euro zone represents a *sui generis* economic area - a unique case globally where the implementation of economic policies entails combining a centralized monetary policy and decentralized fiscal policies.

With regard to the Euro area it is expected that a part of the fiscal and monetary stimulus package will remain in force during 2010 and that a more significant "exit" would start in 2011 (Wyplosz, 2010), provided that the recovery continues to take place at the current pace. It is therefore important to analyze the key challenges and define the exit strategy that would allow the return of fiscal and monetary policy in the normal state to enable strengthening the conditions for economic growth and sustainability and stability of the EMU.

3. Crisis and exit strategies

Extraordinary challenges require extraordinary measures with the risk of imbalances that have become subject to adjustments at a later stage: the consolidation of the banking sector can undermine competition, inflated central bank balance sheets can undermine confidence in price stability and stimulus packages and guarantees to the private sector can lead to unsustainable public debt. Such considerations of

secondary importance during the crisis gain importance during the recovery phase. Defining the exit strategy is hence linked to the contemplation as to when, at what pace and to what extent the withdrawal of unconventional measures of macroeconomic policy ought to take place.

Experience shows that exit strategies ought to be adapted to specificities of the economic environment in terms of maintaining the budgetary and monetary measures of support until the recovery is not sufficiently strong. Past experiences act as a strong warning in this respect: in 1936 the Federal Reserve tightened monetary policy by increasing the reserve requirement to limit the credit expansion, which had a negative impact on the recovery that began in 1933 and led to the 1937-38 recession (Friedman and Schwartz, 1963). Similarly, Japan's experience as of 1997 was one of failed recovery (Posen, 2003). Deciding on the right timing for "exit" can be complex in terms of uncertainty of impact of the crisis on potential output. If the latter is reduced due to the crisis, there is less of a necessity to stimulate demand and the need for structural reforms (De Vroey, 2009), in the absence of which inflationary pressures can be expected.

When there is consensus on the need for fiscal policy measures to return to normal at a particular stage of recovery, the stimulus needs to be withdrawn gradually and in view of the risk of permanently higher level of public spending. As for the monetary policy measures, emergency conditions require the necessary liquidity support and modification of operational guidelines. Therefore, a successful exit strategy does not necessarily mean a return to a condition which preceded the outbreak of the crisis.

Finally, the order of withdrawal of extraordinary measures is one of the major challenges. As a rule it is advisable to begin by removing the micro-components of the stimulus package, followed by the fiscal and ultimately the monetary measures. However, political economy warns us that the reverse sequence may be likely (Cottarelli et al, 2010) given the tendency of central banks to want a faster return to normality, whilst governments are under pressure to limit the growth of public debt but at the same time need to accommodate expectations of the electorate, depending on the phase of the electoral cycle and that the pressure to keep the state intervention in the financial sector is generally very strong.

4. The uneven recovery from the global financial and economic crisis and the complexity of the existing challenges in the Euro area

In terms of exit from the recession, prospects for growth vary considerably on a global scale. The average growth in 2010-11 is projected at over 10% in some economies, while others will be facing negative growth rates (IMF, 2010c).

Developed countries are expected to face weaker recovery in comparison to developing countries. Geographically, the strongest recovery is projected in Asia and the weakest in Eastern Europe. As far as the Euro area is concerned, following a contraction of GDP of 4.1% in 2009, GDP growth at the level of 1% in foreseen 2010 and 1.5 % in 2011. At the same time gradual and uneven recovery for sixteen countries of the Euro area is anticipated.

The weak European recovery has two major consequences. First, unemployment is likely to increase significantly in the Euro area. Unlike in the US, European companies have not responded to the crisis with large layoffs. With the exception of Spain, measures undertaken have generally implied shortened working hours or partial redundancy. For example in Germany, due to such an approach and subsidies offered by the government, the decline in output of 5 % in 2009 has not been followed by a significant increase in unemployment (Pisani Ferry, 2009) . In the absence of a stronger recovery in 2010-11, companies will have to begin to adjust, especially in sectors where European producers are striving to remain competitive vis- a-vis American and Chinese manufacturers. Therefore, it is likely that the situation in the labor market will continue to deteriorate. Another expected consequence of low recovery refers to a lower expected level of investment which is reflected in lower stock of capital in the period when growth begins to accelerate which turns a temporary loss of output into a permanent one.

It is precisely such considerations that underpin the debate regarding the "exit strategy". Together with the ECB, EU member state governments have responded quickly and forcefully to the crisis. Yet as emphasized in Section 2, long-term fiscal costs are crucial for future economic growth. It is not just about incentives that need to be withdrawn, but future revenues need to be given up. Considering the size of the public sector in the Euro area, the loss of 1% of GDP implies a loss of budgetary revenues at the level of 0.5 % of GDP, bearing also in mind the budgetary burden arising from interest on the newly accumulated public debt (Rieti, 2010). Given that the percentage of public debt to GDP in the Euro area grew by about 30 % since the outset of the crisis, the size of fiscal readjustment that will need to be implemented will be unprecedented since the founding of the EU. Financial markets have recognized this, as shown by reducing the Greek government bond ratings and the concurrent increase in the difference between the yields on riskier Greek bonds in relation to the "benchmark" German government bonds. Such manifestations of anxiety are expected to influence a more accountable position of governments to the fiscal consolidation, and as things stand now, more significant fiscal adjustment ought to take place as of 2011 (EEAG, 2010).

Uncertainty related to the strength of the recovery and giving priority to fiscal adjustment rather than monetary, would result in lower interest rates for an extended

period of time. Hence, although the Eurosystem began withdrawing part of the liquidity injected in the fall of 2008 through the gradual elimination unconventional measures, there is a commitment to supporting the monetary recovery of the Euro area. Such an approach carries the risk of further financial instability, which contributed to the EU decision to establish a new framework for the "macro - prudential supervision" via a new body - the European Systemic Risks Board (ESRB) to oversee the risks that threaten the financial market stability – the ESRB Committee being composed mainly of 27 EU central bank governors, the Euro area governors and the ECB president constituting the majority (von Hagen, 2009). The system is complex in structure, but the effort is noteworthy given that it deviates from the previously rigidly defended position of preserving national prerogatives in the area of supervision at all costs, despite the growing integration of markets and financial institutions in the EU.

Notwithstanding the fact that the ECB and the EU member states governments have provided a solid and coherent response to the crisis in terms of speed, scope and coordination of response, the period ahead carries significant challenges in terms of fiscal sustainability, the implications of the crisis for the single monetary policy and implementation of a well structured, timely and coordinated exit strategy in view of creating conditions for stronger economic growth, sustainability and stability of the EMU.

4.1 Fiscal sustainability as a challenge?

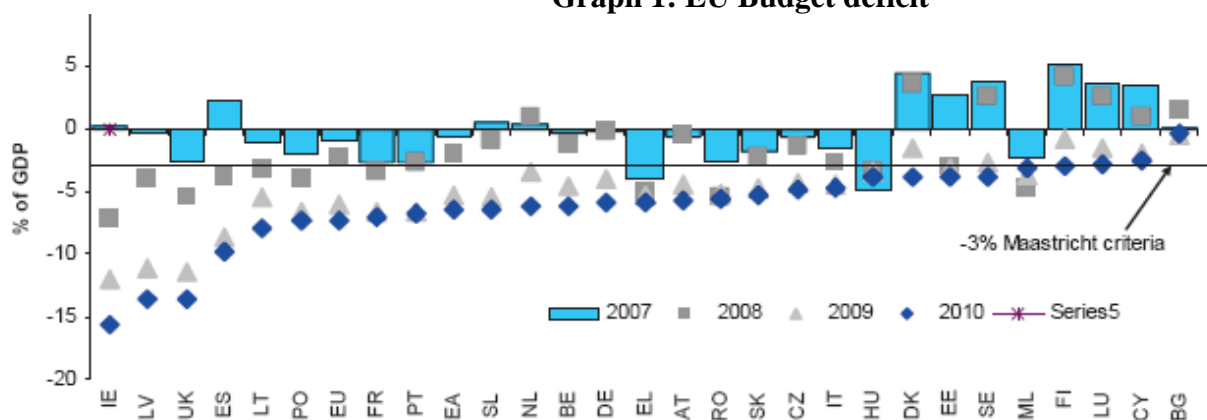
The worsening of the EU member states' fiscal positions has triggered debate as to the long-term sustainability of public finances. The threat that the European economy would be hit by a third wave of crisis - debtor crisis - is not unlikely bearing in mind the growth of public debt to GDP and the prospects of upward trend, unless there is a radical change in the conduct of fiscal policy. In view of developments related to the Greek debt crisis, the world's stock exchanges do not hide the suspicion that the EU may not be able to implement a unique strategy to help indebted countries of the Euro area (IMF, 2010).

The growth of public debt with respect to Euro area GDP is a reason for concern. First, the growth of budget deficits and public debt could heat up inflation expectations and affect the ECB 's monetary policy. The subsequent increase in real interest rates would have a negative impact on private demand in the recovery phase. The growing public debt and higher yields on government bonds entail higher cost of interest rates, usually compensated for through higher taxes harmful to economic growth or imposed restrictions on other items of public expenditure including those which promote long-term growth such as investments in infrastructure or education.

Such limitations become even more pronounced in absence of reforms related to an aging population.

The crisis was marked by deterioration in public finances without precedent in the EU. As part of the implementation of a stimulus package, some Member States exceeded the budget deficit limit of 3% of GDP, and already at the end of 2009 13 out of 16 Euro area countries were subject to excessive deficit procedure - with deadlines for the return to the reference value of 3% of GDP prescribed for period from 2010 to 2014. Such deadlines for correcting the budget deficit were given to Greece, Spain, France and Ireland, whereas for Spain and France the deadline is limited to 2012, for Greece 2010, and 2013 for Ireland. According to ECB projections, the Euro area budget deficit is expected to reach a level of almost 7 % of GDP in 2010 (Rieti, 2010) and all the Euro area member states will be in breach of the Maastricht convergence criteria relating to budget (Graph 1).

Graph 1: EU Budget deficit



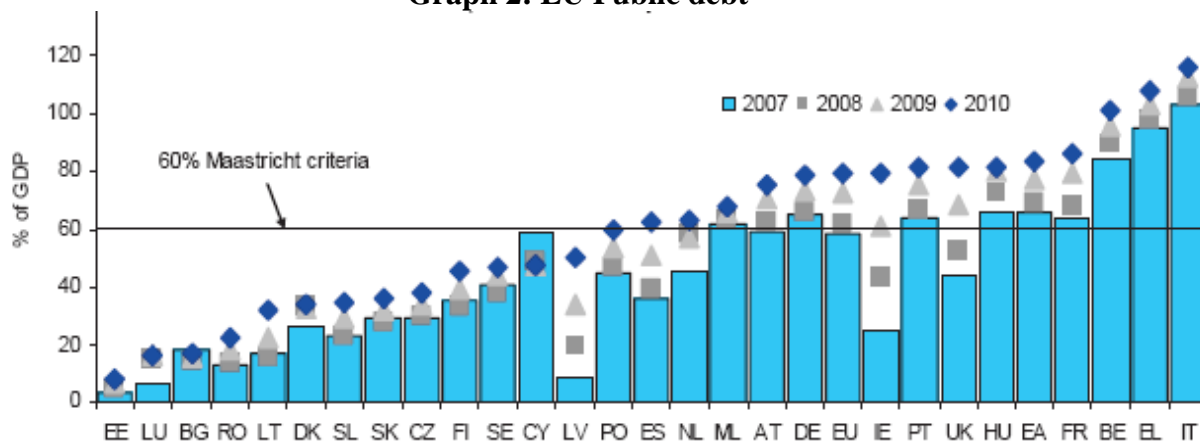
Source: European Commission, 2010.

Forecasts suggesting that public debt in the EU may reach the level of 100 % of GDP by 2020 should the EU governments fail to take strong corrective action are worrisome, especially in the context of the projected increase in public spending as a result of demographic trends³² in the EU in the medium and long term. In this context, the Euro area countries will have to correct their fiscal policies to enable consolidation of public debt in the direction of the reference value of 60 % of GDP and limit the burden of servicing debt for future generations. However, it is anticipated that the efforts to consolidate public debt at a growth rate of 0.5 % of

³² According to the available forecasts, public spending related to pensions and medical care in the Euro area is expected to rise on average by 4,7% GDP in the period 2004 - 2050 (EC, 2006).

GDP on an annual basis will require more than two decades to return to the pre-crisis level of EU public debt-to-GDP ratio (von Hagen, 2009).

Graph 2: EU Public debt



Source: European Commission, 2010.

The challenges are particularly pronounced in the Euro area countries with high or very high budget deficits and/or ratio of public debt to GDP (Graph 2) following the crisis, and in the countries faced with relatively high interest rates and low growth potential.

Given the above, the design and implementation of the optimal exit strategy and fiscal consolidation ought to include a gradual reduction of the bank rescue operations, withdrawal of fiscal stimulus measures and correction of excessive deficits. Appropriate dynamics of the process of fiscal adjustment, coordinated within the framework of the Stability and Growth Pact, are vital to maintaining public confidence in respective member states and the EU as a whole.

Taking the previous into account, commitment to achieving a sustainable fiscal position and strengthening multilateral surveillance has become a logical framework for consolidating public finances in the EU. Still, fiscal consolidation has to reflect the specific circumstances of the Eurozone countries: different levels of indebtedness, tax policies, lack a common budget and inconclusive outcome of the efforts aimed at coordination and monitoring of fiscal policy since the establishment of EMU to date. Fiscal adjustment requires a reform of pension and health benefits, which according to estimates by the European Commission already represent a significant share of total consumption, with prospects of net present value of future consumption exceeding the cost of fiscal crisis by ten times due to demographic aging (Cottarelli et al, 2010). Reforms in this area represent a political challenge, but

have a powerful effect: it is estimated that the increase in the retirement age by 2 years in EU countries could have the effect of a cost savings of 40% of GDP in terms of net present value (Barell, Hurst et al, 2009).

There is no doubt that the fiscal reform in terms of challenges facing the EU need to have a far wider range of adjustment beyond pension and health reform. Further reduction of public spending and strengthening the income side of the budget will be required. Expanding the tax base, including the fight against tax evasion, ought not to be underestimated. Changes in the structure of tax policy will have a pronounced role in order to increase revenues from taxation of global warming externalities, which should represent an important new source of income in the EU over the coming decades, about 0.5 % of GDP on average annually (Cottarelli et al, 2010).

4.2 Challenges in implementing the single monetary policy in the recovery phase

In terms of recovery from the crisis, the ECB is faced with two kinds of challenges. In the short term, there is a dilemma as to when and how to withdraw the monetary stimulus. This largely depends on withdrawal of fiscal stimulus and a credible and coordinated approach at the level of the EU. A responsible approach of fiscal authorities at times of weak inflationary pressures would entail not implementing a restrictive policy. The other consideration relates to the complexity of the monetary transmission given the heterogeneous economic conditions that characterize the countries of the Euro area, in which "one size" monetary policy "does not fit all" best and always (Radović, 2009).

An additional consideration in the academic debate is the concern that the scale of public debt could, in the medium term, lead to pressure on the ECB to relax its commitment to preserve the price stability and inflation rate up to 2 % per annum which would damage the independence of the central bank, woven into the foundations of the EMU.

Another strand of thought highlights that a relatively low inflation rate that exceeds the limit of 2% could be a reasonable price to pay for reducing the real value of public debt. More specifically, recent research signed by the chief economist at the IMF suggests that, if the ECB were to target the inflation rate at 4%, it would be simpler to restore price competitiveness, reduce private and public debt and that benefits from the increased target inflation rate would outweigh the costs (Blanchard et al, 2009). Among the proponents of the view that the slight increase of the ECB target inflation rate would be the part of a solution are and Cottarelli and Viñals who argue that in case of inflation rate at the level of 6 % over the next five years starting

from 2009, the percentage of debt to GDP ratio in developed economies would be reduced by 8-9% by 2014th (Cottarelli et al, 2010).

Even if empirical evidence suggests that adverse effects of inflation would outweigh the benefits only once the inflation rate would have reached double digits (Blanchard et al, 2009), proponents of adhering to ECB's strong commitment to preserving the price stability at the level around or below 2 % strongly reaffirm such an approach, stressing that a different stance would be reflected in the increase in risk premiums and reflected in the growth of long-term interest rates. This would mean that the debt would be refinanced at much higher rates. Furthermore, past experiences show that high inflation undeniably leads to disturbances in the allocation of resources, reduces economic growth, increases the number of poor, contribute to creating social and political instability. Therefore, the dominant paradigm remains that the ability of central banks to preserve price stability - at the level around or below 2% - is vital to progressive economic growth and fiscal sustainability.

5. Exit strategy and the challenge of coordination of the ECB and fiscal authorities in the EU

Design of an exit strategy, in terms of gradual withdrawal of measures comprised in the stimulus package, entails budgetary consolidation which precedes tightening of the monetary policy, mainly because the fiscal policy measures are more expensive but also due to the fact that their effect comes into being slower in comparison to the effects of monetary politics measures. Furthermore, delaying consolidation of public finances can have an adverse effect on capital markets. On the other hand, successful budget consolidation helps reduction of inflationary pressures, allowing the central bank to maintain stimulating monetary policy measures over the longer term.

Given the degree of deterioration in public finances in the euro area due to the crisis - the forecast that the budget deficit in the euro area would reach a level of 7% of GDP in 2010, and public debt of 100% of GDP by 2020 at such pace of budget deficit - it is necessary to uphold a strong collective responsibility and commitment at the European level to enable success and credibility of the politically delicate and painful process of consolidation of public finances. In view of the heterogeneity of fiscal policy in the EU and the specificities of Member States' economies, it is necessary to take into account that the rate of consolidation of public finances ought to be directly proportional to the size of public debt-to-GDP ratio and that the framework for consolidation should be implemented through the medium term sustainability programs adopted by national parliaments in the summer of 2010 (EC, 2009). Furthermore, as analyzed in section 4, progress on reform of the health and

pension systems, including the implementation of the innovated Lisbon strategy also constitute an essential part of the overall agenda.

If in an exit strategy, sequencing advantage is given to fiscal consolidation, the monetary policy ought to remain focused on preserving price stability and theoretically the monetary stimulus could remain in force as long as there are no inflationary pressures. In parallel to strengthening the economy, the exit strategy involves phasing out non-conventional measures which are primarily aimed at increasing liquidity. When it comes to the Euro area, it is expected that "normalization" would be a gradual process. Although the ECB decided to keep the reference interest rate at a level of 1%, it started reducing non-conventional measures in terms of reducing the volume of long-term emergency loans. The last fixed rate tender procedure with full allotment and maturities of up to twelve months took place in December 2009, and in March 2010 approval of loans with maturities of six months had been brought to an end. Although the policy interest rates may remain unchanged for a while, together with part of unconventional measures remaining in force, along with recovery of economic activity the ECB will need to return to the normal credit auction procedures, modify its collateral policy and increase the reference interest rate.

Sequencing of withdrawal of fiscal and monetary policies during an exit strategy is a delicate political challenge. Agreement between the governments and the ECB on the principle that the fiscal exit be implemented first, followed by withdrawal of the monetary stimulus, when inflation pressures do not represent a potential problem is generally not difficult. However, what usually is a challenge relates to the negative attitude of central banks in terms of entering into any kind of formal ex-ante coordination, which could be interpreted as conflicting with their independence and mandate of maintaining price stability. Generally, central banks want a quick budget consolidation, while governments take the short-term prospects of growth and unemployment into account when deciding on withdrawal of budgetary stimulus. Such a propensity of governments can lead to a situation in which the sluggishness of governments regarding the budgetary consolidation can cause panic moves of central banks in the direction of premature monetary tightening.

Equally significant and challenging is the choice of timing of implementing an exit strategy in conditions of uncertainty. As already mentioned, in most of the Euro area member states it is expected that the greater part of fiscal and monetary stimulus will remain in force during 2010, whilst a more significant "exit" would commence during the 2011, should the current dynamic of recovery ensue. However, it is important to emphasize that the speed of the recovery and the scale of fiscal stimulus differ significantly from country to country (Rieti, 2010).

Despite the issue of coordination of economic policies in the EMU being a controversial one, there is a growing consensus at both the technical and political level, that it is crucial to work on coordinated joint effort between the ECB and Member States to ensure stability and effectively implement the exit strategy by taking into account mutual projections and plans, and cooperating closely in implementing the exit strategy. The ECB is expected to convey views regarding conditions under which it will keep the reference interest rate at a low level in an accurate and timely manner and indicate circumstances under which an increase in interest rates could take place. Along this line is the proposal to establish a temporary framework for coordination of EU governments and the ECB (von Hagen, 2009) for a period of two and a half years, which would involve a binding mechanism for consultations and shaping of a common strategy for the EMU.

However, as the monetary union in Europe was established without a political union, creation of a unified and stable Euro area economy and coordination at the level typical of nation states represents a challenge with the available instruments of macroeconomic policies. Basic principles woven into the Maastricht treaty, which the EMU was established upon, envisage independence of the central bank, the preservation of price stability as its primary objective and Member States' commitment to treat their economic policies, fiscal in particular, as a matter of common interest (Radović, 2007). It is prohibited to finance budget deficits via the ECB and national central banks. The same provisions exclude the possibility that the EU or the Euro area economies be responsible for the member states debt, meaning that in the event of insolvency of any financial institution in the Member States, the EU and the other Member States cannot be held liable for the debt of insolvent institutions. The EU bans excessive deficits and imposes sanctions on offenders in case of breach of fiscal rules woven in Maastricht criteria and the Stability and Growth Pact.

Bearing in mind that the monetary policy is indivisible by nature in a monetary union, competence for conduct of monetary policy belongs to the Eurosystem. Structural and fiscal policies are predominantly the responsibility of member states, whilst at the same time they are subject to the European coordination framework, whose performance can be assessed as modest over the past ten years since the EMU was established. In the absence of an exchange rate policy, coordination ought to become a necessity, given that Euro area member states have to rely on other economic policies during adjustment to shocks and efforts aimed at strengthening the competitiveness of their economies.

The previous analysis points towards a conclusion that the response of the Euro area to financial and economic crisis, although successful in general, had been guided by the principles underpinning the EMU, and that the current challenges the EMU is

faced with have shed more light on deficiencies in its institutional design and accentuated the need for a greater degree of accountability and coordination within the Union.

6. Conclusion

With the gradual recovery in the Euro area in the aftermath of the global financial and economic crisis, there are a number of topics that will require the energy of decision makers in the forthcoming period: How long will the consequences of the crisis endure? How grave will the fiscal implications be and how the challenge of high budget deficits and mounting public debt should be dealt with? What are the implications of the former on the single monetary policy? Can there be a greater degree of coordination between monetary and fiscal authorities within the EU and what are the lessons learned with regards to the EMU institutional architecture?

Despite the fact that the ECB and the Member states have addressed the crisis in a strong and fairly coordinated manner, both in terms of speed and range of measures, the period of slower growth ahead carries significant challenges regarding fiscal sustainability and recovery of European economies. There is a consensus that a coherent and credible exit strategy that would create conditions for economic growth, stability and sustainability of the EMU is essential.

However, given the heterogeneity of fiscal policies and economic conditions in EU Member States, an effective exit strategy involves correlation of timing and dynamics of withdrawal of measures designed in correlation with the economic conditions in respective Member States. There is no doubt that fiscal consolidation is a priority and that its implementation should begin with a hint of a stable recovery, with the pace and scope of consolidation of public finances proportionate to the size of public debt-to-GDP ratio. It is also necessary to make progress in terms of structural policies reform and implementation of the innovated Lisbon strategy. As regards the monetary stimulus, the exit strategy must involve gradual elimination of non-conventional measures, primarily intended for improving the liquidity, already underway. Theoretically speaking, the monetary stimulus could remain in force as long as there are no inflationary pressures, given the upcoming period of projected low growth rates and high unemployment.

Hence, with particular attention focused on choice of an appropriate combination of withdrawal of measures of monetary and fiscal policies, and the sequencing thereof, the crisis should be seen as a chance to implement structural and institutional reforms in the EMU. In doing so, it is necessary to make an effort at the technical and political levels to reach a consensus between Member States and the ECB,

aimed at ensuring stability and effectively implementing the exit strategy which would allow the return of fiscal and monetary policy to normal and create conditions for economic growth and sustainability of the EMU.

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Global economic order after the current crisis

Abstract: *Commonly referred to as globalization, the trend toward more integrated global economic system has been in place for last couple of decades. However, the rate at which this shift is occurring has been accelerating recently. With the intensification of globalization, the so called "global imbalances", that is huge current account deficit of USA and huge current account surplus of emerging Asia (particularly China) and oil-exporters from the Middle East came at the centre of global attention, more than ever. Due to that, it is important to understand the extent to which global financial crisis and global imbalances are closely linked. Both have their origins in economic policies followed in a number of countries in the last decade and in distortions that influenced the transmission of problems among the world economies. At the same time, global financial crisis paves the way for the shapening of the new global economic order with the rising power of emerging Asia, Middle East and BRIC (Brazil, Russia, India and China). These countries or group of countries are seen to be the driving forces of the global economic growth over the next couple of years.*

Key words: *globalization, global imbalances, global economic crisis, new economic order*

Resümee: *Gemeinhin als Globalisierung, der Trend zu stärker integrierten globalen Wirtschaft hat im Ort für letzten paar Jahrzehnten. Allerdings ist die Rate, mit der diese Verschiebung ereignet sich erst kürzlich zu beschleunigen. Mit der Intensivierung der Globalisierung, der so genannten "globalen Ungleichgewichte", dh riesige Leistungsbilanzdefizit der USA und riesigen Leistungsbilanzüberschuss des aufstrebenden Asiens (insbesondere China) und Öl-Exporteure aus dem Nahen Osten kamen in den Mittelpunkt der weltweiten Aufmerksamkeit, mehr als je zuvor. Aufgrund dieser ist es wichtig, in welchem Ausmaß der globalen Finanzkrise und der globalen Ungleichgewichte sind eng miteinander verbunden zu verstehen. Beide haben ihren Ursprung in der Wirtschaftspolitik in einer Reihe von Ländern im letzten Jahrzehnt und Verzerrungen, die die Übertragung von Problemen zwischen den Volkswirtschaften der Welt beeinflusst gefolgt. Gleichzeitig ebnet globalen Finanzkrise den Weg für die shapening der neuen Weltwirtschaftsordnung mit der wachsenden Macht des aufstrebenden Asiens, dem Nahen Osten und BRIC (Brasilien, Russland, Indien und China). Diese Länder oder Gruppen von Ländern gesehen werden, die treibenden Kräfte des globalen Wirtschaftswachstums in den nächsten paar Jahren werden.*

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Резюме: В последних нескольких десятилетиях, мы настоящие свидетели глобализации, т.е. тренда растущей интеграции глобальной экономической системы. Между тем, темп развития этого процесса в последние годы весьма ускорен. Интенсивностью глобализации, так называемого «глобального неравновесия», высокий дефицит текущего счета США и высокий суфицит развивающихся сторон в Азии (особенно Китая) и экспортеров нефти с Ближнего Востока, в настоящее время стали центром внимания всего мира. В связи с этим, можно понять как тесно связаны глобальный финансовый кризис с глобальным неравновесием. Их корни находятся в экономических политиках многочисленных мировых государств в течение последнего десятилетия и в дисторзиях, влияющих на распространение проблем по всем мировым экономикам. Одновременно, глобальный финансовый кризис влияет на образование нового глобального экономического строения с возрастающей силой развивающихся сторон в Азии, Ближнем Востоке и БРИК (Бразилия, Россия, Индия, Китай). Эти государства или группы государств являются движущей силой глобального экономического роста в течение нескольких следующих лет.

Ключевые слова: глобализация, глобальное неравновесие, глобальный экономический кризис, новое экономическое строение

1. Introduction

One of the underlying economic trends over the last two decades has been globalization of the national economies. That is fundamental shift from the world in which national economies are mutually relatively isolated (barriers on the cross border trade and investments, distance, time zones, language and national differences in state regulation, culture and business system) towards the world in which national economies are merged in the interdependent integrated global economic system. The two macro factors determine trend towards greater globalization. *The first* one is related to the reduction of barriers on the free movement of goods, services, people and capital after the Second World War. *The second factor* is technologic changes, especially dramatic development that has occurred over the last years in communications, transmission of information and transport.

However, greater globalization bears the risks, as well. That became obvious for the first time in 1997 and 1998 when financial crisis from Thailand spreaded on the eastern Asia, and in 1998 on Russia and Brazil. Finally, crisis threatened to spread to the developed countries, including USA. The current crisis that started in the middle 2007 indicated that in contrast to previous ones when economies which were geographically near to the financial trouble-spot were hit the most, in the era of globalization, informatization and tangled capital flows, there are no isolated islands. The reason why the crisis spreaded so wide and deep is the result of the following: *global imbalances, international capital flows and high leverage of financial systems.*

This paper examines the way in which global economic forces are reshaped in the XXI century, especially in the light of the current global economic crisis, that is, the way in which the foundation for establishment of the new economic order is set. In that context, detailed elaboration of the following three group of countries: emerging economies in Asia, Middle East and BRIC (Brazil, Russia, India and China) deserves special attention to be placed upon. Bearing in mind the importance of the global imbalances (the relation between the deficit of current account of USA and the surplus of the current account of emerging economies in Asia and oil exporters), this paper is especially dealing with the perspective of growth and strength of emerging economies in Asia and Middle East, although the importance of the BRIC group, not only for the global revival, but also for the growth and development of the world economy in the years to come, is of the equal importance.

2. Globalisation of the capital flows

The most recent global financial integration is the consequence of the so called *pull* and *push factors*. *Pull factors* are related to the liberalisation of the control of capital during 1990-ies in the emerging economies with the explicit aim of reaching the access to the huge pool of resources on international market, thanks to which private flows had enormous expansion. The process was assisted by the explosion of the new financial instruments, which increased the number of investment choices to international investors, and these are the so called *push factors* related to the increasing importance of the institutional investors (mutual funds, hedge funds, etc.). Integration of markets at the global level was facilitated by information technologies, and the easier access to the foreign financial markets allowed investors to profit from international diversification. Thanks to these factors, as well as improvement in the fundamentals of the developing market economies, foreign investors gained confidence in the potential of the developing world, which lead to the increase in the cross border capital flows. The biggest share in the most recent growth of capital movement has trade with stocks and bonds, as well as FDI, which altogether had the effect on the change in the international ownership structure around the world.

Table 1. Net capital flows in emerging and developing economies (\$ billion)³³

	1996	2000	2005	2007	2008	2009	2010
Net private flows	192.68	77.108	285.667	696.531	129.520	-52.487	28.298
Net FDI	117.11	146.67	251.720	411.248	425.018	278.967	269.487
Net portfolio investments	62.702	-5.793	32.742	88.140	-85.361	-99.835	110.436
Net other flows	12.868	-63.77	1.205	197.142	210.138	231.620	130.753
Net official flows	0.346	-55.71	-83.431	-69.464	105.658	50.348	-14.202
Total	193.02	21.398	202.236	627.067	23.862	-2.139	14.096

Source: International Monetary Fund, World Economic Outlook Database, October 2009

The extent to which capital is freely moving across national borders is of critical importance for the balance of payments of the country. USA with the deficit on the current account over the last almost 30 years at the same time run surplus on the financial account which has been one of factors allowing \$ to maintain value over the time. On the other hand, countries such as Brazil in period 1998-1999 and Argentina in period 2001-2002 were faced with the massive outflows from financial account, which was one of the components of their economic and financial crisis. Free flow of capital implies the fact that capital might go away in the case of abrupt loss of confidence and the frequency of crisis during 1990-ies suggests that many developing countries were not been able to efficiently manage risks that resulted from such a situation.

Period from 2000 until the outbreak of global financial crisis in August 2007, all around the world was characterized by strong economic performances. Generally, economic growth was strong; inflation low; international trade and financial flows were spreading, due to which emerging economies experienced evident progress and obvious absence of crisis. Benign environment from the beginning of the XXI century made investors, firms and consumers expecting permanently bright future and to underestimate risk. Prices of real estate increased, risk assets were created and sold as riskless and the leverage increased. This apparent favourable equilibrium was underpinned by the three trends which, as the time was passing by, seemed to be more and more unsustainable. *First*, real estate prices were increasing in many countries at the high rate, including the biggest world economy, USA. *Second*,

³³ There is no unique definition of the term „*emerging economies*“. The term „*emerging and developing economies*“ was used for the first time in 1985 by IFC for countries with the fast growth of financial market. In this paper (according to the methodology of IMF) the following 149 countries are *emerging and developing economies*: Asia (China, India, Indonesia, Malaysia, Philippine, South Korea, Thailand, Middle East etc, without newly industrialized economies), Europe (Central, South-Eastern and Baltic), Latin America (Brazil, Columbia, Venezuela, etc.) and Africa (Alger, Tunis, etc.).

numerous countries simultaneously ran high and increasing deficits on current account, including again USA. *Third*, leverage increased at the extraordinary high levels in many sectors around the world, especially among consumers in USA, Great Britain, etc. The drop of prices, however, created collapse.

3. Phenomenon of the „global imbalances“

Current world economic order is characterized by the so called „*global imbalance*“, that is deficit of the current account of USA (and to the less extent of other wealthy economies) and surpluses of the emerging countries in Asia (especially in China) and oil exporters³⁴. Over the last decade these imbalances provided cheap money that worsened the crucial problems of the world economy.

In the period 1989-1997, USA deficit fluctuated in the interval below 2% of GDP. With the outbreak of Asian crisis, in 1998 deficit reached the level of 2,4% of GDP, and in 2003 increased at the level of 4,7%. Underpinned by the mainly high investments in the second half of 1990-ies, USA deficit reflected relatively low national savings until 2003. In that period \$ appreciated by more than 20% in real terms. Under the pressure of the loose USA monetary policy after the dot-com crash and 9/11, from 2002 until 2007 \$ depressed by more than 16%, with the temporary turnaround during 2005 when FED strengthened policy. Until 2005-06, foreign borrowings of USA increased at the level of approximately 6% of GDP, before their gradual drop in period 2007-08, and after that even more dramatically. According to the IMF estimates, USA deficit amounted to about 2,8% of GDP in 2009 and 2,2% in 2010, with the projection of its further increase at the level of about 2,9% until 2012. Besides, with the increase of share of American public debt in GDP, it will be harder for FED to increase interest rates without creating additional fiscal tensions.

On the other hand, emerging economies in Asia run a deficit of the current account in the amount of \$33 billion year before the start of Asian crisis (1996). Outbreak of crisis brought about huge outflow of portfolio investments, loss in competitiveness and of access to the international capital flows due to the imposed restrictions on the capital transactions. In the aftermath of crisis, due to the precaution reasons as well as the need to insure domestic banking system, crisis countries (Malaysia, China, Korea, etc.) were buying \$ in order to weak own currencies and to prevent their appreciation, building, thus, reserves (about 39% of GDP) and accumulating high surpluses. The overall surplus of the increasing saving for the Asian region at the beginning of the 2000 amounted to about \$100 billion. Almost the entire increase in surplus savings has come from China, in the amount something below ½ of Asian

³⁴ Bahrain, Iran, Quvait, Libya, Oman, Qatar, Saudi Arabia, Syria, Turkmenistan, United Arab Emirates, Republic of Yemen, etc.

GDP (without Japan), and at the same time almost 90% of the surplus of the current account for the entire region.³⁵ In period 2007-2008, aggregate balance of the current account jumped at the level of \$500 billion (China - \$426 billion in 2008). Chinese national savings and the surplus of the current account dominate over the savings-investment balance of the region.³⁶

Today, emerging economies in Asia combine *export based model of growth* with decreasing or low exchange rates, reduced consumption and increased national savings.³⁷ Beside China, the biggest surpluses and incomes run small newly industrialised economies - NIC (Hong Kong, Singapore, Korea and Taiwan), which do not belong to the group of *emerging economies*. Besides, Singapore and Hong Kong are financial centres and capital exporters. Only countries with low income (India, Pakistan, Sri Lanka and Vietnam) run deficits and import capital. Along with the growth of surpluses of current accounts of the Asian economies, net capital flows increased as well, making these countries "over-financed" in the amount of over 10% of GDP (surplus and the foreign reserves), according to the *Institute for International Finance*.

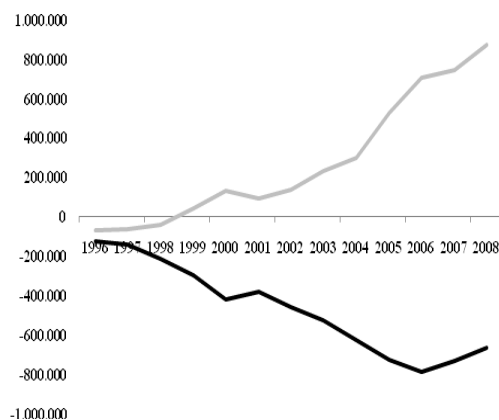
The path of Asian countries that combine rapid growth with the surpluses on the current accounts is safe from the point of view of external vulnerabilities. However, there is limit of sustainability of growth encouraged by export, especially if it linked with the low exchange rate, due to the risk of the wrong allocation of capital and growth of inflation. Contrary to this, deficits of the current accounts, although might stimulate excessive consumption and be vulnerable to the "abrupt stop" in financial flows, they also might reflect financing of productive investments during the episodes of the high growth.

³⁵ China, India and Korea have a share of about ¾ of GDP of Asia (without Japan). Chinese trade surplus of \$295 billion in 2008 (6,8% of GDP) dominates over the aggregate Asian trade (excluding Japan) with the rest of the world and is the main determinant of the surplus of the current account of the region.

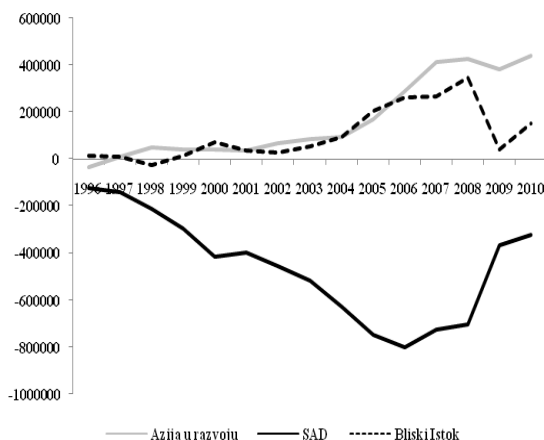
³⁶ China makes about 62% (2008) of the gross national savings in Asia (without Japan).

³⁷ Chinese model of growth (investments account for 1/2 of GDP, and private consumption below 1/3), resulted in the limited growth of employment (1% annually or 1/10 of the rate of growth of output during this decade).

Graph 1: Current account balance in emerging economies in Asia and USA



Graph 2. CAB in emerging economies in economies in Asia, USA and Middle East



In \$ billion

Source: International Monetary Fund, World Economic Outlook Database, October 2008, own calculations

In order to finance long standing deficit over the recent years, USA were withdrawing this savings from Asia and were selling own assets, which increased price of USA state bonds (that is exactly where Asian reserves were mostly invested in) and reduced interest rates and maintained consumption. Since American state bonds provided excellent market liquidity it was often believed that the American state debt is extremely safe. USA was borrowing at the low nominal interest rates due to the loose monetary policy. Appetite of the foreign banks for assets which turned out to be toxic was the source of the external financing of USA deficit. USA enjoyed in the inflow of that capital, since its important part was also used for financing of the capital outflow, that is for the purchase of the foreign assets. In that way, American system transformed savings from the developing countries in the projects of developing countries and that is an additional reason USA being magnet for the global capital. This also explains popularity of \$ among foreign investors holding almost $\frac{1}{4}$ of USA state bonds (about 10% of world GDP (without USA)).

Combination of exchange rate movement and assets prices was beneficial for USA due to the capital gains on their external portfolio and the losses of those holding external liabilities of USA. This puts the following question – why emerging economies in Asia export capital that could be otherwise used at home? The numerous analysis point to the following common denominator – *accumulation of reserves* that might be used when problems emerge. Accumulated reserves are shield against of not only “abrupt stop” in foreign financing, but also of the “sudden run” of domestic savers. Namely, in economies with significant deposits, when the crisis

breaks, the fear of devaluation pushes people to transform deposits in cash, and that cash in the strong currency.³⁸

The result of the accumulation of high reserves in the emerging economies in Asia and oil exporters has been expansion of the *sovereign wealth funds - SWFs*³⁹, which have potentially important implications on the global capital flows and the assets prices. As compared to the accumulated reserves, which are predominately expressed in \$ and held in the form of USA state bonds or securities of the agencies, portfolios of SWF's are more diversified both in terms of the assets categories as well as the currency exposure. That might point to the reduced inflow on the market of the state bonds in USA, having implications to the interests rates and the reduction of the current account deficit, as well as the value of \$ due to the lower demand for American assets.

4. Relationship between global economic crisis and global imbalances

The drop of real estate prices in USA that started in 2006 has lead to the current account adjustment. In 2008, USA deficit was at the level of about \$700 billion, while the changes in exchange rate and the losses on the securities market created additional loss of more than \$800 billion. The overall result of that has been the rise by almost of 10% of GDP in the net liabilities of USA towards the rest of the world. It seems likely that foreign private investors will become less willing to keep debt in \$ in the future in the light of unsettled fiscal projections of USA. That means that there is the long term trend of diversification of official reserves towards Euros or other currencies, especially among the fastest growing emerging economies. In the case of the reduced share of \$ in global portfolio, the rates of external indebtedness of USA might increase.

With the global spread of the financial instability far from USA, due to the international financial ties among institutions with the high leverage as well as global nature of the assets bubble, both USA deficit and surpluses of other developed countries and oil exporters, CIS and Middle East, faced sharp drop and

³⁸ Generally, in the period before the outbreak of the global economic crisis, surplus countries were not faced with the higher pressures for adjustment. The official discussions about the risks caused by the huge global imbalances intensified in the fall 2003 when G7 asked Japan and China to reduce interventionist purchase of \$.

³⁹ Although many SWF exist many decades now, they have seen significant growth since 2000. According to the estimates, assets managed by SWF amount to from \$2000 to \$3000 billion and is exceeded value of assets managed by hedge funds (\$1900 billion). Part of portfolio of SWF is often invested into non-financial assets, such as real estate. The projections show that the assets of SWF might exceed the value of the global foreign exchange reserves (\$7000-\$11000 billion) until 2013. That indicates that SWF will play significant role on the global financial scene.

dramatically fell. Newly industrialized countries in Asia maintained surpluses, while surpluses of the emerging countries in Asia (mainly thanks to the China) continued to increase. Between January 2007 and April 2008, \$ fell by more than 11%. However, due to the global shortage of the short term \$ used for financing of long term position of the foreign banks in illiquid (often toxic) USA assets, \$ started to rise again and between April 2008 and March 2009 appreciated by 16%, deepening, thus, recession in USA.

Although global imbalances did not cause leverage and real estate bubble, they were after all critically important co-determinant. In relation to that, controversy remains about the clear connection between global imbalances and the global financial downturn. According to some authors⁴⁰, global imbalances are benign problem, since they actually create framework which represents “*win-win*” phenomenon, with the emerging countries gaining from the security and liquidity for their savings, while rich nations (especially USA with the \$ issue) benefited from the favourable borrowing terms. However, on the other hand, there is thinking that external imbalances are often reflection, even symptom, of internal imbalances, meaning that economic policies should not ignore them.⁴¹

For Asia, the current crisis is drastically different than that from 1997-98. Then, the region was epicentre of trouble-spot, the terms of external financing were acute, real exchange rate weakened and there was a significant drop in domestic demand. Now, the external financial position of region is by far stronger, with the significant external surplus. Surplus might even become stronger in the following period. Although decreasing export will compensate decreasing import, the main driver behind the nominal improvement might be rapid gain in terms of trade, due to the drop of oil price. Still, the negative effect on China exists, since the country saves about 50% of GDP and the significant part of these funds is invested in American state bonds and the liabilities of *Fannie Mae* and *Freddie Mac*, meaning that the losses on the investments in American papers might reduce capital flows towards USA.

⁴⁰ Cooper (2007) and Dooley, Folkerts-Landau and Garber (2005), Caballero, Farhi and Gourinchas (2008) and Mendoza, Quadrini and Rios-Rull (2007).

⁴¹ The former Secretary of Treasury of USA, *Henry Paulson*, believes that the high savings of China, oil exporters and the other surplus countries, depressed global real interest rates and influenced the leading investors to underestimate risk.

5. The effect of the global economic on creation of the new economic order

The fundamental question posed by the current global crisis is the following: does it announce beginning of creation of the so called *new world order*, in other words structural reshaping of the international environment? This possibility is apparently manifested by summits of the Group 20 nations (G-20)⁴², where emerging powers (China, India, Saudi Arabia) together with the leaders of the developed countries are discussing about the strategies that has to be used in combating world financial problems. These summits illustrate how international power constellation has been transformed since the aftermath of the Cold War in something which is in its nature more inclusive.

The new geo-economic space is shaped in the way that includes major emerging powers, production, consumption and financial centres. The new geo-economic space sets up foundation for the new geo-policy based upon *converging interests* of emerging Asia and oil exporters from the Middle East.⁴³

5.1 Complementary development of Asia and oil exporters

Phenomenal growth of Asia and the countries from the Persian Gulf is one of the features of the current century. The high growth rates combined with the significant financial liquidity provided these regions with important negotiating power on the world financial markets. It not only about their increasing global role, but also the ways in which they complement each other, due to which these two regions pretend to become bigger economic players in the reshaped world. The two regions together have also widened and diversified own global investment foundation with respect to geography, categories of assets and investment strategies. With typically long term long investment horizons and traditional western investors, oil exporters and Asian nations were successful in achieving high returns and have become bigger international players and exporters of the surplus capital, especially regarding financing of the American state deficit.

Over the last five years, emerging nations in Asia and oil exporters registered the fastest growth rates in the world. While Asian growth is composed of the export oriented manufacturing, the growth of oil exporters is based on the export of oil, petro-chemical and energy services. Bearing in mind the high oil prices over the last years, Middle East has plenty of cash. Collective surplus on the current account in

⁴² G-20 was established in 1999 for the Ministers of Finance and the Chiefs of Central Banks following the financial crisis. The idea was to assist G7 – USA, Germany, Britain, France, Italy, Canada and Japan to discuss all around the world.

⁴³ As emphasised in the introduction, BRIC has the special importance for the set up of the new world economic order, however, out of that group this paper focuses only on China and India, due to the fact that existing relations with Brasil and Russia, as well as their characteristics, would require broader elaboration.

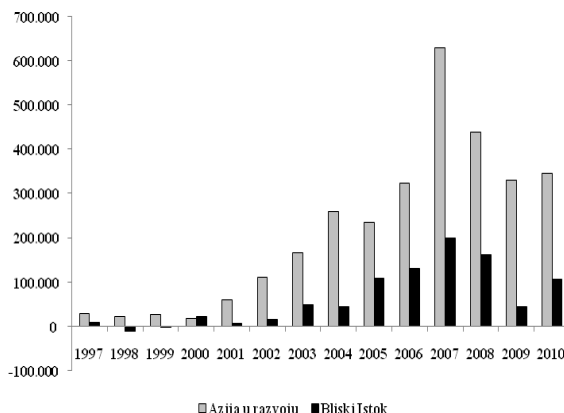
Persian Gulf, which is the picture of the regional net savings, increased from \$27 billion in 2002 to more than \$345 billion in 2008. International reserves have increased as well and doubled from \$51 billion in 2002 to \$98 billion in 2007.

Although trade between Asia and the Persian Gulf has the long history even since „silk road“, it has significantly increased over the recent years when the volume of trade tripled, and in 2008 trade between oil exporters and emerging economies in Asia was at the level of \$480 billion. Trade between two regions is to the great extent based on the complementary import and export, suggesting the existence of the increasing economic interdependence and converging in the future.⁴⁴ The greater part of the increased demand for the Persian export, not only for oil and gas, but also for petrochemicals, basic metals and services, such as financial services and tourism comes from Asia. Asia is the biggest trade partner for the oil exporters from the Middle East, making about 51% of the overall trade.

Graph 3: Growth rates of GDP in NIC, emerging Asia and the Middle East (%)



Graph 4: Changes in reserves in emerging Asia and the Middle East (\$ billion)



Source: International Monetary Fund, World Economic Outlook Database, October 2008, own calculations

It is estimated that the foreign assets of oil exporters exceeded the level of \$900 billion in the course of five years (until the end of 2008); the share of American assets (stocks, debts and deposits) is more than 1/3 of Persian investments. The estimated value of \$60 billion investment went into Asia. Over the last couple of years, the investments model preferred by the oil exporters has shifted from the capital preservation to profit maximisation. That has out greater accent on the

⁴⁴ Gulf Cooperation Council – GCC enters into preferential trade agreements with the Asian nations. One of the most important is GCC-Singapore Agreement on the free trade (January 2008), which might be also catalyst for the other Agreements, with China, India, Pakistan, Japan, Malaysia, South Korea, etc.

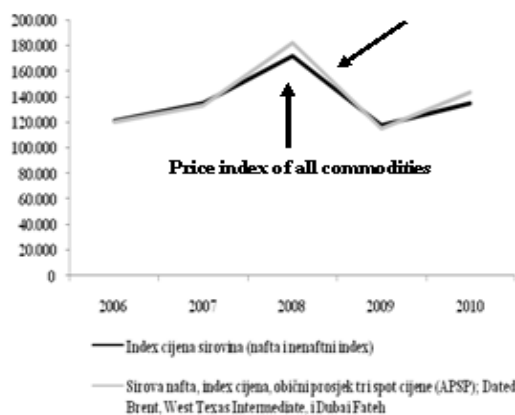
portfolio diversification and the appetite for riskier assets, as well as on the preferences to direct management, instead of *outsourcing*. Besides, Persian investors are still faced with the significant restrictions and barriers when investing on the west, after the attacks on 11. 9. 2001. As a result of that, Asia, led by China and India, has become the most logical alternative for the new global investments from the Persian Gulf. According to some reports, oil exporters will shift from the riskier categories of assets that are connected with the stocks and real estate to the investments in the real economy in Asia with the safe rates of return.

It is obvious, however, that the current financial crisis with its bad effects on the real economy of both regions, have effect. This is significantly reflected in the drop of demand for oil, petrochemicals, related services sectors and manufacturing. However, strong economic fundamentals of Asia and oil exporters and the cumulative surplus of capital might help in cancelling negative effects. The slow growth of prices at about \$76,5 per barrel is estimated for 2010 along with the revival of the global demand, in the great extent based on the strong demand from Asia. Bearing that in mind, oil exporters expect outflow of capital in the amount of about \$430 billion between June 2008 and June 2010. Besides, since developed nations are the main victims of the global financial crisis, sovereign wealth funds from Persian Gulf are once again considering entrance on the Asian markets.

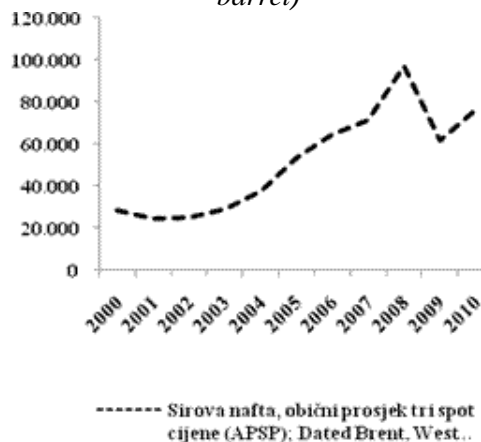
5.1.1 Synergy in energy

Energy is the most dominant item u trade between nations from the Middle East and Asia. Regions are composing the two strategic blocs of the current global energy regime as the biggest producers and consumers of energy, since industrialized West is no more the main growth centre. And while developed industrialized economies still spend disproportional share in the world economy, with about ½ share of North America in the overall oil consumption, newly industrialized countries and the oil producers make the remaining part of demand growth. Together, Asia and the Middle East make 60% of the growth in use of oil between 2003 and 2007, while North America and Europe make only 20%. The most dramatic growth in oil demand has come from China, whose oil consumption between 1990 and 2007 increased at the rate of 7,2%. If the trend persists, China will use 20 million of barrels daily until 2020, which is approximately the amount that USA uses today.

Graph 5. Indices of the commodities prices, (2005=100)



Graph 6. Prices of crude oil, (\$ per barrel)



Source: International Monetary Fund, World Economic Outlook Database, October 2009

On the supply side, *Organisation of petroleum Exporter Countries (OPEC)*⁴⁵ still provides about 42% of the world supply and owns about 70% of the proved oil reserves. Also, Russia has become the important oil exporter, as well as a few African countries. OPEC is trying to maintain ample capacities in order to influence prices of crude oil. Over the recent years, their policy was oriented towards balancing of market and at the same time provision of „adequate“ level of supplies in consumer countries. Producers out of OPEC, on the other hand, were often faced with the limited reserves and ample capacities, and generally speaking they were behaving as *price takers*. The most important fact is that generally speaking, OPEC, and especially member countries from the Persian Gulf continue to be the main source of the oil export for Asia. In 2008, oil export from Persian Gulf had the share of 43,3% and 16,1%, respectively, in the total world export of the crude oil and export of oil products, while the share of emerging Asia in the world import of crude oil and import of oil products was at the level of 41% and 39%, respectively. Now, emerging Asia has the share of almost 66% in the total export of crude oil from the Persian Gulf (in other words 70% if taking into account export of oil products).

Interdependency in energy security has become one of the central elements of the global economy, pointing to the importance of the demand safety for the Persian Gulf and supply safety for Asia. Related to that, Asian crisis from 1997 and global economic crisis from 2008 are two events testing vulnerability of the countries

⁴⁵ Iran, Iraq, Quvait, Saudi Arabia, Venezuela, Qatar, Indonesia, Libya, United Arab Emirates, Algeria, Nigeria and Equator.

exporting oil struggling with the abrupt drops in demand, which might lead to the turbulences in supply.⁴⁶

6. Conclusion

The current global financial crisis has clearly pointed to the fact that the financial system is the global system, with strong links between countries. Effects of the national policies influence other economies, as well, and potentially increase not only systematic risk on the national level, but also that on the global level. With the end of the crisis, many countries will be faced with the dramatically different financial situation and fiscal positions. This crisis, for sure, changes (even in the short run) perspective of the capital flows, in terms of their direction, intensity and structure. If historic pattern of capital flows is taken into account, the next medium term will be characterized by the conservative investment policies, which means that countries that will be hit are those which over the recent period relied their growth upon the capital inflow from abroad, without strengthening fundamentals of own economic systems in the meantime.

The current configuration of imbalances has once again revealed familiar asymmetry in the adjustment pressure between deficit countries and surplus countries. Constant USA external deficit is worrisome and it is hard to reduce it in the light of the current recession. On the other hand, China, with international reserves at the level of \$2000 billion, has plenty room for the change. With the huge internal market, China (differently from smaller Asian countries) is in an unique position to reorient own growth towards domestic demand, without suffering bigger losses. With the Chinese consumption which is significantly below 40% of GDP (almost 1/2 of the USA rate), there is a huge room for adjustment. However, the position of China as leading international source of lending, gives little incentives to take reforms which encourage consumption. This is due to the fact that in such situation China would be in a position to appreciate own currency. In the past, even credible treat of the trade barriers lead only to the smaller changes in the exchange rate.

Still, with the growing importance of emerging Asian markets in the world economy⁴⁷, reorientation of their growth towards reliance upon domestic demand

⁴⁶ Food safety is another important aspect of the interdependence between Persian Gulf and Asia. Namely, Persian Gulf is massively depending upon the import of food. This import has increased from the level of \$6 billion in 1990 to \$17 billion in 2006. Food is the biggest source of the imported inflation and it is estimated that the the import dependance will reach the level of 60% in countries of the Persian Gulf until 2010. Since Asia is reach with agricultural resources, the country represents traditional source of food import for the Persian Gulf.

and less export is the important component of the global effort in stabilization of the world financial and economic system. That, at the first place, means that Asian currencies have to appreciate in real term, which is tough political and economic decision. Still, a few reasons point put to that necessity. *Firstly*, not only that the reduction of imbalances in emerging Asia would benefit global economy, but also could create more benefits for their citizens. *Secondly*, reduced surpluses of China (and of other countries with high surpluses) might make it easier for USA to reduce deficit in the future. *Thirdly*, these changes would bring additional benefits in terms of reduced protectionist tensions, especially between China and USA. *Fourthly*, current monetary response of the rest of the world to the Asian/Chinese phenomenon (interest rates below real equilibrium) beside implicit deflationary pressure on the rest of the world economy, generates good ground for the potentially new bubble.

Alternative to the reduction of misbalance from the side of surplus countries would be coordinated action of the deficit countries and surplus countries. Similar tries failed in the past because each part benefited from maintenance of the *status quo*. China might think that Americans should save more, as long as they do not cut consumption on Chinese import. Although reasonable wish of emerging economies in Asia to encourage export and prevent appreciation of exchange rate, still the following question is posed: how long the low exchange rate might maintain high savings rates in the long run? By pumping domestic currency on exchange rate market, Central banks risk to increase inflation which erode gains in competitiveness from the cheap currency. So far China avoided such destiny because it was in the position to „sterilise“ interventions on its currency by selling bonds to the banks, companies and households, and reserves represented collateral for the issued bonds. On the other hand, USA might ask from China to re-estimate its currency and encourage domestic demand. However, at the same time it is the interest of USA that China continues to buy its public debt. Hence, today USA (Great Britain and other deficit nations) import cheap foreign loans. Due to the effect of structural factors which will maintain existence of the excess savings, it is high likelihood that these imbalances will persist.

⁴⁷ While during 2009 Western economies were in recession, China was faced with the slowdown in its growth from the two double digit level at about 7,5%, while the rate of growth of India reduced at the level of 9%.

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Danijela Laketić

PENSION FUNDS AND ECONOMIC DEVELOPMENT

Abstract: *“Europe’s state pension systems are based on the so-called pay-as-you-go principle, meaning that the pension payroll taxes of today’s working populations are passed through immediately to today’s retirees. This system worked half a century ago in the world when there were seven or more workers for each retiree, who typically lived only a few years after he left the work force. Beneath its veneer of egalitarianism, Europe’s present pension systems are hideously unfair to tens of millions. Most young workers can look only to paying more and more to support those on retirement today – and then to receiving less and less when they themselves retire.*

Reform is possible, if people are willing to look at the world in a different way. Most importantly, individuals will need more power to provide for their own retirement – and the government’s role must be scaled back. To all who say it can not be done, my reply is twofold: it has been done, and – considering the ruinous state of Europe’s pensions financing – it must be done!” (Jose Pinera – The wall Street Journal Europe, June 25, 1998).

We recognized our country like one of mentioned European countries that has problem with pension financing and the contribution to the economic growth. Having in mind the previous very clear message, I can say: if we want to have economic growth, we have to be open-minded, self-confident and categorical to carry out reform of pension system, and in that way to contribute to the development of our country.

Key words: *reform, retiree, government, categorical, open-minded, self-confident, power, economic growth.*

Resümee: *Europäische Rentensysteme basieren sich auf der sogenannten pay-as-you-go Grundlage, und das bedeutet dass die Rentengebühre der heutigen Arbeiter gleich an die schon pensionierten Bürger gehen. Dieses System war vor einem halben Jahrhundert in der Welt operativ, dass heißt in den Zeiten als es 7 oder sogar mehr Arbeiter an einem Rentner gab, der meistens nur noch ein paar Jahre nach dem Stillgang, lebte. Hinter dieser Gleichberechtigung sind die heutigen Rentensysteme Europas eigentlich für Dutzende Millionen von Menschen unglaublich unfair. Die meisten jungen Arbeitnehmer bemerken die immer steigenden Mengen die sie für die heutigen Rentner zahlen müssen – dabei können sie selbst nur nimmer niedrigere Beträge wenn sie in Rente gehen, erwarten.*

Die Reform wäre möglich wenn die Menschen bereit wären die Welt mit anderen Augen zu beobachten. Was noch wichtiger ist, Einzelpersonen werden noch mehr Leistungen benötigen um ihre Altersversorgung zu gewährleisten – und die Rolle des Staates muss reduziert werden. Für diejenigen die sagen würden dass man so etwas nicht schaffen kann, meine Antwort wäre zweierlei: „ Es ist schon getan – und wenn wir die ruinierte Finanzierung der Renten Europas in Augen behalten – muss es auch getan werden“ (Hose Pinjera – The Wall Street Journal Europe, 25. Juni 1998).

* „DZU Atlas Penzija“ – Atlas Group, Montenegro

Wir haben unseres Land, als eines der europäischen Länder, die ein Problem mit der Finanzierung der Renten und den Beitrag zum Wirtschaftswachstum, anerkannt. Angesichts der vorangegangenen sehr klaren Botschaft, kann ich sagen: Wenn wir den Wirtschaftswachstum haben wollen, müssen wir offen sein, selbstbewusst und kategorisch die Reform des Rentensystems auszuführen und damit der Entwicklung unseres Landes beizutragen.

Stichwörter: Reform, Regierung, kategorisch, offen, selbstbewusst, Leistung, Wirtschaftswachstum

Резюме: „Пенсионные системы Европы опираются на, такназываемом, pay-as-you-go принципе, это обозначает, что пенсионные таксы сегодняшнего рабочего населения идут прямо сегодняшним пенсионерам. Настоящая система действовала в мире полвека тому назад, когда существовало семь или больше работников на одного пенсионера, который обычно жил только несколько лет после прекращения работы. Под слоем равенства, нынешние пенсионные системы Европы невероятно несправедливы к десяткам миллионов людей. Большинство молодых работников смотрит только во все более высокие суммы, которые надо платить сегодняшним пенсионерам – чтобы потом они, когда сами станут пенсионерами, получили все меньшие и меньшие суммы.

Реформа возможна, если люди готовы посмотреть на мир по-другому. А еще более важно, что отдельным лицам понадобится больше силы, чтобы обеспечить свою пенсию - а роль правительства должна быть уменьшена. Всем, которые скажут, что это нельзя сделать, мой ответ двойной: это уже сделано, и – имея в виду разрушенное состояние финансирования в Европе – это надо сделать!» (Hose Pinjera – The Wall Street Journal Europe, 25. июнь 1998)

Мы осознаем нашу страну как одну из упомянутых европейских стран, в которой существует проблема в финансировании пенсий и вкладе в экономический рост. Имея в виду предварительно очень четкое сообщение, могу сказать: если мы хотим экономического роста, мы должны быть открытыми, самоуверенными и категорическими в выполнении реформы пенсионной системы, и таким образом сделать вклад в развитие нашей страны.

Ключевые слова: реформа, правительство, категорические, открытые, самоуверенные, сила, экономический рост

Introduction

“The privatization of the pension system would enable the employees to find in their life a new dimension of freedom and dignity. The world would really become a better place if every employee would at the same time be the owner of the capital as well. Employees would have use from the long-term increase of funds value and would be more involved in the economy efficiency. Their interests would mostly comply with the interest of those who manage these funds and who control them, there would be less inequality in wealth and strong property right would be more

respected as well as the rule of law. Employees would, above all, find a new dimension of freedom and dignity in their life.” (Jose Pinera)

1. Pension reform

Pension insurance reform represents one of the biggest challenges of the 21st century. Many countries, among which is Montenegro, must adapt to aging of the population and redefine its pension insurance system in order to keep it at the satisfactory level and secure in that way the financial sustainability of the system. Models of pension reform (especially) in transition countries depend on the heritage of previous pension systems, economic environment, social policy and future demographic flows. However, what they have in common is tying the paid contributions to pension disbursements to individuals, transfer of a part of risk from the state to the individual and increase of freedom in decision-making about income in the old age.

Today, developed and developing countries, apart from achieving the primary goal of the pension system, which is adequate, sustainable, sufficient and diversified pension – also aspire to secondary goals, which include economic growth and development. That is especially significant for the transition countries for which pension funds represent an extremely liquid and long-term funds, whose investment represents a significant encouragement for the development of financial markets through new institutions of the system, new instruments on the market, innovations etc.

Pension reform, as a very complex issue, demands significant changes in the direction of decreasing grey economy, development of financial markets and opening of the country to other financial markets, increase of employment, as well as the level of productivity which should provide a satisfactory rate of return on capital with the capitalized pension insurance.

Excellent implemented privatization of the pension system in Chile was made in the conditions of liberal, constitutional government of the general Pinochet. Transition costs could have been paid because there was a *decisiveness* of the authorities to implement the reform. Following their privatization of the pension system implemented in 1981, i.e. liquidation of the public pension fund and replacement by the system of obligatory private funding funds, the World Bank formulated its pension reforms – a system of three basic pillars (advantages are emphasized in the publication “Averting The Old Age Crisis – 1994”). Shortly, the three pillar pension insurance model means:

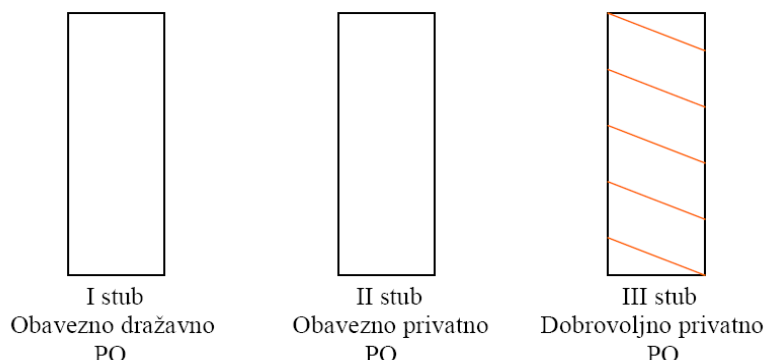
- *The First Pillar – Public Obligatory* – obligatory pension and disability insurance based on the current financing;
- *The Second Pillar - Obligatory Private* – obligatory pension insurance based on individual capitalized savings, and
- *The Third Pillar – Voluntary Private* – voluntary pension insurance based on individual capitalized savings.

2. Pension funds in Montenegro

By the Law on pension and disability insurance of Montenegro, which came into effect in January 1st 2004, the basis for forming a three-pillar pension model was set, which established a new legal framework leading to the entire reform of the system. The law stipulates that the system of pension and disability insurance in Montenegro includes all three pillars, whereby the first pillar of the pension system i.e. obligatory pension and disability insurance based on the current financing is entirely defined by this law, the manner of function of the third pillar is defined by a special law, while the second pillar is waiting for new legal solutions.

Private pensions represent a type of savings, i.e. of investment for the old age. Unlike the state pensions (the first pillar), which function by the principle of current financing (pay-as-you-go), where today's employees separate a part of their gross salary for current pensioners (redistributive function – generation solidarity system), in the voluntary pension insurance (the third pillar) the money is capitalized on personal accounts in which the account holder has insight at any time. In the future is planned the introduction of the second pillar, i.e. the obligatory private pension insurance by which the state would oblige the employers to pay a part of the employee's gross salary to private accounts. Here a problem arises with the transition period, the so-called transition cost, i.e. the way of its financing. The system with all three pillars, which would finish the pension system reform, is already functioning in Croatia, Macedonia, Hungary, etc.

Tri stuba sistema penzijskog osiguranja



Three systems of pension insurance

I PILLAR – OBLIGATORY STATE PENSION INSURANCE

II PILLAR – OBLIGATORY PRIVATE PENSION INSURANCE

III PILLAR – VOLUNTARY PRIVATE PENSION INSURANCE

By coming into effect of the Law on voluntary pension funds in December 30th 2006 (»The Official Gazette of RoM«, No.78/06 and 14/07) the conditions are stipulated for founding companies for pension funds management and organizing of voluntary pension funds based on individual capitalized savings, as well as their business operations.

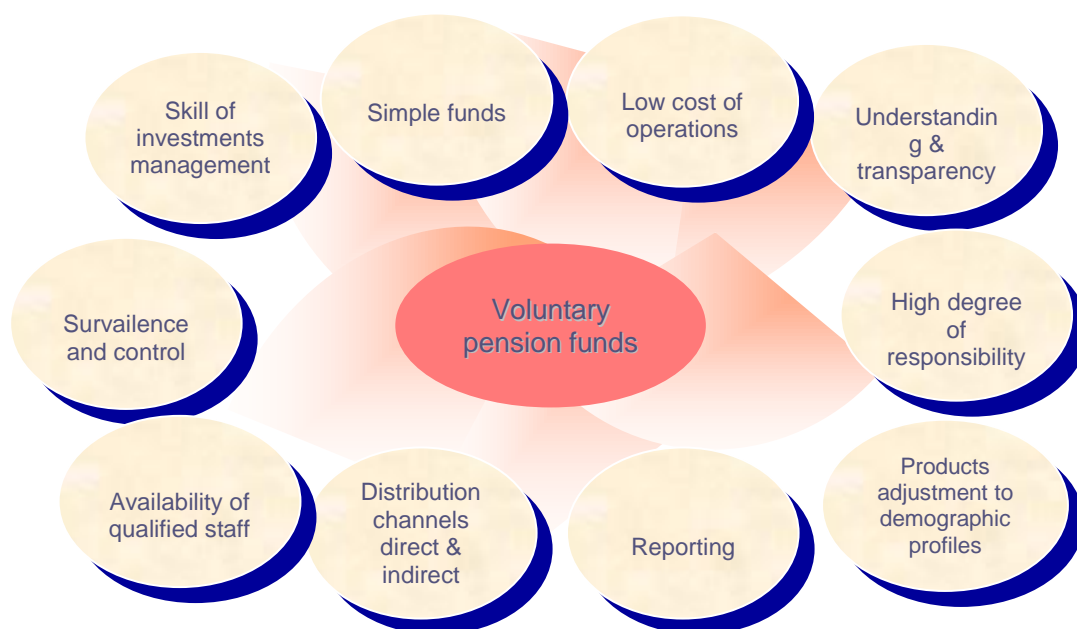
3. Voluntary pension funds in Montenegro

Voluntary pension funds serve for gathering contributions and their investment for the purpose of providing private pensions. They represent one of the critical financial pillars of modern society, payments are based on the principle of free will and function independently from the obligatory pension insurance (the first pillar). The role of the voluntary pension fund is provide, by investing of gathered contributions, the keeping, i.e. increase of their value and thereby the amount of private pensions.

Atlas Group has founded, in cooperation with the Union of Independent Trade unions of Montenegro and the Employer Union of Montenegro, the first Montenegrin company for management the voluntary pension funds ATLAS PENZIJA and the first Montenegrin voluntary pension fund PENZIJA PLUS. Hereby, the citizens of Montenegro have been enabled to add to their state pension, to diversify the risks by investing funds with generating income on such invested funds at the same time, i.e. to insure income in the old age. At the Montenegrin market since recently another voluntary pension fund exists.

Voluntary pension funds, according to the valid Montenegrin legal regulations, are founded for the purpose of gathering money by paying contributions of the fund's members, which will be invested for the purpose of increase of value of the fund's property. The law gives the possibility that the funds be of open and closed type. An open fund is the one anyone can join, while only certain group of people can become a member of a closed one: only employees, union members or other organisations' members.

Voluntary pension fund will be managed by a specialized management company which obtained a permission to work from the Montenegrin Securities Commission, and whose minimum equity can not be lower than 250.000 EUR. Management company collects commission for the fund management.



Challenges in management of Companies for management and Voluntary pension funds

The scheme here presented pictures in the best way the complexity of management of a Company for management i.e. a voluntary pension fund. Pension business requires a high degree of responsibility (OECD recommends the implementation of the concept of a responsible person and responsibility - fiduciary duty). Persons in charge of some elements of a pension fund must have adequate knowledge, skills and experience in order to be able to perform the tasks in a quality manner.

The paid contribution into the fund is booked into the personal account of a member and that is, according to the law, his property. The money can be withdrawn after the member is 50 years old and that in two ways – to be disbursed maximum 30% in cash on the day of his fulfilling the conditions defined by Rules and the Agreement on membership and the rest in monthly or periodical annuities in the period not longer than three years, or to transfer the amount to a company involved in providing pension disbursements. In the case of a temporary or permanent cease of payments of contributions, the funds remain permanently owned by a fund member and are capitalized until the moment of acquiring right to be disbursed, whereby the entire income belongs to the fund members. In the case of death of a fund member, the accumulated funds are the subject of inheritance.

The fund works in such a way that the payments of contributions are converted in calculation units, whereby the value of one unit is published every day in public media, and it represents the value of property which an individual has in the fund. In that way the payers of contributions have the information about the value of their property on that day, by multiplying the number of calculation units being converted with the value of a unit on certain day. So, a transparent and open manner of performing business where every individual every day can have insight into the value of its property.

The good investment policy is one of the conditions for efficient functioning of the fund. Voluntary pension funds mostly have a conservative strategy of investment (unlike other types of investment funds), where firstly one takes care about the security of the fund's property and then about the profitability of investments. Investment decisions are passed based on careful and detailed analysis in accordance with the **safety principle** which means that securities in which one invests have high credit rating, then the **liquidity principle** that those securities can easily be bought and sold and finally the **risk dispersion principle**, i.e. that the fund's portfolio is made of various types and issuers of securities.

So, the company for management is "obliged" to manage the fund's means in such a way to provide to the fund's members long-term security and optimal growth compared to the risk taken. Of course, risk is an inevitable component in business operations of every modern financial institution, because for its survival and progress taking certain risks is almost necessary. Since there is no method which would entirely eliminate the risks in business operations, rules are set to decrease potential risks to the lowest possible level and the investment strategy is directed toward the adequate risk diversification, along with achieving the profitability of investment.

The law stipulates that the fund paid into the voluntary pension fund (paid contributions of members) can be invested in bonds, banking deposits, shares, T-bills and other long-term securities issued by the state, into long-term bonds issued by companies which are tradable in our stock exchanges and markets of EU and OECD countries, whereby limits of investments which represent certain security for fund's members are strictly taken into consideration.

An additional security is provided by the control and surveillance over business operations of voluntary pension funds by the Montenegrin Securities Commission and Custody banks, separate management of funds of the Company and the Fund, and also positive experiences of countries in transition (both from the surrounding and wider), as well as experiences of developed countries which may help to avoid certain problems. At the moment on the Montenegrin capital market material exists for investment which includes some securities which may bring profit from 15-20% annually, with the minimal risk (such as bonds of the users of the Pension and Disability Fund of the Republic of Montenegro, foreign currency savings out of Montenegro etc.).

A member of a voluntary pension fund one becomes by signing an agreement on membership and by making the first payment. What is good is the possibility that everyone who is interested can become a fund member - age does not matter, working experience, there is no minimal or maximal amount of payment etc. The only limitation relates to the disbursement which can not be made before one is 50 years of age. This is a long-term investment, whereby time is necessary in order to achieve a more significant amount on the invested funds, so that it is necessary to start with the payment as early as possible, even if those are symbolic amounts.

The third pillar enables the employees and those who are not employed (people involved in agriculture, housewives, students etc.) to pay some amounts alone, independently from the state, into special personal accounts in voluntary pension funds. Those payments are treated as long-term savings (investments) and provide an additional income in the future period. Providing better information and education of the population, along with stimulating and encouraging measures of the state related to tax policy, but also the increase of the life standard are the preconditions for the good functioning of the third pillar in Montenegro.

3. Creating favourable environment for business operations of voluntary pension funds in Montenegro

Economic crisis is still a part of our every day lives. The total liquidity of the system has been decreased, the absence of (foreign) investors is evident, which bring to decrease of activity on the financial market, turnover and prices on the stock exchanges are fairly low and the Montenegrin citizens are not educated enough when it comes to voluntary pension funds, so activities should be intensified in that area by some state institutions. The state is the one that by creating a clear legal system and institutional frame may contribute to strengthening of the market and economic progress.

In order for the voluntary pension funds to function in the right way it is needed to create, apart from the formal, various necessary material conditions as well, first of all in the field of tax policy, i.e. income tax of individuals, whereby the institute of **tax benefits** would be introduced on payments of voluntary pension contributions. In that way employers would be stimulated to pay contributions for their employees, because up to a certain amount they would not pay taxes. Adopting tax benefits on payments into voluntary pension funds would significantly contribute to the improvement and affirmation of the third pillar of the pension insurance and pension reform in Montenegro.

By the comparative analysis of voluntary pension funds system of the transition countries it was noticed that almost all states which have introduced into their systems voluntary pension funds have pension benefits on paid contributions of their citizens. This status of paid contributions into the voluntary pension fund this type of gathering funds and their investment for providing private pensions for members of voluntary pension funds has been stimulated.

For example, in Serbia (apart from being introduced) the amount of tax benefits has been increased several times. Thus, in February 2009 the Amendment of the Law on tax of citizens' salaries, the maximum amount of payment into voluntary pension funds on which taxes are not calculated was increased in Serbia from 3.303 dinars to 3.528 dinars. Thus, the employers got the possibility to increase the amount of contributions they pay for their employees and are being freed from paying taxes on citizens' salaries and contributions for the obligatory social insurance, up to the amount of 3.528 dinars. We see that these are symbolic amounts, but is evident the support of the state to the development of the third pillar of the pension insurance in the state.

Planning income in the old age is a long-term goal, and since all of us wish to preserve a comfortable way of life for ourselves and our family, we need additional income. The earlier we start with savings, the pension will be higher because the funds have more time to be increased. We should not underestimate the significance that early started savings can have on the total income, because if the start is moved by only a few years, the savings process is ended with a significantly lower sum of cash. Savings for the old age can be one of the most significant investments in life considering that already today we do something for our future, because surely time will come when we will not be able to work and contribute, and will need the money.

4. Conclusion

The reform of the pension system is surely one of the most difficult reforms on the transition road and represents a great challenge for all. A responsible reform of the pension system will ensure stable pensions of pensioners, along with opening the way to many macro-economic benefits for employees, pensioners and the entire society. Successful pension funds can encourage businesses, provide financing for development of the private sector and contribute to opening of new working places, i.e. enable to profit in the future from social and economic welfare.

Pension funds have become strong and modern financial institutions which play a significant part in directing savings toward real investments and represent the most significant institutional investors in the state. The experience has shown that there is strong connection between the pension reform, financial market and economic development. Pension reform, as one of the most difficult and most important reforms, is necessary and possible in the conditions of open, market economy, which would clearly define the ownership rights, increase the responsibility and freedom of individuals.

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TRANSATLANTIC ECONOMY

Product of globalization and/or globalization of the product?

Abstract: *Globalization, crisis and development have been constant of the capitalism as a value and adaptation system. Capitalism seen as globalization i.e. vice versa has had "internal" and "external" enemies. Its survival mechanisms have been and still are openness, integration and adaptation (regarding internal) as well as EU and NATO (regarding external). Existence of NATO which is being identified as cornerstone of European security architecture has enabled creation of transatlantic economy as the deepest economic integration on a global scene. Precisely, creation of NATO has been basis for creation and development of transatlantic economy. This basis strength relays in security seen as economic resource that enables growth and development. Evidences for hypothesis of transatlantic economy as biggest and richest commercial artery in the world have been given in form of seven indicators of mutual dependence.*

Localization of globalization in Montenegrin example means that transatlantic integrations are integration into the deepest global cooperation as well as doorway to the rest of the world. Integration per se is meaningless and is solely one of the few mechanisms of life quality increase. Qualitative changes such are new significant investors from the most developed economies, know-how transfer, new technologies and management virtues should be integrations outcome that will lead to life quality increase. Nevertheless, precondition for it is existence of unreasonable minority seen as introduction of Montenegrin difference. This minority is the Montenegrin basis of change.

Key words: globalization, development, crisis, NATO, EU, economic integration, minority, difference, change, quantum, investments and quality.

Resümee: *Die Globalisierung, die Krise und die Entwicklung sind dem Kapitalismus, als einem System der Werte und der Anpassung, immanent. Der als Globalisierung identifizierte Kapitalismus und die als Kapitalismus identifizierte Globalisierung, haben ihre „inneren“ und „äußeren“ Feinde gehabt. Ihr Überlebensmechanismus waren und sind immer noch die Offenheit, die Integrationen und die Anpassung (wenn es sich um den inneren handelt) sowie auch die EU und die NATO (wenn es sich um äußeren handelt). Das Bestehen der NATO, identifiziert als Säule der europäischen Sicherheitsarchitektur, ermöglichte das Zustandekommen der transatlantischen Ökonomie als die tiefste ökonomische Integration der globalen Bühne. Präziser gesagt ist die NATO ihre Grundlage des Entstehens und der Entwicklung. Die Kraft der Grundlage liegt in der Sicherheit als der ökonomischen Ressource, die das Wachstum und die Entwicklung ermöglicht. Die Beweise der Hypothese der transatlantischen Ökonomie als der größten und reichsten kommerziellen Arterie auf*

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der globalen Bühne, befinden sich in Form von sieben Indikatoren der gegenseitigen Abhängigkeit.

Die Lokalisierung der Globalisierung am Beispiel vom Montenegro bedeutet, dass die transatlantische Integration eine Integration in die intensivste globale Zusammenarbeit sowie die Einführung in die Zusammenarbeit mit der restlichen Welt ist. Die Integration für sich ist bedeutungslos und stellt nur einen von ein paar Mechanismen für die Erhöhung der Lebensqualität dar. Die qualitativollen Veränderungen, wie die neuen bedeutenden Investoren aus den entwickelsten Ökonomien, der Wissenstransfer, die neuen Technologien und das Management sind Produkte der Integration, die zur Erhöhung der Lebensqualität führen. Allerdings ist die Voraussetzung dafür das Bestehen einer unvernünftigen Minderheit als Einführung in die montenegrinische Verschiedenheit. Diese Minderheit ist die montenegrinische Grundlage der Veränderungen.

Schlüsselworte: *Globalisierung, Entwicklung, Krise, NATO, EU, ökonomische Integration, Minderheit, Verschiedenheit, Veränderung, Investitionen und Qualität.*

Резюме: *Глобализация, кризис и развитие имманентны капитализму как системе ценностей и приспособления. Капитализм определен как глобализация и глобализация определена как капитализм имели своих «внутренних» и «внешних» врагов. Их механизмы выживания были и всё ещё есть откровенность, интеграции и приспособление (если речь идёт о внутреннем), а также и ЕС и НАТО (если речь идёт о внешнем). Существование НАТО, определённого как основа архитектуры европейской безопасности, обеспечило создание трансатлантической экономики как глубочайшей экономической интеграции на мировой арене. Точнее, НАТО является её основой создания и развития. Сила основы в безопасности как экономическом ресурсе, обеспечивающем рост и развитие. Доказательства гипотезы о трансатлантической экономике как крупнейшей и богатейшей коммерческой артерии на мировой сцене находятся в виде семь показателей взаимозависимости. Локализация процесса глобализации на примере Черногории означает, что трансатлантическая интеграция – это интеграция в наиболее интенсивное глобальное сотрудничество, а также и введение в сотрудничество с остальным миром. Интеграция сама по себе незначительна и представляет лишь один из нескольких механизмов для повышения качества жизни. Качественные изменения, такие как новые значительные инвесторы из самых развитых экономик мира, передача знаний, новых технологий и мастерство менеджмента являются продуктом интеграции, который способствует повышению качества жизни. Непременным его предусловием является наличие иррационального меньшинства в качестве введения в черногорское разнообразие. Это меньшинство является черногорской основой изменений.*

Ключевые слова: *глобализация, развитие, кризис, НАТО, ЕС, экономическая интеграция, меньшинство, разнообразие, изменение, инвестиции и качество.*

Globalization of introduction

Continuous everyday's usage of certain terms leads to their depreciation and neglect of their definitions and essences. Specific position within assembly of terms belongs to the *globalization*, *development* but since recently also to the *crisis*. Nevertheless, terms' defining isn't simple task. At the *definitions* market almost identically as on capital market, real estate or hotel capacities market we freely choose those which satisfy our needs expressed either through identification or in accordance with subjective perceptions of the same.

Vukotic defines *globalization* as free capital flow i.e. wide spreading of modern capitalism in all parts of the world emphasizing the new key role of capital.⁴⁸ Capital is replacing military power or political ideology from pre-globalization period because importance of state borders for development of the economy is decreasing.⁴⁹ He concludes that absence of capital is the only worse option comparing to capital's *conquering* of state. Having in mind this definition's part which addresses to military power and political ideology replacement with capital may be added that globalization can be seen also as mechanism for *establishment of new rules of the game*.

Colombatto considers globalization as *freedom of choice* and that all her opponents are in the same time opponents of liberty, freedom of choice and individual freedom(s).⁵⁰ Further, he emphasize that it is an assembly of events and behavior within which means free trade; process which explicitly comprehends possibility of products fragmentation, justifies particular producer's specialization as well as goods or services diversification of the zone or region. According to Colombatto the essence of globalization is economic or commercial globalization which has in its basis moral premises of libertarianism⁵¹ to enable the widest *free* choice to each individual. We may also observe globalization as *competitive pressure* on all stakeholders (nameless individuals, businesses tends to be managed, markets driven by individual preferences, science and individual researchers, sports which are made attractive be individuals, music created special by individuals again but also

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⁴⁸ Veselin Vukotic, "Opasne riječi", p. 46.

⁴⁹ Alongside Gates and Internet (in)direct merits for vanishing existing nation states borders belongs to the EU and NATO.

⁵⁰ Enrico Colombatto „NEMORALNOST no global“, Postgraduate studies "Entrepreneurial Economy", Podgorica.

⁵¹ Both, Colombatto and Vukotic use term liberalism in Montenegrin original or translated works which is a proper word but regarding necessity of distinction with continental liberalism in this paper liberalism is equal to libertarianism and vice versa.

politicians⁵²) which leads to more *efficient resources allocation* and *additional values creation*. Globalization is *libertarianism*⁵³; it is *capitalism*⁵⁴.

Ohmae under globalization comprehends individual(s), consumers, corporations and regions liberation from the legacy of nation-state which they belong to in which available information give wisdom of choice through time. He considers that it depends on them whether they are going to buy the best and the cheapest in the most diverse choice from different parts of the world. According to Ohmae globalization enables positioning of the best *region-hosts* in which corporations with theirs' activities will be transferred to. Precisely thank to the own specificity regions are not anymore going to be depended on nation-state political power centre.

Ohmae considers that wealth spill-over of global world competition through-out current national borders will import necessary discipline among global village members. In addition, it will lead towards prosperity of region-state's and in the same time to the vanishing of nation-state's while „*diplomatic and military forces are now under attack of brand and marketing strategies of the regions which represents operational unit in borderless world*“.⁵⁵

Development can be defined as changes of quality i.e. changes of certain (economic) phenomenon's structure.⁵⁶ In the same time, development is openness i.e. surrounding information exchange increases but also development and investments into the market.⁵⁷ It is essential that development is more important than growth and on the global stage higher values belongs to those who are developing than of those who are growing⁵⁸ i.e. those whose rules and institutions increase ability of market transactions coordination.⁵⁹ Thank to higher values of those who are developing added values for individuals have been fulfilled. In other words, development is *added qualitative value*.

⁵² Efficient resource allocation and added value creation within given context can be creation of *institutionally competitive destinations attractive for capital*.

⁵³ ...Respecting the principle that one that makes decision bares the consequences of that decision's realization...Equality of all in front of the law and institutions but not equality on distribution of created...Idea that made revolution in the church first (Martin Luther and Protestantism) and than in society: through humanism and renaissance (growing power of individual in ratio to the mass, crowd), bourgeoisie revolution (creation of capitalism and entrepreneurial economy) and now through information economy development...Liberalism is in the essence of citizenship society (citizen-individual). Internet is technological basis of liberalism in today's society – it leads to decentralization... Vukotic, "Opasne riječi", p. 73.

⁵⁴ System in which income based on capital engagement is being acknowledged. Vukotic, "Opasne riječi", p. 61.

⁵⁵ "Nova globalna pozornica", MATE, Zagreb, 2007. p. 122-123.

⁵⁶ Vukotic, "Opasne riječi", p.112.

⁵⁷ Ibid, p.113.

⁵⁸ Quantitative Vs. qualitative changes.

⁵⁹ Vukotic, "Opasne riječi", p.113.

Nevertheless, history of development and added value would be unbearably simple if it had uninterrupted flow. Obstacles for development are immanent to the only system in which development is possible.⁶⁰ Existence of Chinese ideogram that simultaneously means crisis and chance may consider crisis as proper chance or *wave* we have been waiting for. Vukotic defines crisis exactly as chance for changes and introduction of new.⁶¹

In other words, one door closing means opening of the new ones for which quest is permanent (process of not giving oneself over to the circumstances)⁶². It is crucial to use doors i.e. crisis for system's change and creation of development's preconditions.

Important issue relates to the identification of *common denominator* of globalization, growth and crisis. Globalization even the first one has occurred in one of the capitalisms' forms while current, second, globalization has begun as process in liberal capitalism. Crisis and development are immanent to the very same capitalism. Socialism and other systems had failed precisely because of inability to adapt and response to the crisis. Differing from them, capitalism creates crises but what is even more important it survives them, adapts itself to them and changes successfully. Qualitative dimension of changes known as *development* is only possible in capitalism. Reason for such "monopoly" existence is the fact that openness and integrations are only possible within capitalism as system.⁶³

Finally, common denominator of three beginning notions is *capitalism* whose basic products are *openness* and *integrations*.

Alongside internal "enemy" identified as crisis capitalism and development have had external "enemies": nation-state and ideological differences.⁶⁴ Prevention mechanisms for refraining capitalisms' development function in 20th century have been establishment of North Atlantic Treaty Organization (NATO) and European Union (EU). First had been and still is global response to the second form of external "enemy" while second, although often in correlation with nation-state, solves its hostility with *supra-nationality*.

⁶⁰ Nevertheless, it may remind someone to eternal fight of good and evil but in (non)regulated market system.

⁶¹ Vukotic, "Opasne riječi", p.113.

⁶² It is possible to compare it with the crisis and Noah's arch, isn't it?

⁶³ Maybe that is the reason why existed satire publication called "Trimmed hedgehog".

⁶⁴ In the 20th century it was the Cold War while in the 21st that are nation states and terrorism.

Transatlantic economy: products' patent and dimensions

If it possible to achieve economic prosperity from the war⁶⁵, why even Kant pledge for establishment of world peace as prosperity's precondition? Reason is quite simple indeed – *security is an economic category and when there is lack of security than there can't be initial impulses to the economic progress*. Within that context, creation of NATO may be seen as basis for transatlantic economy.

Patent

The beginning of transatlantic economy concurs with inclusion of the United States of America (USA) into the First World War 1917. Lack of military operations on the USA ground⁶⁶, preservation and partial development of the economic substance as well as necessity of existence (or creation) of absorbing markets for American products and services had influenced economic aid to the Europe identified as Marshal Plan⁶⁷ and they are the beginning of growth and development of real geo-political and geo-economic power of the USA.

Whether EU is economical and political experiment of the USA or autochthon creation of European ideas progress or even transatlantic partner's cooperation it has been effectuated throughout creation, transformation, growth and development of NATO.

Organization established by the Washington Treaty⁶⁸ whose articles have introduced defense⁶⁹ and economic⁷⁰ dimension of cooperation had *produces* the largest economic integration on the global scene. Globalization of capitalism has created precondition of openness and integrations whose results are qualitative and quantitative changes and all of that thanks to the EU's and NATO's existence.

⁶⁵ It is indisputable that territories conquering have been motivated by certain market access motives. Territorial conquering and opportunities for defense sector companies may enable extra profits during war conditions but those profits are short-term and non-voluntary. It is meant here to overall benefit identified as public good of safety and peace and benefits for participants of voluntary transactions.

⁶⁶ There hadn't been war operation on the territory of USA. Attack of US fleet in Pearl Harbor happened on the Hawaiian not US territory. Hawaii has become 50th federal state in 1959.

⁶⁷ *European Recovery Program* is official name of the program. It has received its name by George Marshall, US Secretary of the State.

⁶⁸ April 4th 1949.

⁶⁹ Article 5 refers to NATO member states' reaction in case of attack on one of them and that includes armed means.

⁷⁰ Article 2 refers to economic cooperation among member states promotion as well as prevention and overcoming of potential commercial disputes.

According to the Hamilton and Quinlan this cooperation recognized as *transatlantic economic* represents the most significant economic artery of global stage.⁷¹

Dimensions

"There is no commercial artery in the world as large as the one binding the United States and Europe together...No two regions of the global economy are as economically fused as the two parties straddling the Atlantic, making the transatlantic economy the largest and wealthiest in the world".⁷²

Data's are showing precisely that united economies of Europe and United States have been the largest and the wealthiest economic space on the global stage. Economies of the EU member states⁷³ and USA jointly creates 43% of the world GDP PPP in 2008 i.e. they have created USD 15 247 billions (22%) and USD 14 265 billions (21%), respectively out of totally created USD 68 997 billions on global level.⁷⁴ Estimations for 2009 show that out of predicted USD 68 651 billions in the EU and US will be created USD 14 775 billions (21.6%) and USD 14 003 billions (20.1%), respectively. In addition, estimations for 2010 show that out of globally created USD 70 210 billions within EU and US will be created USD 14 788 billions (21.2%) and USD 14 050 (19.7%), respectively. These data additionally confirms significance of EU and US economies on the global stage.⁷⁵ Insignificant fall of transatlantic economy's share in the global economy at 41.7% in 2009 and 40.9% in 2010 can be result of economic crisis which de facto has the most significant influence in developed economies from which crisis had started.⁷⁶ Partially, it is possible to explain mentioned fall by certain developing economies increased share in the global economy.

Despite the differences in the data sources it is evident that GDP PPP of transatlantic economy is approximately 40% of the world's GDP PPP. In addition, transatlantic import and export makes around one third of the same on the global level i.e. 28.1% and 38.3%, respectively.⁷⁷ Foreign direct investments (FDI) i.e. investment attractiveness of transatlantic economy has resulted with the share above two thirds of global FDI's i.e. 62.5% of total FDI inflows and 76.1% of total FDI outflows.

⁷¹ Hamilton and Quinlan, "Transatlantic Economy 2008", Centre for Transatlantic Relations John Hopkins University, Washington, 2009.

⁷² Ibid, p.15.

⁷³ The remaining European countries contribution is neglectable within this context.

⁷⁴ International Monetary Fund, World Economic Database, October 2009.

⁷⁵ Ibid.

⁷⁶ Vukotic experiences crisis as a reaction of market and market democracy clash. Lecture "S=ZxI", UDG, April, 2010.

⁷⁷ EU's internal trade hasn't been included (it otherwise makes approximately 70% of total EU trade).

Mergers and acquisitions within transatlantic economy are at the level of 70.8% (sales) and 74.4% (purchases)⁷⁸.

FDI's has been observed as deeper form of global integration and it represents the driving force that connects economies from both sides of Atlantic. In addition, Hamilton and Quinlan consider trade as global integration's shallow form and link it with the beginning phases of bilateral exchange. They consider FDI as more important interconnectivity factor while partnership created on such grounds is, according to them, the one in which both sides have been tremendously integrated and connected into the other (partner) side economy. According to them, transatlantic economy is a proper case study for all of this because *increasing inseparability* of local companies and foreign investing companies is evident whether it is about American or European affiliations. Finally, it is being considered that Europeans and Americans literally own each others.⁷⁹ Having in mind all before mentioned, can be conclude that SDI's as new basis of economy and comprehensiveness of the *second globalization* are cause of (newly) created domestic products and interexchange increase in absolute figures comparing to the first globalization which had trade as its basis.

Besides provision of capital inflow which is necessary for each economic system FDI's have influence on *change of the way of thinking* which is crucial especially for the systems with lack of entrepreneurial and capitalistic tradition. FDI's bring new knowledge, new technologies, widespread corporate network and crucially influence on future entrepreneurial generation's development by its own example of choices and decision made consequences ratio. FDI's assumptions are openness and integrations whose precondition is security. Finally, according to the security guarantees' the *essence* of transatlantic economy is NATO.

It is being estimated that total investment position⁸⁰ of corporate America within Europe in 2006 has been USD 1224 billions i.e. almost 53% of its total global investments.⁸¹ That amount is almost three times higher comparing to American investments in Asia and more than two times higher comparing to developing economies.⁸² Corporate America's investments in EU27 at the end of 2006 have

⁷⁸ Hamilton and Quinlan, "Transatlantic Economy 2009", Centre for Transatlantic Relations John Hopkins University, Washington, 2009.

⁷⁹ Hamilton, Quinlan: "Transatlantic Economy 2008", p. 11.

⁸⁰ According to the BEA-Bureau of Economic Analysis data's can be shown in such manner as an investment position for states and industries. It is a measure of equity value of direct investor as well as net loans to own affiliations. That reflects prices in the time of investment rather than now and do not show changes of current or replacement expenditures for a real estates as well as stock value changes at the capital market. Amount is being based on historical prices. Source: <http://www.bea.gov>

⁸¹ Hamilton, Quinlan: "The Transatlantic Economy 2009".

⁸² Alongside China among the most important developing countries are Russia, India and Brasil. Of course, there some other that should be added in additional explications.

been USD 1124 billions i.e. 92% of American investments in Europe.⁸³ Total investments of corporate America in the Euro zone till the end of 2006 have been USD 703 billions i.e. 57% of its total European investments. Derogation of United Kingdom from EMU and its own highest individual inflow of corporate America (USD 364 billions i.e. 29.7% of total investments) within Europe in 2006⁸⁴ have been the key reasons of significant difference between total investments in Europe and total investments in 16 member states of EMU. Second highest individual investment position of US in Europe belongs to the Netherlands with the amount of USD 215.7% (17.62% of total US position in Europe). It has been followed by Germany, Switzerland, Ireland and Luxembourg with share of 8.11%, 7.4%, 6.83% and 6.75%, respectively. Third group of countries comprehends France, Belgium, Spain, Sweden, Italy and Austria with share of 5.4%, 4.26%, 4.1%, 2.9%, 2.4% and 1.42%, respectively. The remaining European countries have share less than 1% each.

Corporate America has invested USD 128 billion as foreign direct investments (FDI) in 2006. The Netherlands individually have had USD 33 billion inflow in 2006 and it represents one of the most important markets for corporate America broadly observed. Significant FDI inflow has been identified in Luxembourg and Ireland at the level of USD 15 billion and USD 13.3 billion, respectively. It is quite interesting that corporate America's FDI's have been significant indeed in part of post-socialist countries in 2006 and therefore investments in Poland and Hungary amounted USD 910 million and USD 580 million, respectively. Observed globally Europe has still remained the key destination for America's FDI's and they represented 59% of total US investments.⁸⁵

On the other side, it is being estimated that total European investment position in the United States has been USD 1240 billion in 2006.⁸⁶ Total investment position of EMU member states represents 61.2% of total European position in the US. If total EU27 investment position is observed then can be concluded that they are representing 88% of corporate Europe's total investment position. Observed difference occurs according to the significant investment position of United Kingdom which hasn't been part of EMU while it has own share of 24.4% within total European investment position. Quite significant investment position in the US

⁸³ This should be surprise because within the data's for Europe in the context of this paper have been aggregated data for EU and Norway and Switzerland as non-member state.

⁸⁴ Economic and monetary union (EMU) of EU comprehends: Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, the Netherlands, Portugal, Slovakia, Slovenia and Spain.

⁸⁵ At the beginning of the decade that percentage has been 55% while average share throughout the decade has been 53%.

⁸⁶ "The Transatlantic Economy 2009", Centre for Transatlantic Relations John Hopkins University, Washington, 2009.

belongs to Germany (16.34% of total European investment position), the Netherlands (15.27%), France (12.81%), Switzerland (11.31%) and Luxembourg (10.56%). Investments positions of Ireland (2.21%), Sweden (1.79%), Spain (1.2%) and Belgium (1.02%) have been significantly lower comparing to the first group of states while the remaining European countries have share lower than 1% each within total European investment position in the US.

Total corporate Europe's FDI's in US have been USD 72 billion in 2006. The highest investments have been recorded in Texas, California and New York which aggregately represents 25% of total European FDI's i.e. USD 18 billion. Germany has been the largest single investor in US in 2006 and it increased its own investments for 11% compared to 2005. During 2006 Spain and Ireland have invested by USD 7.3 billion while Italy has invested USD 3.8 billion in the same year.

Seven key transatlantic economy indicators

Hamilton and Quinlan have identified seven key indicators⁸⁷ of transatlantic economy's interconnectedness and significance based on created commercial infrastructure by foreign affiliations of transatlantic partners.⁸⁸ Gross affiliations product, affiliations assets, employment within affiliations, research and development of affiliations, affiliations intra-corporate trade, affiliations sales and profit of affiliations⁸⁹ represents transatlantic economic partnership's depth and wideness in the most appropriate manner.

Gross product of affiliations

Aggregated gross product of transatlantic affiliations in 2006 has been USD 933 billion⁹⁰ and it was higher than Gross Domestic Product's (GDP) of Australia (USD 713 billion), Argentina (USD 470 billion) and South Africa (USD 433 billion). In addition, transatlantic affiliations aggregated product represents 78% of GDP of Canada, 67% of Mexico and 35% of India.⁹¹

⁸⁷ They have been using formulation *seven key indicators of transatlantic partners' cooperation*.

⁸⁸ As "transatlantic partners" have been considered USA and EU. Nevertheless, in the economic context as for this papers' purposes in European part of transatlantic partners have been included both, Norway and Switzerland. Although their economic cooperation with the United States probably wouldn't significantly influence to increase i.e. decrease of overall European cooperation with the United States these two countries because theirs' individual cooperation should be included as comprehensive European part of transatlantic partnership. Even though Switzerland is not EU and NATO member state but it is formally neutral she is quite interconnected with both transatlantic institutions; with EU through economic agreements and with NATO through missions involvement (for example ISAF mission) among other things. The same states for Norway although it is NATO member state.

⁸⁹ By affiliation is meant: subsidiary, daughter company, controlled company and depended company.

⁹⁰ "The Transatlantic Economy 2009", p.16.

⁹¹ "The Transatlantic Economy 2009" and IMF – World Outlook Database, data for 2006.

Total gross product of American affiliations in Europe within the same year has amounted USD 541 billion.⁹² The highest part of US affiliations gross product in Europe has been created in United Kingdom and amounted USD 157 billion or 29% of their European gross product. United Kingdom is being followed by Germany with USD 86.5 billion (16% of total US affiliation gross product in Europe) and France with USD 48.7% (9% of their total gross product in Europe). Transatlantic partners' interconnectedness degree is being observed even in the data about US affiliations gross product in Belgium (USD 22 billion) which has been for about 19% higher than their aggregated gross product in China and India (USD 18.4% billion) in 2006.

Aggregated gross product of European affiliations in United States has amounted USD 392 billion in 2006.⁹³ Domination of United Kingdom has been followed in this part also with created USD 120 billion or 31% of aggregated European gross product in US. Having in mind economic and foreign policy interconnectedness of US and United Kingdom such data doesn't represent surprise. Besides UK significant shares belongs to affiliations of the most significant European economy Germany at the level of USD 68 billion (17.3%) and France at the level of USD 59 billion (15.05% of European's affiliations aggregated product in US).

Affiliation's assets

Total assets value of corporate America abroad has amounted USD 11 500 billion in 2006 while 62% or USD 7 130 billion is in Europe. United Kingdom is dominating (again) with assets value of USD 2 800 billion (24.3% of corporate America's global assets and 39.3% of theirs' European assets). British part of the corporate America's assets is higher comparing to its aggregated assets in Asia, South America, Africa and Middle East. The Netherlands holds second significant share in the American affiliation's assets which partially represents American export platform for EU. In the Netherlands corporate America hold assets with USD 966 billion value i.e. 8.7% of their global or 14% of their European asset value. In addition, Holland part of American affiliations assets is almost two times higher than their assets in South Africa. American assets are being significant in Germany as well and it worth USD 504 billion what represent 4.4% of global or 7.1% of their European assets. The fact that India is being among the most significant world economies (although it is developing economy) doesn't mean much comparing to Europe and investments and benefits of corporate America within it. Therefore, total corporate America's assets value in India has been about USD 30 billion in 2006 which is two times less

⁹² Represents approximately 55% of gross product of American affiliations on the global stage and it has been mainly created in services and production sector.

⁹³ Represents 63.7% of total gross product created in the USA by all foreign affiliations.

comparing with aggregated American assets in Poland, Czech Republic and Hungary (USD 65 billion)⁹⁴.

On the other side, corporate Europe owns approximately 75% of total foreign affiliations assets in US i.e. her assets worth USD 5 000 billion. Observing individual European countries and theirs' assets in US the most significant assets belongs to Switzerland with value of USD 1 400 billion i.e. 28% of total European affiliations asset value or 21% of total foreign affiliation asset value in US. Switzerland is being followed by United Kingdom with USD 1 200 billion asset value i.e. 24% of total European asset value or 18% of total foreign asset value in US. Third and fourth position belongs to France and Germany.

Employment in affiliations

Employment within this context addresses only to the direct employment within affairs with "*common investment flows*" i.e. employment in companies that represents affiliation of transatlantic partners' direct investments. Employment as a result of arrangements such are strategic alliances, joint ventures and other forms of cooperation as well as employments caused by trade within transatlantic flows haven't been treated as direct employment. Hamilton and Quinlan estimated that total direct employment within transatlantic economy at the level of 7.7 million of employees.⁹⁵ In addition, common prejudice about employment of low cost labor force in Central and East Europe and Asia countries by American and European companies is being demystified. In both respective cases it has been shown that in majority of employees are being from developed economies and almost as agreeable American companies are employing European while European companies are employing Americans.

Data's show that American affiliations abroad have employed 9.5 million employees in 2006 out of which 4.1 million i.e. 43% have been employed in Europe. The majority of employees are in service and production sector and isn't a surprise having in mind that American affiliations in respective sectors create the highest share of its own gross product. Regarding geographic distribution of employees in Europe in 2006 majority of employees in America affiliations have been employed in the following countries United Kingdom (1.19 million), Germany (592 thousands) and France (590 thousands) i.e. these countries have shares of 29%, 14.4% and 14.3%. In addition, employment in respective countries have share of 12.5%, 6.421% and 6.23% in global employment of corporate America, respectively. These countries have been followed by Italy (242 thousands), the Netherlands (213

⁹⁴ Poland, Czech Republic and Hungary have joined the NATO in 1999 and since then they were increasing FDI and GDP. In particular, attraction of American but also other investors can be the *role model* for Montenegro for which similar scenario is being estimated partially based on NATO membership.

⁹⁵ In case that all other forms of employment have been counted it is quite obvious that transatlantic economy significance indicators would be even higher.

thousands), Spain (191 thousands) and Belgium (126 thousands) i.e. 2.54%, 2.24%, 2% and 1.33%, respectively. The other European countries have share less than 1% in total American affiliations employment as follows Ireland (0.98%), Switzerland (0.8%) while countries such as Denmark, Austria, Norway, Finland and Luxembourg have share less than 0.5%.

Corporate Europe also needs employees from the countries in which they invest in. according to that it isn't surprise that majority of these employees is from US. Key reasons for such condition are employees' expertise and technical-technologic infrastructure. Affiliations of corporate Europe have directly employed 3.6 million of Americans during 2006. That is approximately 67% of total 5.3 million of employees in all foreign affiliations in US. data's show that majority of them work in companies coming from United Kingdom (908 thousands i.e. 25% of employees in European affiliations in US), Germany (664 thousands or 18%), France (497 thousands or 13.8%), the Netherlands (445 thousands or 12.4%) and Switzerland (416 thousands or 11.6%). Employment in companies coming from Belgium and Italy is below 5% i.e. it amounts 3.7% and 3.6%, respectively. When it comes to companies from Ireland, Spain, Finland, Luxembourg, Denmark, Austria and Norway employment share is within interval of 1.64% (Ireland) to 0.22% (Denmark).

Research and development (R&D) of transatlantic affiliations

R&D represents one of the competitive factors in the global scale game. Although R&D used to be „reserved“ for countries of company's origin situation has been significantly changed and therefore comes to R&D activities transfers towards locations in which companies have been investing and conducting own activity. Basic causes of such trend are high expenditures for R&D as well as necessity of higher companies' inclusion into sales markets, risk decrease but also usage of the host country/region human capacities.

Corporate America's R&D in Europe has been at the level of USD 18.6 billion. Theirs' share in the total global investments is 65%. In addition, USD 13.4 billion or 47% of total R&D investments had been addressed to United Kingdom, Germany, France and Switzerland.

Corporate Europe as well as the remaining global players significantly invests in R&D in US. Key reasons of USD 34.2 billion R&D investments attraction to foreign affiliations are high quality education system in US, exposed quality on the labor market and state-of-the-art technological infrastructure. Special position within R&D investments among European countries belongs to United Kingdom with USD 6.8 billion (approximately 20% of total foreign affiliations R&D investments) and Germany with USD 6.7 billion (approximately 19% of total foreign affiliations R&D investments). Majority of the European affiliation's R&D investments is in the areas

such are transport equipment, pharmaceutical industry, energy, chemical industry, telecommunication and automotive industry.

Intra-corporate trade of foreign affiliations

Significant part of the transatlantic flows belongs to intra-corporate trade.⁹⁶ It occurs when German Mercedes *trade* with its components with own affiliation in US or when US 3M distributes components for own products to its own affiliation in United Kingdom. The same will state if French Renault or US Dell decide to start own business in the state of New York i.e. Montenegro alongside assumption that they will invest there into certain production complex and therefore exchange components.

Importance of such trade's manner is being shown data's i.e. 59% of American import from Europe belongs to intra-corporate trade but also intra-corporate trade makes 33% of European import for US. In 2007 intra-corporate trade still represents 59% of American import from Europe while intra-corporate trade within European import from US has been slightly decreased to 30%. If we observe European countries individually than highest percentage of intra-corporate trade within American import from one of them has Ireland (89%). Germany is on the second position (65%) while it is being followed by United Kingdom, the Netherlands and France with 58%, 56% and 49%, respectively.⁹⁷ On the other side, if European import is observed from US on individual state's level than can be concluded that highest share of intra-corporate trade within "national" import from US has the Netherlands (42.6%). Germany, Ireland, France and United Kingdom follow with 37%, 31.9%, 30.5% and 23.3%, respectively.

Foreign affiliation's sale

Example of goods and services sale which affiliation's of corporate America i.e. Europe realize within transatlantic partners economies also shows that this cooperation is being indeed unique in the globalized world. American affiliations in Europe have achieved sale of USD 2 400 billion or 51% of total global sales in 2006. Theirs sale was almost two times higher comparing to theirs sale in the Asia and Pacific region. The highest shares in sale of American affiliations in Europe have United Kingdom (25%), Germany (14%) and France (8.3%). Sale in United Kingdom (USD 584 billion) was higher than total sale of American affiliation in Latin America i.e. it represented almost 50% of American affiliations sale it whole Asia-Pacific region. In addition, total sale in China was around 4.7% of total sale in Europe i.e. it was USD 112 billion in 2006. Comparing sale in China with European countries shows that it was at the level of America's affiliations sale in Belgium

⁹⁶ It also includes cross-border trade within companies that are conducting business on both sides of Atlantic.

⁹⁷ Data refers to share of intra-corporate trade in American import from particular European country and they refer to 2007.

(USD 106 billion) but significantly lower than sale in Germany (USD 327 billion) and France (USD 198 billion).

Corporate Europe's sale in USA in 2006 has amounted USD 1 700 billion. Value of their sale in USA was 65% higher comparing to European export to USA. The highest share within European affiliations sale in USA has German companies' affiliation at the level of USD 371 billion or 21.8% of total corporate Europe's sale in USA. Trend of higher value of European sale in USA comparing to European export into USA has been followed on the example of Germany but also almost all European countries. Concerning Germany it is being identified that their affiliations sales were 75.2% higher comparing to Germany's export to USA.

Profit of foreign affiliations

Mutual significance of European market for corporate America i.e. American market for corporate Europe has also been confirmed through *profit* which corporate America and corporate Europe make on the second partnership market.⁹⁸

Europe represents the most significant source of profit for corporate America which has made profit worth USD 147 billion in 2006. Significance of Europe's market is especially highlighted after finding that total global profit of America's affiliation amounted USD 294 billion in 2006 i.e. that profit made in Europe accounted 50% of it. In addition, profit made in Europe is three times higher than profit made in Latin America and more than two times higher than profit made in Asia. As for comparison American affiliations profit in China amounted USD 4.4 billion in 2006 while during 2000-2006 in average it was at the level of 1.5% of their global profit. Regarding structure by individual state it can be concluded that the Netherlands and United Kingdom have been the most significant not only in Europe rather at the global level because corporate America in these two countries made 12.2% (USD 35.8 billion) i.e. 9.5% (USD 27.9 billion) of its global profit in 2006, respectively.⁹⁹ Furthermore data shows that profit of American affiliations in the Netherlands i.e. United Kingdom is almost four i.e. three times higher than their profit in Germany (USD 9 billion) as the largest European economy. In the same time, corporate America's profit in the Netherlands is higher than its aggregated profit in France, Germany and Italy. After the Netherlands and UK corporate America has made the most significant profit in Ireland and Luxembourg worth USD 18.8 billion (6.4% of global profit) i.e. USD 12 billion (8.2%). Profit made in Germany and France was at the level of 3.06% (USD 9 billion) i.e. 2.45% (USD 7.2 billion) of global profit, respectively. It is also quite interesting that in 2006 aggregated profit of corporate

⁹⁸ Data that refers to foreign affiliations profit are from the "Transatlantic Economy 2008" study while data for the remaining 6 key indicators of transatlantic cooperation from the "Transatlantic Economy 2009" study. In both cases data refers to 2006 and therefore regarding consistency both studies have been used because in the 2008 study profit date referred to 2006 but remaining referred to 2005.

⁹⁹ This was also an average share of the Netherlands and United Kingdom in global profit of American affiliations during 2000-2006.

America in Poland, Czech Republic and Hungary was USD 2 billion which is for about 25% higher comparing to the profit it made in India in the same year.

Europe has remained significant source of profit for corporate America in 2007 when it made profit worth USD 177 billion.¹⁰⁰ The amount of profit that corporate America made in Europe is almost equal to half of its global profit in 2007. Individually, the most significant sources of profit are the Netherlands, United Kingdom and Ireland as well as it was in 2006.

Corporate Europe has made record in 2006 as it was making USD 89 billion worth profit which was increase of 14% comparing to 2005. The highest share in corporate Europe's profit in US in 2006 made companies from the Netherlands (25.5%) and France (14.6%). They are followed by German, Swedish and Irish companies with 10%, 3% and 2.2%, respectively. In addition, companies for Belgium, Denmark, France, Finland, Germany, Ireland, Italy, Spain, Sweden and the Netherlands have made record profits out of their investments into US.

If 2007 is observed can be concluded that European profit in US amounted USD 81 billion (10% lower than in 2006). Causes of corporate Europe's profit decrease in 2007 may be found within the first, February, signs of banking sector crisis that affected demand decrease in US.

Localization of conclusion

Immanuel Kant had identified permanent peace as prosperity's assumption. Happenings at the global stage have confirmed the very same assumption. Unique confirmation can be found by comparison of developing matrix of Western Balkans and neutral states such are Sweden and Switzerland. Without neglecting attempt of geo-political reality of both mentioned cases it is possible to identify wars as causes of prosperity and development's impossibility i.e. as one form of permanent crisis. Certain backup to this thesis is period of peace existence on the Western Balkans.¹⁰¹

In addition, peace period in Europe after the Second World War is another evidence for Kant's proper assumption. Key determinants of 20th century Europe are security guarantees for Europe guaranteed by NATO. Nevertheless, both security and reality of 21st century Europe will be marked by NATO as European security's architecture pillar. This is being confirmed without any doubt by documents of European Parliament as well as (long expected) Lisbon Treaty itself.¹⁰²

¹⁰⁰ Hamilton, Quinlan: „Transatlantic Economy 2009“, Center for Transatlantic Relations, The John Hopkins University, Washington, 2009, p. 24-25.

¹⁰¹ Despite the lack of consonance with that development concept and with understanding of its significance but also consequences period of development within SFRJ really backs up thesis about direct correlation of prosperity and peace.

¹⁰² European Parliament: „*Report on the role of NATO in the security architecture of the EU*“. Lisbon Treaty Article 28 A.

Creation of NATO as collective guarantee of Europe's and North America's security can be considered as *basis* for existence and development of transatlantic economy. Provision of permanent peace period in the area of Europe and North Atlantic has represented *condition sine qua non* development because only at the beginning of the 20th century (in only 30 years) both, Europe and USA had participated in two world wars.¹⁰³

Security as economic resource has been and still is mechanism of voluntary market cooperation and exchange establishment. Freedom of exchange led to increase of interdependence or in other words to the creation and increase of prosperity and wealth of individual(s) and therefore of societies on both sides of Atlantic. Having all of that in mind, integration of Montenegro into the transatlantic flows should be considered and analyzed within the context of growth and development mechanisms creation i.e. life quality increase.

The essence of EU and NATO integration is (partial) sovereignty transfer from nation states to supranational and/or intergovernmental systems what additionally decrease significance of nation states political dimension and creates space for more efficient individual(s) expression. Integrations per se don't have meaning and significance and may have only partially incentive oriented rather limited effect. Nevertheless, theirs meaning is in increase of openness degree of Montenegro towards Europe and the world because as Ohmae notices "*limited spaces give limited horizons*".¹⁰⁴ Ohmae believes that the new world will be driven by "region-states" and new economic platforms.¹⁰⁵ Montenegro only as a part of region state¹⁰⁶ has opportunity to become business platform solely thank to specific institutional design. Difference i.e. uniqueness of its *institutional design* and *social centralization of individual(s)* are expected product of the *mental transition* (change of understanding and core value system). Basis for mental transition exists as *unreasonable minority*¹⁰⁷ of *Montenegrin economic school*. Development is despite or exactly in the crisis possible in the *triangle of change* i.e. combination of effects of *economic and institutional liberalization* (microstate concept), *market access and*

¹⁰³ The First World War had begun in 1914 while USA involved themselves in 1917. The Second World War had lasted since 1939 till 1945. Four years after the ending of the Second World War NATO has been established signing the Washington Treaty on April, 4th 1949. In addition, history of Europe has been marked by French German rivalry and clashes which have caused three war clashes during 1871-1945. European Coal and Steel Community (1951) and NATO (1949) alongside Germany's accession in 1955) have been preconditions of future clashes prevention.

¹⁰⁴ Ohmae,; „Nova globalna pozornica, Izazovi i prilike u svijetu bez granica“, 2007. p. 92.

¹⁰⁵ Ibid, p. 81.

¹⁰⁶ It can be a region state itself.

¹⁰⁷ Džoržd Bernard Šo smatra da napredak zavisi upravo od „nerazumnih pojedinaca“.

value system (EU) and *security guarantees* (NATO)¹⁰⁸. Finally, „*minority is sometimes right while majority is always wrong*“.¹⁰⁹

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¹⁰⁸ Tupy (2003); Jovetic (2009).

¹⁰⁹ Benjamin Franklin.

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Crisis and redistribution development country

Abstract: *We are use that years and decades listen from Sarcastic vows only one thing that capitalism and free market separate population on rich and poor people, and also development conflict and class struggle between capital owners and proletarians. Marsistic oponent said that this war lead to global revolution with separation population and collective property.*

Cousins of Social Democratic are against this radical conclusion their comunistic associates. They think that non regulatet capitalism lead to social polarization and also development poverty and in much situation evolution class struggles, but they also think that democtatic country is the solution of all problems. Democratic country thinks that with own regulation – taxes, national expenditure and other things are stabilized and rationalized capitalism. But, now crises open new wiews on many thing starts with, capitalism, regulation and other main things of democratic country.

Key words: *capitalism; crises; responsible; marksisic; development, class struggle*

Resumee: *Wir verwenden die Jahre und Jahrzehnte aus sarcastic hören Gelübde nur eins, dass der Kapitalismus und freie Marktwirtschaft separate Bevölkerung auf reiche und arme Menschen, und auch die Entwicklung von Konflikten und Klassenkampf betwen Kapitaleignern und Proletarier. Marsistic Gegner sagte, dass dieser Krieg führen zu globalen Revolution mit der Trennung der Bevölkerung und kollektives Eigentum.*

Cousins der sozialdemokratischen Sind gegen diese radikale Abschluss ihrer comunistic Associates. Sie denken, dass der Kapitalismus nicht regulatet führen zu sozialer Polarisierung und auch die Entwicklung von Armut und in viel Situation Evolution Klassenkämpfen, aber sie denke auch, dass demokratische Land ist die Lösung aller Probleme. Demokratisches Land denkt, dass mit eigenen Verordnung - die Steuern, die nationalen Ausgaben und andere Dinge Sind stabilized rationalized und Kapitalismus. Aber jetzt Krisen eröffnen neue wiews auf vielen Sache beginnt mit der Kapitalismus, Regulierung und anderen wichtigen Dingen des demokratischen Land.

Schlüsselwörter: *Kapitalismus, Krise, Verantwortung, den Marxismus, die Entwicklung, den Klassenkampf*

Резюме: *Мы использовать те годы и десятилетия слушать от саркастических обеты только одна вещь, что капитализм и свободный рынок отдельных населения на богатых и бедных слоев населения, а также развитие конфликта и классовой борьбы betwen владельцев капитала и пролетариев. Marsistic противника сказал, что эта война приведет к глобальной революции с населением разделения и коллективной собственности.*

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Казинс социал-демократов против радикального вывод их comunistic партнеров. Они думают, что без вести капитализма regulatet к социальной поляризации, а также развития бедности и в гораздо класса эволюции ситуации борьбы, но они также считают, что demotatic страны решение всех проблем. Демократическая страна считает, что с собственным положением - налоги, государственные расходы и другие вещи stabilized и rationalized капитализма. Но теперь кризис открывает новые wiews на многие вещи начинается с капитализм, регулирования и других основных вещей демократической стране.

Ключевые слова: капитализм, кризис, который отвечает; marksisic, развитие, класс struggle

Introduction:

Does the decline of the world financial system has the effect of the fall of the Berlin Wall? For many countries after the fall of the Berlin Wall promised a better future. Market reform was inevitable way, and the ultimate goal, the European honey and milk. In the very countries of advanced capitalism, the crisis is a term that has since the early 1990s had disappeared from everyday use. Until now.

The financial collapse that occurred in September and October 2008 happened in the heart of the capitalist system, the United States (U.S.). Organization for Economic Cooperation and Development (OECD) said in mid-November that the euro zone, the first time since inception, has entered a recession.

We are witnessing a dramatic change in the world. The crisis that shakes the whole world and delegitims reduces American power, while the other celebrates and demonstrates the power of the so-called rising BRIC (Brazil, Russia, India and China) countries.

All that is pretty have short duration. For the past growth of the economy of the United States can not say that it is just a short duration, but it just proves that nothing is forever. We are witnessing a global growth economy. What led to this growth? What it now "ruined"? Bit of global growth was not a single impact economics, political and technical power, but their combinations - the collaboration of all actors. And that the old people said: "give money to someone and you will see what is" correct, given the growing evidence. Namely, avidity and constant dissatisfaction with the achievements led to the crisis that now affects the world. That compares with racing car which was driven quickly to collect as much for them. Do not pay attention to signs, warnings and obtained "small" punishment. But as the man hurt the most when it "good penalties in your pocket" and the economy, just when you start losing weist amounts of money, are beginning to understand the gravity of the earlier warning. Prevention has been neglected. He was not respected, "prevention is better than cure" and late actions have major effects in the heart of deep crisis. Similarly, when a vehicle drives more people, in their own way - some good, some bad - car eventually starts to spoil. Thus, all this conditions lead to crisis, the turmoil, the overall poor condition.

Just that ravenousness is the example of America seen through the increased consumption in relation to the declining rate of production. Americans are wondering why you need to work if we have so much money to do borrow. It is actually the beginning of the crisis. It is easy to borrow. And then return when the time comes, no one wants to give from their pockets. Everyone wants money in mattresses. Expect worse moments, I do not want to give now, go to the logic of even more borrowing.

Thus, the U.S. gets the epithet of the debtor nation. The other hand, the creditors on the basis of interest, its constant or increased production to go up, a better situation. So, on the other hand strengthens the world in development, we have a situation and a time to „climb the others“ where China excels. But the problem occurs. If debtors do not want or can not return long, what it takes? Do not slow down development and creates problems for the creditor? What is offered as a possible solution to the problem on one side and problems on the other hand is a compromise, cooperation between the parties.

What is more characteristic of this crisis? What is it that makes it more different than others? Why is it so important what comes, comes from the U.S.?

Since it is from „the heart of global capitalism“ this financial crisis is, as already noted, delegitimized American economic power. From this should not conclude that the closer the end of capitalism, but for such a powerful economy can certainly mean a drop in global domination, the power that was demonstrated and argued in many fields in many areas of social life. The power goes from one class until recently the economy and other changes to that will, if you fail to properly use it, take over the role of global rulers and in some ways „dictator“.

What emerges as a global market disadvantage in this situation is that it operates as a system, chain, and now, in times of crisis and crisis, we have a chain effect. Why and how? Is not it a product of globalization? Is not the result of correlation tendencies of many countries to expand, create, collaborate with others? In addition to the good side, globalization has a bad side, which can be seen very much in crisis.

There is a paradox, because the system must operate in order to draw any the crisis. Systemic side effects of a bad system and acting as a must?

What is the cause of the financial crisis, is too inadequate regulation or control? Is the market or the state responsible? Capitalism or socialism? This paper will first be discussed on the inconsistencies of those who believe that the cause of excessive regulation of the financial crisis, and then about the problems faced by those who advocate for greater state control.

1. U.S. - then and now

The year of 1492 is the year associated with the creation of a state of „new“ continent that you would take into account the length and duration of history is very short. So two centuries after the discovery of new land created by the Europeans and the United States started slowly, aside from the world to conquer. And indeed when we get back to the adoption of the Declaration of Independence we note that the U.S. is moving towards increasing autonomy and increasing success. Where the U.S. today and where they were then? What is responsible for their success? Why the U.S. has developed and beat all the greats of European and Asian, and why now, and perhaps some Asian and European greats slowly pushed the U.S.? As I have said from the very beginning of its U.S. line moving upward, slowly take precedence and managed to maintain for many years at the top. To the best of subdued their opponents. One of the major powers of this period Great Britain was slowly falling under American influence so that we can say that teachers are slowly losing the battle. Just Great Britain and several European countries still see the teachers because they are the ones who have conveyed their culture on American soil, they are the ones who have built the basic postulates on which American history is woven. When the immigrants (students) became independent enough, enough to propel himself decided to break away from the teacher and eventually began to obey the teachers themselves, not through war but through another perhaps much more powerful mechanism - the market. This method turned out to be much more efficient because there is so much easier to control larger areas. This is the same story as with Roman empire. Romans in the beginning were the ones who taught the ancient Greeks, and when they are sufficiently mastered, then they attacked and conquered by the Greeks. So the Romans prevailed territories of ancient Greece and slowly spread. True, unlike the United States and the Kingdom of the territories conquered by Rome in the struggle, wars. Good army was the force that formed the Rome, but we should point out the very good organization and strategy. This is exactly what is needed and the Kingdom of the New Century, the American empire, in order to succeed on its way. Good organization and good strategy are those that the U.S. took to the road of success. Just a product of the United States was not a good warrior, but a good product. First of all a good product and better ads. This is what the U.S. has held so many years at the top. Also there were the Roman Empire. And when she started to collapse? What happened then? What is it that led to its destruction? Fall of the Roman Empire related to the great expansion of the territory. Large territory it is difficult to control. Too much was the dispersion. With so many great growth easily lose control of the territories, the growing distrust and hostility with all the people becomes greater. Sve češće dolazi do pobuna ljudi u raznim predjelima, sve češće dolazi do napada od strane raznih osvajača i carstvo polako pada. Comes

to sharing the Empire in two, but this is only a temporary solution, temporarily hiding the truth. West quickly fall, East was able to sustain much longer but it can be said that dividing the empire and destroyed it. Then again, there is a strengthening of some other new realm pushes old, and this new realm comes from the east as the Turks. Truly a great institution has fallen because of internal errors, which are slowly destroy the empire. And do not you see the similarity with modern empire. And this empire is slowly gaining fame, conquered the territory by territory, we have seen in any way but is it too much expansion caused problems. Or maybe it is still bad policy in the interior of this curve. Perhaps it is the regulation that is to blame for losing power. Perhaps both the empire that survived there was less regulation. Perhaps less regulation increased confidence, greater trust saved the empire. When the empire was established it was a great confidence, much less regulation. However, as time lusters are increased regulation for the sake of their earnings, emperors of Rome were becoming richer at the expense of the population, equivalent to what the Fed is becoming richer, regulation is increasing, the population of all poor, all poor kingdom.

As the Roman Empire reigned after Turkish, Ottoman Empire, so the current upcoming power that threatens the final collapse of the U.S. and also from the east. Now it comes to China. China,as most populous country is also with good politics and good organization go up to rise, and otherwise in the communist regime has slowly started to spread. Spreads in a similar way to that American who was slowly but surely conquered the world, but they have a similar problem as Americans.

2. Key success

By 2007 the macroeconomic growth of the vast majority of world countries has been remarkable. Several elements caused by the growth and the economic, political and technological elements. Certainly all three elements are very clear. Political lies in a small number of wars, economic decline of communism and the development of capitalism and the free economic market. Technological elements are reflected through the informational revolution has accelerated the rise of a single global village. In this way, reduced the cost of communication, all that is easier to integrate it in favor of low inflation, global growth and high technological progress, in addition to reduced risk, at least ostensibly. Growth indicators, thought to reduce the economic risk if not removed it. Simply put, it seemed that the good times would never end. World economy has become the equivalent of a racing car - expensive, famous and the ability to drive fast which is thought to be impossible. They were all driving in recent years. A problem emerged when it turned out that no one knows to drive such a car. Simply countries who competed and did not drive faster than after the primary. No one remembered to buy a suspension. And when it came to my mind was too late. Of course there were those who wanted to slow down, but as time

progressed these voices were all quieter and quieter. In this way, people have become more decisive, and more willing to forget the possible loss. Eyes saw only one. The other side is forgotten. But control of the capital is slowly losing ground. The level of debt is slowly growing. Americans in all spheres and at all levels spend a lot more than they produce. In this way, the U.S. becomes debtor nation. The debt does not have anything wrong but when he went too far, just kills. As with driving a car. Excessive speed can not be controlled. In this way, the U.S. losing their primacy, and other countries that have not had a problem with debt is slowly rising, and there began the rise of others, and as a representative, it is just and China. It is against the Americans more štjedjela. The Chinese have put half of their earnings to the bank so that over time accumulated a huge capital that can be used through borrowings in the form of various investments. The Chinese have their kapital kept in dollars and invest them in U.S. China has thus become the largest foreign creditor of the United States. But in the global market has proved that the big savings the same problem as well as a large debt. So the problem is not just the U.S., the problem is China. The best scenario for both the country would be to cooperate in order to pull out from the problems that they themselves and pulled. Only in this way to the kingdom, although a lot of wounded could be rescued at least somewhat.

3. Turn-about

America has its own culture, cut feet, and now so hard to fight the coming forces. The manner in which the Americans won the world really is fascinating. Trade, and thus the transmission of culture are indeed influenced the major changes. Was a great influence on Indian and Chinese market when it appeared American products. It was in some ways they impact on changing the culture in those countries. Fabulous amounts of the U.S. economy is earned in these markets, the markets in which the primacy of winning and successfully maintained. But now that the world has become a global village and everything is changing so slowly rise to those countries that have just been the targets of American business, the countries slow down America, and slowly rise themselves. The question is how far the U.S. can low fall and how far will rise higher in the emerging countries?

All is transient. Everything is moving. So the former East was the most developed. He then assumed the primacy of Europe, and then all the discovery of America moving development to the west. Are now just go in a circle? Are all the economic power now moves to the east? East, where we wait for the forces that have long been managed like Japan or just emerging powers: China, India or even Australia. Since the fall of the Roman Empire, created more new powers, and the United States could fall to create more new power that I just mentioned.

Americans are the ones who have not managed to stop the car when he was in their hands. On the contrary, they only increase the speed and went until the hill or on flat, everything was fine. But when you move slightly down the hill and there was no salvation. In addition to increasing speed would be a great absurdity, but what has been done pumping money into the market. How will he react if the car increases speed of movement down side? It is certain that there will be good! More car starts to lose control! Rather, control begins to lose control while driving! All of his escape from the hands! Starts stands out, and then comes the problem about non changes damper, and no oil changing in the car and than ruin. No one to save him! When this vehicle destroyed an opportunity for some others to create new, but again starts the race for the new vehicle.

4. The rise of others

The world has until recently been the province of a small club of Western countries. The expansion of the world is fueled by the movement of capital in Western Asia. Then they started to appear in emerging markets. One of most powerfull country is China. China has always show country of farmers who are trying to meet basic needs, because it did not represent a competitive market under the Western invasion. It is even used as a springboard for realizing mnogobrojanih international interest. Power of China begins with process of globalization, self-control but also within countries. The success of the Chinese cities that have developed good economic relations with the West, creating zadivljivu infrastructure that has helped them to develop at the local level by encouraging the movement of labor from the countryside to the cities, creating an enviable work force, strengthened as each city individually.¹¹⁰ In this way, each city is responsible for the efficient representation and placement in the international market, the leading open foreign trade policy, attracting international capital, low labor cost. In addition to China any number, no matter how small, was, when multiplied by 2.5 billion (approximate population of China and India). Low cost of labor through a large population of China as a starting point and prerequisite for its further development. Offering „peaceful policy“, leading to success, China is now the biggest savers in the world, with large dollar reserves, thereby “holding in her hand“, the strongest country in the world. This may not put China on the short way victory and success, but it will pave the way for the long run take a leading role in the international market. On the other hand a country that its occurrence and rate of growth takes more Bithynia role in the international movements of capital and investment is India. It is the fastest growing free market democracy in the world. Democracy as the best form of government, which provides the most freedom (economic, freedom of thought, expression, human rights and legal freedom, business freedom) completely live in India, enabling her to collect the fruits of the regulated system in which business

¹¹⁰ Kenichi Omae, “Global Stage” Mate, Zagreb, 2007

opportunities are endless. This has not only started the modernization of precession of thought, but also infrastructure, and it has created conditions for market development. A key advantage of this country is legally supported by the private sector, which enables the protection of property and proclaiming the idea of capitalism. Legal rights of ownership, contracts as Essence for succeed implementation work and independent courts, India has provided many company opportunity to deal with potential problems, to break through the bureaucracy and to make profit. As in the most democratic society, the U.S., India has recognized the power of the individual and the free market, rejecting the supremacy of the state. Diverse cultures, which carries a lot of innovation, India tailor your way of success, leaning on the famous examples today, learning from their systems. But his past, which was marked by exceptional poverty and misery, is able to overcome. Therefore, it is past time India to introduce new, open, and through globalization has taken its place on the global stage of world.¹¹¹

Always has been a lot of power and a superpower. While the American economy was a long time the most powerful, there are many forces that have become important and are becoming more confident. This system is more democratic, dynamic, open, and cohesively. It is easier to determine what it is, but what he did. It is easier to describe the that goes, but one that is approaching-away and the world after America. America remains a competitive world market, taking first place in the innovation, the ninth in technological readiness, the second spending for technology and quality of research institutions. However, the rise of many growing economy is inevitably reduced the field of control and operation of America. The rise has increased the cake, which is generally good for all participants in the market. However, America was put before the exhaustive struggle between adaptation and intimidation, and becomes aware that the world is changing. American business is aware of the developments that occur everywhere in the world, responding to them quickly and without sentimentality. What is singular obstacle to America, but has good economic and social mechanisms by which they can easily adapt to coming changes, is its inaccessibility. The U.S. economy is still directed towards the inside.¹¹² Detachment and isolation which is geographical aided by oceans and weak neighbors and innocent, was made by Americans, people who are quite oblivious to the world outside their borders. Known absolutely aware of, and skill you possess, creating a closed environment, which can demands of globalization. The success of America has been the historical mission-globalization world. While they globalized world, but forgot globalized themselves. The Americans were the ones who advised the world that is not afraid of change and to learn the secrets of their success. To

¹¹¹ Kenichi Omae, "Global stage", Mate, Zagreb, 2007

¹¹² Zakaria, Fareed, "The Post-American world" Fraktura, Zaprešić, Zagreb, 2009

promote free markets, trade, integration and technological change, whose perpetrators have become today. When he was on the pedestal of power, America was the pioneer of new technology, and now the innovative technological advances seen with a touch of doubt in anticipation of what will bring.

5. Conclusion:

What I could say the end is that this crisis would be difficult to state, but Government is created. (Prokopijević) It is not done directly, but indirectly, through a system of incentives, which the channeling behavior of business actors. That the state has not forced banks to invest in non-standard loans, the crisis would not have been. That the State did not broadcast more money, it is difficult to reach the bubble scale. The state over Fannie Me & Freddie Mac did not guarantee loan which would lead to the spread of moral hazard and adverse selection. Finally, the state now does not attempt to pay part of the guild, all we have learned an important lesson. Thus, creating a scene that a similar mistake again in another situation in another time.

What we already know is that the economic activity and will manage a free people, expressed through their daily democratic vote in the market, or order and directive dictatorial elite. State intervention is only a relatively mild and often tolerable form of dictatorship. However, because no less a dictatorship, and should not be a boost as some progress in relation to capitalism. The fact that influence, unlike the cancer does not kill, does not mean it is better to have the flu than to be healthy!

The main thing we learned: violence and conflicts in society arise from political interference in the economic process, not in allowing the process to operate smoothly.

At the end of the question ... Will the future be modern or Western? How will the increase in non-Western forces affect the other? How will generally affect all fields of human activity? What will be the role of an individual? Shall we turn to social democracy?

How will the world set in the United States, and as the rest of the world? What will be the consequences for the world economy, the environment? Will history be repeated and whether America will experience the fate of the British Empire? What happened to the American colonies? What about the transnational companies that produces in the territory of the "rise"?

Internationalization of production and consumption in the contemporary world economy has reached proportions that can hardly remain unnoticed ordinary man.

Still, the penetration of the essence and understanding of the effects and importance of this process for the development of world economy as a whole, and individual national economies, the issue which has for decades engaged in economic expert public around the world.

There is no unified position. Some are prone to glorification second satanization the processes. While first seen in him a source of economic development and better meet human needs, others see it as a limitation of national economic development and loss of national identity.

All this points to the existence of subjectivity in the assessment of high importance and effects of internationalization of the world economy. We can say that the benefits and costs of this process "in the eye of the beholder". It is therefore particularly important that each study in an objective, scientific method looks at its essence. "Provocative and often trenchant insights, which opens great panorama the end of American century and the birth of a new world in which the other climb."¹¹³

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12. The New York Times
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¹¹³ The New York Times

Vojin Golubović*

Pension systems and crisis

Abstract: *Significant issue related to the pension reform is whether a partial movement from the pay-as-you-go (PAYG) to funded saving contributes to the financial development and economic growth? Also, this paper analyses the possible influence of the current financial crisis on different pension schemes. It seems that both, PAYG and funded pension schemes are affected by crisis. Therefore, governments are looking for some measures in order to eliminate the negative short-term consequences that crisis creates for private pension funds and public schemes. However, radical measures that would change the basic design of pension reform are not necessary since such measures could have negative long-term consequences for the sustainability of the pension systems. This paper identifies activities and measures that should be considered as potential response to the effects of crisis.*

Key words: *PAYG, reform, funds, growth, saving, crisis, measures*

Resümee: *Bedeutendes mit der Pensionsreform verbundenes Problem ist, ob eine teilweise Bewegung von der "Pay-As-You-Go" (PAYG) zum geförderten Sparen gehen, zur Finanzentwicklung und Wirtschaftswachstum beiträgt? Außerdem analysiert dieses Papier den möglichen Einfluss der gegenwärtigen Finanzkrise auf verschiedenen Altersversorgungsplänen. Es scheint, dass beide, PAYG und geförderte Altersversorgungspläne durch die Krise betroffen werden. Deshalb suchen Regierungen nach einigen Maßnahmen, um die negativen Kurzzeitfolgen zu beseitigen, die Krise für private Rentenfonds und öffentliche Schemas schafft. Jedoch sind radikale Maßnahmen, die das grundlegende Design der Pensionsreform ändern würden, nicht notwendig, seitdem solche Maßnahmen negative Langzeitfolgen für den sustainability der Pensionssysteme haben konnten. Dieses Papier identifiziert Tätigkeiten und Maßnahmen, die als potenzielle Antwort auf die Wirkungen der Krise betrachtet werden sollten.*

Schlüsselwörter: *PAYG, Reform, Fonds, Wachstum, das Sparen, Krise, Maßnahmen*

Резюме: *Существенная проблема, связанная с реформой пенсии - вносит ли частичный переход от Pay-As-You-Go (PAYG) к финансируемым системам свой вклад в финансовое развитие и экономический рост? Кроме того, есть анализ возможного влияния текущего финансового кризиса на различных программах пенсионного обеспечения. Кажется, что кризис влияет на обе схемы, PAYG и финансируемые программы пенсионного обеспечения. Поэтому правительства предпринимают меры, чтобы устранить отрицательные краткосрочные последствия, которые кризис создает для частных пенсионных фондов и общественных схем. Однако радикальные меры, которые изменили бы базовую*

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конструкцию реформы пенсионной системы, не являются обходимыми, так как такие меры могли бы иметь отрицательные долгосрочные последствия для устойчивости пенсионной системы. Эта статья идентифицирует деятельность и меры, которые нужно рассмотреть как потенциальный ответ на эффекты кризиса.

Ключевые слова: PAYG, реформа, капитал, рост, сбережения, кризис, меры

Introduction

The United Nations forecast that by 2050 one quarter of the world's population will be older than 65 years. Due to such negative demographic trends, as well as "unsparing" nature of the PAYG system, the governments of almost all countries are faced with financial difficulties. As a solution, most countries have completed or made partial or complete transition from PAYG systems toward the systems of capitalized savings. In most countries there are three-pillar pension systems, where the first pillar refers to the state pension scheme (PAYG), the second pillar refers to the mandatory capitalized savings in private pension funds, while the third pillar of pension insurance is related to voluntary savings.¹¹⁴

One of the key questions is what are the positive effects that private pension funds could create and how these effects are reflected? The claim is that the transition to the capitalized savings may encourage greater economic efficiency than the PAYG system, which is a great benefit for the overall economy and it has the impact on economic growth. However, even pension funds are not deprived of certain risk in institutionalized financial system. The existing financial crisis created fluctuations in the financial markets, which significantly affects the operations of pension funds and reduces the value of the property.

Governments are trying to protect the pension systems from the impact of the crisis, but considering the measures such as return to the previous system which was based only on PAYG financing is nonsensical, because it would only mean return to the previous problems that were caused by the negative demographic trends. In addition, no PAYG pension schemes are not immune to the other effects of the global crisis, mainly due to increased unemployment and reduced contributions to the pension insurance. Therefore, solutions to the new situation should not be sought in the radical turns and changes in policies relating to the implementation of pension reform, but the improvement of current systems and policies.

¹¹⁴ The Three-pillar model of pension system has been proposed by the World Bank in 1994.

The importance of private pension funds

A pension reform literature and a number of empirical papers are related to the relationship between investment and retirement savings. Research shows that the aging of population will contribute to the changes in savings that could have a significant macroeconomic impact.¹¹⁵ The important thing for understanding the life cycle of savings is that the savings is accumulated during the working life, while people spend it during their retirement. Changes in savings will undoubtedly be channeled to a significant extent through pension funds.

Pension assets in state funds are illiquid and therefore may not be a perfect substitute for liquid savings such as deposits. Since the existing social security reduces savings because it causes the accumulation of the direct claims for future income, the transition to the pension system which includes the introduction of private pension funds should affect the increase in savings. Also, different tax facilities that increase the rate of return on savings through pension funds and insurance companies can encourage greater aggregate savings.¹¹⁶

Various empirical papers and studies have shown that the growth in capitalized pension schemes increases personal savings but not at a 1:1 ratio. For example, the research relating to the pension funds in the U.S. shows that the growth of personal savings from 0.35 to 0.5 units is result of the increase of one unit of pension funds assets. The reduction of one unit of wealth of the state social protection increases private savings by 0.5 units (and vice versa).¹¹⁷ This research has shown that the countries with PAYG systems have a lower rate of national savings from other countries, as well as, that the impact of pension reform on savings is 8 times higher in countries which are not members of OECD. Empirical estimates show that between 10% and 45% of growth in national savings in Chile can be explained by pension reform and the remainder is explained by structural reforms, such as tax reform.¹¹⁸ National savings is increasing in countries where there are mandatory private pension funds, which is not the case in countries where these funds are only voluntary.¹¹⁹ Beside the increase of personal and national savings, funds may affect the increase of the international portfolio investment. On the one hand, international

¹¹⁵ Davis E P. (2006). How will ageing affect the structure of financial markets, Brunel University Economics and Finance working paper 07/10, 2-3

¹¹⁶ McCarthy, D., Neuberger, A. (2004): Pensions policy : Evidence on aspects of savings behaviour and capital markets, Centre for Economic Policy Research, London, 3-14

¹¹⁷ Feldstein, M. (1996). Social security and saving: new time series evidence, *National Tax Journal*, 49(2), 151-164

¹¹⁸ Schmidt-Hebbel, K.; (1999). Does pension reform really spur productivity, saving and growth?, Central Bank of Chile working paper 33, 23-25

¹¹⁹ Lopez-Murphy P and Musalem A R (2004). Pension funds and national saving, The World Bank Policy Research working paper 3410, 4-36

investment is observed as a loss of potential for the development of domestic capital markets. On the other hand, generating inflows in the form of profits from interest and dividends can contribute to greater stability of the national income and increase the economic growth.

Besides the quantitative effects, the development of pension funds causes qualitative developments in the financial markets, which can increase the growth through better allocation of resources. These effects are mainly related to the positive externalities. If these externalities are institutionalized all investors can gain benefit from them. The key qualitative improvements which are important for the developing countries are financial innovations, such as the creation of new markets, introduction of corporate bonds, securitization, etc., while developed countries tend to protect and increase the assets of pension funds, which can result in a number of financial innovations such as zero coupon bonds, futures, etc.¹²⁰

The modernization of infrastructure of securities markets required by pension funds assumes improving the clearing and settlement on one side, and providing timely and accurate information about prices on the other side, and thus a better allocation of resources. Consequently, it can reduce the costs and increase the utilization of funds on capital markets, and thus, help the growth. In this sense, there may exist significant indirect benefits, since pension funds create pressure for improvement of building the allocating mechanisms, including better accounting, auditing and disclosure. It also stimulates the development of supervision of banking insurance sectors, bringing the new corporate law, the development of new markets and credit rating agencies. Such improvements are very important for financial development and overall growth.

Thus, the investment in pension funds contributes to increased personal and national savings. The higher level of savings should be converted into productive investment (which requires the efficiency of allocation, primarily through financial development). Finally, these investments result in increasing total output.¹²¹ However, in terms of the global crisis, these effects are significantly limited, but only in the short term, bearing in mind the duration of the crisis.

¹²⁰ Bodie, Z. (1990). Pension funds and financial innovation, *Financial Management* Autumn 1990, 11-21.

¹²¹ Blake, D. (2000). Does it matter what type of pension scheme you have? *The Economic Journal*, 110, 46-81.

The influence of crisis on the pension systems

Current international financial crisis has caused a significant decrease in the value of pension funds' assets around the world. Global recession also impose pressures on public pension schemes which are based on PAYG financing, and limits the possibilities and capacities of governments to mitigate the difficult consequences of these effects. The responses of governments are different. In some countries, governments try to review the current situation considering the relationship between capitalized and PAYG pension schemes, while some countries have already taken some steps towards redefining the previous reform measures.

The effect of financial crisis on the capitalized pension schemes

The losses in the value of assets of pension funds that have taken place due to financial crisis are very significant. In countries with capitalized pension systems in which the reform carried out under the auspices of the World Bank, these losses amounted to 10-50 percent. Since these losses present only short-term negative effect on those who are saving in private pension funds, then these losses should not be taken as an important indicator of the overall long-term performance of private pension funds, because of the fact that pension funds are institutional investors, which in the long term can record extremely high rates of return. Since 1994 (when the World Bank proposed the model and defined a three-pillar pension system) until the beginning of the global financial crisis, the mandatory private pension funds have recorded an average annual rate of return of 6 percent. The greatest long-term rates of return have acquired some Latin American countries like Uruguay, Peru and Chile, where the rates of return in this period amounted to over 10 percents. In Chile (even taking into account the losses generated in the first few months of the crisis), the real rate of return amounted to 3-10 percent annually, depending on the type of portfolio.¹²²

During observation of the impact of the crisis on the capitalized pension schemes, it should be borne in mind that a large number of countries with mandatory private pension funds have multi-pillar pension systems, so capitalized pension savings on individual retirement accounts represent only a fraction of the total pension package. Individuals receive pensions that are partly composed of income based on PAYG financing, while in some countries there are guaranteed minimum pensions (zero pillar). Transition economies of Eastern Europe and most countries in Central Asia that have adopted the capitalized schemes also have the PAYG systems that are based on defined benefits. In some European countries less than 30% of the total pension package for pensioners comes from saving in private pension funds.

¹²² All data related to losses and rates of return in the pension funds are taken from the World Bank.

Regarding the impact of the crisis on a strictly capitalized schemes, countries that are the most exposed to the current risks are Latin American countries like Peru, Mexico and Chile, where the PAYG pension systems are eliminated, and the most of pension revenues are based on the capitalized funds from individual pension accounts. However, in some countries (e.g. Mexico) government guarantees that the total pension in a new system cannot be less than one that would be realized in the system that preceded the reforms, and which was based on PAYG financing.¹²³ As one of the protective measures, many countries in which there are capitalized savings provide social pension scheme, or offer guarantees in terms of minimum pensions. The main objective of the minimum pensions is the protection against poverty during old age and they are part of the so-called zero-pillar in the pension system. The average value of these benefits is approximately 30% of average earnings in the countries where such benefits exist. In countries where pensions are significantly exposed to fluctuations in the value of financial assets such guarantee protects from poverty workers with lower level of income.

One of the important facts is that only a small number of persons will be affected by global financial crisis. A small number of workers will start to retire during the period in which their pension will be reduced due to decline in value of financial assets. Workers who will face the biggest drop in the value of their pension benefits are those who go into retirement during the crisis, especially those who are required to convert their pension savings in payments at a time when the value of savings decreases. However, most countries that have mandatory capitalized pension schemes were introduced this form of savings during the past twenty years and it includes only those workers who were left more than 20 years until the normal age for retirement. Although few countries allowed to older workers switching to a system based on capitalized savings, the percentage of older workers who have decided it was not high, which means that there is a very small number of those who should be retired soon and whose the only source of pension benefits is capitalized saving. This means that in the countries of Central and Eastern Europe and Asia that have reformed their pension systems starting from the early nineties of the twentieth century, those who constitute the cohort of the workers will all be retired for 15 years or more, while the partial cohort will be retired for a couple of years. In Latin America the situation is different, because the pension reform is implemented earlier, so the second pillar i.e. capitalized saving already affects workers who should be retired during the crisis. However, even in such cases there is a very small number of those affected by crisis. According to the World Bank, in Chile, where pension reform is first implemented by introducing capitalized savings in the mandatory private pension funds, only 5 percent of those who save in these funds

¹²³ The effect of reducing the value of the assets of Mexican private pension funds will be compensated to individuals who retire before the property reaches the value it had before the crisis.

will be retired over the next five years, while this percentage in other countries is even lower .

Also, in some pension systems which include capitalized savings, there are various portfolios that include conservative options that are invested primarily in short-term government debt. Although these portfolios achieved a relatively lower rate of return, their role is important because they protect account holders from major losses in property value. In Chile, where the funds with these portfolios are introduced in 2002, the older workers are limited to more conservative funds and the only option they have is which of these funds they will select. If they do not choose any of these funds, the membership is given to them in one of the more conservative funds by pre-specified procedure. As a result, 80 percents of members who have less than five years until retirement invest in one of the two most conservative portfolios, which is a strong protection against losses. Although the number of workers who will be retired soon is relatively small, significant losses in the value of their pensions could potentially have a significant impact on the understanding and promotion of the new pension system, as well as on political developments in the country, bearing in mind that retirees are an important part of voting population.

The influence of crisis on the PAYG pension scheme

Pensions, which are realized based on PAYG financing will also be affected by the crisis since a general economic downturn and a global recession affect the reduction in revenues from contributions for pension insurance in many countries which is a direct consequence of falling employment or reduction in earnings which represent basis for payment of pension contributions. In addition, governments often resort to solving the unemployment problem by permitting less strict criteria for getting pension (especially disability pension), which results in increased expenditures for pensions during crisis.

The intensity of the impact of financial crisis on the PAYG system is significantly dependent on the development of the scheme. The countries that will face the greatest fiscal pressures are the ones where the financial flows from contributions and investment, i.e. the revenues of state pension funds, are less than current expenditures for pensions, as well as those countries where the liquidity reserve may be confronted with a large fiscal burden. The examples of such countries are among others, Russia, Serbia, Montenegro, Tunisia, Brazil and many others. Countries that have a little better financial situation will temporarily reduce the cash balance or use the reserves. However, after the passage of the crisis, this system will continue to face with problems that are caused by negative demographic trends (aging population, low fertility rates) which will result in increased budgetary burden in the long term.

The influence of crisis on the PAYG system depends on the policies that governments choose to cover the deficit arising from the crisis. One option for governments is to fully finance the PAYG pension scheme deficit. Another option involves delays in the payment of pensions and the absence of a new alignment and growth of pensions. The choice between these options is politically guided because, on one side, pensioners represent significant part of population that can vote, while on the other side, pensions are just one of many items that require additional funds from the limited state budget. Countries that have a state budget deficit and that rely on the external funding will have significant difficulties due to inability to refinance debt and due to the limited opportunities to take a loan because of unfavorable global situation.

However, some radical measures shouldn't be the solutions for the problems (caused by the crisis) that exist in the PAYG pension systems. In some cases, countries that have introduced mandatory capitalized savings, i.e. the second pillar, may be tempted to displace the part of the contributions from the second pillar to the PAYG pension scheme.¹²⁴ Although such decisions may affect the issues concerning the short-term cash flows, they will not improve the overall position when it comes to the net obligation of the state. Also, such decisions carry the risk of long-term negative consequences for the individual allowances. Beside the fact that such decisions reduce the overall diversification of the pension system and expose workers to the risk of the future pension income reduction (because the system is not sustainable in the long term due to increased commitments), they also influence the closing of capitalized accounts when the losses are realized, and thus terminate the members a chance to make profit due to recovery price.

Measures to overcome the effects of the crisis

Given that the crisis is very rare event with short-term nature, the government should not over-react to the current economic situation. What is needed is to carefully analyze the overall consequences of policies that are considered as potential response to the crisis, because the consequences can be very important for pensions in the long term. New displacement of pensioners who remained more than five years until their retirement into the PAYG system can be politically useful. However, this would mean that the governments would face again with the problems and obligations of the PAYG systems in the future. Limiting the contributions for capitalized schemes in the present would also bereave those who save in funds from the possibility to receive higher pensions in the future. This is important primarily because of the fact that the current situation is such that the assets could be bought at

¹²⁴ This measure was proposed by the government of Argentina in order to solve the problems of inability to finance current pensions in this country.

very low prices and on that basis potentially achieve very significant gains in the future. In addition, the resettlement of the capital in less risky instruments such as short-term debt can calm the members whose value of assets in the accounts is decreasing, but this would significantly limit the opportunities for higher pensions. The analysis of historical trends in capital markets of developed countries shows that, despite significant variations in the rates of return that arise due to market volatility, diversified portfolio results in a higher level of savings during the retirement of almost all time periods.¹²⁵ Therefore, the government must be aware that the current financial crisis is a very rare occurrence of extreme. If it is recognized as such, then it calls for a response in the form of interim measures relating to the effects of the crisis rather than to structural changes in policy. Any structural changes that may be the subject of consideration should be carefully designed, because once applied, their possible negative effects are very difficult to eliminate even when conditions that require changes no longer exist.

Also, governments should not underestimate the fact that institutional investors (among them private pension funds) may have long-term positive effects on the entire financial system in the country and financing of the companies. Also, in the long run, mandatory private pension funds have a significant effect on overall economic growth. The countries that have developed, regulated and supervised pension funds (Chile, for instance) were able to overcome the previous shocks without serious consequences, since buying commercial bonds partially compensated the reduced possibility of borrowing from banks, and therefore, pension funds directed their operations more towards credit markets which were previously dominated by commercial and investment banks. However, since the current financial crisis creates short-term negative effects in almost all countries, certain measures that can be implemented in the short term are required. The influence of those measures would be related to the mitigation of the effects of the crisis.

Such a measure could be a public campaign aimed to inform and explain the new situation to those who save in private pension funds, and those who are only members of the PAYG pension scheme. This information should be related to the volatility of investment returns, actual and anticipated impact of the crisis on the level of pension income for different age groups of workers, as well as an explanation of the various measures taken to protect groups who are at the risk of poverty. Such a public campaign should be developed in any case, even though there is no crisis, because it would contribute to a better understanding of the entire pension system. Also, it would enable to the workers the insight in the long-term benefits that they could have from the pension system with capitalized savings, i.e.

¹²⁵ Munnell, A., Webb A., & Golub-Sass A. (2008). How much risk is acceptable, Center for Retirement Research, Boston College No. 8-20, 3

with the second pillar pension insurance. The current crisis should encourage the introduction of such measure which implementation would create a chance for workers to be more educated, and more interested in various financial issues.

Also, it appears necessary to establish the framework for gradual or delayed annuitization or delaying the receiving the pension benefits through gradual shifts in the age required to receive these benefits in those countries where exists capitalized saving for a longer period, and where there are systems that include mandatory annuitization. The greatest danger of the reduction of property threatens to those who are close to retirement age because they will transform their funds, i.e. their saving into payments (annuities) when the value of that saving is the lowest. The gradual withdrawal of these funds, or the gradual transformation into annuities would allow these individuals (to some extent) to increase the value of their pensions in comparison to the situation when all the savings is transformed into a payment in the midst of a crisis. However, there are small groups of workers with low incomes who will retire during the crisis. These groups will face a reduction in the value of retirement savings, despite the gradual delaying the conversion of savings into payments. For these workers it could be created a limited program of assistance under which these workers would be guaranteed a minimum pension if the benefits achieved through the capitalized savings were below the minimum level. However, if governments choose this measure, they first should make an accurate assessment of the effects of distribution of budget funds.

Beside these short-term measures, governments should also consider the medium term measures. Financial crisis strongly forces countries to reconsider the measures aimed at pension reform, as well as the way of the implementation of these measures, in order to achieve the key objectives of pension systems. This primarily refers to the diversification and effective risk management in the capitalized schemes. Multi-pillar pension system can respond to challenges in terms of strong financial and economic fluctuations, because such a system should possess the ability to achieve the basic goals through its pillars, i.e. to incorporate the elements of social policy in the form of guaranteed minimum pensions, to ensure a high degree of availability of pension insurance (coverage), as well as to provide a stable pension based on capitalized savings. Realization of these goals would contribute to greater benefits for the entire population, even in times of crisis. In terms of crisis, one of the key challenges that governments face with is the problem of determining the contribution rate for pension insurance and the allocation of these rates between the PAYG scheme and capitalized scheme. This is important due to the fact that these two basic types of pension schemes face different types of risk: PAYG is more exposed to risks of labor markets, while the system based on capitalized savings is more exposed to financial risks(mainly during the crisis).

Therefore, it is necessary to improve the financial risks management. Considering the capitalized schemes, i.e. the second and third pillar of pension insurance, the crisis creates a need for advanced control over the pension funds management. Also, it is necessary to examine the possibility of the existence of various mechanisms that would better protect retirees from the negative impacts of crises and fluctuations in the value of their property, if the crisis occurred just before their retirement. Such mechanisms would include the creation of different portfolios for different age groups. That would assure transferring the part of assets from individual accounts to less risky investments a period prior to retirement, and therefore any crisis would not result in significant reduction in property value.

Regarding the PAYG system, it is necessary to create a PAYG system that would be more sustainable, more resilient and more secure. It is necessary to consider the possibility of improving the PAYG system in a way that payments to pensioners are related to defined contributions and expected life expectancy at the time of retirement.¹²⁶ That would enable the creation of certain reserves, which would allow for better adaptation to demographic and economic changes and challenges.

Conclusion

The work is aimed to show that pension reform that leads to the creation of private pension funds have a huge impact on the overall economy of a country. This influence is reflected through the direct effects that investment of private pension funds have on economic growth. Economic growth can be achieved through increased savings and investments that are followed by the development of financial markets.

However, the impact of the current financial crisis is reflected through the reduction in the value of assets of pension funds around the world. Abrupt changes in policies relating to the implementation of pension reforms are not desirable and should be well considered. Stronghold of such assertions is the fact that crises are rare, mainly short-term phenomenon, while the pension schemes based on capitalized savings are able to provide a secure retirement, especially because pension funds as institutional investors record high rates of return in the long run. Therefore, certain changes in the structure of pension reforms, which have been taken to overcome the existing short-term problems, could have negative long-term effects on the ability of pension systems to respond to challenges such as ensuring adequate pensions. Therefore, measures to mitigate the effects of the crisis which has hit a very small number of pensioners (who in the course of the crisis, or immediately after the crisis go into

¹²⁶ Such a system (NDC) was introduced in Sweden during the nineties of the 20th century.

retirement) should be sought in those which do not distort the concept and design of reformed pension systems.

The crisis has shown that there is a need for better risk diversification, which can be achieved within multi-pillar pension system. Within such designed pension systems, it is possible to better manage risks and provide protection to those individuals who are exposed to the effects of economic shocks. Special attention should be paid to individual short-term exposure to financial risks in capitalized schemes. Therefore, there should be created the special portfolios for those individuals who are close to the age of retirement. Also, a work is needed on developing a mechanism that would oblige the phase transition to the payment of benefits which would limit the negative impact of short-term financial fluctuations.

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The development of audit in terms of modern business

Abstract: *The process of globalization has significantly influenced business surrounding. Functioning of economic entities is getting more complex as it functions on the multinational level and via (using) computer networks. Electronic trading has been an unavoidable way of communication with market. Such environment, characterized by electronic business, is imposing new applications and new challenges to the process of independent auditing. Although, most of the audit services are still related to the audit of financial statements, the development of the audit will go towards the extension of audit services and on areas which auditors have not dealt with yet. The audit will be expected to answer the questions that are not directly related to the quality of financial statements, and to substantially expand its area of activity. New areas that will engage the auditors relate to: environmental quality, business compliance with laws and regulations, the reliability of processes and technological bases on which business performance and evaluation are based. An important factor that requires modification of standard auditing procedures is the application of information technology in modern business.*

Key words: *audit, information technology, modern business environment*

Resümee: *Der Prozess der Globalisierung hat das geschäftliche Gebiet beeinflusst. Die Wirkung der wissenschaftlichen Subjekte ist mehr komplexer, weil sie sich auf dem internationalen Niveau und mit der Hilfe von Computer-Netzwerk abspielt. E- Geschäft ist schon die umgängliche Art der Kommunikation mit dem Markt. In der Region, die E-Geschäft charakterisiert, drängen sich neue Forderungen und Herausforderungen für den Prozess der unabhängigen Revision zu. Obwohl sich die Revisionsdienste größtenteils auf die Revision der finanziellen Berichte bezieht, wird die Entwicklung der Revision in die Richtung von einer Ausbreitung der Revisionsdienste auch auf die Bereiche, mit den sich die Revisoren bis jetzt nicht beschäftigt haben, gehen. Von einem Revisor wird erwartet, dass er auf die Fragen, die nicht direkt mit der Qualität der finanziellen Berichte gebunden sind, antwortet, bzw. dass er seinen Wirkungsbereich erweitert. Die neuen Bereiche, mit den sich die Revisoren beschäftigen werden, wird sich auf die Umweltqualität, die Übereinstimmung der Geschäftsbetrieb mit Gesetzen und Normen, die Zuverlässigkeit der Prozesse und des technischen Grundes auf dem sich der Geschäftsbetrieb und die Bewertung der Arbeitsergebnisse begründen, beziehen. Ein wichtiger Faktor, der die Modifikation der Revisionsverfahren verlangt, ist die Verwendung der Informationstechnologie in dem modernen Geschäftsbetrieb.*

Schlüsselwörter: *Revision, Informationstechnologie, der moderne Geschäftsbetrieb*

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Резюме: Процесс глобализации существенно влияет на бизнес-среды. Исполняющий обязанности все хозяйствующие субъекты более сложный характер, как это делается на многонациональном уровне, с использованием компьютерных сетей. Электронная торговля является незаменимым средством общения с рынком. В обстановке, характеризующейся электронного бизнеса к введению новых требований и новых задач в процессе проведения независимой оценки. Хотя, по-прежнему, большинство аудиторских услуг, связанных с аудита финансовой отчетности, разработка аудит пойдет по пути расширения аудиторских услуг и областям, в которых аудиторы не практикуется. После проверки должны будут ответить на вопросы, которые непосредственно не связаны с качеством финансовой отчетности, что значительно расширить область деятельности. Новые территории, которые примут участие аудиторы, касаются следующего: качество окружающей среды, согласование бизнес-законы и правила, надежность процессов и технологической базы, на котором базируется деятельность и оценки исполнения. Важным фактором, который требует модификации стандартных процедур аудита, является применение информационные технологии в современном бизнесе.

Ключевые слова: аудит, информационные технологии, современного бизнеса

1. Introduction

Auditing is a process created to estimate accounting information reliability, to issue conclusions and to express opinions about whether the information is sufficiently reliable. Therefore, the task of auditing is to strengthen and increase the credibility of information created in the accounting. Audit is performed through expressing and divulging a competent opinion under information reliability, contained in these reports, to all users who are interested in it.

Although, most of the audit services are still related to the audit of financial statements, the development of the auditing will go towards the expansion of audit services and towards those areas which auditors have not dealt with yet. For this purpose, before auditing, as a systematic process of objective assessment of the economic entities' financial information will be set up a request to provide assurances and verify integrity of the growing financial and nonfinancial information set. In other words, the audit will be expected to answer the questions that are not directly related to the quality of financial statements, and to substantially expand the area of its functioning. New areas in which auditors will be engaged are: environment quality, harmonization of business laws and regulations, the reliability of processes and technological bases on which business and work results evaluation are based. Whereas they are required to prepare statements about the situation in each area of the company, then the auditors will confirm the authenticity and reliability of the information contained in them. They will thus give credibility to that information before they are available to the interested users.

Modern business in the globalized environment is based on an efficient system of internal control and mechanisms for risk assessment which has a number of specific implications on the audit process. Sustained risk assessment and control mechanisms improvement are still very important characteristics of modern business. The increasing complexity of business transactions in the international markets and scandals in which audit firms were involved have been resulted by the necessity for revision to be modified and adapted to the conditions that are characterized by a new kind of risk and significantly more complex control mechanisms in modern companies. This is particularly relevant to the role of auditors in those companies that are engaged in an activity with increased inherent risk, such as, for example, trading with complex financial instruments (derivatives), or in those companies with complex ownership structure which do their business in many countries and regions. New audit services in this domain are going to relate to the audit opinion about the system reliability for risk assessment (identification of possible adverse events, their significance and probability of emergence), as well as opinions about the internal control reliability and effectiveness.

An important factor that requires modification of standard auditing procedures is application of information technology in the modern business. Information technologies have enabled a massive exchange of data electronically, the formation of various types of electronic documents and the use of electronic signatures. All this is accompanied by the new legislation in the field of accounting and financial operations. In the area of audit there are also a series of new requirements related to the aforementioned effects, created by applying the information technologies. Thus, for instance, the auditor is expected to provide assurances about security and privacy, the procedures of e-business, as well as other aspects of information technologies. Therefore, the auditors, as part of its standard procedures, develop specific procedures that allow them to collect enough relevant evidences to support the audit opinion, in the domain related to information technologies.

2. Financial statements auditing and modern business

Modern companies do their business in a very complex, turbulent and uncertain environment whose effects are increased by sudden intensifying of international competition. New demands of the modern business environment, characterized by complex accounting calculations and financial assessment, as a result of making many changes in legislative regulations and international accounting standards, have become the subject of specific attention.

Financial auditing has significantly been changing at the same time with business, due to the use of new technologies. Using new technologies, among other things,

reduces or eliminates historical paper traces and changes the method of audit conducting. Information technologies implementation for business support activities and performance means the auditors are to deal with new elements of risk that a legal entity should overcome, and the auditor is to consider it in the stage of planning and performing of financial statements audit.

In order to understand e-business, new knowledge and new skills are required, and their level depends on the complexity of e-business activities. The auditor is required to understand events, transactions and practices, which have or may have a significant impact on the financial and audit report. Auditor thus considers the specificity of electronic commerce, changes in business environment of an entity that may be associated with electronic commerce, and business risks of electronic commerce, all because of the impact on the financial statements.

There are many new business risks related to the activities of e-business: the loss of transactions integrity, electronic commerce security risks, unauthorized access and criminal activities of customers, inadequate accounting policies, non-compliance with tax and other legal and regulatory requirements, etc. Although e-commerce is in its full swing not only in the world but in our country, there is no comprehensive international legal framework that would include the relevant legal issues related to the activities of e-commerce.

During the period of its development, financial statements audit was influenced by various factors. Although often very strong, different types of impacts have not changed the central clue of audit which is manifested in an independent and expert verification of reports on business, financial flows and earning. What led to that goal were audit planning, procedures and methods of obtaining sufficient, relevant and reliable evidence.

The growth and development of a company substantially increase of the total number of transactions, the establishment and development of internal controls, accounting and information systems development, based on modern information technologies, and other reasons have influenced the changes in procedures and audit proceedings. Audit performance in such, highly sophisticated, conditions requires appropriate knowledge in applying of information technologies. The new concept of the company business, in a growing number of cases, is based on the application of the Internet as a global computer network. Technologies that allow such operations have major changes in the functioning of companies, banks and other organizations that use them.

In order to understand e-business, they need new knowledge and new skills, and their level depends on the complexity of e-business activities. In such circumstances the auditors will certainly study the level of competence of persons engaged in

electronic commerce jobs. The International Guidelines IEG¹²⁷ 11 "Information technology in the accounting curriculum," may also be helpful. It is published by the Education Committee of IFAC, which defines the skills and knowledge required from all professional accountants regarding information technology.

In conditions when electronic commerce has a very strong impact on the business of an entity, then they need special knowledge regarding information technology and the Internet in order to understand the impact on financial statements. In addition, that also responds to nature, time and range of audit procedures. Providing that the technological infrastructure of e-commerce is very complex, the auditor may decide to use the services of experts in that field in accordance with ISA 620 "Use experts' results"

ISA 310 "Knowledge of the business" serves to expect the auditors are to have necessary knowledge of the client's business. Auditors are also required to sufficiently good understand events, transactions which have or may have a significant impact on the financial and audit report. Accordingly, the auditor considers the specificities of electronic commerce, changes in entity's business environment that may be associated with electronic commerce, and business risks of electronic commerce, all because of the impact on financial statements. Obtaining the required knowledge of the legal entity's business, the auditor considers the business activities and the branch of an entity, the strategy of an entity's e-commerce, the volume an entity's e-commerce and the involvement of external parties. In practice, legal entities very often combine the traditional way of doing business with e-business. In addition, one part of the trade is pursued over the Internet, and the other part of trading may be traditional. In business conditions, digital business can correlate with traditional business, what is the most common in practice.

The strategy and the way on how an entity uses IT for the purposes of e-commerce as well as the assessment of the acceptable levels of risk affects safety, completeness and reliability of the financial information. In order to understand the control environment in terms of e-commerce, the auditor will focus attention on: people who are responsible for e-commerce management and its compliance with the overall business strategy; the representation of e-commerce in the overall business activities, the recourses and the way in which they change; entity management estimates, the, management's attitude towards the risk, as well as the extent to which management has determined the risks of e-commerce. The extent to which an entity uses e-commerce, that range of activities affects the nature and risks that an entity should overcome. Growing presence of e-commerce as well as integration of internal systems of an entity causes the entirely new kinds of risks.

¹²⁷ IEG International Education Guide

Problems related to e-commerce activities in different legal systems require the auditor, in planning and performing audit procedures, to detect that the non-compliance with laws and regulations by an entity may materially affect the financial statements what is discussed in ISA 250 "Consideration of Laws and Regulations in an Audit of Financial Statements". This standard obligates auditors to gain general understanding of the legal and regulatory framework applicable to the entities and how an entity is complying with that framework. If there is any legal or regulatory issue that according to the auditor's assessment could lead to a material fraud in financial statements or have an impact on audit procedures and auditor's report, the auditor considers management response to that question.

The nature and the method of transactions processing created by e-commerce activities affect the nature and extent of risk related to the registration and processing of transactions. The procedures carried by the auditor related to the integrity of information in the accounting system are mainly related to the assessment of the reliability of systems used for collecting and processing of information.

Electronic evidences of e-commerce can be easily destroyed or amend unlike paper evidences. E-commerce activities are often characterized by the lack of paper evidences, so it is necessary that the auditor verifies whether the policy of security and safety control can answer the request to prevent unauthorized changes in the accounting system.

In response to changes in technology, there will be greater use of the software that has a task to help audit function in terms of job performance quality maintaining. At the same time, the software and equipment manufacturers have created advanced software solutions for searching databases and for generating reports.

These technological changes present both challenges and chances for the independent auditors. One of the challenges for auditors is to understand the technology and how it affects the process of revision. This requires additional education and training of auditors. The application of computer technology in information systems also provides significant opportunities for the auditors. For example, accounting systems based on the information technology (IT) can enable auditing to be less prosaic, much more interesting for the auditing staff and (probably) much more efficient. Nowadays, most of the audit firms equip their staff with micro and personal computers, and audit software that provides creating a trial balance and preparation of audit working papers. Audit software allows auditors to use more complex and powerful analytic procedures, such as regressive analysis.

3. Challenges and priorities in the future auditing performance

Accounting is the main internal control system in enterprises, banks, public services such as those of health care, public utilities and other sectors. In the educational system and practice, this important function in the management was aimed only to knowledge that dominantly qualified staff in conducting affairs that would at any cost display "good" financial results and a "good" financial position of a bank or a company in order to achieve the "desired" price indexes. The educational preparation of managers, accountants and auditors, for the purposes of the contemporary practice, was only focused on those goals. Insufficient attention in the educational system was paid to the new disciplines that would contribute to the greater readiness of the managers, accountants and auditors for the needs and modern requirements of a wider business environment. The bad trained managers, accountants and auditors are easy to take up all errors and harmful effects of certain, top executives of large corporations, who lack a sense of responsibility for public interests and the basics of professional ethics. Latest collapse events of the USA banking system have seriously impaired the international financial market and further emphasized the requirement for a quick review of the managers educational system, in the first place.¹²⁸

Numerous negative financial events in the world, especially in the U.S., have caused new emergency legislative measures of the highest representative body of the Congress and the SEC – US Securities and Exchange Commission and the U.S. Government regarding the role and responsibility of the corporate management and public certified auditors in carrying out their public function. In a relatively short period of time they brought a new, surprisingly very strict, legal accounting regulatory.¹²⁹ In the U.S. all this caused to immediately access a range of other activities, in the first place, educational program innovations of independent auditors, managers and their accountants at the universities and business schools. Regardless that fact, in the (post) Enron and (post) Anderson period, accounting education institutions in the U.S. hardly abandoned the impact of the economic theory of neutral value, which still dominates the governments (the Senate) opinion of a large number of universities, faculties and business high schools for education of managers and accountants.

Modern supporters of the corporate responsibility for years debate about whether the typical managers with their limited education are becoming leaders lacking considerations about the comprehensiveness of corporate responsibility. They are

¹²⁸ Dragutin Dragojevic, the member of AAA- American Accounting Association, "The challenges of the global financial crisis on the management in Serbia"

¹²⁹ US Congress, Sarbanes-Oxley Act of 2002. The New York Stock Exchange (NYSE) requirement to all public listed companies the implementation of Section 404 of the Sarbanes-Oxley Act (SOX 2002)

often unable to understand the gravity of their decisions on shareholders, creditors, bond holders, employees, customers, society and environment. The same criticism applies to the system of education of accountants and auditors.

In order to avoid repetition of corporate management and accounting scandals in the future, university professors and in particular experts for the improvement of education managers and accountants in Europe are recreantly very active in a general strategy critical examination of the future education, particularly assessment of the existing educational programs of business schools and universities that train and prepare future leaders, managers, accountants and auditors. First impressions suggest that the existing programs insufficiently educate and prepare managers and accountants for substantially amended conditions and requirements in the contemporary practice of globalization. There are recommended changes in the educational system of managers which will enable students to better understand the contemporary demands with more integrated relationship between the corporate interests and wider the public interests.

Narrow selection of disciplines that are being studied and related to the corporate capitalism is questionable. It is believed that it is necessary to make more effort for introducing new disciplines and skills which are really necessary in acquiring knowledge for the real leaders of the company, and which put emphasis on the corporate responsibility, basic business organization and modern accounting management skills.

In order to help auditors, management and others that are involved in measuring the effects of economic crisis on the sustainability of the entities and whether these effects should be described in the financial statements, the International Committee for audit and security standards (IAASB¹³⁰) issued a practice alert "Audit compliance review with the Going Concern principal in the current economic environment." The warning highlights the areas within the International Standards on Auditing (ISA¹³¹) 570, "Business entity principle" as well as other ISA principles, which are particularly important in the current economic environment and provides additional guidance for auditors in the assessment of management that is managed by going concern assumption. It also discusses the issues related to liquidity and credit risk, which may create new insecurities for entities or aggravate current situation.¹³²

¹³⁰ IAASB- International Auditing and Assurance Standards Board

¹³¹ ISA-International tandard on Auditing

¹³² James Sylph, executive director for professional standards in the International Federation of Accountants (IFAC), whose head organization is IAASB, stated that the assessment of the Going Concern principals will take on even more importance and is likely to be more complex. This is particularly the case regarding the availability of credit and the impact of the current economic environment on budgets and forecasts. The ISAAB issued guidance on October 2008. "Challenges in auditing fair value accounting estimates in the current economic environment". Both of notices are available at : www.ifac.org/financial-crisis.

AICPA (American Institute of Certified Public Accountants) has also issued guidelines designed to provide the auditors of financial statements the review of their responsibilities in the section, "Auditor's assessment of the entity's ability to continue as a going concern".¹³³ Guidelines business is part of permanence-inog AICPA Audit Risk Alert, "The current economic crisis: Accounting and auditing considerations."¹³⁴

Government Accountability Office released the report which provides a framework for the reform of the U.S. financial regulatory system. The framework for the preparation and evaluation of proposals for the modernization of obsolete U.S. financial regulatory system was designed with the entry of 29 agencies and other organizations, including federal and state regulatory agencies, groups for protecting the rights of users and the financial and business services trade associations.

Introduction to the report lists several major changes in the financial markets that have pointed out failures in the existing regulatory system, including: 1) the failure of regulators to minimize system risks by large and interconnected conglomerates; 2) the inability to resolve the problems caused by large and sometimes less regulated entities, such as non-bank mortgage lenders, active funds and credit rating agencies; 3) the increasing prevalence of new, more complex investment products, particularly more complex mortgages and retail credit products that have particularly dissatisfied customers; 4) increasing challenges for accounting and financial regulators to respond to the secular trends, including the global convergence of accounting and auditing standards, which is still in progress; 5) As a result of the market globalization, state split regulatory structure limited its ability to effectively coordinate with other international regulators. The report set the framework for Congress to shape the regulatory reforms.¹³⁵

Global- scale society expects in the near future that the new educated executives of corporations¹³⁶ and the major accountants and auditors fully understand the new global management corporation strategy and the implementations in practice.

After the financial statements scandals and the audit of those reports in the United States, and then in the other developed countries, it was obvious that the assumption about the ability of the accounting profession, to self-regulate can no longer be unconditionally accepted and that the existence of the form of public supervision out

¹³³ The information is available at: <http://economy.aicpa.org/>.

¹³⁴ Full text is available at: www.cpa2biz.com.

¹³⁵ Full report is available at: www.gao/novo.items/dOO310t.pdr.

¹³⁶ Chief Executive Officer, occupation used in the USA and represents both president and executive or managing director.

the profession to protect the interests of users of financial statements and the public is necessary. Public supervision must be in some way legally regulated, so that, relating to the legal decisions, there are various forms of public supervision. For us it is certainly an interesting question about how the public supervision is regulated in the European Union. The main source the regulatory rules is the Eighth Directive, which applies from 2008. Directives as the sources of rights in the European Union are specific in the way that they oblige the member states in terms of objective which is to be achieved. National legislation is based on the directives where the member states can choose the forms and methods of implementation of directives. Directives usually have a lot of binding norms and in fact represent a compromise between the purpose for the equitable legislation within the Community and the need to respect the specificity of the member states.

According to the requirements of the Eighth Directive, all extern auditors and audit firms are the subject to public supervision. Member States should establish an effective system of public supervision over audit, in order to adjust the audit work and the work of audit firms, in accordance with the functional criteria of the European Union's Eighth Directive. Public supervision system should be guided by people who have required auditing knowledge and experience, but who are not engaged as auditors and are not employed in any audit firm. However, Member State may allow a minority of auditors to participate in the public supervision system governance, and that they will be determined in line with the independent and transparent procedures for appointment. The public supervision system has the final responsibility for the oversight of: licensing and registration of auditors and auditing firms, adopting of professional ethics standards and internal quality control standards and undertaking the investigated action and disciplinary measures. Member states should establish one or more authorized bodies that will be in delegation of these responsibilities.

The system of public supervision must be transparent, that includes the publication of annual work programs and reports on activities. This system should also be adequately funded, provided and released from any improper influence by them. Such cooperation can make a significant contribution to the consistently high level of audit quality in the Union. Member States shall ensure that the control arrangements for public supervision system allow effective cooperation at the level of the Union with respect of the member states supervisory activities, which will establish a special body responsible for ensuring the co-operation.

Providing the states above, it can be stated that the drastically changed that the business environment, primarily as a result of the globalization process, impose completely new challenges and priorities concerning the independent audit function.

4. CONCLUSION

Ensuring the reliability of the information is the task of an independent financial statements audit. In the modern, globalized and technology mainly IT-based business environment, the financial statements are prepared and presented in accordance with a set of the "basic rules" that are known as "generally accepted accounting principles or standards." Their goal is to provide the financial statements users to present useful and relevant information for their business decisions. Both the individuals and the society as the whole have the interest of the verification audit process. Revision as the social function prevents distortion of financial reporting. Information issued in the financial statements may be considered a public good. It is not available only to individuals who manage capital, but also to the wider community.

Modern business environment is characterized by the dominance of western economies through multinational corporations; technological developments that affect all aspects of the business environment and increased regulation of corporate management. In accordance with the characteristics of the modern business the objectives of the independent audit in the period of globalization change. The objectives of the auditing can be defined as: 1) the increase of the financial and nonfinancial information which is presented by the company management in their annual reports, 2) the increase of the advisory and management consulting services, 3) the increase of auditors responsibilities to detect client's illegal activities, 4) the reports preparation on reasonable suspicion in the continued of customer business, 5) support for the introduction of responsible corporate management, 6) reporting regulatory authorities on illegal activities that have been discovered in the process of auditing and on doubts about the solvency of the client audit.

Financial statements audit has significantly been changed depending on the use of new technologies. The systems become more complex by implementing the integrated application systems, intelligent systems and the use of Intranet and Internet. When considering the effects of technology, it is clear that it has an impact not only on those who develop the system and the leadership of the organization but also on the auditors and accountants. In fact, with an increasing support of computers in the execution of daily, business and accounting applications and the increasing risks that those technologies contain, the leadership of the organization will require adequate assurances that the controls relating to computer programs and data are appropriate.

The computer auditors are to try to increasingly develop and apply advanced technologies in auditing, which has a large impact on the accounting and auditing profession. Computerized accounting systems and controls in it, in terms of saving

resources, organizations get more and more important and represent a growing challenge for auditors. Using a variety of methods and models in the audit aims to improve the audit in accordance with the development of information technology. Modern methods and models in the process of the audit do not replace the professional opinion of the auditor. They should provide adequate support and further value in making the correct auditor conclusion, whether it is external or internal audit.

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Milika Mirković

Crisis and opportunities for development

Abstract: *The effects and consequences of economic crisis are visible in all business areas. There is no branch that doesn't face with the problems such as: irregular payments, the drop of sales, the decrease of business activities, etc. Although the crisis means the drop of production, on the other hand it means the chance for starting businesses. That situation requires from all market agents to accommodate to the new conditions in which would survive only those who are the most efficient and most inventive, and who are able to continue their businesses in terms of crisis.*

The crisis always brings the opportunities for new inventions. It offers a lot of hidden utilities for those who accept the challenge. The crisis makes incentives for the thinking and for the active market involvement. It also stimulates for innovations and contributes to the higher quality of the structure of economy because the crisis makes the selection between good and less good companies. If the company overcomes the crisis successfully, it will make it stronger, and the sense of its own value will rise.

The crisis is ideal for individuals with the vision, creative people, as well as for those with the courage. The time of crisis is best for reforms. The goals of economic policies should be seen not only through the quantitative rate of growth, but also through the qualitative changes that are offered in the terms of crisis.

Key words: *crisis, development, opportunity, creation, uncertainty*

Resümee: *Die Auswirkungen und Folgen der Wirtschaftskrise ist in allen Bereichen der Wirtschaft zu spüren. Fast keine Industrie, die nicht mit Problemen konfrontiert ist: unregelmäßige Zahlungen, sinkende Umsätze, sinkende Geschäft. Egal, wie viel die Krise Herunterfahren der Produktion auf der einen Seite bedeutet, als Mittel und Möglichkeit für Unternehmen auf der anderen Seite beginnen. Diese Situation verlangt von allen Teilnehmern des Marktverhaltens neuen Gegebenheiten angepasst werden nur die fähigsten und die meisten erfinden. Personal überleben, können Operationen in schwierigen Zeiten weiter zu überleben.*

Krise bringt immer Möglichkeiten, etwas Neues zu schaffen. Es bietet eine Fülle an verborgenen Vorteile für diejenigen, die Herausforderung anzunehmen. Krise inspiriert Reflexion und aktive Einbindung in den Markt. Es fördert die Innovation. Die Krise wirkt sich auf die qualitative Struktur der Wirtschaft, so ist es eine Wahl zwischen guten und schlechten Firmen. Wenn das Unternehmen erfolgreich die Krise überwinden, dass es stärker, und das Gefühl ihrer Werte erhöhen lässt.

Die Krise ist die ideale Zeit für eine visionäre, kreative und mutige Menschen. Es ist die beste Zeit für Reformen. Das Ziel der Wirtschaftspolitik sollte nicht nur in quantitativer

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Wachstumsrate widerspiegeln, sondern auch qualitative Veränderungen durch die Krise angeboten.

Schlüsselwörter: Krise, Entwicklungsmöglichkeiten, Kreation, Unsicherheit.

Резюме: *Результаты и последствия экономического кризиса видны во всех сферах бизнеса. Нет такой отрасли, которая бы не столкнулась с такими проблемами как нерегулярные платежи, падение продаж, уменьшение деловой активности и т.д. И хотя кризис означает падение производства, с другой стороны он дает шанс начать новый бизнес. Подобная ситуация требует от всех рыночных агентов приспосабливаться к новым условиям, в которых выживают только наиболее эффективные и изобретательные, и те, кто способен продолжать вести бизнес в условиях кризиса.*

Кризис всегда создает возможности для новых изобретений. Он предлагает множество скрытых преимуществ тем, кто принимает вызов. Кризис создает стимулы для мышления и активного рыночного участия. Он также стимулирует инновации и способствует более высокому качеству структуры экономической системы в силу того, что разграничивает между хорошими и менее хорошими компаниями. Если компания преодолевает кризис успешно, она становится сильнее, и собственная её оценка растет.

Кризис идеален для людей с идеями, творческих личностей, и также тех, кто храбр. Время кризиса – наилучший период для реформ. Задача экономических реформ должна рассматриваться не только с точки зрения показателя экономического роста, но и также в перспективе качественных изменений, которые предлагаются в период кризиса.

Ключевые слова: кризис, развитие, возможность, создание, неопределенность.

Introduction

Crisis is cyclic phenomena which hit the economy from time to time. Financial crisis, such as this that has affected the world, has a chain effect on all participants in the economy. The effects were first felt in the financial sector, and then moved to the real sector. The financial crisis leads to higher price of bank loans, which increase of costs of doing business. Reduced volume of crediting to the real sector leads to decreasing liquidity of the companies. Also, as a consequence of reducing volume of crediting is lesser consumption. It still causes a reduction in the total aggregate demand. Chain effect continues through the reduction of production, sales and revenues of the companies. Enterprises, in order to survive, start with reduction of costs. The first steps are reduction of number of employees as a result of increasing costs of financing. The number of unemployed persons is increased. As a result of badly conditions of doing business, the number of bankrupt companies have been increased. Companies are unable to serve their loans liabilities, which will negatively affect the banks business. The circle closes and starts again from the beginning. However, the biggest consequences of the crisis are loss of confidence, which is easy to lose, but it is difficult to acquire.

There is a domino effect. The financial institution have been affected in the first stage of crisis, and through them the rest of the economy. In view of that whole world is strongly linked and about two billion people can, in a split second, change the e-mail message, order, purchase and pay for any goods and services, while being physically far ten thousand kilometers. A very large number of transactions that are carried out between the countries during the one day caused a spillover of the crisis from one country to another. Domino effect was first felt among countries, and rejects within the economies, respectively.

The first thing that companies take is reduction costs. That improves the results, but only in the short term. Taking of opportunities from crisis is much better solution from the reducing of costs is changing business's model through innovation, which will be adaptable to the newly created situation. It is important to elude the domino and escape from bankruptcy tornado.

The companies which open the creativity of its employees will be successful only. Those who are able to change quickly, to innovate and constantly changed will be winning. We live in a world of challenge, change, crisis and opportunity that have been brought by globalization. We are exposed to constant changing. A changing of situation is the crisis. However, change in the same time is opportunity and threat. The crisis is a time of challenges for all institutions.

Every crisis brings chances

In China the crisis means two things: threat and opportunity. The crisis can be seen as a critical point from which we can go to the better or worse position. We can mark this situation as an opportunity or a threat. If we view the crisis as a threat the first thing that we could do is go to the bank and take all money that we have deposited there. In that case, fear of the crisis decreases. We can protect self from falling value of the currency. For the entire savings we can buy gold and keep it in the basement. One part of the money we can spend on food and supplies how would be secured from the recession and the collapse of the system.

On the other hand, if we observe the crisis as an opportunity, it necessary to be brave and adventurous and make the crisis situation that addicted to you. It is easy to clutter. Taking constructive action in time of great losses requires vision, but also rescued from that situation.

In times of crisis people do not want to run a new business that are already planned or are waiting for better times to come. The guided by the thought that there isn't sufficient demand for their products, because people do not have money, give up

from planned business. People over-react violently. At a time when everyone decide and say "no" and when they do not want to take some actions, they should react and initiate action, because the time of small competition would represent the right moment for various types of businesses.

The crisis produced chaos. Changes are only possible if the system is out of balance. Chaos makes lot of opportunities that can be used to make progress. Looking back through history we can find plenty of examples which show that crisis or chaos brings chances to change something. The fascist mobilization in the 20th century came at time of economic turmoil and uncertainty.

In the situation of balance and high security is hardly anything to change. Is it possible a progress in a situation of complete equilibrium? Anyone who every day does the same things do not prosper. Prosperity is not possible without changes and challenges. Changes create challenges and opportunities for growth and success. Anyone who uses "undermined situation" can something to achieve. Is it easier to win the girl who was in touch with some guy, when their relationship is stable or unstable: in a crisis? There are the chances, and it should be used.

Crisis brings and uncertainty. The problem is that people do not like uncertainty. People cooperate to eliminate the complexity and uncertainty of everyday life. The crisis always brings opportunities to create something new. It offers many hidden benefits for those who have accepted the challenge. The crisis encourages us to think. Through a combination of currently available resources, the brain works faster searching ways that could lead to a better position and success.

The crisis offers an opportunity, not security. There are two options: accept the challenge and do action or to withdraw, wait and hope. Many people withdraw and rely on autopilot and that go in some undefined way. However, in such situations, people must be vigilant. They must have wide open eyes.

The adventure begins at the moment of accepting the challenge. Those who have accepted challenge, they have the idea, courage and faith in success. It contributes to the development.

The period of crisis can be compared with the rainy day. Thus, some people have umbrellas, some of them have not. The consequences are clear: one will be dry and others will be wet. Sellers of umbrellas have seen a chance to earn. People will buy umbrellas to protect themselves. Sellers have encouraged with greater demand, and they who are creative and innovative, along with their sell umbrella and raincoats and boots. Although rainy days bring troubles on the one side, but on the other hand

it brings the possibility to earn. A visionary and some who are the most creative have earned.

This can be compared with the economic crisis. The crisis brings many problems in the economy. Many companies see opportunity in such a situation. Recession is not just bad period which caused the troubles. It provides opportunities for innovation and systemic changes, i.e. changes that may affect long-term success and development of company. The changes are aimed at changing certain business functions. The company operates proactively and trying to find new ways of doing business by achieving their own subsistence and development. The companies which have better recipe will subsist. The most successful will be the one that is better than others in developing innovative concepts and ideas on how to combine different ingredients. *"If you break an egg, do not panic, you can make an omelet."*

In addition to uncertainty and destabilization, which were brought by crisis, starting the new business in crisis conditions does not seem so bad. It shows a numerous of companies that have emerged during the crisis. Today, these companies are multinational corporations.

Procter & Gamble was established in 1837 year during the great financial crisis in the U.S. IBM has also created during the Depression from 1873 to 1896. Microsoft has also established during the crisis in 1975. General Electric was established during the Great Depression at the end of 19th century. Hewlett Packard was founded during the Depression in 1939. During the recession in 1980 was founded CNN (the Cable News Network), which now looks billion and a half people worldwide. Hyatt Corporation was formed during the recession from 1957 to 1958, which today has 365 hotels in 25 countries. At that period the IHOP Corporation has established, and many other companies. The founders of these companies have realized the needs of the market.

The crisis stimulates innovations

Each company tries to find some new ways to subsist in the period of crisis. As a result of reduced demand during the recession, emerging stocks. The excess will affect the lower sales, which will reduce earnings. Each company tends to avoid this excess. A surplus may be avoided by a combination of factors of production to a new way. Value added must be more than the simple sum of the combined elements. In other words, profitable combination of factors must represent new value of the combined elements.

The crisis stimulates to the active involvement on the market. It encourages to the reflection and innovation. *"Wealth is achieved by innovation, not optimization. You can't enrich through developing of well-known products."*¹³⁷

The crisis has brought chaos. In this chaotic situation everybody changes the position. In that situation, the new structures have been arisen. Also, companies operate in new incidences. Companies need to enter the additional dose of creativity. Companies must look on market, and find some new niche. In that case it's necessary to make a movement. It necessary focused all energy on the creation and exploitation of a very narrow niche. It is important to break with existing norms and regulations and move to the new that are imposed by the resulting time. The fans of art didn't say that Picasso invent cubism. Jazz fanatics didn't say that Miles Davis work with hip hop musicians. Consumers didn't say to manufacturer of the umbrella that they need umbrella. They saw a chance to be able to meet their needs, in addition to earn.

Sometimes it is necessary to dig very deep in order to gain advantage. Imagine the unimaginable - this is just one exit from the crisis.

Crisis and Development

Development is a qualitative change. Development is changing of the structure in the period.¹³⁸ This new quality is result of moved structure. Economic development depends from development of companies that consisting that economy. Development can't be expressed by the quantitative increase and growth rates. Development depends from development of companies. The structure of the company is different. One economy are consisted by good and bad companies. One has good and quality structure, while others have poor performance. The development of the economy would be much higher without companies with weaker characteristics.

Period of recession leads to a decline of economic activity. The economy is in troubles. Troubles may be noticed in all spheres of economic activity. On one hand, there is a negative impact of the crisis on economic development. On the other hand, the crisis has a positive effect on development. It is reflected in eliminating ineffective and reinforces successful companies. The crisis played a role as medical scanners. The scanner during the scanning of human body has revealed all the

¹³⁷ K. Kelly, *New Rules for the New Economy*, Viking, 1998

¹³⁸ Vukotic Veselin, Postgraduate studies, "Entrepreneurial economics", lecture: History of ideas, January 23rd 2010

illnesses. The person in this case, knows what to pay attention to the cure. Case with economy is almost same. It is composed of numerous companies. Crisis "scans" the economy and indicates their advantages and disadvantages.

In a period of crisis comes to the selection of companies on the good and bad, and those that are successful, which subsisting and those which are near to bankruptcy. The crisis, therefore, makes the selection. These companies that can't adapt to the changes are faced with problems. Decline in business volume, lower turnover, higher costs, loss of market share, are indicators of disadvantages. On the other hand, there are those companies that have quickly realized the crisis. Those companies have adapted to operations in the new environment and thus achieve the self subsisting and development. Precisely, such companies are the engine of economic development. Identifying opportunities and chances which arise from the recession and turning them into their own advantages contributing to the success.

The crisis for one group of companies is a threat, and for another chance. For those which are less able is a huge problem. However, the real nature of the problem doesn't lie in it. The problem consists in the fact that badly companies, which unable to resist the new conditions of the market that the crisis imposed, receive specific assistance to subsist by the state. Is it good or bad? If we think in the short term, it's good. Companies will be some period getting out of difficult positions, but the problem has not been eliminated. The problem still exists, just not visible as previously. Through such assistance companies delay the problem for some recent period.

Qualitative structure does not improve. It is still bad, only masked with current liquidity. Thus, subsidies and assistance that are companies receiving in order to subsist have positive effects in the short term. In the long term, companies will be in the same problems that were had. What would happen if such grants receive the most successful companies? Who does deserve a reward: successful or unsuccessful companies? The most successful companies, which contribute to the development of the whole economy, don't have an award. One part of their profits, through the taxes, is given to other unsuccessful companies to subsist.

The crisis affects the qualitative structure of the economy, through making choice between good and bad companies. In addition to these features of the crisis, the good side of the crisis is discovering of advantages and disadvantages of the companies. Through exploiting the advantages companies can achieved more favorable position, and thus greater participation in the market. Also, the companies reveal its weaknesses. Managements of companies are aware of its weaknesses and can easier conduct business policies. Companies will be their business and operations, route to overcome the weaknesses. In that way, companies can use their potential and set up

the quality of the business to a higher level. Through better utilization of own resources, companies create a quality base for future development.

Companies which overcome the crisis become better. The challenges, that crisis brings, enhance the quality of the company, if companies use them properly. Through facing with new situations and experiences employees are developing, too. In the future, it is better to deal with adverse conditions.

One form of overcoming the crisis is clusters or merges companies. Acquisition strategy by purchasing or acquisition of existing companies on foreign markets, through existence of the necessary business and institutional prerequisites, indisputably shows its significant benefits. As a result of the economic crisis is the declining of prices of shares companies. Badly management of companies can lead the companies in two situations: bankruptcy or takeover by other companies. Acquisitions are result of low prices of shares. Large and strong companies are buying less companies how would be reduced costs, and on another side small and weak companies are joining how would be compete with large and subsist on the market. This is in order to achieve synergistic effects. In the basis of synergies is that two companies are worth more than the two separate or their simple sum. Through associated forces companies can be better able to withstand of crisis. Both parties see their chance. An opportunity of successful enterprises is a breakthrough on the market which is already worked out and reducing investment risk. Chances of less successful companies are reflected in acquiring a strategic partner and easier overcoming of crisis. The most significant acquisitions and mergers have occurred in the automotive industry. In this crisis has set up many groups.

Also, one of the measures is the sale of part of the company. Through the selling of part of the company, companies receive financial assets companies get a significant business partner that will strengthen the company. Additionally, it provides funds for further development. The capital can be earned by emitting of shares.

Chance for SMEs is reflected in the fact that they can easily adapt to global trends and observe the new modes of business.

Through the influence on the companies crisis affects the economy of countries. The crisis in America and Europe can be a chance for Japan, China and India to become stronger and improve its position in the global economic scene. Among them, China has the biggest chance. China is the world's largest producer of coal, steel and cement. It is the biggest market of mobile phones in the world. It produces 2/3 photocopy machines, microwave ovens, DVD reader and chips in the world. These are just some indicators that point to the power and progression of China¹³⁹. In 2009

¹³⁹ Zakaria Fareed, „The Post-American World“, Fraktura, Zagreb, 2009

China's economy grew 8.7%, while GDP in the US fell by 2.5%. Also, in 2010, growth of Chinese economy is projected at about 10%. This shows that China is becoming a serious player on economic stage. Even Napoleon said: *"Let China sleeps, because when China wakes, it will concuss the world."* China is the largest producer, consumer, depositor, and the fastest growing economy in the world and second in military spending.

Conclusion

We should not miss the great crisis for big changes. Economy calls for action. The crisis provides opportunities for development. Recession and slow economic activity could be translated into their own advantages and achieve success. The starting of business is not so bad in crisis. That is showed examples of companies which have sprung up just in time of economic crisis: Procter & Gamble, IBM, Microsoft, General Electric, Hewlett Packard and many others. The crisis creates changes that are needed to adjust. Using the opportunities that the crisis provides, companies can thrive. The crisis is a perfect time for visionaries, creative and courageous persons. Crisis always brings opportunities for creation something new. It offers many hidden benefits for those who have accepted the challenges. The crisis encourages us to thinking. Through a combination of currently available resources, the brain works faster searching ways that could lead to a better position and success.

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Nina Radović*

Impact of crisis on Foreign Direct Investments

Abstract: *Foreign direct investment (FDI) are considered as the engine of economic development in a country. They change the usual way of doing business of the country, promote competitiveness, enrich the offer. The crisis has not bypassed nor foreign direct investment. Lack of funds caused a decline in foreign direct investment. However, despite the crisis in Montenegro, foreign direct investments achieved record level.*

Key words: *foreign direct investment, crisis, Montenegro*

Resümee: *Ausländische Direktinvestitionen (FDI) sind als Motor der wirtschaftlichen Entwicklung eines Landes betrachtet. Sie verändern die übliche Art der Geschäftstätigkeit des Landes, die Förderung der Wettbewerbsfähigkeit, bereichern das Angebot. Die Krise hat nicht umgangen noch ausländische Direktinvestitionen. Fehlende Finanzmittel zu einem Rückgang der ausländischen Direktinvestitionen. Doch trotz der Krise in Montenegro, ausländische Direktinvestitionen erreicht Rekordniveau.*

Schlüsselwörter: *ausländische Direktinvestitionen, Krise, Montenegro*

Резюме: *Объем прямых иностранных инвестиций (ПИИ) считаются движущей силой экономического развития страны. Они меняющейся бизнес-среде, повышение конкурентоспособности, обогащают предложение. Кризис не обошла ни прямых инвестиций. Отсутствие денежных средств привело к снижению прямых иностранных инвестиций. Тем не менее, несмотря на кризис, в Черногории, прямые иностранные инвестиции были на рекордно высоком уровне.*

Ключевые слова: *прямые иностранные инвестиции, кризис, Черногория*

1. FOREIGN DIRECT INVESTMENT, concept and classification

Foreign direct investment (FDI) are growing and undoubtedly unique role in global business. They are one of the most important instruments through which a national economy can encourage the production, import know-how, increasing employment, infrastructure development, poverty reduction, etc.. The benefits to be realized FDI inflow, has created a sharp competition in the global free capital market, in order to attract as many diverse and FDI. The general trend in the global FDI market is a clear geographical borders between countries in the developing and developed countries.

In this sense policy of FDI in the global world market has an upward trend in the

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institutional protection of liberalization of FDI, the creation of institutions to encourage and communicate with potential investors, as well as creating a legal basis through the strengthening of bilateral ties between the countries. From the standpoint of risk that result in the inflow of FDI, in recent years there is growing importance of intellectual property risks, risks, protect assets and employees in relation to the reduction in the importance of conventional risk, such as financial risk, interest rate risk and political risk.

Criteria distribution

Distribution of foreign direct investment can be made based on several criteria. One of them is a division of basic and special shapes. By this criterion, the basic forms of foreign direct investment includes:

- The establishment of companies - (includes the construction of production facilities by the investor, the most common term for this type of investment is Greenfield);
- acquisition of majority stake in the ownership of existing enterprises (buying companies through privatization, buying shares or buying direct ownership of shares - acquisition).

Special forms of foreign direct investment are considered:

- Concessions (buy at a specific time limit of the right to use natural resources or goods in general use to carry out activities of general interest);
- B.O.T. (Build-Operate-Transfer) business (approval of a foreign investor to build and use the facility, plant or facility, as well as infrastructure facilities, with the obligation to transfer ownership to the state after the expiry of the contract).

One of the classification of foreign direct investment, which comes from the World Bank, is the division of the motives for investing. This division can be very useful, because in this way can easily determine the target group of investors. According to this division, there are:

- Investments that require resources:
 - Investments that require natural resources such as minerals, raw materials or agricultural products;
 - Investments that are looking for cheap or specialized work force;
- Investment seeking investment market:
 - Investments that are coming to the markets where the high imports of certain products;
 - Investments that track the movement of its customers - large companies;
 - Investments that follow a certain trend in the market and engage local suppliers;

- Investments that seek to increase the productivity of production, which includes rationalization of production, or connect manufacturing operations with other companies to reduce costs and / or specialization of production;
- Investments that require pre-existing capacity to maintain and promote long-term goals of your company (they are facing, first of all, privatization and acquisition, for purchase of existing companies retain existing products and markets).

Distribution of foreign direct investment can be made in other ways. However, it is important to understand that each company has different reasons for the decision on where and how to invest. Will a foreign company decide to invest capital in a country depends on many factors, primarily the assessment of profit that can be achieved, long term business, but also the willingness of host countries to accept, accelerate and facilitate business. Thus, in every state to create a favorable environment for investment, and clear and stable framework for business to attract the best global companies.

2. FDI, EXAMPLE OF MONTENEGRO

Montenegro is a leader in the region when considering the amount of foreign direct investment per capita. Why is this so?

As a first step in the implementation of FDI policy in Montenegro in March 2005. The work began for the Investment Promotion Agency of Montenegro (Montenegrin Investment Promotion Agency - MIPA), which has assumed the role of promoters of investment projects.

Legislation of Montenegro is very liberal and is suitable for attracting FDI. Foreign direct investments are regulated by the Law on Foreign Investment (published in the Official Gazette of RM "no. 52/00).

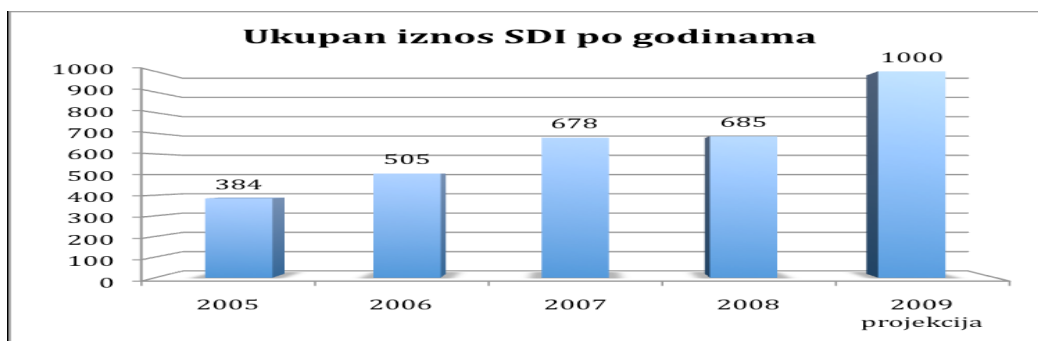
Also, very important fact, for foreign investors, is that Montenegro uses the euro. Euro is one of the three strongest currencies in the world and is undoubtedly important for the commitment of investors to locate their business right here in Montenegro.

Montenegro is a small but open economy. In order to promote them as an investment destination is working on improving the tax environment, and to reduce tax rates. Montenegro has the lowest tax rate on profits of legal entities in Europe, which is 9%. Income tax is also 9% from 2010. , while the value added tax (VAT) 17% and 7% (for tourism).

Party in Montenegro have the same rights as residents.

A significant part of foreign direct investment in Montenegro has been achieved through the privatization of state enterprises. But the rest is only 10% of state property that is included in the privatization process. Therefore, it must now work on improving the business environment.

Statistics of foreign direct investment in Montenegro is shown in the graphic below.

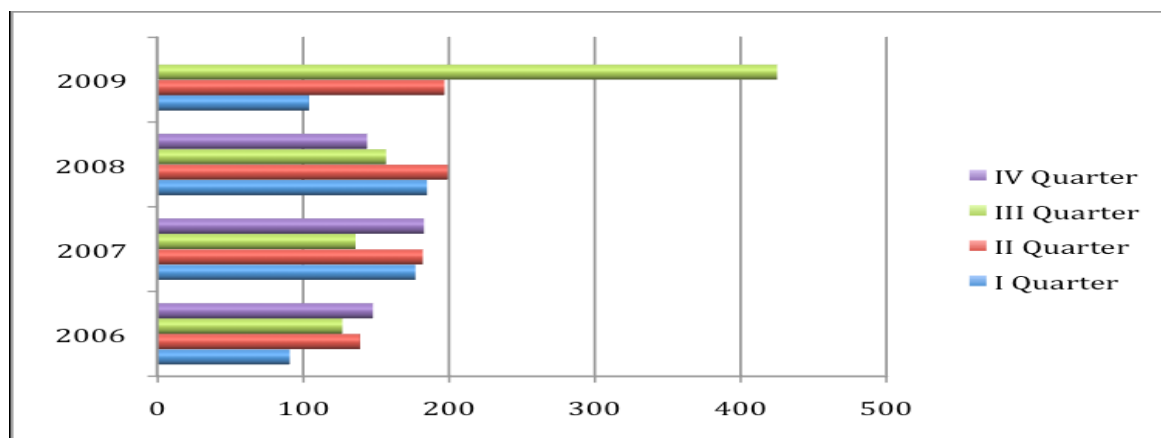


Source: MIPA

Graph shows the continuous growth of foreign investments in Montenegro. Also there was the continuous increase in the number of foreign companies. In the period since 2005. by 2009. in Montenegro has registered more than 5,000 foreign companies.

Foreign direct investment in the first nine months 2009th The Council by 6% compared to the whole of last year. According to projections MIPA FDI will have value above 1 billion and will be about 45% higher compared to 2008.

FDI per Quarter



Source: MIPA

Dynamic growth in FDI can be seen in the first three quarter of 2009. Year. In the fourth quarter comes to a significant decline. This fall is considered to be deferred effect of the global financial crisis in Montenegro. A significant increase in foreign investment recorded in the third quarter thanks to buying a majority stake in Electric Power Industry of Montenegro by the Italian company A2A. This investment has affected the overall level of foreign direct investment in 2009.

3. GLOBAL FDI flows

Global flows of foreign direct investment were severely affected by the world economic and financial crisis. Is expected to decline in the inflow of 1.7 trillion to less than 1.2 trillion dollars in 2009., With a mild recovery in 2010. (Nearly 1.4 trillion dollars) and growth in 2011. (Approximately 1.8 trillion dollars). The crisis has changed the framework of FDI: investing in developing economies and economies in transition have soared, increasing their share in global flows by 43% in 2008. This increase is caused by simultaneous decline in foreign direct investment in developed countries (29%). In Africa, foreign direct investment recorded a record level. The largest increase in investment was recorded in West Africa (63% increase over 2007). Expansion of 17% are experienced and investments in the South, East and Southeast Asia. Foreign direct investment in South Eastern Europe also continued sustained growth. However, generally speaking, FDI in 2009. year recorded a fall.

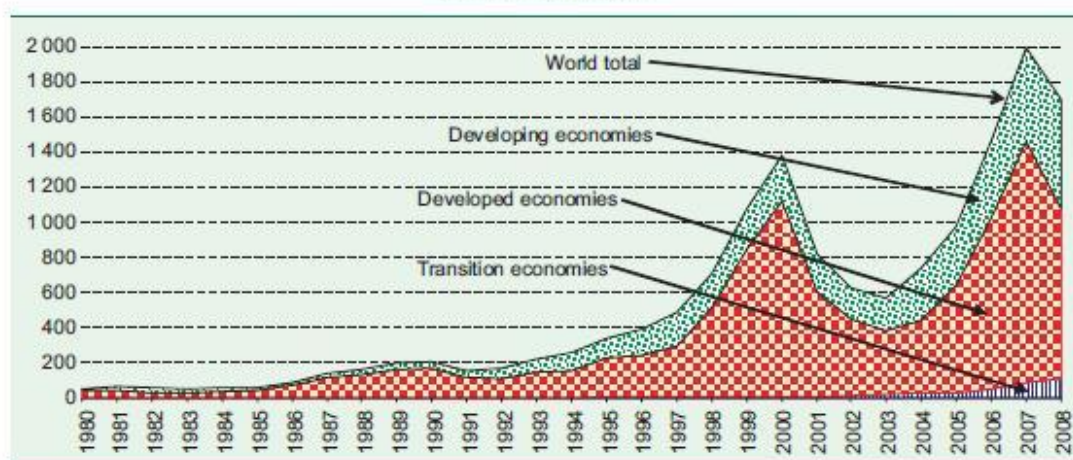
4. EFFECT OF THE CRISIS OF FDI

So far, economic and financial crisis had a significant impact on the politics of foreign direct investments, given that FDI alone did not cause the crisis. However, measures some national policies that were introduced in response to the crisis (national bailout programs, economic incentive packages) have an impact on flows of foreign direct investment in an indirect way. They may have a positive impact on inward investment as they can and stabilize key economic determinants of FDI. On the other hand, there is concern that the policy of the country may result in investment protectionism in the sense of favoring domestic versus foreign products.

There are also indications that some countries began to discriminate against foreign investors and their products by using loopholes in international legislation. Examples include protectionism favoring domestic products in the procurement of the country. Looking to the future, the key issue is that of FDI policy will apply when the country hosts the economy is being recovered. Expected release is to encourage private investment including foreign direct investment. This could trigger a new wave of economic nationalism in order to protect the so-called. national champions from foreign takeovers.

The current global financial and economic crisis caused negative on foreign direct investment (FDI). As a result, it is expected that FDI flows fall to \$ 900 to \$ 1,200 billion in 2009. year. In 2010. year is expected to recover from a mild crisis, while for 2011. one optimistic predictions. FDI initially began to decline significantly in developed countries, which experienced a decrease of 29% of their inflows while flows to developing countries and transition economies of Southeastern Europe (SEE) and the Commonwealth of Independent States (CIS) continue to rise, by 17% and 26% respectively. However, in late 2008. and the beginning of 2009th, the last two groups of countries also began to feel the impact of the crisis in their inflows. Problems in the financial markets in the world and the economic slowdown has affected the progressive global foreign direct investment in 2008., As in the first half of 2009. After continuous growth of foreign direct investment in the period 2003-2007th, global FDI inflows fell by 14% in 2008. to \$ 1,697 billion, from a record 1979 billion dollars in 2007. While the level in 2008. the second highest in history, foreign direct investment flows began to subside gradually during the year. In the first half of 2009., Flows of foreign direct investment fell an accelerated rate.

Figure I.1. FDI inflows, global and by groups of economies, 1980–2008
(Billions of dollars)



Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics) and UNCTAD Secretariat estimates.

Chart flow of foreign investment varied by group economy. Inflow and outflow of FDI in developed countries fell in 2008., With falling income by 29% to 962 billion, and outflows of 17%, to \$ 1,507 billion. Flows of foreign direct investment are still falling as the financial crisis entered a new phase in September 2008th, after the collapse of Lehman Brothers (one of the largest financial institutions in the U.S.), a major advanced economies have fallen or are falling, the economic recession . In the first half of 2009., It is estimated that FDI inflows in developed countries fell more than 30-50% in the second half of 2008.

In contrast, emerging economies and transition economies recorded the growth of foreign direct investment in 2008. at record levels for both groups of economies. Their share in global foreign direct investment has increased to 37% and 7%, respectively, and at 27% and 5% in the previous year. The combined share is 43%, close to the record achieved in 1982. and 2004. This shows the growing importance of these economies to foreign investment.

Their inflows, however, the decline began in late 2008. as the economic slowdown in major export markets started to seriously affect their economies, and how the risk premiums of its sovereign and corporate debt increased sharply. So the trend decline in the inflow of foreign direct investment began a year later in developing countries than in developed countries. This reflects the time delay associated with the initial economic slowdown and the ensuing drop in demand in the markets of developed countries, which are important destination for goods produced by companies located in countries with developing economies.

The fall was recorded in all three components of foreign direct investment - equity, retention and other capital flows (mainly at the level of credit to companies) - in late 2008. and early 2009. years, particularly in developed countries. Capital investments have fallen as the cross-border mergers and acquisitions falling. Lower profits of foreign subsidiaries are descended retention significantly, especially in 2009. Restructuring of enterprises and their parent headquarters has led, in some cases, repayment of outstanding loans of foreign subsidiaries. As result, the net equity within transnational companies in their overseas branches in the fall, or is negative, which had a negative impact on FDI. So, 2010. years will continue to be years of crisis when it comes to foreign direct investment.

Global FDI will experience a fall. However small economy like Montenegro can expect investment growth in the 2010th bearing in mind the already started projects.

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