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WORD OF EDITOR

This number of our Review is devoted to the papers prepared for Symposium „Serbia Beyond the Crisis: Positioning Oneself in the Global Economy Emerging from the Crisis".

The papers are arranged into predetermined sections of our Review.

Prof. D. Đuričin, in his review paper focuses on the position of Serbia in the current global economic crisis. With inherited transitional crisis Serbia's economy was more vulnerable by 2008 escalation of global crisis than many other economies. Space Shortage of capital and investments, and high rate of unemployment, were strongly accentuated by that crisis. The inflow of foreign capital, state investments in infrastructure and energy sector with new models of financing, supported by an adequate monetary and fiscal policy, and development of system's infrastructure, knowledge and credibility, are prerequisites for Serbia's economic recovery.

D. Vujović in his paper discusses the issues of making new international financial architecture which was provoked by current global crisis as a main prerequisite for less risky future. In connection with that, he made a very clear and useful explication of short-term fixes and long-term reforms. The aim is to eliminate systematic risks and rigidities as obstacles for much better responds of global economy to possible crises. The author pleads strongly for introduction of global regulatory and supervisory system in world finance.

Prof. D. Malinić, starting just from the great importance of credibility for any economy and society, dedicated his research to the current occurrences in accounting and auditing profession credibility area. After presenting the extreme importance of financial reporting for entire financial and economic systems in general, the author portrayed the roles of all stakeholders in financial reporting chain, their contributions to the financial crisis, and the fall of credibility especially during 90s and in the years after. Very importantly, the author gives a very useful guidance for how to recover the financial reposting system and accounting profession credibility, and sheds a light on responsible stakeholders in that process.

In Prof. M. Labus and S.Milošević paper we can find thoroughly and empirically founded analysis of relations between competition and growth in Serbia in the context of regional inequality of economic development. They explicated demanding challenges for Serbian policy-makers arising from differences between more developed North and poor South. According to that, the authors suggest intensive investments in infrastructure, motivating other private investments instead of state managed enterprises for the South, and focusing of CPC more on forbidden agreements than on concentration cases for the whole country.

J. Atanasijević and V. Čupić in their paper discuss the problem of access to financing in European transition economies. Those economies have problem of lower participation of service sector in country's export than manufacturing sector. Because of the higher rates of return and consequently lower risk in service sector, banks prefer to finance firms from that sector by that decelerating the growth, contributing to unsustainable current account deficits, and creating high external financial needs of those countries, becoming in that way more risky and exposed to more difficult access to financing.

Prof. P. Petrović in his paper considers a very important current challenge of Serbian economic development. As some other emerging countries in 2000s, Serbia realized large capital inflow, investment and consumption. Global financial crisis from 2008 brought an imperative to change large consumption and imports for higher savings and exports. That is big medium-term risk which can diminish chances for fast resuming growth in Serbia. Beside some other things, it is necessary to make very big changes of fiscal system in Serbia. Prof. Petrović, on the basis of his analysis of fiscal accomplishments and fiscal outlooks, proposes and thoroughly explains the most important adjustments of fiscal system in Serbia.

E. Jakopin exposes very impressive remarks on industrial transformation as a key to economic growth. According to his opinion, reindustrialization of Serbia is very hard but unavoidable task. He supports that by two groups of convincing results of his analysis. Firstly, it is hard to imagine economic growth and so necessary higher employment without adequate industrial development if export is so dependent on industry. Secondly, after long period of devastation of industrial fixed capital, inconsistent realization of transition model principles, equating industrial restructuring very often with rationalization of industrial workers, accumulation of industrial losses and debts, Serbian industry is in a very adverse situation. Because of that, Serbian industrial policy is challenged with the hard task to ensure a very high level of coordination of a whole range of economic policies.

Prof. G. Petković and R. Pindžo, in their article offered us a neatly done comment on a tourism downturn in 2009 as a consequence of global crisis and on encouraging prognosis on a global level for 2010. Serbian tourism could realize benefits from that, as well as Serbian economy as a whole, especially because of the fact that tourism, as a flexible sector, offers faster growth of employment. Good reason for planned increase in investments and incentives in 2010 by Serbian government.

In a paper prepared by D. Lončar we find a very serious warning in connection with expected world's population growth and rise of demand and prices of energy, food, water in the context of evident scarcity even nowadays. The right answer to such a big challenge can not be found without very close coordination of all relevant multilateral international organizations. Serbia has pretty good natural resources for more productive agriculture and food industry, what should be used by wiser policy of exploration and development of those resources. Because of Serbia's scarcity of energy resources it seems that strategic partnership with Russia was clever strategic action.

S. Filipović in her article explained the causes, channels of transmission and the main consequences of current global financial and economic crisis. She identified the main differences of generally negative effects of crisis between countries and regions with stronger and weaker macroeconomic systems, performances and positions achieved before crisis, proposing that macroeconomic policies to conduct stabilization endeavors should be adapted to the countries circumstances. The same stands for Serbia with a big crisis shock of capital inflows decrease and collapse in export demand.

N. Popović focused probably the most important challenges for Serbian development policy. Those are regional and rural development that is not only economic but a national issue deserving the highest care of all political, economic and social bodies in charge. In his paper we can find an indicative and disturbing analysis of current regional and rural economic conditions in Serbia. Starting from that and theoretical consideration of regional and rural development issue, the author presented a modern concept of BRRD-balanced regional and rural development.

THE 2010 KOPAONIK

MARCH 9-11, 2010
Congress Center "Sunny Summits" (Sunčani vrhovi),
Kopaonik Mountain

The Serbian Economists Association (SES) and the Serbian Association of Corporate Directors (UKDS) are pleased to invite you to the Kopaonik Business Forum 2010. The seventeenth summit of Serbian leading economists and businesspeople will be held on March 9-11, 2010 at the Congress Centre Sunčani vrhovi (Sunny Summits) on Kopaonik, on the following topic:

Serbia beyond the crisis: Positioning oneself in the global economy emerging from the crisis

The Program Committee has foreseen a discussion within the following three topics:

March 9, 2010	A new vision of development from a geo-economics perspective
March 10, 2010	Internal economic context and development perspectives
March 11, 2010	Position of Serbia and feasible development strategies

The program structure was influenced by the fact that, at the beginning of 2010, Serbia is going to be at a new strategic inflection point determined by the effects of the global recession and crisis exit strategies. The clogging of banks and the fall of the demand on the global level, together with increasing significance of the geo-economic factor render the completion of the economic transition of Serbia and its integration into the EU more complex.

The underlying characteristic of the new situation is general turbulence, i.e. increasing exposure to all types of risks. Does this mean that the behavioral model in circumstances of interaction of various types of risks should be based on risk-avoidance? No, especially if we know that avoiding risks in the case of Serbia would lead to a further decrease of the already low level of economic activity. To respond to this question, one must manage risk intelligently, which implies avoiding uncontrollable risks and accepting risks that lead to above-average gains, with the growth of the level of economic activities and with a socially-responsible behavior. Application of this concept requires infrastructure that enables the completion of the geo-economic positioning of Serbia and the continuation of reforms that facilitate further investments. One must also define the development priorities and sustainable strategies for their implementation.

The organizers' expectations are directed towards a development concept, which enables strategic positioning of Serbia towards the EU and other relevant economies as a clear model of public management that constantly aims to balance between the regulator and the private and public sectors.

The organizer has a traditional approach to gatherings of this type, and that is optimism and dignity, in an attempt to enhance Serbia's capacity for reforms. We intend to stay at a friendly distance from the Government, which has been the conceptual patron of the gathering since 2009.

Relevant economic decision makers from Serbia, diplomats and investors from the USA, Russia, Germany, Greece, Italy, Austria and Slovenia will attend this biannual conference.

Hoping that you will adjust your diary to the proposed schedule and take an active role in the Forum, we expect your positive reply and thank you in anticipation.

Yours sincerely,

Prof. Dragan Djuricin
SES President

Toplica Spasojevic
UKDS President

BUSINESS FORUM

MARCH 8, 2010 REGISTRATION AND WELCOME

20:00-21:00 Registration
21:00-22:00 MK Group Welcome Drink

March 9, 2010 A new vision of development from a geo-economics perspective

09:30-10:00 **Conference opening speech**
Special guest

10:00-10:45 **Plenary session 1: Outlining key problems and solutions**

Keynote speakers:

Mirko Cvetkovic, Prime Minister, Government of Serbia
"Macroeconomic stability and reform priorities"

Prof. Dragan Djuricin, President, Serbian Economists Association
"The world after the crisis: lessons for Serbia's exit strategy from permanent crisis"

10:45-11:45 **Plenary session 2: Business, monetary and financial perspectives**

Keynote speakers:

Mladjan Dinkic, Deputy Prime Minister and Minister of Economy and Regional Development, Government of Serbia
Radovan Jelasic, Governor, National Bank of Serbia
Diana Dragutinovic, Minister of Finance, Government of Serbia

11:45-12:00 Coffee break

12:00-14:00 PANEL 1: GEO-ECONOMIC PERSPECTIVE

Moderator:
Prof. Dusan Vujovic, Lead Economist, World Bank
Panelists:
Mary Burce Warlick, Ambassador of the United States of America
Aleksandar Vasiljevic Konuzin, Ambassador of the Russian Federation
Wolfram Mass, Ambassador of the Republic of Germany
Armando Varricchio, Ambassador of the Republic of Italy
Dimosthenis Stoidis, Ambassador of Greece
Clemens Koja, Ambassador of the Republic of Austria

14:00-17:00 **Networking**
17:00-19:00 **UNIQA basketball league: „SES invincible" vs. All other economists**
19:30-20:00 **Commercial presentation: Halcom**

20:00-21:15 PANEL 2: DEVELOPMENT PRIORITIES FROM A BUSINESSPERSON'S PERSPECTIVE

Moderators:
Prof. Jurij Bajec, Faculty of Economics, University of Belgrade
Prof. Nebojsa Savic, Faculty of Economics, Finance and Administration
Panelists:
Dragomir Markovic, CEO, EPS
Branko Radujko, CEO, Telekom Serbia
Zoran Drakulic, Chairperson, East Point Holding
Slobodan Petrovic, CEO, Imlek
Miodrag Kostic, Chairperson, MK Group
Branislav Grujic, Chairperson, PSP Farman

21:15-22:30 PANEL 3: THE ROLE OF FOREIGN INVESTORS IN REACHING SERBIA'S DEVELOPMENT GOALS

Moderators:
Vesna Arsic, State Secretary, Ministry of Economy and Regional Development, Government of Serbia
Nebojša Ciric, State Secretary, Ministry of Economy and Regional Development, Government of Serbia
Panelists:
Draginja Djuric, President of the Executive Board, Banca Intesa
Yurij Viktorovic Masijanski, Business Relations and Development Director, NIS-Gasprom
Slavko Caric, President of the Executive Board, Erste Bank
Ernst Bode, CEO, Messer Tehnogas
Roland Haidner, Member of the Managing Board and CFO, VIP mobile
Goran Vasic, Chief Corporate Affairs Officer, Telenor

22:30-01:00 **VIP Midnight Cocktail**

MARCH 10, 2010 INTERNAL ECONOMIC CONTEXT AND DEVELOPMENT PERSPECTIVES

09:30-09:50 **Special guest:**
Simon Grey, Head of the World Bank's Belgrade Office

09:50-11:50 **Plenary session 3: Is Serbia's sustainable development possible?**

Keynote speakers:

Prof. Dusan Vujovic, Lead Economist, World Bank
„New international financial architecture: short-term fixes vs. long-term reforms"

Prof. Pavle Petrovic, Faculty of Economics, University of Belgrade
„Resuming growth in Serbia: case for fiscal responsibility legislation"

Prof. Miroljub Labus, Faculty of Law, University of Belgrade
„Competition and growth policies in Serbia within the new economic geography framework"

Vladimir Cupic, President of the Executive Board, Hypo Alpe Adria Bank
„Financial integration and access to finance in transition economies: a sectoral approach"

Prof. Dejan Malinic, Member, Serbian Securities Commission
„Accounting profession credibility as a factor of capital market development"

11:50-12:20 **Special guest:**
Bozidar Djelic, Deputy Prime Minister for EU Integration and Minister of Science and Technological Development, Government of Serbia
„New vision of competitiveness"

12:20-12:45 Coffee break

12:45- 14:15 PANEL 4: ECONOMIC AND INDUSTRIAL POLICY IN GLOBAL DOWNTURN

Moderator:
Edvard Jakopin, Director, Republic Development Bureau
Panelists:
Verica Kalanovic, Minister for National Investment Plan, Government of Serbia
Prof. Goran Petkovic, State Secretary, Ministry of Economy and Regional Development, Government of Serbia
Dusan Antonic, President of the Executive Board, PB Agrobanka
Prof. Miladin Servalic, Faculty of Agriculture, University of Belgrade

14:15-19:00 **Networking**
19:00-19:30 **Commercial presentation:**
Micros Group – New Technologies • My SAP/ERP • IBM
19:30-20:00 **Special event:**
Announcement: Southeast Europe Management Forum Bled-Kopaonik 2010

20:00-21:00 PANEL 5: THE ROLE OF WOMEN IN SERBIA'S DEVELOPMENT

Moderator:
Ana Trbovic, Faculty of Economics, Finance and Administration/USAID
Panelists:
Prof. Danica Purg, President, IEDC Bled School of Management
Snezana Djordjevic, CEO, Agrounika
Svetlana Kisic, Chairperson, Women's Government
Dragana Rajacic, HR Selection and Development Director, NIS-Gasprom
Milka Tomic, Chairperson, Micros Group – New Technologies

21:00-22:30 PANEL 6: WHAT WAS ACHIEVED IN SERBIA AND WHAT SHOULD HAVE BEEN DONE IN 2009 AND WHAT IS TO BE DONE IN 2010?

Moderator:
Prof. Dragan Djuricin, President, Serbian Economists Association
Panelists:
Bozidar Djelic, Deputy Prime Minister for EU Integration and Minister of Science and Technological Development, Government of Serbia
Mladjan Dinkic, Deputy Prime Minister and Minister of Economy and Regional Development, Government of Serbia
Vladislav Cvetkovic, Acting director, Privatization Agency
Aleksandar Vlahovic, Partner, EKI Investment
Prof. Goran Pitic, President of the Board of Directors, Société Générale Bank Serbia/FEFA
Nenad Popovic, Chairperson, ABS Holdings
Vladimir Cupic, President of the Executive Board, Hypo Alpe Adria Bank

MARCH 11, 2010 POSITION OF SERBIA (SWOT) AND FEASIBLE DEVELOPMENT STRATEGIES

09:30-10:00 **Plenary session 4: Current status and future trends of development**

Keynote speakers:

Dragan Loncar, Faculty of Economics, University of Belgrade
"Insights into global future scenarios: projected trends in food and energy industries"

Sanja Filipovic, Economics Institute
„Global trends – effects of the crisis one year and a half after its escalation"

10:00-10:45 PANEL 7: SWOT ANALYSIS OF SERBIA - STRENGTHS

Moderator:
Toplica Spasojevic, President, Serbian Association of Corporate Directors
Panelists:
Dragoljub Vukadinovic, Chairperson, Metalac
Srdjan Mihajlovic, CEO, Transnafta
Vladimir Popovic, CEO, SAP West Balkans

10:45-11:30 PANEL 8: SWOT ANALYSIS OF SERBIA - WEAKNESSES

Moderator:
Nikola Stojsic, President, Vojvodina Chamber of Commerce
Panelists:
Vidosava Dzagic, Vice president, Serbian Chamber of Commerce
Milan Jankovic, President, Belgrade Chamber of Commerce
Dragan Lukac, President, Regional Chamber of Commerce Novi Sad
Milica Mitkovic, President, Regional Chamber of Commerce Požarevac

11:30-12:15 PANEL 9: SWOT ANALYSIS OF SERBIA - OPPORTUNITIES

Moderator:
Slobodan Vucicevic, President, Serbian Association of Managers
Panelists:
Radoslav Veselinović, Chairperson, Galeb group
Prof. Nevenka Zarkic Joksimovic, Vice rector, Belgrade University
Milenka Jezdimirovic, CEO, Dunav Insurance Company
Aleksandar Bakoc, Managing Director, Algotech
Dragan Sagovnovic, CEO, Economics Institute

12:15-13:00 PANEL 10: SWOT ANALYSIS OF SERBIA – THREATS

Moderator:
Prof. Mihailo Crnobrnja, Faculty of Economics, Finance and Administration
Panelists:
Milan Parivodic, Chairperson, Foreign Investors Services
Bojana Ristic, Executive Director, AmCham, Serbia
Darko Djukic, Head of FDI Department, Serbia Investment and Export Promotion Agency - SIEPA

13:00-13:30 **Plenary session 5: Overall assessment of Serbia's position and overview of feasible development strategies**

Prof. Nebojsa Savic, Faculty of Economics, Finance and Administration

Prijatelj Vašeg biznisa

Kao vodeća telekomunikaciona kompanija u regionu , Telekom Srbija pruža rešenja za sve zahteve savremenog poslovnog ambijenta. Poverenje, pouzdanost i jednostavnost ključne su vrednosti kojima se rukovodimo u poslovanju, a kvalitet usluga je osnova naše integrisane ponude, koja obuhvata najinovativnije servise mobilne i fiksne telefonije, kao i širokopojasni pristup Internetu. Naši korisnici mogu da se fokusiraju na svoj osnovni biznis, prepuštajući brigu o primeni najaktuelnijih telekomunikacionih dostignuća pouzdanom partneru.

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THE WORLD AFTER THE CRISIS: LESSONS FOR SERBIA'S EXIT STRATEGY FROM PERMANENT CRISIS

Prof. Dragan Djuričin, PhD
Faculty of Economics / Deloitte

Iva Vuksanović, MsC
Faculty of Economics

Summary:

In this paper, we develop three ideas. We choose a feasible scenario as a tool, a SWOT-based analysis as a diagnostic concept, and a performance-driven wish list grounded in reality as a framework for Serbia's exit strategy from the crisis.

Of the dozens of trends we follow, we have identified a few that we believe will be substantially affected by both the recent global economic crisis and the local crisis in Serbia's economy, a crisis of transitionism.

In an effort to dissect the global economic crisis and make a strategic audit of Serbia's economic position, we divide our work into five parts. The first addresses the main structural causes of the current global crisis, suggests appropriate measures for calming its devastating waves, and outlines the likely outcomes that will emerge as a consequence. The second examines the current position of the Serbian economy. We present a brief history of underlying adverse trends, and key macroeconomic and vulnerability indicators. The third proposes a few necessary and feasible changes in the economic paradigm, particularly with respect to attitude towards risk. The fourth puts forth leading economic trends and structural changes related to the crisis. Finally, we present a SWOT-based analysis that defines an exit strategy for Serbia's economy from permanent crisis.

Key words: *global economic crisis, interlocking fragility, strategic inflection point, moral hazard, risk management, crisis of transitionism, double dip, exit strategy.*

INTRODUCTION

An economic crisis often incubates for years. It may be triggered by a specific phenomenon or event, but the underlying causes have been there for a long time. Typically, the causes do not become apparent in time, usually because of complacency and a system of rigid beliefs and mindsets.

The main cause of the recent economic crisis was the new cultural model dominantly shaping globalization as the last stage of liberal capitalism. Benign macro background and global growth from 2002 to 2008 encouraged search for yields by all economic agents, including individual investors. Investment mania, instead of conventional savings habits, provoked a consumption boom that was most apparent in the housing bubble. In the new cultural model, individuals did not save for retirement because prices of houses rose disproportionately in comparison with mortgage prices. Consequently, the savings rate dropped dramatically, while investment in real estate went up. Financial innovations like NINA (No Income, No Assets) loans and owner-occupied dwelling collateral allowed buyers to obtain easy money for financing investment in real estate. Banks, primarily investment but unexpectedly commercial as well, followed the investment habit through mortgage securitization and exotic financing by credit derivatives (for example, credit default swaps and collateralized debt obligations).

The aforementioned factors have caused a disproportional increase of financial leverage in banks, in terms of the equity to assets ratio. To note, at the beginning of the last century, a typical bank in the Western hemisphere had a 4:1 leverage ratio. By the 1970s, it grew to 10:1. According to [4, p.48], in September 2008, *Bank of America's* leverage ratio (without balance sheet commitments) was 73.7:1. As its capital was just 1.4% of its assets, this means that the 3-4% decline in asset value wipes out its equity. In the last financial crisis however, asset prices dropped by as much as 30-40%.

The relaxation of conditions for equity investment was followed by a relaxation of conditions for financing of consumption, investment as well as final consumption. Consequently, the so-called *monthly payer* appeared as a result of no-money-down and low-interest incentives that vastly proliferated in the FIRE (F-finance, I-insurance, R-real E-estate) economy that encouraged massive consumption and hyper-production. When demand grows in all fields, investment habits explode. In FIRE economy economic agents who foresee nothing but boom dominate. An extraordinary risk appetite provokes not only massive underpricing of risk, but also multiple risk hedging. The cumulative effect of these activities amounts to a huge imbalance between value release on capital market and value creation on commercial market, the so-called *speculative bubble*. By

September 2008, the game was over. The housing bubble burst because the amount of outstanding mortgages exceeded house prices. Instantly, the attitude towards risk changed. The monthly payer was immediately transformed into the debt-averse consumer.

The impact of the new cultural model was so devastating that not even IC technology, as a technological basis for the global liberal capitalism, could sustain it. Conversely, the so-called *interlocking fragility* exacerbated its vulnerability. Globalization, together with the dynamic development of IC technologies has caused national economies, markets, companies, and banks to become more interdependent than ever. In a millisecond, positive and negative changes travel from one corner of the globe to the other. According to [7, p. ix], this situation can be described as interlocking fragility. This phenomenon is the main source of continuous discontinuity; it causes stability and predictability to disappear and gives rise to risk as the prevailing condition for business and life.

Though the crisis began in the U.S., as the center of the new global economy, but peripheral economies were also strongly affected: first the EU, then countries in transition, and finally the BRIC countries (Brazil-Russia-India-China). Serbia was also affected. The export of toxic mortgages and deregulation philosophy is not sustainable. An economy devoid of savings cannot provide investment financing in an already downsized and/or outsourced real sector, and it was not sustainable. Something that is unsustainable cannot sustain itself.

The cause of the new cultural model is rooted in securitization, the indefinite risk transfer. The capital market is important, but it is neither self-regulating nor self-adjusting. Sub-prime mortgages and credit derivatives are not financial innovations *per se,* but rather public goods that must be regulated. When negative stimuli exceed proportional risk, the problem moves to the expectation side, manifesting itself in fear of insolvency and counterparty risk. The manifestations of extreme flight to safety are credit crunch and investment slowdown.

Increased government involvement in the economy was one of the most striking features of the last global economic crisis. Companies and banks should revisit their strategies on two fronts. First, they should prepare to compete under new regulatory regimes, especially in financial sector. Second, they must recognize that the public sector will become more prominent as a major customer for a number of industries; this is due to the rapid increase in spending as a substitute for demand squeeze in the private sector. Rising budget deficits and an aging population point to a new future challenge: fiscal crunch.

Of all the trends we have previously followed, globalization seems to be the most vulnerable. Financial globalization specifically is most susceptible. Globalization of goods and services may stall for a certain period of time because international trade has declined, along with demand. The more likely outcome is increased protectionism. As for the globalization of talent, it is likely immigration will slow down if governments tighten restrictions in response to populists concerns about job losses.

When the recent economic crisis struck the world like an earthquake, leaving in its wake thousands of companies in default, millions of people unemployed and billions more who saw a sharp decline in their income, while the rest sank into a so-called *fear of fear*, a majority thought that when the downward spiral of consequences reached its bottom, the new prosperity cycle would start. A minority believed that perhaps the days of two cycles were over and that discontinuity at varying levels would become an essential condition; the new reality punctuated by spurts of prosperity and downturn. Faced with risk as a prevailing condition, the majority of organizations (national economies, companies, banks, etc.) have two choices: to be victimized by crisis, or to exploit discontinuity by using strategy for transforming handicaps into advantages. In the case of the latter, every organization must be prepared for rather than prone to risk.

Accepting discontinuity as a matter of fact is very liberating for strategists of all organizations. However, the only reaction to radical, continuous and interrelated changes is an enhanced capacity to respond to uncertainty. The aim of the strategy is to enhance this capacity. The goal is to detect and track all visible triggers of discontinuity. When these triggers culminate to a level that provokes serious disruptions, discontinuity begins. Strategists should acknowledge and accept the fact that they cannot protect their organizations from chaos, and that the best way to manage it is to use discontinuity by adjustments in their strategy. The strategic inflection point [7, p.75] is the exact point in time when growing discontinuity renders an existing strategy obsolete. At this point, a new strategy is required if the organization is to achieve sustainability again.

The new strategy assumes concrete actions pointed towards detected opportunities, and visible and supposed threats that convert vulnerabilities into obstacles in striving towards success. Opportunities should be exploited; vulnerabilities should be eliminated or mitigated. Those who believe in built-in self restoring equilibrium are condemned to failure.

It is widely known that economic trends can take two basic forms: cyclical changes that arise from fluctuations in

the business cycle, and structural changes that occur when an economy is undergoing a major functional change. In the recent global economic crisis, structural changes dominated over cyclical ones. The transition from a manufacturing to a service economy supported by financial sector liberalization in the Western Hemisphere was a structural change without an adequate social context. Consequently, the crisis took on a radical form. Namely, the last turmoil was not merely another turn of the business cycle, but a set of radical changes in the economic order. Moreover, the system has experienced a fundamental change, a paradigm change. Is this impression accurate? To answer this, it is necessary to examine the underlying forces that shape the global economy at large and Serbia's economy in particular. To begin, we discuss how the crisis affects leading trends in order to address their implications for alternative exit strategies.

Serbia is neither a country in transition nor a post-transition country. Serbia is country in transitionism [3]. In Serbia's case, there are many consequences of never- ending transition. Two important ones include transitional recession (a dramatic fall in economic activity and inflation) and a low level of competitiveness. The long-standing local economic crisis due to transitionism raised Serbia's risk exposure *vis-à-vis* the global economic crisis. Serbia is actually living in a combined crisis: a transitional crisis and a global economic crisis, which exacerbate each other. There are a number of vulnerability indicators that explain the Serbian economy's level of exposure to the combined crisis. These indicators represent limitations to feasible solutions. The purpose of this article is to sketch out a feasible exit strategy from the current situation.

THE WORLD IN CRISIS

The last two centuries were housing two big development waves (industrial era and IC era) succeeding agricultural era. The shifts between eras represent periods of transition characterized by structural changes and high level of risk. The recent global economic crisis could be deemed the premature end of the IC era and a transition to a new era, the era of permanent discontinuity.

The recent economic crisis appears to be the latest development in the evolution of a financial market under radical deregulation, a process that began in the late 1970s. The crisis started in the banking industry, with a credibility crisis that ended in a credit crunch and massive defaults. Quickly thereafter, it spread to solvency and value destruction in capital markets and ended in demand squeeze and profitability decline in non-financial sectors.

A shift from tight to light regulation of capital markets, accompanied by various financial innovations, stimulated a powerful financial boom and transition to a new, globally integrated and deregulated neo-liberal capitalism. Financial market bubbles yielded significant returns to various agents, allowing cognitive biases to prevail in most business and investment decisions. Positive past experience, an encouraging macro-economic outlook, and stimulating bonus plans for value creators were the main reasons for an ever-growing risk appetite. A reckless appetite for risk caused system-wide leverage to explode. In addition to this, a growing imbalance of power emerged. A concentration of wealth sometimes reorients investment toward bizarre rather than productive purposes. In February 2010 for example, Sotheby's sold an Italian artist's sculpture for £60 million.

The world economy has operated on the false premise that the prevailing mold of economic agents is risk-averse and that individuals (customers, managers, board members, owners, bankers etc.) make economically rational, or win-win decisions. We are now hostages to the power of the theoretical invisible hand, paying a terrible price for the falsity of orthodox economic theory, which asserts that individuals are capable of always making rational decisions, and that markets and regulatory institutions, in the aggregate, are healthy and self-regulating. Unfortunately, irrationality is the real invisible hand that drives human decisions. In the social and technological context of the IC era, humans are primarily irrational and motivated by unconscious cognitive biases. This opens the door to moral hazard. Together with opportunistic behavior, moral hazard is a typical deviation in the principal-agent context. Moral hazard occurs when a party insulated from risk behaves differently than it would if it were fully exposed to risk [19]. It arises because an individual (or agent) does not accept the full consequences and responsibilities of his actions, and therefore has a tendency to act less carefully than he otherwise would, leaving another party (or principal) to bear the consequences of those actions. When moral hazard dominates in economic transactions we have a zero-sum game in the first stage and a negative (lose-lose) game at the end of the day. When this behavior prevails, an economy of moral hazard arises.

Cognitive biases often prevent individuals from making rational decisions, despite their best efforts to do so. Multiple findings from the last crisis demonstrate that individuals are emotional, myopic, and easily confused and distracted. It is time to abandon conventional assumptions, change the mindset toward the regulation of the financial sector with priority goals, and eliminate moral hazard and state intervention in the real sector in order to boost consumption.

One of the manifestations of excessive risk-taking is the growth in mortgage securitization. The incentive behind it was the fee income generated by all participants in the pro-

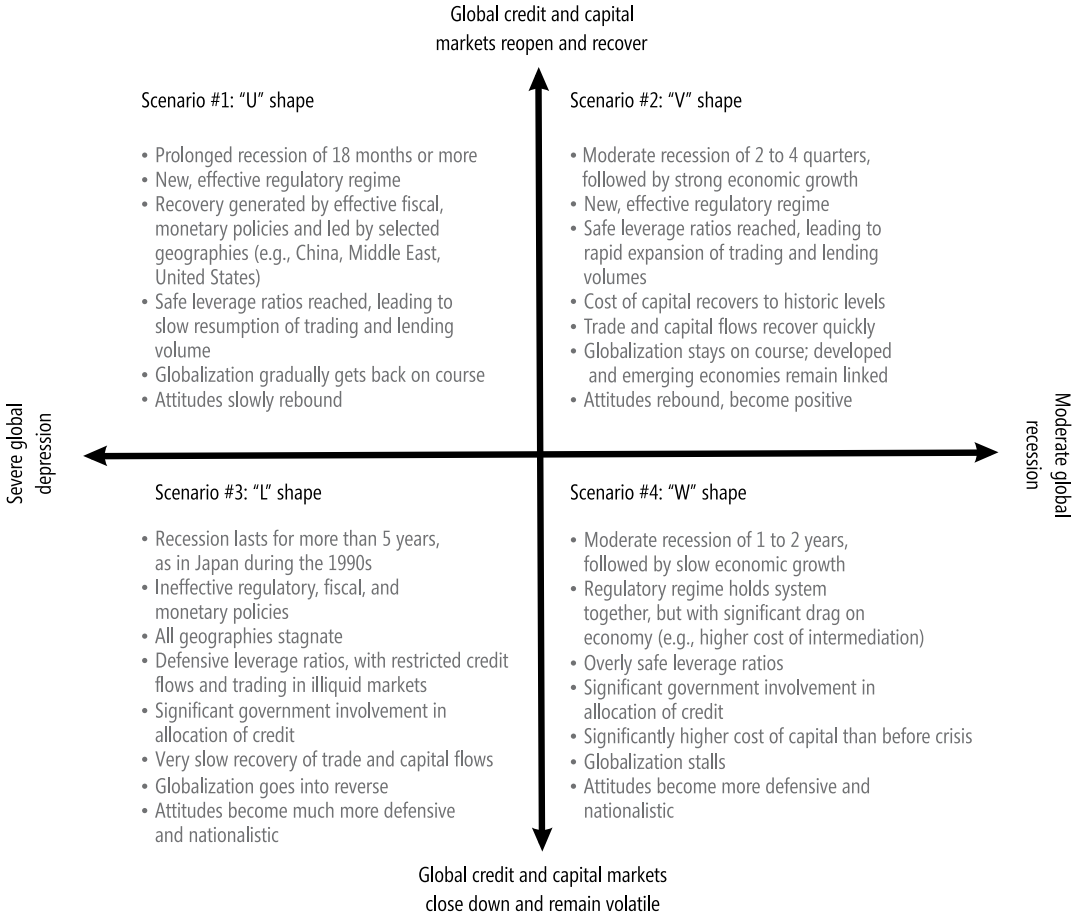
cess of mortgage securitization (commercial banks, mortgage brokers, investment banks, as well as rating agencies who gave these securities their seal of approval). Since fees did not have to be returned in case of eventual losses, everyone had a strong incentive to maximize the flow of loans through the system, whether they were healthy or not. According to [2, p.565], total fees from mortgage securitization for the 2003-2008 period are estimated at $2 trillion. The perverse nature of these incentives came to light after it was revealed that gigantic bonuses were being paid, even in a crisis year 2008, in which excessive risk-taking ceased to generate high profits. For example, approximately 700 employees at Merrill Lynch received bonuses in excess of $1bilion for fiscal year 2008 from a total bonus pool of $3.6 billion, despite the fact that the investment bank lost over $27 billion in the same year.

Financial deregulation inevitably brings with it excessive risk and exacerbated financial booms that always lead to a crisis. The recent financial crisis was so severe that it pushed the global economy to the brink of depression. Fear of financial and economic collapse has resulted in unprecedented government rescue efforts, which to date, have been unable to end the crisis.

Despite the sorry commentary on how badly the housing and credit derivatives bubbles deformed the economy, and despite the first wave of bankruptcies (for example, Lehman Brothers), central banks authorities in Western hemisphere decided uniformly that the financial garbage that could have been absorbed would be absorbed and what could have been guaranteed would be guaranteed. These measures were followed by lending rate cuts and capital injections. On the other side, the treasury has launched massive fiscal stimuli and has created programs to market old mortgages and mortgage-backed securities. The new dilemma is whether the entrepreneurial risk appetite will be sustained and enhanced by bailouts and other stimuli or reduced by fear of further financial meltdown. The critical word is irreversibility.

Despite the expected economic impact, the new policy measures are expenditures by their character, which precipitate a substantial increase in the budget deficit (double digit in many cases). To finance rising deficits, the treasury must raise money by using bond issue. If the central bank absorbs treasury bonds, it will be a money printing. The so-called *quantitative easing*, a politically aseptic term for new monetary policy and fiscal stimuli, is more likely to gene-

Illustration 1: Four macroeconomic scenarios



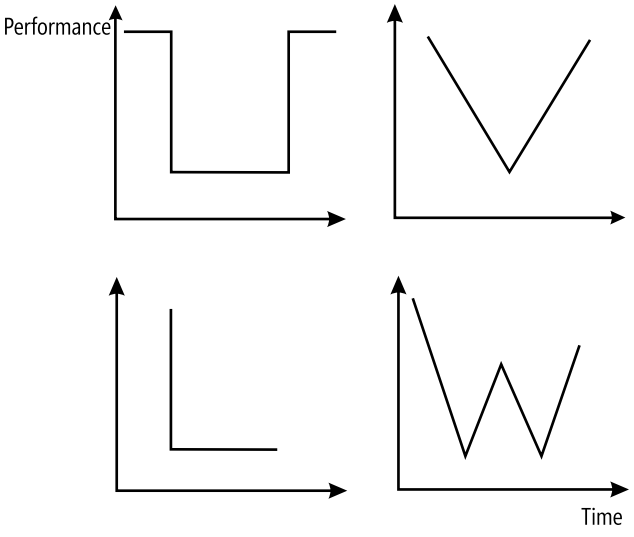
Source: Kotler, P., Caslione, J.A. (2009): Chaotics: The Business of Managing and Marketing in the Age of Turbulence, p. 73.

rate treasury bond volatility and exchange rate fluctuations than to guarantee a return to growth. By doing this, the state strives to re-inflate housing and credit derivative bubbles. It seems doubtful that the main remedy for a crisis caused by excessive private leverage is to create more public debt. The purchasing of treasury securities from the central bank outdoes monetary expansion and incites a fear of inflation, placing upward pressure on interest rates. The consequence of these policy measures in the crisis is irreversibility.

The threat of irreversibility provokes the following question: What is the long-term impact of the prevailing approach to treating the current crisis? According to [7, p.73], there are four possible scenarios, as presented in Illustration 1. The first two scenarios assume a severe global recession. In the first case (upper-left), a recession lasts for 18 or more months, but effective monetary and fiscal policy, together with the strongest economies (U.S. and BRIC) pull the global economy back to the pre-crisis level of activity. Global credit and capital markets reopen and recover. This scenario can be presented with a *U*-shaped curve. In the second scenario (lower-left), the recession lasts for more than 60 months, while the global economy never returns to the pre-crisis level. Ineffective regulatory policies, along with restricted credit flows and significant government involvement in allocation of credit, push globalization into reverse with growing economic nationalism attitudes. The scenario can be presented with an *L*-shaped curve, or prolonged deflation.

The remaining two scenarios assume the recession will be moderate. One is overly optimistic while the other is more pessimistic. In the third scenario (upper-right), the recession will continue for 8 to 16 months and will be followed by strong economic growth. Positive vibes stimulate a rapid expansion of trading and lending volumes while globalization stays on course. This scenario is represented by a *V*-shaped curve. The fourth scenario (lower-right) predicts a short recession (12 to 24 months) followed by slow economic recovery. Because of significant government involvement in the allocation of credit and a sharp rise in the cost of capital, the global economy grows slowly, experiencing periodic declines due to the irreversibility of new policy measures. This scenario is *W*-shaped or *double dipped.* The cumulative effect of the previous scenarios on GDP is represented in Illustration 2.

Illustration 2: Alternative GDP shapes



Instead of predicting one of the optimistic scenarios, signals from the global economy suggest that a double-dip scenario is more probable than a quick recovery. The reason is rooted in the actions that prevent risk appetite from abating. The largest share of blame for this can be attributed to governments and other policy makers. Billions of taxpayer money have been poured into financial institutions whose excessive risk appetite brought the whole world to the brink of collapse. By responding to the crisis with bailouts, governments allow new expansions to begin and old bubbles to be re-inflated. This in turn leads to a new crisis that triggers new bailouts. Hence, the irreversibility of the situation becomes more threatening than the crisis itself. Instead of solving the moral hazard problem, the state actually institutionalizes it.

SERBIA IN THE COMBINED CRISIS

Over the past two decades, Serbia's economy was victim to the geopolitical decomposition of the socialist block, starting with the breakup of former Yugoslavia in 1990. The geopolitical dimension of Serbia's transition postponed economic and political transition toward capitalism.

For example, a second year undergraduate in economics at the University of Belgrade has thus far, lived in five different states: the Socialistic Federal Republic of Yugoslavia, the Federal Republic of Yugoslavia, the State Union of Serbia and Montenegro, the Republic of Serbia, and the Republic of Serbia without Kosovo. The geopolitical decomposition of Yugoslavia was followed by huge transaction costs. From the human capital perspective, the most significant negative developments comprised the refugee influx from the former Yugoslav republics to Serbia and the brain drain from Serbia to the Western Hemisphere. Thus, the social structure necessary for catching up to prosperous capitalist countries is lost forever - not enough technocrats and an abundance of unproductive people.

Until the year 2000, the transition evolved in a vacuum, in the face of economic sanctions and no access to foreign capital in the privatization process. As a result Serbia's economy experienced hyperinflation and a dramatic drop in

the GDP level, despite privatization efforts using internal funds. The biggest drop occurred in 1993, when the GDP level was at a staggering 40% of its pre-transitional 1989 level, followed by mega inflation. Deeper reforms were initiated once the political scene changed in 2000. Economic conditions were so deteriorated however that the new wave of reforms had little impact. Despite accelerated privatization, institutional changes and frenetic reindustrialization efforts, Serbia never reached its pre-transitional GDP level. This is in stark contradiction to a vast majority of former socialist countries.

After 2000, Serbia practiced the strong currency in weak economy model of transition. The main objective of this model was to maintain macroeconomic stability in terms of price and currency stability. Reindustrialization was neglected. Foreign currency proceeds from foreign direct investment (FDI) through privatization and greenfields and equity investments fueled the model. Because of the surplus in foreign currencies, the exchange rate appreciated for most of this period, causing imports to become more attractive compared to exports. This encouraged quick money in the financial sector, adversely affecting reindustrialization and misdirecting investment to the service, real estate and construction sectors. Paradoxically, FDI and equity investments never surpassed the annual level of remittances (€3-4 billion per annum) during this period. When FDI and equity investments vanished due to the global economic crisis, remittances remained the only source of financing for this model. The deficit was inevitable (approximately €3 billion per annum).

Today, Serbia's economy is impotent and largely out of tune. This condition is the cumulative effect of geopolitical cataclysm and mistakes made in the prevailing transitional model after 2000. The impact of these factors still echoes, thanks to the absence of proactive actions necessary to keep pace with global progress and the prevalence of reactive actions to maintain current macroeconomic stability. The key macroeconomic indicators presented on the illustration below demonstrate the aforementioned points.

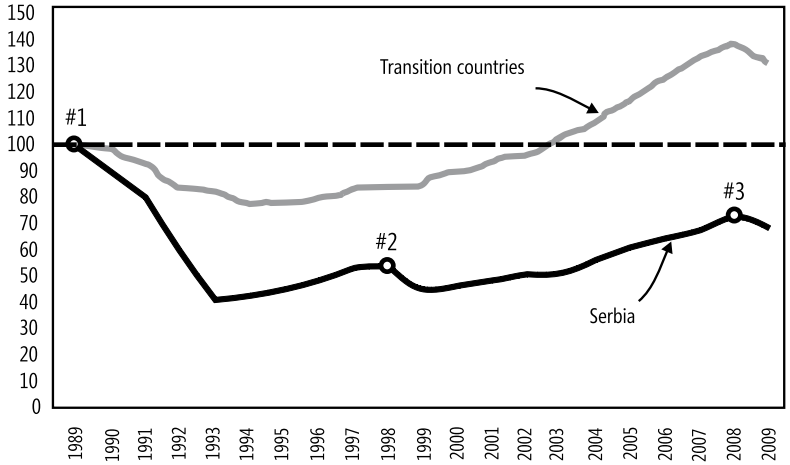
Illustration 3: Key macroeconomic indicators, 2004-2009

	2004	2005	2006	2007	2008	2009
ECONOMIC ACTIVITY						
GDP, bil. €	19,07	20,36	23,52	29,54	34,26	31,51[1]
GDP pc, €	2.556	2.736	3.173	4.002	4.661	4.304
Real growth rate GDP, %	8,3	5,6	5,2	6,9	5,5	-3,5[3]
INFLATION						I-XII
Consumer prices by COICOP, end of period, %	-	-	-	11,0	8,6	6,6
Consumer price index, annual average, %	11,4	16,2	11,7	7,0	13,5	8,6
FOREIGN TRADE						I-XII
Export of goods, bil. €	2,83	3,61	5,10	6,43	7,43	5,96
Import of goods, bil. €	8,62	8,43	10,46	13,51	15,49	11,16
Foreign trade balance, bil. €	-5,79	-4,83	-5,36	-7,07	-8,06	-5,19
Exports / GDP	0,14	0,17	0,21	0,21	0,21	0,19
Imports / GDP	0,45	0,41	0,44	0,45	0,45	0,35
EMPLOYMENT AND WAGES						I-XII
Unemployment rate, %	19,5	21,8	21,6	18,8	14,4	17,4[3]
Net wages (annual average), RSD	14.108	17.443	21.707	27.759	32.746	31.733
EXTERNAL LIQUIDITY						I-XII
Current account balance, bil €	-2,69	-2,05	-3,09	4,784	-6,09	-1,71
Current account balance, % GDP	-14,1	-10,1	-13,1	-16,2	-17,8	-5,42
FDI (net), bil €	0,78	1,24	3,49	1,82	1,81	1,11
FDI p.c.	104	167	459	217	261	150
MONETARY INDICATORS						XII
Foreign exchange reserves NBS, bil €	3,12	4,93	9,02	9,66	8,19	10,60
Foreign exchange rate (RSD/€)	78,89	85,50	79,00	79,24	88,60	95,89
Savings, bil €	1,46	2,27	3,41	5,03	4,89	6,13
Savings/GDP, %	7	11	14	17	14	19
FOREIGN DEBT INDICATORS						XII
Foreign debt, bil €	10,35	13,06	14,88	17,79	21,66	22,79
Foreign debt / GDP	0,54	0,64	0,63	0,61	0,64	0,72
Public debt / GDP	53,3	50,2	36,2	29,4	25,6	31,3
Consolidated gen. government, mil. €	-	202,8	-400	-565,4	-742,6	-1.314

[1] Ministry of Finance RS estimation
[2] January – September 2009 on January – September 2008, for 2008 RZS estimation
[3] Labour force survey – October 2009

At the end of 2009, Serbia's GDP was a staggering 69% of the pre-transitional GDP level [10]. Due to the perverse shape of the transition curve (representing the GDP trend), the third successive drop caused by global economic crisis in 2008 started when it reached just 73% of the pre-transitional GDP. Transitional countries have managed to reach pre-transitional GDP levels 8-13 years after the start of transition. The reason for this is transitional recession, which is the logical effect of every radical political and economic reform process. When the economy reaches the pre-transitional level of GDP, transition comes to an end and the process of catching up to prosperous capitalist countries starts. Consequently, a typical transition curve is a *J*-shaped curve. In case of Serbia, the transition curve is a perverse double *J*- shaped curve, which never reaches its pre-transitional level. The global economic crisis that started in 2008 instigated the third cycle of the *J* curve,

Illustration 4: Real GDP (1989=100), transition countries and Serbia



Source: Transition report 2009, p.217

thus leading Serbia toward the third strategic inflection point, as shown in Illustration 4.

Following an eight-year period of continuous growth (CAGR=4.5%), the real GDP growth rate in 2009 was -3.5%. Though inflation is relatively under control (below double digit) thanks to monetary policy measures, the low level of economic activity continuously deepens the imbalance between aggregate demand and supply, thus generating inflationary pressure. The high level of unemployment represents the other side of the low activity level coin. During the same period, the unemployment rate gravitates toward 20%. In contrast to the previous period of appreciation (2000-2007), the local currency depreciated by 17.36% over the last two years.

A deeper understanding of Serbia's weak economy is evident when discussing vulnerability indicators (see Illustration 5). First, we see a dangerous level of indebtedness. In 2009, the external debt/GDP ratio was 72% (a tolerant level is 80%), but the external debt/export ratio is 295%, which is unacceptable (an acceptable level is 220%). Second, the credit rating of the country is on the brink of investment grade. Third, operational risk is extremely high as a direct consequence of a huge transitional deficit (31%). Namely, two decades after the start of transition, Serbia's economy has reached 69% of its pre-transitional 1989 GDP level. Furthermore, endemic deflation causes an unfavorable level of *A. Okun* discomfort index (unemployment + inflation), which has reached 23% (=17.4% + 6.0%) level for 2009 (tolerable level is 0.10). Export level is not enough to maintain external liquidity. In 2008, export reached only 21.7% of GDP. In 2009, the situation has gone from bad to worse, and the ratio reached 18.9%. In prosperous countries of similar size, the normal share of exports is 50-80%. Currency depreciation is a logical consequence. Fourth, the population risk is tremendous. Population growth rate is -3 per mil for the period 1992-2008, and the average age of population is nearing 42 years. Despite the belief that the labor force in Serbia is a deflationary factor, it is actually an inflationary factor. The cumulative effect of the aforementioned indicators is a low level of competitiveness. In the most recent ranking on competitiveness by the World Economic Forum, Serbia was 93rd out of 133 countries. The competitiveness is in correlation with the level of corruption, permissiveness of local environment for foreign investors and economic freedom.

Illustration 5: Vulnerability indicators, 2009

INDEBTEDNESS		
External Debt/GDP	NBS*/Ministry of Finance	72% (max 80%)
External Debt/ Export [1]	NBS/Ministry of Finance	295% (max 220%)
CREDIT RATING		
Credit Rating Agency	S&P Fitch	BB-/Stable/B BB- outlook negative
OPERATIONAL RISK		
Transitional Deficit	EBRD,Transitional Report	31%
Okun Index	SORS*/NBS	23%
Export [2]/GDP	SORS**/Ministry of Finance	18.9%
Currency Depreciation		
Nominal	NBS	7.6%
Real	NBS	2.4%
POPULATION RISK		
CAGR (1992- 2008)	SORS	-3‰
Average Age	SORS	42 years
COMPETITIVENESS		
Global Index of Competitiveness	World Economic Forum	93rd (from 133rd)
Corruption Perceptions Index	Transparency International	83 rd (from179th)
Easy of Doing Business	IFC/WB	88th (from183 rd)
Economic Freedom Index	Heritage Foundation	104th (from179th)

[1] - Export of goods &services
[2] - Export of goods
NBS - National Bank of Serbia*
SORS *- Statistical office of the Republic of Serbia*

At the onset of the global economic crisis, it was evident that the structure of Serbia's economy is a case of "three sectors, three stories". The performance of the financial sector is far more successful than performance in the other two sectors: the non-financial sector and the public sector. The strongest pillars of the financial sector are banks, which means that financial sector is bankcentric. The capital market is shallow and in retreat. The capital adequacy of banks was close to 20%, which is far better in comparison to the vast majority of post-transitional countries [15]. The level of profitability is impressive, not only in comparison with other sectors and industries, but also in comparison with EU banks. Most of the profitability originates from operation with the central bank and treasury. The ratio of corporate to retail banking moves slightly toward domination in retail banking. Confidence in the banking industry gradually rises despite the crisis. From 2008 to 2009, the savings rate rose from 14 to 19% of GDP. Though the majority of credit is Euro-denominated, it does not eliminate credit risk. The currency risk in case of devaluation automatically transforms into a default risk for debtors. The prime interest rate is extremely high in comparison with EU economies, which is predominantly a consequence of high country risk. Again, the problem comes from the public and real sector. Consequently, the banking portfolio and earnings are not sustainable, due to weaknesses in the private and public sector.

In the real sector, the situation is just beginning to evolve, due to both a significant demand squeeze for tradable goods as well as cyclically sensible non-tradable goods. Network technologies like energy and telecommunication, as well as selected sub-sectors of the agriculture and food processing sectors enjoy a comparative advantage.

In the public sector however, operational inefficiency is a cause for concern. With so-called *party property* as the ultimate model for governing public companies, efficiency pays the price. Political party proxies governing public companies do not just follow principles of economic efficiency, but also specific party interests. This leads to sub-optimization. The best example is Serbian railways. The boomerang effect of such conditions materializes as a motivation decline. In other words, employees lack confidence in managers, managers lack confidence in the board of directors (party proxies), board members lack confidence in owners (state), and foreign investors have confidence in no one. This is a typical *lose-lose* or negative game. In the public sector, especially in network technologies like electricity and telecommunications, the role of independent, non-executive directors is necessary for full implementation of ethical and efficient public governance.

To conclude, the Serbian economy has remained in a state of moral hazard during whole period of transition. Compared with the old capitalistic economies and new ones (post-transition economies), it has had completely different series of manifestations. First, endemic inflation regularly contributes to debtor's profit. Second, due to investment myopia, as a consequence of brokerage and rent seeking mentality of the new capitalists, investments have been parked in short term oriented sectors and industries without long term perspective. A majority of investors seek quick money schemes (repo papers, for example) and soft targets (real estate, construction etc.), while green-fields remain at intolerably low levels. Third, the party property in the public sector leads to inefficient and unethical governance. The share of the public sector in GDP is over 40%, which means that efficient and ethical public governance is not just a hot, but also an unavoidable issue. Finally, behind the narrative that lauds new debt is the underlying debt burden that is passed onto future generations without a clear source of repayment.

PARADIGM CHANGE

The discontinuities are not a new thing. They were always coming in the shape of natural disasters, wars, discoveries, ingenious innovations etc. Discontinuity has always provoked change that, since the beginning of time, has remained the only constant thing. What is new for some decades now is a change in the speed and magnitude of these changes from a global perspective. Globalization fostered by the new cultural model and IC technologies, has enabled changes to disperse rapidly around the globe and instantaneously impact any country or enterprise. When changes start bearing a significant level of risk, discontinuity becomes the new reality. There are two major impacts of discontinuity: increased vulnerability (more sources of risk) that requires new hedging instruments and increased opportunities that must be exploited.

Risk is often broken down into two main categories: systemic and non-systemic risk. Systemic risk refers to all participants of a particular economic system or capital market. Individual participants can treat it as a risk of the system that they cannot influence by their activities and decisions. Certain individual participants of the economic system or certain parties in the capital market however, can contribute to a rise in systemic risk. Non-systemic risk is inherent to individual participants of the economic system and is rooted in strategy, business models, the quality of corporate governance, characteristics of products or services, and human and material resources. Clearly, individual participants can increase or mitigate non-systemic risk through their own activities. What was disregarded by regula-

tory institutions is that risk drivers became over-correlated due to the processes of globalization and deregulation, thus exacerbating each other in mutual interaction and causing the interlocking fragility of the system to become even more dangerous.

The last crisis proved that the existing regulation mechanisms were inefficient in revealing where the risks were and in preventing individuals devoid of ethical boundaries from abusing it. The *laissez faire* credo of the deregulation process dates back to A. Smith's early thoughts on the efficient invisible hand. Smith thought that pursuing individual self interests leads to the wellbeing of all, thanks to the influence of the invisible hand. Liberalization of financial markets allowed system leverage to explode, while missing out the other side of the coin for such a system to be sustainable, the transparency of risk. Precisely, deregulation has provided off balance sheet risk, on balance sheet profit recording. The consequences of such a system are well known today. The question remains weather the financial crisis was only a manifestation, or a trigger for a deeper system flaws to emerge.

One view might be that the discontinuity we are experiencing now is a consequence of the inadequacy of the model of liberal capitalism in further global development. If the discontinuity is signaling that the old system has come to its end, the world is, perhaps, approaching the edge of the permanent discontinuity.

Several indicators reveal there was something beyond the financial crisis that made this system unsustainable. First is the unfair distribution of wealth. For many years labor incomes have been losing ground as a percentage of GDP. For this reason, the financial crisis was also a demand crisis. Second is environment pollution and non-payment for externalities.

Whether another era is about to begin or not, the new turbulent context requires a new paradigm. Conceptually, some things remain the same. Macroeconomic stability remains an important goal, but structural reforms are also on the radar. Consequently, efforts should be refocused from macroeconomic stability to dynamic management. This assumes that state investment in infrastructure and investments in the real sector would be supported by this new regulatory framework. The new regulatory framework in the financial sector should be conceptualized in a way that minimizes moral hazard and maximizes opportunities for value creation.

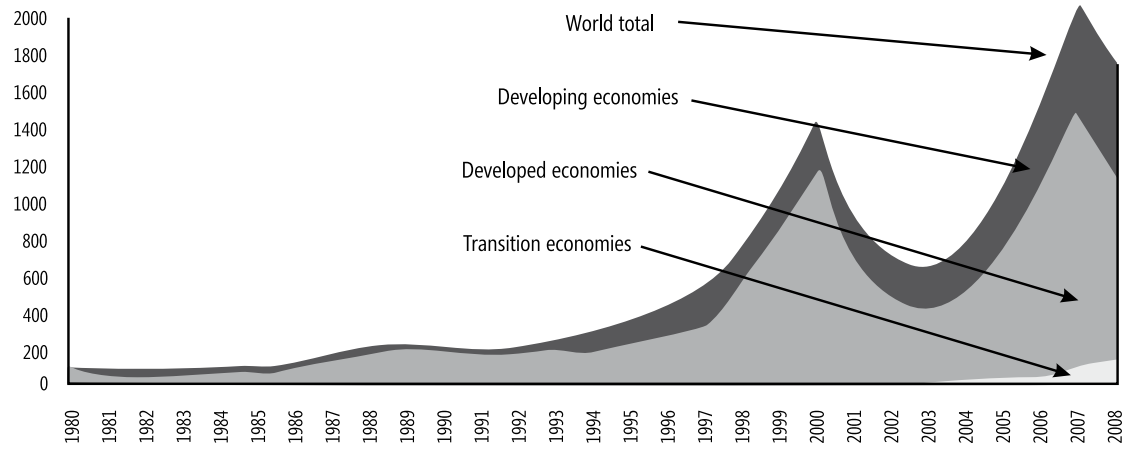
LEADING TRENDS IN THE GLOBAL CRISIS

Globalization is characterized by the liberalization of commodity and capital flows. It assumes a reduction of economic nationalism, the elimination of home bias. Apart from rapid development and integration in Central and Eastern Europe and a gradual rise in power of Asian countries, globalization was fostered by the new global regulatory framework, the WTO and financial intermediation.

Many now argue that the sunset of the global crisis will mark the end of the globalised world. The slow reversal toward protectionism, meaning anti-globalization, is already evident. The world trade level has dropped by 10% in 2009, following the onset of new duties, quotas and bureaucratic hurdles. Some advocate that the new and improved global agreement for the regulation of financial system will inhibit and postpone reform. The answer may be found in the realm of national regulation, which implies a reversal toward fragmented financial markets.

Of the range of trends that have emerged during the global economic crisis, we identify the following, which predominantly affect the current and future environment: a

Illustration 6: Inward FDI flows by groups of economies, 1980-2008, in $ billion



Source: World investment Report 2009, p.4

decline in FDI volume, commodity price volatility, and the growing role of sovereign wealth funds.

The recent global crisis provoked a significant decline in FDIs on the global level. After a record high in 2007, FDI activity dropped by 14% in 2008. There are two underlying reasons for this. First, internal sources of financing, through retained earnings and lower dividends, evaporated due to the demand squeeze, while external sources become inaccessible due to the credit crunch and rising cost of debt. Second, the readiness to invest has been severely affected by serious recession in some countries, particularly developed ones, as well as prevailing fear of fear. Consequently, all three types of FDI, market seeking, efficiency seeking, and resource seeking, have seriously been affected, to varying magnitudes.

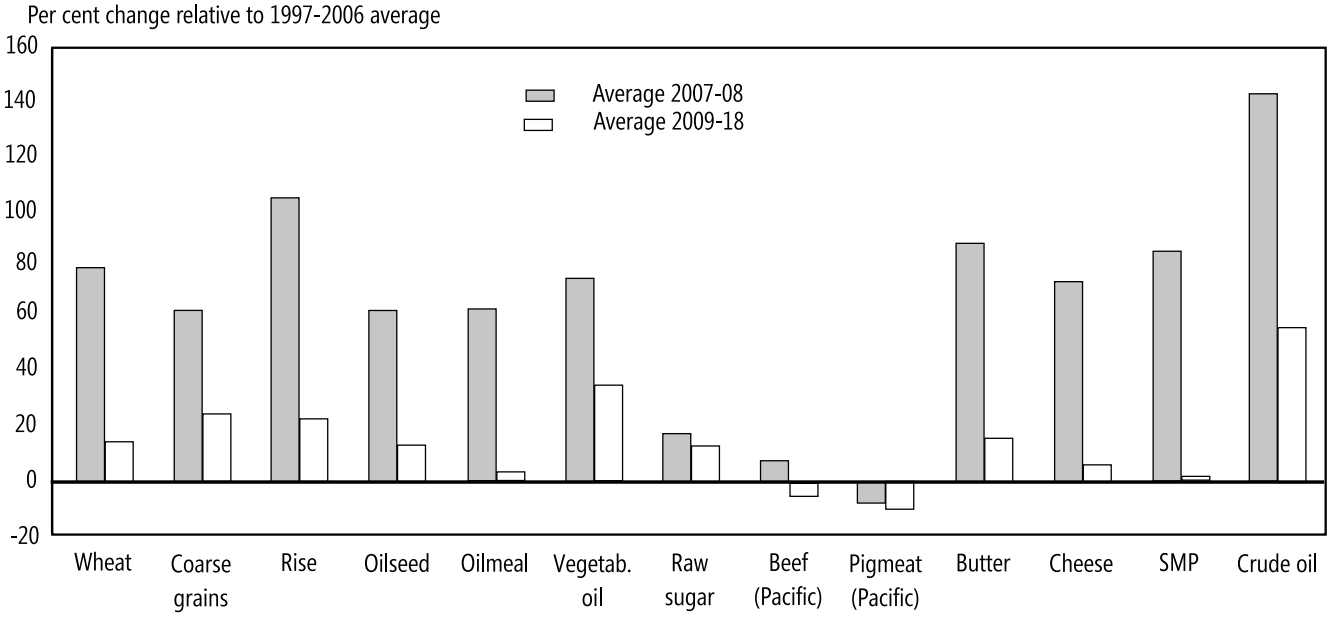
Statistics show that developed countries have been most affected in the 2008 crisis year (see Illustration 6). Conversely, in the same year developing and transition countries experienced a 44% increase in their share (37% and 7%, respectively) of the global FDI volume. For developing countries, FDI influx declined at the end of 2008, after the crisis started interfering in their export volume, and their cost of sovereign and corporate debt. In 2008, the top five recipients of FDI comprised the U.S., France, China, U.K., and Russia, while the greatest outward flows were from the U.S., France, Germany, Japan, and U.K., consecutively.

Although falling on the global level, the former socialist countries (SEE and CIS) experienced a rise in FDI inflows by 26%, despite the fact that the crisis did not bypass them. For years, the three largest FDI recipients have been Russia, Kazakhstan, and the Ukraine, accounting for 84% of the region's total. Yet, the end of year 2008, there was a slowdown, even a decline in some countries, while they experienced a substantial drop in the first quarter of 2009 (a 46% decline compared to the first quarter of 2008). By some predictions, a slow recovery of FDI volume at the global level is expected in 2010, while new momentum is expected only beginning in 2011 [11].

In the past few years, there has been a trend of growing capital inflow in agriculture on the global level. In the 2005-2007 period, it reached a record high of more than $3 billion, yet it still accounted for less than 1% of total global inward FDI flows. This coincides with the trend of strong growth in food prices, which hit their highest peak in June 2008. There are several reasons for this. First, the growing population in high growth rate countries has resulted in a global demand increase. Second, commodity investors with surpluses in liquidity nourished speculative bubbles. Third, the shift from edible agriculture production toward non-edible agriculture production (bio-fuels for example) pushed down the global supply level. Finally, a growing fear of food security and several consecutive droughts precipitated a decline in food exports by several of the larger exporters.

After reaching its maximum in 2008, the food price index has fallen consistently as a result of the economic crisis (though there has been a new price surge over the past few months), while still at a level higher than that of the third quarter of 2007. A solid growth in food prices is expected in the future, thanks to a stable demand. Per market expectations, we can draw the following conclusions (see Illustra-

Illustration 7: Estimated real commodity price average in the 2009-2018 period relative to the 2007-2008 average



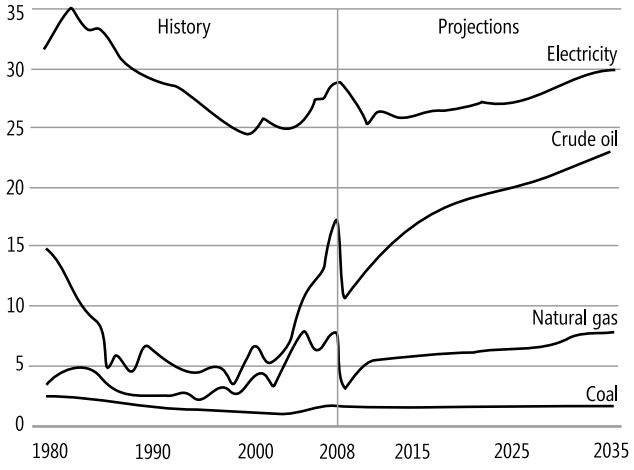
Source: OECD-FAO (2010): OECD-FAO Agricultural Outlook 2009, p.14

tion 7). It is expected that average crop prices are expected to exceed level achieved during the 2007-2008 peak years.

In 2009, the world saw global demand for energy sink for the first time since 1981. Investments in the energy sector also dropped. Projections however indicate that non-OPEC production of crude oil and natural gas will not increase at the same pace as demand in non-OPEC countries [12]. Major producers will be concentrated in the Middle East, where nearly two thirds of the world's oil stock can be found.

In the future, the major portion of fuel consumption will comprise natural gas, where demand is expected to grow steadily. Projections indicate that by the year 2025, consumption will increase by 60%. After 2010, demand for electricity is expected to be back on track, following a drop during the crisis. On the supply side, net electricity generation is likely to be 77% higher. Energy prices are expected to reach higher levels every year, as a result of slow-growing supply and fast-growing demand. Estimated prices for oil, natural gas, coal, and electricity are presented in Illustration 8, below.

Illustration 8: Projected energy prices (1980-2035)



Source: www.eia.doe.gov/oiaf/forecasting.html

To conclude, the overall trend in FDIs on the global level is negative. The total volume is still in decline, though FDIs in extractive industries (resource-seeking FDI), as well as in the energy sector (market and efficiency-seeking FDI), is experiencing an upward trend in global FDI structure, both in relative and absolute numbers. Apart from the price of coal, prices of all fossil fuels will rise steadily, particularly for crude oil.

Finally, the trend that undoubtedly proves the rise of predominantly Asian countries is the dramatic increase in sovereign wealth funds since 2000, both in number and volume. A sovereign wealth fund is a state-owned investment fund that consists mainly of stocks, bonds, property, precious metals, and other financial instruments. These funds can be held and managed by a central bank, or simply represent state savings invested in various entities. Growing sovereign wealth funds indicate the future redistribution of money and power away from the U.S. and EU and toward China, Russia, and the Middle East. To appreciate the magnitude of these funds, it is worthwhile to mention that the four wealthiest funds (China, Singapore, Abu Dhabi and Kuwait) account for $4 trillion. For Serbia, the most important funds could be those of Russia, China and Norway.

SWOT BASED EXIT STRATEGY FOR SERBIA

Based on our previous analysis, we have developed a SWOT for Serbia (see Illustration 9). SWOT is an acronym for *strengths, weaknesses, opportunities,* and *threats.* It is a tool used to analyze the position of a certain entity (national economy, company, bank, etc.) *vis-à-vis* its environment. It can be divided into four separate quadrants: two for internal factors (strengths and weaknesses) and two for external factors (opportunities and threats). The strengths account for all the activities, capabilities, and resources (material and non-material) for which the entity in question enjoys a comparative advantage against benchmarked entities. The weaknesses are constraints, in the form of insufficiencies, poorly performed activities, and inabilities that make the entity in question inferior *vis-à-vis* benchmarked entities. Opportunities refer to an attractive arena of various possibilities, which if used, enable the entity to enjoy a better

Illustration 9: SWOT for Serbia

STRENGTHS		OPPORTUNITIES	
▪ Public sector	+ +	▪ Energy	+ + +
▪ Banking industry	+ +	▪ Agriculture & food processing	+ +
		▪ Infrastructure	+ +
WEAKNESSES		**THREATS**	
▪ Geopolitical position	– – –	▪ FDIs decline	– – –
▪ Human capital	– –	▪ Commodities price volatility	– –
▪ Deficit (budget & current account)	– –		

performance and/or comparative advantage *vis-à-vis* other entities. Threats represent challenges resulting from adverse trend developments or radical changes that cause amplified risk and uncertainty, which in the absence of a suitable reaction and/or adaptation, leads to deteriorated performance, stagnation, and loss of the acquired position against benchmarked entities.

In our analysis, each relevant factor is graded using marks ranging from + to +++, for positive, and from – to – – –, for adverse factors. The choice among external factors (opportunities and threats) depends on the level of ambition in goal set-up (from anti-import to export goals).

Every strategy is a performance-driven wish list. The structure of the new discontinuity is provided in the SWOT for Serbia. The essence of the exit strategy from permanent crisis is how to ground it in reality in order to exploit new discontinuity.

In the period of crisis, and while defining a performance-driven wish list, it is logical to start with weaknesses. Identified weaknesses in the SWOT include: geopolitical position, human capital deficit, and budget and current account deficits. When it comes to geopolitical position, we could say that in an interconnected world, it is more important to whom you are connected than who you are. Following the breakup of former Yugoslavia, Serbia became a landlocked country. In Serbia's case, this has meant being land-blocked, especially during the period of sanctions imposed by UN. The current Serbia's geopolitical position, which is actually no position, will change dramatically ones the process of integration into the EU begins. The end result of integration is full conceptual infrastructure compatibility (institutions and regulatory bodies). Serbia desperately needs zero-defect in conceptual infrastructure development. Healthy institutions eliminate regulatory risk.

Being EU-oriented however does not imply being oriented away from Russia. This is of particular importance with respect to special purpose projects in the energy sector and with sovereign wealth funds and related companies. For Serbia, balancing between the two poles (the EU and Russia) means benefiting from both sides, improving its geopolitical position and creating space for growth. We know that the pendulum never stops in the middle, but for Serbia it is crucially important to find and maintain its position between these two end points.

The second weakness refers to the human capital deficit. Since Serbia experienced a significant brain drain in the last two decades, it is crucial to build a network with experts from the Diaspora in order to benefit from their position and know-how. It is also necessary to provide updated programs for university professors, especially in the big science and engineering, and highly ranked researchers from scientific institutes. Instead of big universities and scientific institutes with opportunistic professors and researchers, and a small labor force, Serbia needs credible professors and researchers, small universities, and an abundant labor force supply. Last but not least, it is extremely important to prevent further growth of low quality private universities, especially in social sciences, in order to stop erosion in the supply of labor and the massive proliferation of underperforming bachelor degree graduates.

The third weakness refers to maintaining external liquidity. The level of debt and current account deficit are at unacceptably high level. Sustainable development in future will certainly depend on whether the government will find a way to respond, with involving responsibility, to the ethical problem between generations where the one incapable to discipline itself and make adequate reforms lives on the account of the other's future. In short, the practice of paying for mistakes made in the past in the form of additional borrowing must be stopped. The best remedy is to energize the real sector.

The second class of factors involves threats. There are at least two significant threats: a decline in FDIs and commodity price volatility. The main reason for the deteriorating performance of Serbia's economy after the global crisis is a radical decline in FDIs. This trend is not only specific to transition countries and developing countries, but to developed countries as well. There is not much Serbia can do with respect to these conditions until recovery at the global level begins. Meanwhile, the conceptual infrastructural basis must be developed to a level that guarantees interest from foreign investors when recovery starts. Based on our analysis of leading trends in the crisis, we have identified expected price volatility for commodity goods. Due to the indispensable character of commodities, the rising price level will be the cost-push factor of inflation.

With respect to strengths, Serbia must exploit the fact that the most prosperous and most viable sectors are still in state hands. Serbia could benefit both from the experience that state owned companies have as well as from having certain resources, natural and human. The banking sector is one of the strongest pillars of Serbia's economy. It is considerably viable, thanks to solid and growing confidence, as well as a constant and significant flow of remittances. The sector is stable, as a result of conservative regulation and relatively high obligatory reserves. Cutting down the level of obligatory reserves however allows enough space not only for interest rates cut, but also to realize substantial funds for investments in a variety of priority fields, in the form of micro finance credits for agriculture and energy renewables.

Finally, we have identified several opportunities: energy, agriculture and food processing, and physical infrastructure development. The constant growing demand for energy on the global level is the biggest opportunity. There are numerous opportunities for investments in capacity increase, including energy optimization, as well as new capacity building. Green energy is also an opportunity and an international obligation. With the price ceiling rising, investments in this realm will become increasingly profitable. The increase in energy production helps in achieving not just anti-import goals, but also export goals. The export of electricity bears some advantages, since marketing and brand image costs do not exist. Due to the high level of indebtedness, no-casting-vote (50:50) joint ventures with strategic partners should be the main model of financing. The same model of financing could be employed in another strategic sector, telecommunications. Undoubtedly, *Telecom Serbia* is a "family silver" of Serbia's economy.

With respect to agriculture and food processing, the biggest opportunity is related to stable demand, both domestic and international. Naturally, existing experience and available resources must be put to good use. However, because of growing protectionism in this industry, anti-import goals will be of high priority. The growth strategy based on vertical integration, from basic agriculture production to food processing, allows obtaining a value chain extension. This is likely a feasible alternative for export goals to break through.

Infrastructure development is always an appealing field for an economy in recession. Due to high level of capital, labor and resource intensity, infrastructure development has a high investment multiplier. Moreover, it is necessary strive for transitional gap closure. Doing so is essential for capitalizing Serbia's position rent (corridors 7 and 10). This class of projects should be financed neither from commercial bank credits, nor from multinational sources, but, primarily, from BOT (Building Operating Transferring) arrangements.

The main problem of Serbia's economy is intolerably low level of economic activity. In the global economic crisis that level could become even more adverse. In order to close the output gap, it is natural for state to invest in sectors under its control. The fortunate circumstance is that those sectors are with stable demand and with high investment multiplier. Energizing the reindustrialization with state investment will open the door for private investments, in both real and financial sector.

The purpose of an exit strategy for Serbia is not only to escape from never-ending transitionism. It is also an algorithm to achieve the country's ultimate goals: to turn Serbia into an attractive place for investment, a good place to work, and eventually, an appealing place to live.

CONCLUSION

Together with the moderate recession triggered by the IC bubble in 2001, global liberal capitalism has suffered a second successive crisis in less than a decade. The 2008 crisis however, was a structural one, rooted in the housing and credit derivative bubbles. In 2009, economies in the Western Hemisphere are experiencing a fragile, double dip recovery. The nexus of economic activity has shifted toward the BRIC countries, promoting a development model devoid of bubbles.

The recent global economic crisis is not a moderate recession. It is a breakdown of bubble-fueled prosperity that could fundamentally alter the prevailing economic paradigm and international economic order. The remedy for the crisis is substituting the invisible hand of the market with the visible hand of the state. Lax regulation in the financial system in the past has certainly promoted cognitive bias, instead of win-win transactions. This has created a chain of crises. Consequently, we now live in a bundle of crises: financial, economic, environmental, moral, and political crisis. These crises have one thing common: the absence of leadership, which explains why policy measures have an irreversible effect. Instead of democratic compromise, we are observers of permanent lobbying for selfish interests.

Due to the irreversible impact of policy measures in crisis, there is overwhelming pressure from resource-rich countries like Russia and China, to get back to basics and replace the reserve currencies with the IMF's special drawings rights (another words, gold). In such an arrangement, oil, gas, and metals, for instance, would be priced in special drawings rights, which means not only a trigger for cost inflation, but also a tectonic disruption in international financial order.

No country can escape the effects of the global economic crisis, including Serbia. The credit crunch and demand decline of 2009 pushed Serbia's economy toward the third strategic inflection point in the last two decades. Due to impotent and not well tuned economy, it was the start of the new downward trend. Namely, as long as the global economy recovers in double dip, and without strong influx of FDIs, Serbia's economy will be slipping into deep recession. Without a substantial influx of foreign capital, Serbia's economy will not recover. Moreover, the volatility in commodity markets will create a pressure toward inflation.

On the global level, the crisis ends only when asset prices, debt levels, and factor incomes regain equilibrium.

But this will take some time. When the balance is achieved, the appetite for investment on both the domestic and global level will intensify. Until then, Serbia will be hostage to the fallacies and inabilities of global players.

No individual economy in transition has reached its pre-trasitional GDP level without an increase in industrial production. Investment in the energy sector and infrastructure are the two levers for Serbia's exit strategy from permanent crisis. These investments have the multiplicative effect of stimulating aggregate demand and eliminating a transitional deficit. It is important to remember that conceptual infrastructure development is also critical to attracting foreign investors from a variety of industries. This is not a matter of financial capital. It is a matter of knowledge and credibility of ruling parties' coalition.

As FDIs declined during the recession, the model of strong currency in weak economy became unsustainable. The misuse of this model is gone for good. The crisis requires a new monetary model, which not only respects price and currency stability but also closes the output gap.

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ACCOUNTING PROFESSION CREDIBILITY AS A FACTOR OF CAPITAL MARKET DEVELOPMENT

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Summary:

Financial reporting system represents key determinant of financial market efficiency, financial system stability and economic growth. Such position of accounting profession means duty to provide services at the highest possible quality level. The intention to hide business failures, financial frauds, inability of profession to set rules for all possible cases in practice, low quality of audit and other factors caused the crisis of trust in accounting profession. The crisis, and its consequences as well, are more serious than ever. In order to fulfill its duty to public interest, accounting profession must rebuild its lost credibility.

In the first part of this paper, the stress is put on remembering arguments for giving such great significance to financial reporting and accounting profession in general. Hereby, we underline the importance of accounting information in the process of making economic decisions, responsibility to public interest, and role in providing financial system stability and economic growth. Key problems are discussed in the second and third part of the paper, where efforts were made to recognize the sources of trust crisis and identify necessary steps to be taken in the process of rebuilding credibility of accounting profession. Hereby, these efforts are directed to recognizing responsibility of various participants in financial reporting chain, as well as to their duties in the process of rebuilding credibility.

Key words: *public interest, corporate governance, accounting profession, credibility, capital market, financial reporting, conflict of interests, audit and ethics.*

INTRODUCTION

There is no doubt that the development of corporate businesses and financial markets expanded in many ways the importance of accounting and accounting profession. Corporate businesses, as interest centers of various interest groups, their relation to various financial market participants, as well as interlaced relations and influences bring numerous challenges in terms of extent, type, frequency and quality of financial reporting. Instead of being only the ground for giving accounts and control of activities, accounting information become inevitable information bearing for economic reasoning and making rational economic decisions. Its public character allowed it to play important role in the process of lessening information asymetry and raising safety of investors. All this developed considerably the importance of accounting profession and raised the reputation of professional accountants.

Recently, accounting has raised public interest, probably as never before in its history. Unfortunately, reasons for great presence in media speak against the reputation of accounting profession. By definition, accounting should provide high-quality information based on legislative and high-quality professional regulations, as well as on reasonable evaluations brought by professional accountants within those frames. Hereby, reliability and relevance, as dominant characteristics of accounting information, should serve to defining actual and potential risks, and, consequently, providing efficient decision making and higher safety of numerous users of such information. However, great financial scandals, especially at the end of last and the beginning of this century, followed by frauds in financial reports, caused inestimable damage of credibility of accounting profession, not only at national, but also at global level. Remarks that it does not serve well to public interest are very serious, and the crisis of trust in accounting profession seems to be bigger than ever.

FINANCIAL REPORTING AS THE FACTOR OF FINANCIAL SYSTEM STABILITY

In order to grasp into the crisis of accounting profession as a whole, it is necessary to find the reasons which determine its importance. Although the list of such reasons could be longer, at this point we will emphasize three: importance of financial report's informations for the evaluation of company performances and its exposure to business financial risks, public character of financial reports together with very high level of responsibility to public interest and pretty strong bonds at the direction: quality of financial informations - efficiency of financial markets - stability of financial system.

Financial reporting as the process of collecting information, including business transactions, preparations and presentation of financial reports, is the most efficient way to communicate to interest groups outside certain company. Showing data about entirety of profit performances of a company in certain period, financial position of a company, changes made on capital and realised cash flow, finan-

cial reports imposed themselves as inevitable source of information important for making various decisions. Financial reports enable skillful financial analysts, in the process of studying specific financial statements relations, to get the image of economic history of a company, to project future performances in terms of possibilities of making profit and positive cash flows, to include the possibility of servicing liabilities, to recognize possibilities of creating values, to evaluate company exposure to long-term and short-term financial risks, etc. The possibility of detecting early warning signals about company perspective is especially important.

Deeper analysis of individual positions reveals new information possiblities of financial reports. The analysis of fixed assets reveals the level of its writedown, as well as company potentials. Accumulating of inventories (potential problems of theirturnover), exhaustion of inventories (potential problems of lack current assets) analysis of quality receivables (high writedowns suggest low quality of revenues, potential high amount of revenues from connection with related parties, possibility of fictitious revenues) and availability of cash (for financing repurchase of stocks, debt redemption, or takeover) indicate potential problems (or possibilities) of a company. The analysis of structure, return capacity and liqudity level of securities in a company's portfolio shows their role in providing higher profitability and liquidity of a company. The analysis of structure and maturity period of liabilities will indicate company's problems with debts, while closer analysis of capital will show the level of creditors'interest security. Hereby, the analysis of hybrid sources of financing could be particularly interesting, regarding their ability to influence (considerably) changes in the structure of financing sources.

Of course, interest of decision makers is important for future trends. Hereby, there is a wrong, pretty rooted view that financial reports reflect only economic history. The fact is that they do reflect the effects of earlier decisions, but those effects are not exhausted in only one period. They reflect, at least in one part, the estimates of management on future performances. So, for example, considerable investments in recent past will determine future return effects, and writedown of low-quality receivables is in fact the view of management not only of their probable, final destiny, but also of risk, potential liabilities that could burden considerably the business of a company in future. In the light of this, we could say that if we possessed information about actual performances, as well as information about past tendencies of key performances, and if we answered key questions which determine future trends (intended investments, effects of R&D activities, changes in market position, etc.), we could say that we have very good information ground for planning future performances. Accounting, with its methodology, offers very useful tools to this end.

Despite all above mentioned, questions why accounting information is considered so relevant are not so rare. They are often asked by non-accountants, even at an academic level. Truth is that information about production processes, product features, technology, market strategy, etc. is very important. However, information users are especially sensitive to the quality of accounting information. There are many reasons for that. Comprehensiveness of accounting reporting system is undoubtable. Only accounting offers a complete system of quantitative analysis. The number of users also confirms the importance of accounting information. Information interests towards unbiased, valuable information are clear. However, there is something that separates accounting information from some other. It is regularity (in terms of reporting regularity), public character and responsibility of accounting and accountants to public interests.

Accounting is a part of financial infrastructure of all economies, and as such, it contributes considerably to development of healthy national and international financial system. In that sense, the important feature of accounting is taking responsibility towards public, in terms of high-quality, transparent reporting. Although professional accountants, in status and material sense, depend on management, their professional responsibility is not related only to management. Hereby, for accounting profession public includes investors on capital market, citizens as a part of investing public, loan institutions, state institutions, business partners, employees, unions, various business and financial circles, regulatory bodies, rating agencies, statisticians, journalists and others. All of them depend on accounting information, impartiality, honesty, integrity and professional behaviour of professional accountants in providing the quality of such information. Having in mind that accounting information is important determinant of quality of various decisions, and hence, efficiency of functioning of economy as a whole, as well as that the implications of wrong information signals from low-quality financial reports are very unpleasant, public in general, expects from accounting profession to perform given duties in accordance with highest professional standards in assuring public interest.

Responsibility of accounting profession toward the standards of public interest placed professional acccountants at very high position, but at the same time, it influenced measuring the mistakes of accountants by special standards.

Hence, we could understand the insisting of all those who care about accounting profession and realize its impor-

tance for the quality of accounting information. Although information interests of users are different, all users have in common the need for healthy accounting system. In that sense, accounting profession has to take responsibility for the protection of public interest. Achieving the mission of public interest' keeper assumes the presence of transparent reporting system which will, by means of high-quality revealing of business and financial risks, reduce information risks as much as possible. Thus, the contribution to the transparency of financial, overall economic and social system is provided.

Financial reporting system provides higher level of transparency process on financial market, affecting the safety of capital market participants, and consequently, general financial stability. Relation among accounting profession, financial stability and economic growth is presented on Figure 1.[1]

From this figure we can clearly see that reporting quality is a determinant of business financial stability of corporate environment, one of the preconditions for the development of business and financial sector and utterly important segment of infrastructural support to the development of capital market. High-quality information contained in financial reports indicate the exposure of company and investors to business and financial risks. By revealing these risks, investors become more information equipped and safer in the decision making process. Such environment also provides better protection of creditors' rights. Transparent reporting leads to more efficient capital flow, makes the input of foreign investments easier and stimulates fluctuation of securities. Thus, financial reporting, by means of strengthening trust in capital market, contributes to its development, as well as to the development of private sector. The possibility of fair evaluation of profitability, cash flow and financial position of a company brings to more efficient allocation of resources and more efficient functioning of financial sector due to lessening information asymetry. Risks of negative selection and abuse are reduced. All this is meant by preconditions for economic growth.

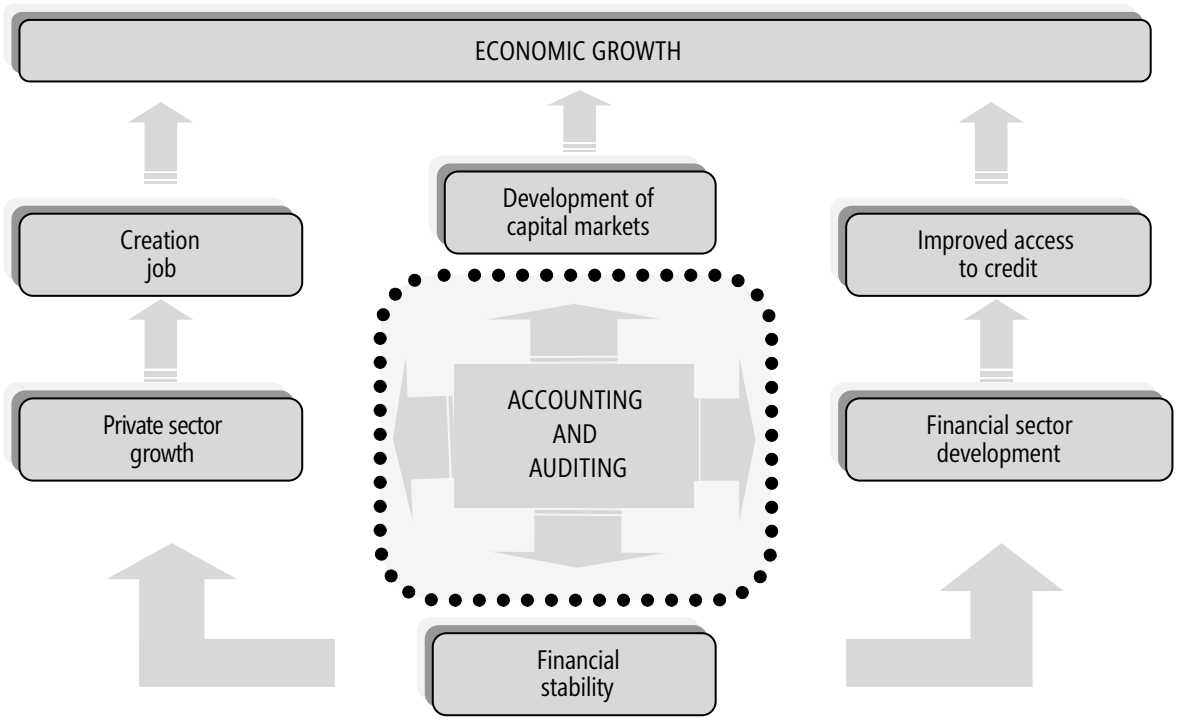
In these circumstances, it is not difficult to deduce about the negative effects of low-quality reporting and loss of credibility of accounting profession. Low level of trust in financial reporting system discourages investors, increases the level of their cautiousness, slows down financial flows, which consequently leads to lower efficiency of capital market and economy in general.

CREDIBILITY CRISIS OF ACCOUNTING PROFESSION

Great economic discontinuities bring serious problems and quakes in business and financial entities, causing instability of economic system in national and global framework. We could say that current crisis is, among others, the crisis of ethics and credibility: of institutions, legislative system, regulatory bodies, corporate governance, various professi-

1 Gielen, F., Report on obeying standards and codices (ROSC), a conference presentation: Accounting and Audit in Serbia ROSC, Belgrade, October 2005.

Figure 1: Accounting, financial stability and economic growth



ons, etc. Big quakes caused by financial scandals (affecting financial crisis) created great losses, bankruptcy of previously respected companies, financial breakdown of individual investors, compromising consulting agencies, financial and legal consultants. Such developments discouraged investors and decreased the efficiency of economic systems. All this created the environment of analysing responsibility of various participants in financial and economic flows.

Having in mind the circumstances mentioned, it is reasonable to analyse the credibility of accounting profession. Accounting frauds accompanied financial scandals. At the same time, accounting is mentioned as one of the generators of crisis. In order to understand the actual crisis of trust in acccounting profession, it is necessary to focus on two things. Firstly, chain of participants in financial reporting includes not only accounting profession and accountants, and secondly, causes of loss of trust must be identified. The first is necessary to locate responsibility, and latter to realise what has to be done to rebuild the credibility of accounting profession.

All flaws in the process of financial reporting are usually put down to accountants. Although their responsibility is uncontested, analysing the position of various participants in reporting process and the possibility of their influence on the quality of information shows that it could not be put down only to accountants. Chain of participants in the process of financial reporting is presented on Figure 2.

Each of these participants has clearly defined role in reporting process. Policy makers, creating the framework of acceptable behaviour, create the environment which enables lower or higher safety of information users. Professional accountants have irreplaceable role in preparation of financial reports, applying accounting standards. Management is responsible for the quality of financial reports in terms of their feature to mirror economic reality. It means the responsibility for correct implementation of accounting standards, as well. Independent external auditors should confirm (or dispute) the quality of reports and, by their opinion, offer reasonable arguments to users in terms of quality. Positive opinion gives credibility to information in financial reports, increasing investor safety in the process of using those information and decision making. Financial analysts, various rating agencies and other users test at the same time the quality of financial reports analysing them and the reliability of information contained in them. Responsibility is obviously and dominantly split among policy makers, regulators on capital market, management, accountants and auditors. Carelessness at any level in reporting chain affects directly the quality of reports and loss of credibility.

Business failures as a determinant of low-quality reporting. Problems of accounting reporting are usually seen as the cause of low-quality decision making and higher risks of negative selection and abuse. Hereby, it is often forgotten that creative (manipulative) reporting usually arises as the consequence of management's inability to achieve business goals. Confronted with such danger, inevitable risk of downward trend and consequent loss of expected privileges, management is motivated, by means of targeted formation of financial reports, to send information, not in accordance with economic reality, to investors and other stakeholders. Higher information risk demands not only additional revealing, but also constant analysis of the quality of accounting information. All this affects higher cautiousness of investors in the process of making decisions on new investments. At the same time, higher expenses of information interpretation result in higher cost of capital.

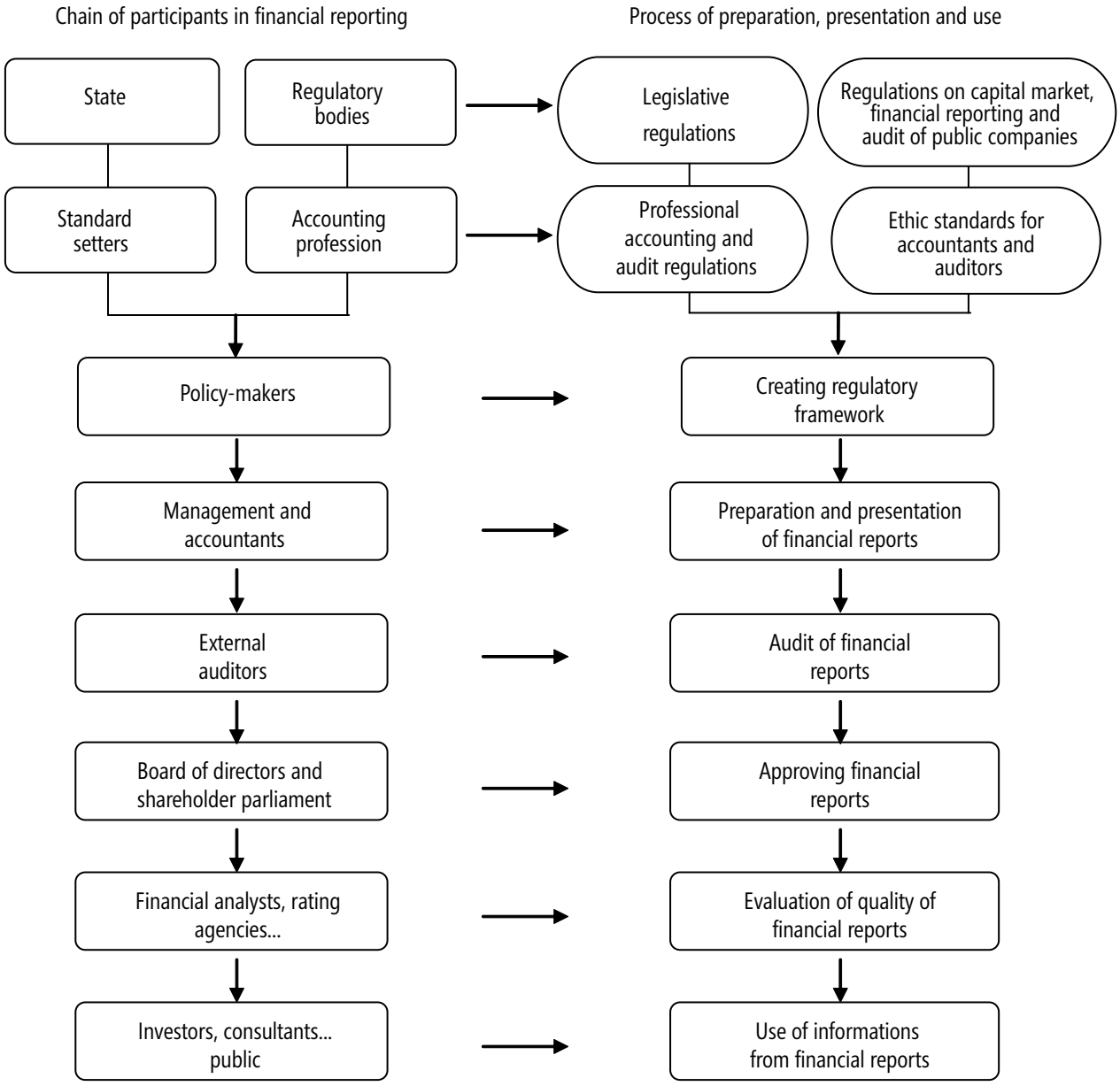
It comes out that the probability of management's manipulations in financial reports is higher if that management is further from reaching set goals. The possibility itself that the economic reality is changed in order to delude users violates the credibility of financial reporting, professional accountants and accounting profession as a whole. Of course, we do not think that credible reporting would solve all business problems or eliminate business failures, but it would definitely help reducing the possibility of increasing business failures by non-transparent reporting.[2]

Considering that management is responsible to owners for managing capital, and in that sense obliged to present them financial reports (it is also responsible for the quality of reports), it is found in an obvious conflict of interests. Thereby, we could say that management is the weakest link in the chain of financial reporting. Of course, we cannot neglect the responsibility of others. Sending wrong information to users indicates low efficiency of corporate governance. Inability to detect on time irregularities in financial reporting, as well as to stop them, speaks in favour of previous view.

Big financial frauds all around the world caused the failure of credibility of accounting profession. Creative accounting reporting stood behind all great financial scandals. Hereby, creative accounting reporting means preconcerted, deliberately unprofessional implementation of accounting rules aimed at the creation of wrong image of profitability and financial position of a company, due to drawing benefits for some interest groups, at the expense of others. Motives for practising creative accounting are numerous: influence on fluctuations in share price, making positive effects

2 Task Force on Rebuilding Public Confidence in Financial Reporting: Rebuilding Public Confidence in Financial Reporting - An International Perspective, IFAC, New York, 2003. p. 5.

Figure 2: Chain of participants in financial reporting and process of preparation and use of information



on the level of capital costs, making manager's compensations, obtaining tax advantages, relativizing the image of monopolistic position, achieving some benefits in the process of takeover, etc.[3]

At the beginning, financial scandals and creative accounting practice were considered to be related only to particular countries. Negative examples of experience in the USA were dominant. No doubt that only mentioning the names such as Enron, Sunbeam, Cendant, Global Crossing, Tyco, Adelphia, Xerox, HealthSouth etc. awakes a bad feeling, with those who experienced losses, as well as with accountants and auditors, partly responsible for what happened. However, it turned out that many other countries had their own Enron. In Great Britain, typical examples are Maxwell, BCCI, Polly Peck and Barings. France had Alstom and Credit Lyonnais, Italy Cirio Finanziaria, Australia AVA, Bond, Spedley, Securities and Tricontinental, Canada Canadia Comercial Bank, Castor Holding and Roman Corporation, while Japanese had Yamaichi. Even Germany, famous for its conservative accounting, had some negative experience with companies such as Metalgesellschaft and Schneider, Holzmann and Kirch. There are also companies such as Vivendi in France, Royal Ahold in Netherlands, Lernout & Hauspie in Belgium and South Corean conglomerate SK Group which increased its profit by $1.2 billion. Finally, Comroad company presented 97% of its income from non-

3 More in the following paper: Malinić, dr D., Kreativno finansijsko izveštavanje: motivi posledice i etički izazovi, Zbornik radova, Tranzicija i posle u regionu nekadašnje Jugoslavije, Miločerski ekonomski forum, 2008.

existent companies.[4] If, to all this, we add numerous small companies whose turnovers are not interesting (in financial sense) at global level, as well as companies in transition countries, where information is not always available due to intransparency of reporting, we get bigger picture of the extent of abuse in this field. Obviously, there is no country immune to the consequences of accounting manipulations. The problem is more serious if we have in mind that globalization of financial markets and accepting relevant international accounting regulations internationalize both the problem of financial reporting and the problem of credibility of accounting profession.

Apart from the motives inciting creative reporting, effects on many interest groups can be dramatic. Investors feel the consequences in terms of loss of invested capital and estimated returns. Companies causing financial scandals are often liquidated due to great losses and overindebtedness, and if they survive, recovery is slow. Financial markets hit by financial scandals become seriously shaken, as well as financial system in general.

Disorder in functioning of financial markets, increase of capital costs, lower investors' safety, and consequently, lower investments, fall of GDP and employment cause negative effects on functioning of entire economy. In such conditions, irresepective of how much accounting itself contributed to these negative effects, credibility of accounting profession is seriously questioned. We could say that loss of reputation for accounting profession is greater than material losses caused by financial scandals. The fact is that financial scandals changed the perception about credibility and relevance of financial reports.

The increased number of restated financial reports. This problem could be understood in two ways. Corrections of financial reports appear as the consequence of the need to eliminate possible irregularities in them. Their revealing is the manifestation of efforts to reduce negative effects of creative accounting practice. Having in mind that corrections are primarily brought into focus by auditors and regulatory bodies, we could see that as the step towards the increase of credibility of accounting profession. However, the increase in number of financial reports which should be reevaluated indicates that the causes have not been removed so far. In conditions of the existent crisis of trust it increases users' insecurity, bringing again into question the credibility of financial reporting system and accounting profession in general. At the same time, there could be a dilemma if among the reports not restated there are those that needed corrections.

Linking immorally high compensations to performances shown in financial reports. If we see the problem of rewarding in the context of the intention to solve agency problem, the belief that there is a strong link between achieved company performances and compensations which managers get on this ground is legitimate. Hereby, motives for unprofessional behaviour of management in the process of financial reporting are reasonable if performances are under the expectations. Incentives based on short-term performances could be a reason for managing gains in a way to show lower profit if it is high, or vice versa. Valuable compensational packages containing share options could incite management to practise creative accounting and in this way to adjust financial performances so that they bring to maximum price increase in time of option exercise. Fraudulent reporting is also possible (showing fictitious incomes, hiding losses, hiding indeptedness, etc.) in order to obtain some privileges. Alarming enough is the fact published in Fortune magazine (2nd September, 2002, p. 64) that the executives of 25 companies whose shares fell by 95% or more, which had business as well as reporting problems, took $ 23 billion from those companies, between January 1999 and May 2002.[5]

The fact that compensations are based on performances shown in financial reports increases the probability of accounting frauds.[6] In that sense, we should not underestimate the responsibility of those who, acting or not, participate in such processes. However, we should have in mind that compensations are not always based on accounting measures of performance. In practice, they are sometimes based on so called economic measures of success. Hereby, market measures of value incorporate elements not controlled by management as well. Moreover, compensations are often paid in bureaucratic way. So, not only accounting is guilty of immorally high compensations. Nevertheless, it seems that accounting gets more credit then it should in these processes. This, obviously, deepens the crisis of trust.

Inability of accounting profession to solve current reporting problems. Of course, accounting profession itself contributed to current crisis of trust, sometimes reacting slowly and late, and sometimes too early. By this, we mean primarily the role of standard setters in accounting, who

4 Rebuilding Public Confidence in Financial Reporting – An International Perspective, op. cit., p. 5-7.

5 Ibid, p. 4.

6 Some research show that higher participance of compensations as shares (including share options and various ways of share allotment) in overall compensations for five best-paid executives increases the probability of accounting frauds by 68%. More on this in Grant, M.R., Visconti, M., The Strategic Background to Corporate Accounting Scandals, Long Range Planning, 39, 2005. p. 364-365.

represent the important link in the chain of participants in financial reporting system. Undoubtable is the intention, as well as great efforts of accounting profession to provide certain quality of financial reporting. However, various cases in practice confirm that it is not that easy to achieve.

At this point, we should say that perfect financial reporting does not exist. Only in a perfect world could we speak of such reporting. The fact that financial reporting is troubled by numerous problems indicates also the imperfection of conditions in which business entities perform their activities. In practice, it is not possible to develop perfect rules for all potential situations. Concerning this, it seems that the profession was caught in its own trap. In order to develop rules, as good as possible, for numerous business situations, too large, complex and hard-to-apply standards were created. High intensity of changes in this environment, new business ideas, developing a whole new range of financial instruments and constant arising of new business situations resulted in higher frequency of changes in accounting standards. This causes more problems.

Firstly, tendency to set accounting rules according to specific situations instead of underlining principles, often results in developing too complex solutions which complicate their implementation in practice. Secondly, changes of accounting rules under pressure are not often successful and have short-term character. Thirdly, great extent of accounting standards, quick and frequent changes in them, make impossible that accounting profession itself, represented by professional accountants and auditors all over the world, follow and apply standards sucessfully. Overdetailed rules could be counter-productive and become the source of problems in behaviour that should be prevented. Fourthly, constant changes in structure and content of positions in financial statements endanger comparability as the quality which makes information useful for investors. Namely, the evaluation of company's development means comparability of financial reports (by form and content) with previous and future reports. If that is not the case, investors as the key users of accounting information do not feel safe enough while using them.

Difficulties in the implementation of Fair Value Accounting are good example of challenges with accounting profession. Namely, inability to stop unethical behaviour of financial report makers resulted in restructuring goals of financial reporting, underlining information needs of investors, which meant focussing on the implementation of fair value concept.

During current crisis, main criticism aimed at the implementation of fair value, which brought to extreme „popularity" of accounting profession. The implementation of Fair Value Accounting intensified the debate on efficiency of this concept, i.e. on its pluses and minuses. Financial crisis dramatized this debate which crossed the limits of accounting profession. This is because financial crisis put stress on all the flaws of fair value accounting. Wrong dealing with unrealised gains in the field of their allotment in times of financial booms (which is not the responsibility of accountants, but management), drastic fall in asset value, balanced at fair value, and great losses regarding this, in the period of financial crisis, caused that accounting is mentioned as one of the sources of the existent crisis.

The implementation of fair value should have contributed to the increase of credibility of accounting reporting, and it is unlikely that it happenned at all. This is because financial crisis created problems of procyclical effect of fair value and volatility of financial reports. Furthermore, having in mind that 2/3 of assets are valued applying mark-to-model approach, and only 1/3 applying mark-to-mark accounting, we pay attention to problems of measuring fair value on illiquid markets and the interpretation of financial reports.[7] In such conditions, reliability and, in great part, relevance, as key qualities of accounting information, are seriously challenged.

We should mention some examples related to reporting on financial instruments. The way of classifying instruments has been changed three times recently. During last year, retroactive reclassification of finacial instruments was approved. At present, IAS 39 is being changed into IFRS 9. Hereby, changes will be made partially and will last until 2011. Complexity and frequency of such changes only complete the image of complexity of accounting rules implementation. This, definitely, does not help rebuilding the credibility of accounting profession.

Conflicting role of auditors and inadequate control of their work. Information about the existent and estimated company performances are crucial for connecting capital donors (investors) with the companies using that capital. Hereby, the task of accountants is to create true and fair reports on success and financial position of a company, primarily for investing public which counts on these information in making decisions. The task of auditor, who is primarily an accountant and only then an auditor, is to offer credible confirmations (by means of independent opinion) to information users about the accordance of financial reports with relevant legislative and professional regulations, i.e. to confirm whether financial reports represent success and financial position of a company in a true and

7 More on this in: Novoa, A., Scarlata, J., Solé, J., Procyclicality and Fair Value Accounting, IMF Working Paper, 09/39, 2009. p. 115.

honest way. If accountants and auditors do not manage to provide reliable information to investors, investors themselves feel the consequences, as well as all citizens who depend on success of economic system.[8]

There are several reasons that indicate why auditor could represent a weak link in the chain of financial reporting and why his/her activities can sometimes be a reason to lessen the credibility of accounting profession.

Firstly, due to numerous transactions, auditors never check the recording of all done transactions. Their task is not to detect frauds but to offer reasonable confirmations about the quality of financial reports. Due to poor understanding of auditing procedures, possible reporting oversights are by automatically put down to auditors, which has negative influence on the credibility of profession.

Secondly, auditors are always in some conflict of interests. Namely, giving auditors a job, management enables them to earn their incomes, but auditors' responsibility to public interest requires that he/she offer services to investors and other external users.[9] So, auditor has his/her role in providing reliable information to users, but those users do not pay for that. Auditor's opinion should be irrespective of who pays for it.

Thirdly, auditors are exposed to various risks. They are pushed by deadlines, which, depending on the complexity of job could be very short. Keeping business in future periods often depends on their opinion. Additional pressure comes from the conflict of interests arising when auditing agency offers the same client both audit and other consulting services. Individual career of an auditor often depends on their behaviour. Potential inability of auditors to resist such pressures makes them accomplices in possible financial scandals. In such situations, accounting profession only suffers losses. One Arthur Anderson was enough to blur the reputation of other honourable auditors and their profession in general.

Fourthly, control of auditors' work is often inadequate. Practce showed that selfregulation and selfmonitoring are not enough. Once again we are evidencing a conflict of interests. Responsibility to public requires public monitoring as well. Ignoring these needs, which is primarily the responsibility of state and regulatory bodies, is the source of numerous problems in auditing field.

Political pressures. Political pressures on accounting profession have been the issue in focus recently. Those pressures usually go in two directions. Firstly, they are directed towards accounting standard setters. The intention is to abuse political power in the stage of setting accounting solutions. Influences that international standards of financial reporting should reflect more the accounting practice of certain countries, fight for more or less conservative solutions, inclination to greater „flexibility" of management in the implementation of accounting rules and promoting certain value concepts are only a few of the examples. While this kind of pressure is inacceptable, immoral and harmful (by its definition, because its source is not competence but power), other kind of pressure is even more brutal in acting. By their nature, these pressures are inconsistent, capricious, motivated by partial interests and often opposite to accounting rules. They are manifested through political solutions of certain accounting problems, or through creative reading of accepted professional regulations. Such solutions usually result in hidden losses in statements of financial position. Obtaining potential short-term benefits for such inappropriate interventions in accounting profession and putting much greater, long-term damage down to the same profession are side effects of such behaviour. What warries us more than institutional political intervening is related to inadequate ability of the profession to resist such pressures.

3. REBUILDING THE CREDIBILITY OF ACCOUNTING PROFESSION

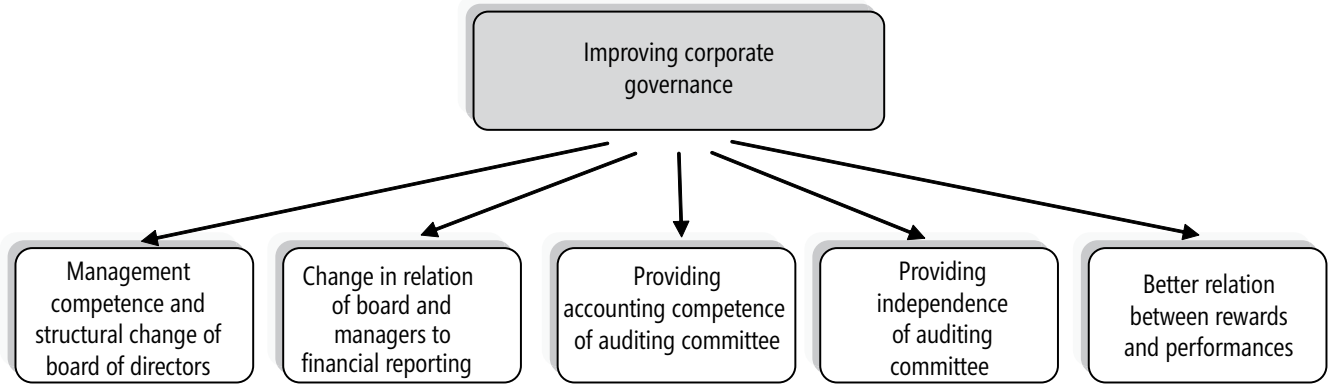
Accounting profession, primarily due to its responsibility to public interest, plays an important role in society. Numerous external users of accounting information depend on the information contained in financial reports in making various economic decisions. Professional accountants provide irreplaceable information support to management. Their competence was also proven in processes of providing consulting services related to business, investing and tax problems. We have just seen that finacial reporting system represents key determinant of the efficiency of financial markets, stability of financial system and economic growth. However, prestigious social positon means providing services at the highest possible level of quality. Previously mentioned sources of trust crisis lessenned the credibility of all those who participated in the process of preparing accounting information. It seems that the crisis of trust and its consequences are more serious than ever. Course of action is clear. In order to accomplish its responsibilities to public interest, as well as to be a factor of financial system stability and economic growth, accounting profession must get its credibility rebuilt. Hereby, the problem is that credibility is easy to lose, but hard to reestablish.

The problem of rebuilding credibility is multidimensional and very complex issue. Research on courses of action means directing efforts in various ways. Concerning this, it

8 More in: Staubus, G.,J., Ethics Failures in Corporate Financial Reporting, Journal of Business Ethics, 57, 2005. p. 5.

9 Ibid, p. 8-9.

Figure 3: Improving corporate governance in order to rebuild trust in quality of financial reporting



seems the best to start from the chain of participants in financial reporting process and their responsibility in reporting process. Hereby, some inevitable activities are imposed in the processes of rebuilding trust in financial reporting system and accounting profession in general: improving quality of corporate governance, improving financial reporting process, improving quality of external audit, improving usefulness of information in financial reports and continuous improvement and promotion of ethical behaviour of participants in financial reporting chain.[10]

Improving quality of corporate governance. The problem of corporate governance is present in companies that do business in developed market economies, especially in transition countries. Some of the problems in this field, especially present in transition countries, are related to dependence of management on insider information instead of knowledge and skills, hiding behind collective responsibility, and running from individual one, relation among management, financial and legal consultants and auditors in creating various frauds, intransparency of businessing, prevaling of agents' interests over principal interests, etc. Concerning necessary improvement of corporate governance, in terms of contribution to rebuilding trust in accounting profession, it is usually important to insist on management's competence, developing relations among management, shareholders and transparency of reporting. Precise courses of action which could be useful for rebuilding credibility of accounting reporting are presented on Figure 3.

Management competence means possessing certain professional competences, constant spreading of knowledge and skills, following legislative and professional regulations, as well as strong ethical standards of corporate governance. Among other things, this means reasonable level of accounting literacy, due to great responsibility in the process of financial reporting and in order to deal with consequent tasks. It implicates also high level of familiarity with ethical standards of accounting and auditing profession.

Organizing relations (competences and responsibilities) in corporate governance structure is necessary. It would be rational if board of directors (which should protect owners' interests) controlled executives, and not vice versa, which often happens in practice. Higher competence of board members, but also a change in its structure in a way that independent members play important role in it, would certainly contribute to previously said. Basic accounting education should help independent members to understand the core of accounting, the need of revealing and cherishing transparency, as well as the risks following that process. Only then could we expect from financial reports to be useful, and not harmful to shareholders.

Board of directors must take responsibility not only for choosing, but for efficient functioning of internal control system and auditing committee. Auditing committee must be independent, especially compared to management. Accounting competence of auditing committee members is implicit. In addition to all this, dual role of directors (both director and board chief) could be problematic.

Relating managers' activities and their contribution to company's success to rewarding system is directed to approaching the interests of managers and owners. Of course, this contribution is not easy to change. It is really hard to find the indicator reacting to managers' activities and affecting company's success, and not reacting to parameters beyond its control. Although there is no perfect indicator, that is not the problem. What warries is that relating achievements to performances incites managers to frame per-

10 Nowadays, there is rather high level of congruence in relevant literature concerning choice of the courses of action. Our claims are mostly based on documents of International Federation of Accountants (IFAC). Hereby, we underline: Developments in the Financial Reporting Supply Chain – Results from a Global Study among IFAC Member Bodies, International Federation of Accountants, Information Paper, New York, 2009. 1-29; Developments in the Financial Reporting Supply Chain – Current Perspectives and Directions, Information Paper, New York, 2008. 1-59; Rebuilding Public Confidence in Financial Reporting – An International Perspective, IFAC, New York, 2003. p. 1-62., as well as Financial Crisis Advisory Group, Report of the Financial Crisis Advisory Group, IFAC, New York, 2009. www.iasb.org and www.fasb.org p. 33.

formance measures in a way that they can maximize their own benefit neglecting owners' interests. Of course, neither accounting nor economic performance measures are immune to „creative" modelling. However, that is not the problem of measuring performances. That is the problem of corporate governance quality, lack of measures and lack of moral values. Such manners is hard to change by accounting or non-accounting standards of success. Thereby, pressure regarding the improvement of quality of financial reporting must be on management, as the weakest link in the chain of participants in financial reporting process. Rewarding transparency is implicit.

Improving the process of financial reporting. No matter who and how much contributed to loss of credibility of accounting profession, responsibility to public interest imposes taking one's own responsibility in the process and making maximum efforts to overcome the crisis of trust. Weaknesses of financial reporting which appeared during financial crisis are uncontested and require urgent reaction. Perceived problems in the implementation of fair value on illiquid markets, delaying the assumption of losses related to financial instruments and structured credit products, increased off-balance financial liabilities and extreme complexity of standards for financial instruments are only some of serious problems.[11] Before the crisis, Fair Value Accounting led to overrating profit and spreading (unreal) optimism, while during crisis its implementation led to overrating losses and destruction of capital.

Rebuilding trust requires an overall set of activities within accounting profession itself. Necessary courses of action are presented on Figure 4.

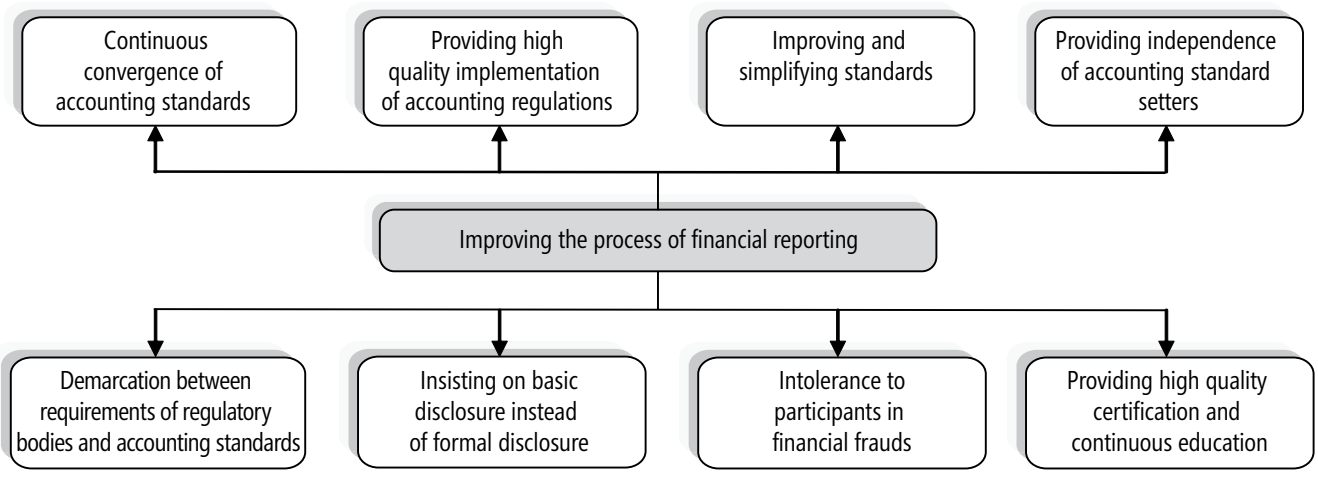
High-quality financial reporting means creating or accepting high-quality accounting standards whose implementation provides comparability and reading of financial reports within international frames, correct implementation of adopted standards, stability of regulations and their congruence with other laws related to problems of financial reporting. In that sense, accepting international reporting standards is a good direction. However, profession must work intensely and very seriously on convergence of reporting standards, i.e. on the agreement of professional regulations within the following triangle: International Financial Reporting Standards (IAS/IFRS), US Generally Accepted Accounting Principles (GAAP) and EU Directives. Regarding this, it is necessary to provide independence of standard setters in this field. Political pressures are a serious threat to this process. So, for example, in the process of matching standards to financial instruments, International Accounting Standard Board (IASB) is under pressure by European Commission, as well as from French and German governments to relax a part of standards related to impairment of assets, while US FASB is under pressure by Congress to relax FAS 157 on fair value and mark-to-mark accounting.[12] Independence is crucial for impartiality, transparency and universal application of standards. Of course, high level of responsibility of standard setters to participants in the chain of financial reporting is implicit. Professional standards must not be a consequence of commercial and political pressures, or a matter of compromise. In that case, they are not professional anymore. Solutions have to meet needs of investors and other users.

High-quality standards themselves are not enough. There is a problem of their implementation. In that process, at domestic level, numerous obstacles have to be overcome, as well as various accounting traditions, problems of standard complexity, language barriers, ways of interpreting

11 Report of the Financial Crisis Advisory Group, 2009. p. 3.

12 See: Political Pressure Threatens Accounting Boards, http://www.webcpa.com

Figure 4: Improving the process of financial reporting in order to rebuild trust in the quality of financial reporting



standards, etc. Simplifying and increasing standard intelligibility is inevitable. Not only that complexity limits wider standard implementation, but it represents one of possible causes of wrong implementation.

One of the imperatives to be solved within the accounting profession is reasonable stability of professional regulations, no matter how hard it is. It seems, in conditions of lost trust, that it is not possible to rebuild it by honest and short-term changes. Analysing standards must be meticulous and overall, while solutions must be long-term and as simple as possible. Clear plan of activities must be transparent and known to users in advance.

In creation of accounting standards, cooperation with regulatory bodies on capital market is necessary, since they are very interested in reporting quality. Disclosing risks, transparency of the process, information safety of investors, determining capital adequacy are some of their spheres of interest. However, it does not mean that standards should be adjusted to all requirements of regulators at all costs. Financial reporting integrity must be kept. Capital adequacy and maintaining census have to be solved (by regulators) by additional calculations based on accounting information. Fair Value Accounting is primarily directed to information needs of investors, while other users have to recognize their own information interests in such information. Of course, it does not mean that information interests of other interest groups should be neglected. On the contrary. Only if some other information interests are confronted with information needs of investors, the advantage should be given to investors. It would be wrong to promote reporting not transparent enough for investors.

Finally, promoting competence, integrity and objectivity of professional accountants must be followed by high level of accountants' skillfulness, by obtaining professional licences based on high standards and by constant professional learning. At the same time, there must be a high level of intolerance to the participation of certain individuals or accounting and auditing agencies in financial frauds. Hereby, caused damage is neither individual nor short-term.

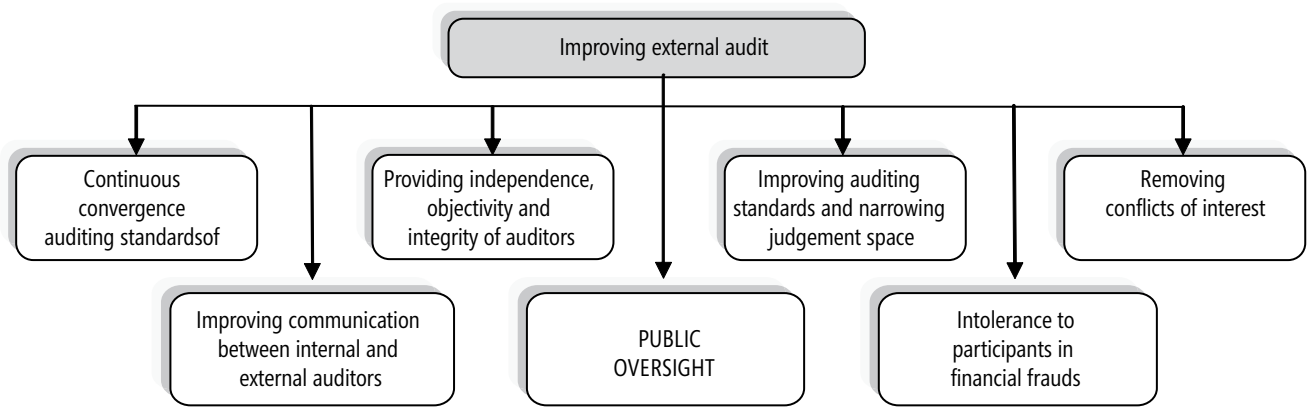
Improving quality of external audit. The importance of external audit lies in its position in financial reporting system. Presenting independent opinion about financial statements quality is directed to providing higher investor safety in decision making process. Since external auditor should adorn competence, integrity, professional conduct, objectivity and independence, it is clear how much investors should value auditors' opinion and how much they contribute to credibility of profession. It is equally clear that any compromising in this field, past or present, put the profession back strongly. Courses of action in the process of improving quality of external audit, in order to rebuild credibility of the profession, are presented on Figure 5.

Directing attention towards the convergence of standards, their stability, finding simpler and more reasonable solutions, are the issues on which the profession should work intensely. Insisting on competence, integrity, independence and other manners is proclaimed by standards and ethical codexes for professional accountants. The problem is that existence does not mean automatically the implementation in practice. It is something that should be worked on.

Probably the greatest challenges in terms of rebuilding lost trust in the profession are related to keeping auditors' independence and solving conflicts of interest. Regarding this, auditor is in a very inconvenient positon. The fact is that management hires, fires and pays auditors. Hereby, the aim of management is to respect the requirements of regulatory bodies and keep investors' trust. Auditor performs his/her duty in order to create profit for his/her auditing agency, which will depend on keeping clients and sales of non-auditing, apart from auditing services. Investors and other users expect useful information which will help them in decision making process.[13] So, as we have pointed out,

13 More on this in: Staubus, G.,J., p. 8.

Figure 5: Improving external audit in order to rebuild trust in quality of financial reporting



management pays auditors, and they are expected to work for public interest.

It comes out that auditors' independence is jeopardized by definition. Firstly, they are closely related to management in terms of interest, being often friendly to it. Secondly, loss of clients due to opinion not satisfying the management could reflect negatively on the career of certain auditors, making them to avoid managements' dissatisfaction. Thirdly, non-auditing services can compensate for low prices of auditing services. Audit profitability is not so important if great gains are achieved from non-auditing services.[14]

Solving these problems is not that simple. The truth is that auditors are not paid by management, but by investors. Thereby, it would be logical that auditors respect their information interests. However, real situation is different. Furthermore, we should point out that control of auditors' work by various professional associations is not efficient due to connection of such associations with auditors and auditing agencies, which also results in conflict of interests. Instead of, or along with it, it is necessary to install mechanisms of public oversight of audit.

In order to be in the function of rebuilding credibility of accounting profession, monitoring bodies should be:

- independent of auditors and companies performing audit in personal and managing sense;
- very powerful in terms of competence and responsibility for the quality of public company audit, regarding possibility to start investigations and sanction inappropriate behaviour;
- financially independent, i.e. possessing stable and safe financing sources which cannot affect their independence in monitoring process;
- inclined to transparency in their work, which will provide safety to investors.

Intolerance to those who ruin the reputation of this profession and all honest accountants and auditors is necessary. Hereby, regulatory bodies should play an important role as well, in order to strengthen quality control of public company audit.

Improving usefulness of information contained in financial reports. Generally speaking, user needs are correctly recognized. Clarity, reliability, relevance and disclosure aimed at increasing transparency are wanted side features of financial reporting. The problem is that it is not easy to realize. The implementation of Historical Cost Accounting favours reliability, but for that very reason, it cannot meet completely relevance requirements. Again, the implementation of fair value, favouring information requirements of investors, underlines relevance, but due to problematic verifiability of information, their reliability is decreased. Such situations strengthen the need of disclosing.

Real need to disclose relevant information and pressures of regulatory bodies in that direction resulted in the appearance of detailed annual reports presented on 100, 200, or more pages. At first, it seems that such detailed disclosure meets transparency requirements. However, improvements in this field are possible and necessary. Namely, there are two remarks to such disclosure. Firstly, information ballast of reporting. It is enough only to imagine the analyst who should analyze about ten annual reports. It means reading and understanding over a thousand pages. On the other hand, such disclosure sometimes lacks information. Reasonable information on derivatives and securitization are often missed out. Furthermore, if there is a tendency to hide some information from investors, it will be done more easily in over detailed reports. Improvements in this sense mean underlining completeness of information crucial for the evaluation of company performances.

Research done within IFAC, presented in study Developments in the Financial Reporting Supply Chain – Results from a Global Study among IFAC Member Bodies, shows that efforts regarding the improvement of information usefulness should be directed to:

- improvement of communication within the chain of participants in financial reporting process, aimed at better understanding of user needs and building potential new information into financial reporting system;
- improvement of reports' informative power including more business and non-financial information, which is necessary, especially when market value deviates considerably from value shown in balance sheet;
- better alignment of internal and external reporting, at probable benefit of both internal and external users;
- promotion of wider technology use, enabling users the approach to electronic data so that they could make their own compilations of information (primarily XBRL standard);
- encouragement of short-term financial reporting, hereby underlining materially considerable changes.[15]

Improving usefulness will directly contribute to increasing credibility of accounting profession. This is crucial to emphasize because, in the process of solving certain complex problems, we sometimes forget that those information

14 Ibid, p. 9-10

15 More on this in: Developments in the Financial Reporting Supply Chain – Results from a Global Study among IFAC Member Bodies, op. cit. p. 21-24.

should serve more the average user, than narrow circle of accounting professionals.

Continuous improvement and promotion of ethical behaviour of participants in financial reporting process. Credibility crisis of accounting profession was caused by inadequate behaviour of various participants in financial reporting chain. It appeared and it persists as the consequence of inability to solve agency problem, present conflict of interests of management and auditors, inability of accounting profession to solve certain reporting problems quickly, efficiently and on a long-term basis. However, we must admit that current credibility crisis is definitely a consequence of lack of ethics in behaviour of almost all participants in financial reporting chain. Ethical behaviour must be specific for:

- legislator, who, missing to regulate completely some issues, setting some problems in a wrong way and avoiding to form public oversight bodies (no matter if it is done under the influence of businessmen, when it is about corruption, or without that influence, when it is about incompetence) participates directly in creating space for creative accounting practice;
- management, which, due to conflict of interests, represents the weakest link in the chain of participants in reporting process;
- major owners, who, along with management and accountants, and often external auditors, could work at the harm of small shareholders;
- accountants, who, due to presence of accounting options, are often in a position to make judgements which influence the quality of financial reports;
- auditors, who are also in conflict of interests and who could sacrifice public interest for the benefit of interests of management or major shareholders;[16]
- financial and legal consultants, who, following the famous proverb "all's allowed that's not forbidden" and forgetting that "benefits must not be made at the harm of others", using legal ambiguities and avoiding the spirit of law, for self-interests and interests of management, make senseless some good business practice, laws and, of course, ethics;
- political elite, which intervenes inconspicuously in accounting profession, abusing political authority.

If we evaluated the situation in this field based on actual written rules (bringing ethical codices is" in" practice), then we would draw wrong conclusion that we reached high level in this field. However, what is relevant is ethical behaviour in practice, what has been neglected so far. So, developing ethical codices is a step in a good direction, but without their implementation and sanctioning unethical behaviour by the profession, such step is not worthy in practice. Great financial frauds did not appear because accounting rules did not offer solutions, or because ethical standards were not known, but because they were deliberately misused.

Ethics is a set of behaviour rules in the process of performing company activities, which define clearly behaviour which is good and acceptable, or bad and inacceptable. In that sense, ethical norms are more rigorous than legal norms. However, this interpretation of ethics is not enough. Improvements in this field must be directed to the implementation of ethical principles, not only when it is easy to deduce what is good or bad, but when the situation is not black-and-white and there are more answers to the same question. Implementing ethical way of thinking and behaving in such circumstances would improve considerably the accounting profession and raise its reputation in public.

CONCLUSION

Financial reporting system, i.e. financial reports as direct product of that system, represent the most efficient way of communication between management and interest groups outside companies. The importance of accounting information is determined by: their significance in the process os making rational economic decisions, primarily by investors, their regularity (in terms of regular reporting), public character (in terms of equal availability for all), public responsibility of professional accountants to public interest (in terms of reporting quality), as well as their role in providing stability of financial markets and financial system as a whole.

It is obvious that credibility of financial reporting system, and consequently of accounting professsion as a whole, has been seriously shaken in the last few years. There are many reasons for that: the intention of management to hide business failures, great finacial scandals which are usually followed by frauds in financial reports, the increase in number of changed financial reports, relating immorally high compensations to performances shown in financial reports, inadequate auditing quality and political pressures. Only quoting these reasons leads us to conclusion that

16 At this point, we should say that auditors' position is rather easy when it comes to legal limitations. Namely, the role of auditors is not to detect frauds, but to offer reasonable assurements that financial reports are compiled according to accounting rules. Detecting frauds needs detailed research, long-term analysis and more money. Research show that in 2004. and 2005, frauds were detected in 75% of US companies practising external audit. However, only 12% of frauds in 2004. and 10.9% in 2005. were detected by external audit. In such cases, it is not difficult to „miss" something inacceptable. More on this in: Mintz, M. S., Morris, E. R., Ethical Obligations and Decision Making in Accounting, McGraw Hill Inc., 2008. p. 61-62.

not only accounting is guilty of current trust crisis, and that other participants in financial reporting chain have their own „merits"for this situation.

In order to complete its responsibilities to public interest, i.e. to help providing financial system stability and economic growth, accounting must overcome actual trust crisis and rebuild lost credibility. Necessary steps to be taken in this direction overcome accounting frames. Regarding this, efforts must be made to increase the quality of corporate governance, financial reporting process, external audit, usefulness of information in financial reports and ethical behaviour. No doubt that all the fields mentioned need improvement. Nevertheless, we could emphasize the importance of ethical dimension of the problem, since current credibility crisis is, among other things, the consequence of unethical behaviour of all participants in financial reporting chain. Also, we should have in mind that accounting profession, although it is not the only culprit for loss of credibility, will have to take the greatest burden in the process of rebuilding it.

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NEW INTERNATIONAL FINANCIAL ARCHITECTURE: SHORT-TERM FIXES VS. LONG-TERM REFORMS

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Summary:

The 2008-2009 global financial crisis has revealed some of the well known inherent weaknesses of the post-Bretton Woods international monetary system (IMS) and the international financial architecture (IFA), in the broader sense. A proposal put forth by China calls for a deep reform of that would center the future IMS/IFA on a supra-sovereign reserve currency with a stable value, rule-based issuance and manageable supply, to achieve and safeguard global economic and financial stability. Realizing that the first best solution, the introduction of Keynes Bancor, may be unrealistic, China suggests a large-scale resurrection of the SDR, with gradual transition from the existing system along the multi-year win-win path. This proposal bodes well with most professional economists (with the exception of ultra conservative minority), the IMF and other international financial institutions. It remains to be seen how the political reaction from the US and the EU will evolve over time.

In addition, a flood of recent analytical, empirical and institutional papers and reports suggests numerous fixes to the existing IMS/IFA system to eliminate the obvious sources of systemic risks and rigidities that hamper the ability of the global economy to respond to crises, promote economic revival and sustainable long term growth. These include the introduction of global financial regulatory and supervisory framework, sensible controls to avert abrupt capital movements, improvements in national and global surveillance, and provision of adequate sources of international liquidity.

Key words: *global financial crisis, financial crisis, economic crisis, global economic crisis, fiscal stimulus, fiscal policy, monetary policy, exorbitant privilege, Triffin paradox, reserve currency, global lender of last resort, Bretton Woods system, international monetary system, international financial architecture.*

1. INTRODUCTION: WE GOT FOOLED AGAIN BY THE FINANCIAL CRISIS

Ever since the breakdown of the Bretton Woods system in August 1971, the international monetary system (IMS) has not been well defined. Three essential rules embedded in the preceding system of fixed exchange rates, capital controls and gold-based US Dollar as reserve currency were all dropped in favor of free floating exchange rates, unconstrained capital flows and an intrinsically unstable US Dollar as a fiat reserve currency. During almost four decades under the post-Bretton Woods system countries and currencies gradually evolved into two camps. One comprises a set of major western currencies with flexible exchange rates and free capital flows, while the other contains currencies that are subject to varying degrees of exchange rate restrictions and capital controls. In both cases the US Dollar continued to play the role of reserve asset to enable the payments and capital flows necessary to accommodate exchange rate movements or enable central bank interventions to support the chosen fixed exchange rate regime or a peg.

In short, as IMF colleagues recently observed, "today's IMS is something of a "non-system" ... For the most part, that system has worked reasonably well—except when it has not." (Mateos y Lago 28, page 5)

And it frequently hasn't worked.

The decade of 1990's seemed particularly rough for the post-Bretton Woods non-system: the turbulence and instability of international currency and financial markets started with the European Monetary Union (EMU) crisis in 1992-1993, continued with Mexico crisis in 1994, and ended with a series of deep financial crises in East Asia (1997), Russia (1998) and Brazil (1999). Despite exceptionally powerful contagion effects felt in numerous emerging markets and developing countries, the global crisis was averted and developed countries were only marginally affected.

The ensuing policy debate in the 1999-2000 went global, beyond individual countries and regions affected by the crises, and addressed many of the essential areas of the IMS in the broader context of international financial architecture (IFA). As discussed in more detail in section 2 below, the debate has identified critical weaknesses of the IFA that surfaced during the crises of the 1990's and remained relevant to this date: lack of data transparency, regulatory weaknesses, abrupt capital movements, exchange rate instability, gaps in national and global surveillance, inadequate sources of international liquidity, and the absence of an orderly debt workout mechanism.

Thematic conferences, individual analytical pieces, and specialized reports sponsored by the UN and the IMF provided a plethora of valuable implementable advice on possible technical, organizational, institutional and policy improvements. With the benefit of hindsight it is clear that the implementation of the subset of reforms that enjoyed full professional consensus would have significantly improved

the international financial architecture and, possibly, removed some of the major risks that enabled the amplification of a limited sub-prime mortgage crisis into a deep crisis of global proportions. Unfortunately, very little of the received advice was acted on either due to an open lack of political will, or simply weak appetite for difficult institutional changes on the part of G7 decision makers who did not feel the impact of the 1990's crises and were eager to exploit the benefits of the then ongoing economic boom.

The 2008-2009 Global Crisis came back with vengeance. The weaknesses of the IMS/IFA identified a decade earlier were still present and, in most cases, got further exacerbated by the new developments. New pressures came from mounting international imbalances and unprecedented financial expansion of global financial markets based on rapid growth of unsupervised financial institutions, lack of regulation and explosive growth of risky innovative financial instruments.

This time, developed countries felt strongly the effects of the crisis and responded promptly and forcefully using all monetary, fiscal and regulatory firepower available. As reported at our previous meeting (see Vujović 37), based on data available as of July 2009, the combined direct and indirect policy and regulatory public sector intervention amounts to 7.3 percent of GDP for all developed countries (and 12.6 percent for the US).

The economic recovery in developed countries still runs on policy induced growth and these numbers may well go up before the wheels of recovery are taken over by private sector demand. Once this happens, the first order of business would be to unwind the fiscal stimulus and restore normal monetary and fiscal policy. Zero policy interest rates and large public debt overhang acquired over the past two years are not a pleasant legacy for the future, particularly given the likely medium-run challenges of reducing uneployment, supporting the the introduction of new green technologies, and absorbing the growing social costs of the baby-boom generation. The return to „policy normalcy" will be discussed in more detail in section 3.

In addition to strong economic policy response this crisis triggered other actions and reactions. The political deliberations took place withing the G20 which had three special meetings devoted to the crisis and international financial architecture (November 2008, March 2009 and September 2009). Most notable event was China's proposal for the reform of the IMS (see Box 1 in section 7).

Policy discussions followed a less formal approach. In the span of fiftheen months more than hundred substantial new reserach and analytical papers were produced by the international financial institutions and academia. High level theamatic conferences have been and continue to be organized. Specialized reports with detailed expert proposals have been commissioned by the UN, IMF, World Bank and other institutions yielding a rich set of proposals on virtually every aspect of IMS and IFA. In the remainder of the paper we will briefly review a subset of proposals advanced in the four dimensions of international financial acrhitecture:

(i) redesigning the macroeconomic framework: the evolving changes in the theoretical underpinnings of domestic and international macroeconomic policy (section 4); (ii) the future of global financial system: introducing new regulatory and supervisory framework (section 5); (iii) global imbalances: causes, consequences and the longer-run sustainability issues (section 6); and, finally, (iv) future of the international monetary system: resolving the issues of policy and politics through short-term fixes and longer-term reforms (section 7).

2. REFORMING INTERNATIONAL FINANCIAL ARCHITECTURE: ISSUES FROM PAST CRISES

Following UNCTAD's classification (Yilmaz 41), the policy debate triggered by the series of financial crises during the 1990's can be summarized around the following seven thematic:

(i) **Transparency and disclosure of information** on activities of the public sector, financial markets, and international financial institutions, particularly the IMF. The debate confirmed that disclosure of macroeconomic information was important for improved financial architecture. There was less agreement on financial reporting of banks and other financial firms, and almost none in the case of highly leveraged institutions and offshore markets. Although they carried the greatest potential risk, there was strong resistance to public disclosure of information submitted to supervisors could in some circumstances enhance rather than diminish instability, especially given the lack of clarity what constitutes relevant information.

(ii) Financial regulation and supervision;
Consensus was to formulate global standards to be applied by national authorities, rather than to establish a global regulatory agency. IMF surveillance will be extended to financial sector issues to ensure adoption of global standards. It was generally agreed that the IMF should not become a global standard-setting authority in financial regulation and supervision, and that the BIS should not become a policeman of the international financial system. The standards of the Basle Capital Accord have been

questioned as increasingly divorced from the credit risks actually faced by many banks.

(iii) **Management of the capital account;**
Given recent experience with abrupt changes in capital flows, the debate confirmed that capital controls are increasingly seen as an essential ingredient of greater financial stability. The boom-bust cycle in private capital flows can best be moderated by controlling short-term, liquid capital inflows through market-based measures such taxes or reserve requirements. In general, controls on capital inflows also reduce the likelihood of a rapid exit, but temporary controls on outflows may be justified in a case of an abrupt crisis.

(iv) **Exchange rate regimes;**
Developing countries are increasingly being advised to replace pegged of fixed exchange rates with free or managed float, or to follow one of the major currencies through currency board type arrangements. The debate has revealed that countries with flexible exchange rates were not less vulnerable to financial crises. A view was emerging that sharp declines in exchange rates can be avoided by targeting real exchange rates in combination with appropriate controls of destabilizing speculative capital flows.
The debate indicated that emerging markets can hardly attain exchange rate stability through appropriate macroeconomic policies and the choice of exchange rate regimes in the presence of large fluctuations and gyrations of major currencies. Suggestions to achieve greater stability through exchange rate coordination, including through target zones for major currencies, have received some acceptance among European countries, but have so far been opposed by the US.

(v) **Surveillance of national policies;**
The debate confirmed that traditional bilateral surveillance, even with partial enhancements introduced after the Mexican crisis, is still not sufficient to identify and prevent crisis. To be more effective in the prevention of international financial crises, national surveillance should be expanded to financial sector and capital flows and well coordinated global surveillance.

(vi) **Provision of international liquidity;**
Increased likelihood of crisis in emerging markets requires contingency financing to countries experiencing balance payments difficulties linked to the capital account, in addition to current account financing traditionally provided by the Fund. Provision of liquidity to pre-empt large currency swings should be a part of the international policy response. Availability of such financing should not be associated with policy conditionality that goes beyond macroeconomic adjustment. The debate concluded that the provision of liquidity remained unsatisfactory including the Supplemental Reserve Facility established in response to the deepening of the East Asian crisis, and the later creation of the Contingency Credit Line to provide a precautionary line of defense against financial contagion.

(vii) **Orderly debt workouts.**
The debate indicated that defaults become inevitable in the absence of bailouts, while bailouts create moral-hazard problem and require resources beyond political acceptability. Efforts to "involve" or "bail-in" private sector have not produced desired results either. The debate suggested that an orderly debt work-out scheme be introduced, pending suitable resolution of complex issues involved in cross-border debt.

3. BACK TO THE FUTURE NORMAL POLICIES: DEFINING AN EXIT STRATEGY FROM ANTI CRISIS MEASURES

The present recovery from the crisis has been largely policy based and it is still premature to discontinue the anti-crisis monetary and fiscal measures. But, as Cottarelli (14) strongly suggests, it is not too soon to prepare an exit strategy governments will follow in departing from exceptional measures and returning back to normal policy measures of the future.

The new normal fiscal and monetary policies are likely to be different from the old policies, reflecting new realities and lessons learned during the crisis. As detailed in the next section, many of the old policies and instruments will have to be appropriately changed if they proved ineffective and risk prone, or because new circumstances rendered them obsolete. These innovations will have to be factored in to bring the fiscal and monetary accounts back in order, and restore financial stability in the wake of the crisis.

More specifically, the following policy concerns are expected to dominate the restoration of new normalcy in the areas of fiscal policy, monetary policy and policy coordination:

- **Restore normal fiscal policy** (following large fiscal stimulus packages):

(i) Manage the surge in public debt and moderate its impact on future interest rates, investment, and economic growth;

(ii) Ensure long term sustainability of public finances through orderly unwinding of fiscal stimulus packages and implementing the additional fiscal adjustment;

(iii) Aim to achieve the optimal mix and timing of future fiscal policy measures, including the necessary reform of long-term entitlements; and
(iv) Secure the supportive role of fiscal policy frameworks and institutions.

- **Phase-out extraordinary support to financial sector and return to normal monetary policy:**

(i) Define the timing, preconditions, and operational aspects of withdrawing monetary policy and liquidity support measures;
(ii) Review of monetary policy framework going forward;
(iii) Manage market disruption risks as government guarantees and capital injections are withdrawn; and
(iv) Minimize risks of future losses from crisis related financial assets on government and central bank balance sheets.

- **Strengthen policy coordination.**

(i) Secure better domestic and international (global) coordination across fiscal, monetary, and financial policies;
(ii) Increase transparency and effective communication; and
(iii) Address possible risks and challenges during the process of exiting, such as increased capital inflows into emerging economies and commodity markets, and the effects of regulatory arbitrage.

4. REDESIGNING THE MACROECONOMIC FRAMEWORK

The crisis has shown that vulnerabilities and threats to macro-financial stability may develop under a seemingly tranquil surface of low and stable inflation and output gap.

The crisis has challenged the previous consensus view of the macroeconomic policy framework. Blanchard et. al (9) provide a range of policies where the current crises has given enough ground to alter the traditional views and treat macro-policies in the context of their real effects on the ground rather than the theoretical norm.

- Stable Inflation May Be Necessary, but is not Sufficient to Minimize Output Gap

Inflation, even core inflation, may be stable, and the output gap may nevertheless vary, leading to an obvious trade-off between the two. Both inflation and the output gap may be stable, but the behavior of some asset prices and credit aggregates, or the composition of output, may be undesirable (for example, too high a level of housing investment, too high a level of consumption, or too large a current account deficit) and potentially trigger major macroeconomic adjustments later on.

- Low Inflation Limits the Scope of Monetary Policy in Deflationary Recessions

Most central banks practice "flexible inflation targeting". Shifts in headline inflation coming from exogenous shocks were allowed, provided inflation expectations remained well anchored. In reality, many central banks also kept an eye on the financial sector regulation and monitored asset prices and exchange rates beyond their effects on inflation.

Over the years a strong consensus emerged that inflation should be stable and very low (around 2 percent), despite dangers of falling into a liquidity trap in case of an adverse shock. In reality, the probability of large shocks was deemed very low and most analysts and practitioners believed that 2 percent inflation provided a sufficient cushion for expansionary policy response. The substantial liquidity traps experienced during 1930s and 1990s (Japan) – with zero interest rates and continuous economic slump – were largely dismissed.

In response to a collapsed aggregate demand experienced during this crisis, most central banks quickly decreased policy rate to close to zero. Based on a simple Taylor rule, a larger reduction would have been optimal, but the zero nominal interest rate bound prevented it. Slightly higher average inflation, and thus higher nominal interest rates, would have made it possible to cut interest rates more, thereby probably reduce the drop in output and the deterioration of fiscal positions.

- Financial Intermediation Matters

Financial markets are complex and segmented, with specialized investors operating in specific segments. Most of the time, markets are well linked through arbitrage and a single policy rate is a sufficient instrument to affect the lending rates. This may not be true during economic upturns of crisis as large investors may enter or withdraw from markets and affect the price structure for different kinds of assets in ways which cannot be corrected by arbitrage.

In those circumstances, only interventions, either through the acceptance of assets as collateral, or through their straight purchase by the central bank, can affect the rates on different classes of assets, for a given policy rate. This is indeed what, under the heading of credit easing, the central banks have done in this crisis.

- Countercyclical Fiscal Policy is an Important Tool

The fiscal policy has reclaimed the center stage during this crisis for two reasons: (1) to supplement monetary policy (including credit and quantitative easing), which has reached its limits; and (2) to provide effective fiscal stimulus despite implementation lags due to longer recession.

I also demonstrated the importance of having "fiscal space" created by refraining from pro-cyclical during times of economic growth.

- Regulation is not Macroeconomically Neutral

Financial regulation has played a central role in the crisis. It contributed to the amplification effects that transformed U.S. housing slump into a major world economic crisis. The limited perimeter of regulation gave incentives for banks to create off-balance-sheet entities to avoid some prudential rules and increase leverage. Regulatory arbitrage which allows some financial institutions (such as AIG) to play by different rules undermines the the stability of the system during crisis.

In general, these lessons help us better understand some of the following open questions that are likely to feature prominently in the coming thematic conferences:

1. What is the impact of sectoral imbalances and asset-price and housing bubbles ? Alternatively, what are complementary roles of monetary policy and macro-prudential regulation in dealing with asset-price booms/busts?
2. Who should be in charge of macroprudential regulation: Regulatory agencies or central banks?
3. What is the potential role for macroprudential regulation in preventing systemic risks?
4. Are low-inflation targets (presently at 2% level) set in stone? Are somewhat higher inflation targets possible in light of the zero nominal interest rate bound and the apparent need for expansionary monetary response to adverse shocks?

5. THE FUTURE GLOBAL FINANCIAL SYSTEM: REGULATION AND SUPERVISION

The crisis has triggered and informed a profound re-evaluation of the global financial system. The policy choices made during the crises and the private sector responses are shaping the landscape for the future financial system and its role in the global economy for decades to come. This particularly relates to the impact of recent changes made in the areas of financial regulation and supervision, improvements to the market infrastructure, the introduction of macro-prudential policies, and the creation of a more competitive environment for financial institutions.

As Calvo (13) stressed, it is important to note that global financial regulation without a lender of last resort has dubious value. These two topics should be discussed together, knowing that the lender of last resort issue is so delicate and central that it may require a fundamental overhaul of the foreign-exchange system. In the limit, restrictive regulation can be used to avoid the crisis only at the cost of paralyzing financial intermediation and, thus, growth.

The ongoing discussion is seeking to shed more light on the following set of issues:

1. Is the new emphasis on financial regulation and supervisory structures that seek to address the systemic nature of financial risks likely to be an effective approach towards limiting future crises?
2. What should be the prerequisites for such an approach in terms of:
   (a) widening the perimeter of regulation to non-bank financial institutions; and
   (b) finding ways to internalize externalities that lead to excessive leverage and risk-taking behaviors?
3. In working towards global consistency of regulation to quell systemic risks and "to maintain a level playing field," what are the areas where this might be difficult to achieve and what are possible solutions?
4. How can regulatory and supervisory efforts to mitigate systemic risks be balanced with the benefits of innovation and a more globally integrated financial system?

6. GLOBAL IMBALANCES: CAUSES, CONSEQUENCES, SUSTAINABILITY

As indicated in Figure 1, global current account imbalances were increasing since 1990.

Before the crisis, there were strong arguments for reducing global imbalances to avoid the negative effects of possible "sudden stops" associated with abrupt macroeconomic adjustment needed in case of disruption of capital flows. These concerns held strongly at the IMF were based on the experience of developing countries which ran chronic current account deficits and faced a reduction of capital inflow needed to sustain the external imbalance.

Given the huge size of US current account deficit (which peaked at about 2 percent of World GDP in 2006), IMF's fear was that a loss of confidence in the Dollar triggered by a financial crisis or just change in expectations, could disrupt capital flows and lead to a forced macroeconomic adjustment. This, in turn, would lead to a reduction in the global aggregate demand and drag the world economy into a recession thereby exacerbating the initial shock.

The opposite happened. During the crisis the US current account deficit declined by 1/3 in 2007-2008 and capital flows turned out to be stabilizing rather than destabilizing factor. The U.S. never experienced an external funding problem. On that basis Caballero (12) concluded that global current account imbalances per-se should not be a primary concern.

This is also a view held by Dooley et. al. (16) who stron-

gly argue that current account imbalances between the center (U.S.) and the new periphery (China and other emerging economies) are sustainable as long as the countries of the periphery are willing to smoothly finance the deficits of the center country. In their view that is a revival of the essential elements of the original Bretton Woods system.

By contrast, based on the same data, Blanchard and Milesi-Ferretti come up with an opposite view. They acknowledge that the crisis produced significant changes in saving and investment patterns across the world and imbalances have narrowed considerably. Nevertheless, they maintain that global imbalances continue to be a problem and argue that there is an urgent need to implement policy changes to address the domestic and international distortions that are a key cause of imbalances. Failure to do so could result in the world economy being stuck "in the middle of the stream," threatening the sustainability of the recovery from the present crisis.

The apparent contradiction between these views largely disappears when the financial side of the imbalances is brought into view. Although Caballero does not see global current account imbalance to be a problem, the financial imbalance between the insatiable demand for safe debt instruments and the limited ability of the U.S. financial system to supply them, is a problem. The two imbalances are directly related since current account surplus countries seek safe assets to invest their growing reserves. Furthermore, given limited supply of government debt instruments, excess demand for safe assets was one of the key factors behind the creation of AAA assets with large hidden systemic risks. These risks materialized during the global crisis, created toxic assets and precipitated a collapse of the large segments of financial markets.

In short, a combination of global current account imbalances and imbalances in the demand and supply of safe assets continue to be a threat to the recovery and to global financial stability. The critical question is to identify policy and regulatory actions which can contribute to reducing the (domestic and international) distortions that cause imbalances.

7. FUTURE OF THE INTERNATIONAL MONETARY SYSTEM: SHOT-TERM FIXES VS. LONGER-TERM REFORM

The global crisis resurrected deep-rooted concerns about the functioning of the post-Bretton Woods international monetary system. Despite its relative stability in the recent crisis, the current system has inherent weaknesses. These have been amplified in recent years by a sharp rise in the demand for reserves, reflecting in part emerging markets' tendency to self-insure against costly capital account crises. As this tendency is widely expected to accentuate in the wake of the crisis, it is worth exploring what can be done to ease these tensions.

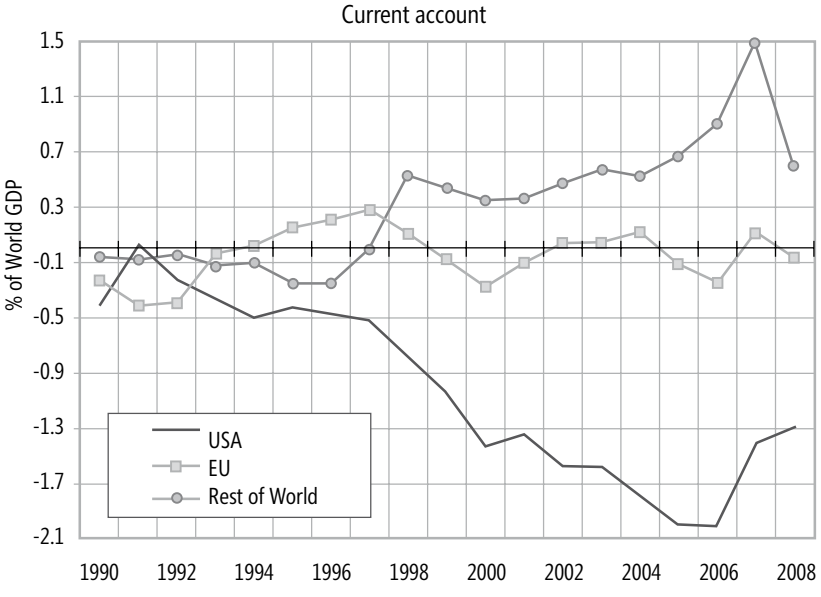
Solutions exist both on the demand and the supply side.

On the demand side, there are alternative insurance arrangements that could effectively mitigate the growing precautionary demand for reserves (self-insurance). In theory, third-party insurance is the most efficient response, but it is fairly difficult to implement in the presence of market failures. An alternative is borrowing from a regional or global reserve pool or direct access to global lender of last resort.

On the supply side, a menu of alternative reserve assets could offer sustained stability and efficiency, although most face significant practical and political hurdles.

This crisis has also revealed a dilemma regarding alternative approaches to the reform of the IMS. On the one end is an option to fix the existing system by dismantling mounting concerns about long term macroeconomic stability in the U.S. as the main reserve issuer and implementing a range of technical improvements discussed above. On the other end is an option to attempt a fundamental reform the international monetary system by adopting a single supra-sovereign reserve currency, by either resurrecting SDR or introducing Bancor.

Figure 1: Global current account imbalances, 1990-2008

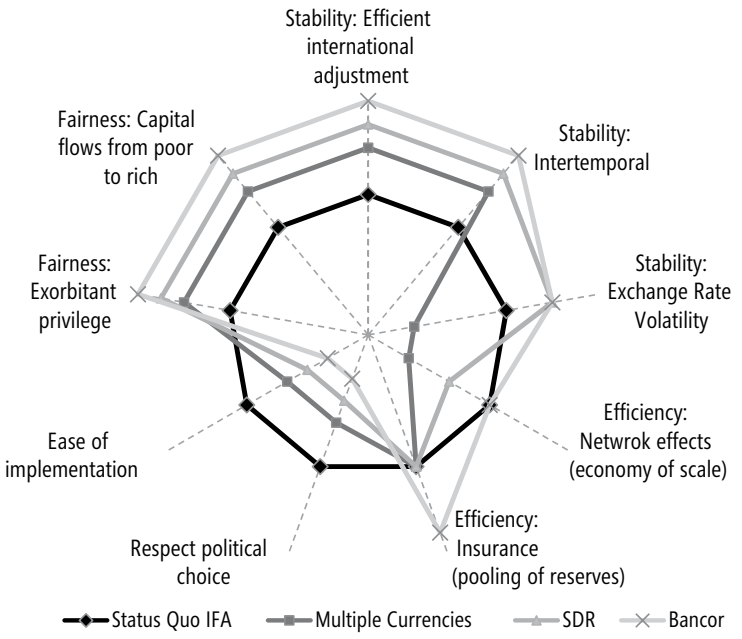


Source: IMF International Financial Statistics.

To facilitate comparisons, the four alternative international monetary and reserve systems are evaluated along nine dimensions different aspects of **stability** (in international adjustment, for inter-temporal comparisons, and in exchange rate volatility), **efficiency** (in pooling resources and securing networking-economies of scale), **fairness** (in promoting capital flows and granting exorbitant privilege), **ease of implementation**, and **respect for political choice**.

- Clearly, a continuation of the present multiple currency IMS with dominant role of the US Dollar (around 64% of world reserves) and the secondary role of Euro (around 30%) is one possibility. This option is labeled Status Quo IFA in Figure 2.
- Another possibility is the resurrection of the SDR as the sole reserve currency. This option is labeled SDR in Figure 2.
- Third possibility is the introduction of Bancor, a supra-sovereign reserve currency originally proposed by Keynes. This option is labeled Bancor in Figure 2.
- Finally, an open-ended system with multiple currencies of all major economies is depicted as the fourth option. This option is labeled Multiple Currencies in Figure 2.

Figure 2: Features of alternative international monetary systems



Source: Mateos y Lago (28)

BOX 1: Chinese Proposal for the reform of the IMS

I. Inherent vulnerabilities and systemic risks in the existing IMS.

Issuing country cannot pursue domestic monetary policy goals and meet demand for reserve currencies. The Triffin Dilemma exists: the issuing country of reserve currency cannot maintain the value of the reserve currencies while providing liquidity to the world.

Although unintended, financial crises are an inevitable outcome of the institutional flaws in the IMS. Their frequency and intensity suggests that the costs of the present system exceed the benefits. The price is increasing for the users and the issuer of the reserve currency.

II. Objective of reforming IMS: supra-sovereign reserve currency

Supra-sovereign reserve currency has long been proposed with no progress to date. Keynes proposal: "Bancor" based on the value of 30 representative commodities, not accepted. The IMF created the SDR in 1969 to mitigate the inherent risks caused by the use of sovereign reserve currencies. Despite limitations on its allocation and the scope of use, the SDR is the light in the tunnel for the reform of IMS.

A supra-sovereign reserve currency managed by a global institution could be used to both create and control the global liquidity.

III. Long term vision and gradual process with win-win results for all.

The creation of Bancor would be a bold initiative that requires extraordinary political vision and courage, doable only in the long run. In the short run, recognize and face up to the risks resulting from the existing system, monitor and issue timely early warnings.

Give the SDR a greater role to act as a supra-sovereign reserve currency.

Push forward SDR allocations to help the IMF address its resources problem and the difficulties in the voice and representation reform.

Build political cooperation among member countries.

Approve the Fourth Amendment to the Articles of Agreement and relevant resolution on SDR allocation proposed in 1997. Further increase SDR allocation.

Broaden the scope of using the SDR to fully satisfy the member countries' demand for a reserve currency.

Set up a settlement system between the SDR and other currencies.

Promote the use of the SDR in international trade, commodities pricing, investment and corporate book-keeping.

Create financial assets denominated in the SDR to increase its appeal. SDR-denominated securities have been studied by the IMF.

Expand the basket of currencies forming the basis for SDR valuation to include currencies of all major economies, with GDP as a weight.

Shift the allocation of the SDR to a system backed by real assets, such as a reserve pool, to further boost market confidence in its value.

IV. Entrust part of reserves to centralized IMF management

This could be an effective deterrent to speculation.

IMF is qualified to manage its member countries' reserves.

This will also promote a greater role of the SDR as a reserve currency through an open-ended SDR-denominated fund.

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COMPETITION AND GROWTH POLICIES IN SERBIA WITHIN THE NEW ECONOMIC GEOGRAPHY FRAMEWORK

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Summary:

Increasing returns to scale combine growth with monopolistic competition. In the corporate sector of Serbia, we have identified representative firms with increasing, constant and decreasing returns to scale. From regional aspect, the returns to scale are increasing in the north and decreasing in the south. The existence of increasing returns to scale and a core-periphery pattern of development substantially weaken the role of perfect competition. Additionally, economic development depends upon market size. Developed north has a market twice the size of undeveloped south, but also competition is more intense in the north than in the south. Perfect competition market is influenced by commercial and transport costs, so that distance from New Belgrade, as the focus of economic activity, discourages competition and economic development.

The increasing returns to scale and different levels of regional development require a shift in both development policy and competition protection policy. In future, the government should pay more attention to development of infrastructure, and less to managing enterprises. In particular, we propose development of highway network to connect economic clusters and improve competition. On the other hand, Competition Protection Commission should be focusing more on the problems of forbidden agreements, and pay less attention to concentration cases. This policy change requires sectoral and regional analyses, since market structure and degree of competition is not the same in all sectors and regions. This has obvious consequences for determination of relevant markets.

Our research is based upon core-periphery models, developed during the last ten years on the analytic platform of New Economic Geography. We have collected data on all large and medium-sized enterprises in Serbia, and used raw data from the latest BEEPS survey carried out by WB and EBRD. We have estimated municipal and regional GDP, and created a development map of Serbia indicating main clusters and regions.

Key words: *returns to scale, regional development, competition, competition protection policy*
JEL classification: D24, R12, D41, L40

INTRODUCTION

General economic mindset of a society, including its view of underlying causes of economic crisis and its position in global economy, determines how it will emerge from a crisis. Usually, this mindset is called a paradigm, in the most general sense of the word. A paradigm represents a set of experiences, information, beliefs, and frameworks of interpreting the world, with the objective to establish guidelines for dealing with problems and ways of responding in various situations. In Serbia, the prevailing paradigm is still Alfred Marshall's theory of constant returns and perfect competition of many market players [Marshall, 1987]. This is the chief paradigm of equal opportunities for small market players. Therefore, it should come as no surprise if we say that there is a common denominator to the Government policy of balancing regional development, and Commission for Protection of Competition's anti-monopoly policy. The policy of enhancing economic growth is linked to competition protection policy. The objectives are laid out clearly – balancing regional development and achieving a market of perfect competition. Naturally, this policy is supported by the media and economic experts, as they too are a part of the prevailing paradigm.

The problem with this prevailing paradigm is that it has not corresponded with the real world for a long time, and especially not after the global economic crisis. Paul Krugman realized this long before the crisis, firstly in the sector of foreign trade, and then in economic geography (which explains territorial distribution of development). He was awarded the Nobel Prize for economics in 2008 for his work [The Royal Swedish Academy of Sciences, 2008]. Simultaneously, World Bank published its annual global development report for 2009 under the title "Reshaping Economic Geography" [World Bank, 2009]. A practical result of the new paradigm was that the World Bank refused to finance projects designed to balance regional development in Serbia, but it did accept financing of highways, which it had not done previously for many years.

Krugman's paradigm is based on increasing returns and Dixit-Stiglitz model of monopolistic competition (Dixit, Stiglitz, 1977, Krugman, 1979, 1991). Next, it considers influence of market size and degree of competition upon territorial allocation of labor and capital. Mobility of labor and

capital does not only explain flows of foreign trade (increasingly happening between developed countries with similar industrial structures), but also creation of agglomerations and industrial clusters within national economies. In practice, this refutes the idea of a balanced territorial development. Instead of a balanced development, the result is two different industrial areas: the centre and periphery, i.e. most often, more developed north and less developed south.

We feel that time has come to accept the new paradigm in Serbia, or at least, to give it a serious consideration. This should have happened even before the crisis. Therefore, it is all the more necessary today during the recovery period. The New Economic Geography (NEG) is the focal point of this paradigm. A paradigm change also implies a change in research. This paper deals with the issue of whether Krugman's paradigm can provide a new perception of our economy. If the answer is yes, then, what would recommendations be for future economic development? Within that framework, our attention is focused on treatment of competition.

In this paper, we are not suggesting a direct state intervention to stimulate faster development of undeveloped areas. According to our findings, state-managed industry, with full or significant state ownership, is inefficient[1]. In 2008, it created losses in the amount exceeding state budget deficit. We do not believe that they will be operating more efficiently in the future.

On the other hand, development of competition requires reduced costs of trading, where transport costs appear most significant in terms of territorial positioning. We recognize the fact that the north is industrially more developed than the south. Further, we recognize the fact that each of these areas is creating clusters or locations with higher concentration of development facilities. Our suggestion is to connect these areas with modern communications, as the government cannot influence establishing of new industrial clusters. Instead, it can connect them with modern roads. In terms of development, government investment in infrastructure is the most significant government assistance. Simultaneously, lower costs of trading will be a strong stimulus for competition.

Costs of trading and economies of scale are two key factors that influenced regional concentration of development. The forces that drive concentration of industrial activities are impacted by the opposing forces working to disperse them. Competition is the key factor of dispersion. The developed north has a larger market and higher purchasing power. Lower costs and higher demand reinforce each other creating even greater concentration of industrial activity. Simultaneously, however, competition intensifies and reduces mark-up and profit. Monopoly profits decrease and enterprises make only the normal profit in the long run. Therefore, some capital is transferred south where competition is weaker and profit margins are wider. There, it is still possible to take monopoly profits.

Two hypotheses should be tested to establish whether the NEG can be applied to Serbia. The first refers to economies of scale in the developed north, and the second to weaker competition in the undeveloped south. For the first hypothesis we used statistical data on 2581 large and medium-sized enterprises, gathered from their closing accounts and balance sheets for 2008. For the second hypothesis we used source data from BEEPS survey conducted jointly by WB and EBRD in 2008/09. The survey covered 388 enterprises in Serbia, and nearly thirty thousand enterprises in transition economies.

Our findings confirm both hypotheses. This will be demonstrated in sections "Increasing returns", and "State of competition". Our paper also shows the inefficiency of the government-run sector of economy and provides a mapping of industrial clusters in Serbia. Based on these findings, we recommended that priority should be given to development of roads network. In conclusion, we illustrated possible impact of the new paradigm for the practical competition protection policy. It is much more important to prevent collusive practices (which is usually hard to prove), than to control concentration of business entities. It is not the size of business entities that matters, but their behaviour, and acknowledgment of the reality that perfect competition does not have to be the primary model of market competition.

MODEL

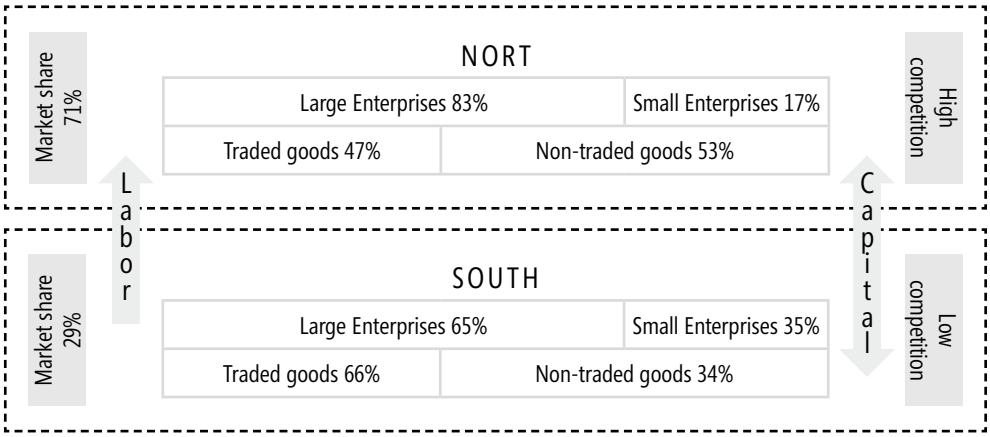
The basic model of economic geography, which includes competition and economic growth, is shown in Figure 1. By formulating it, we follow the literature initiated by Krugman [1991,1995, 1999], and reviewed in Baldwin et al. [2004] and Brakman et al. [2004]. The model was tested on corporate sector of Serbian economy in 2008. It includes all enterprises, which submitted their closing accounts and had over 50 employees. Enterprises were mapped according to location of their head office. We are aware of the fact that enterprises generate revenue also outside the location of head office, but there was no available data for the lower levels of organizational units. The error of territorial allocation of activities decreases with aggregation. Primarily, we are interested in the relationship between developed north and undeveloped south of the country. If we aggre-

1 See table 6, further in the article.

gate data in this way, the error of territorial allocation by head office is decreased significantly. Of course, this error does not exist at all if we analyse enterprises by size or by the sector of origin.

Figure 1: Core and periphery in Serbia

Incorporated Sector in Serbia 2008



Our process of GDP assessment can assign a territorial identification to 50 percent of all final expenditures. According to the assessment, the north has a share of 71 percent in GDP, and the south 29 percent. Data on corporate sector of economy does not cover small enterprises with less than 50 employees. With this limitation, the corporate sector generates 83 percent of revenue in the north, and 17 percent in the south. We assume that small enterprises increase GDP created in the south. This brings us to a conclusion that GDP in the south is between 20 and 30 percent of total GDP. The most probable ratio of development north: south is 1:2. Although the number of population in the north and south is almost the same, the above data suggest that it is logical to consider separately these two economic regions of Serbia.

The model's second feature is structural in nature, as the structure of economy in the north and south is not the same. We have divided the entire corporate sector in two sub-sectors: traded goods (mostly manufacturing industry) and non-traded goods (mostly services). In the north, services are more developed than manufacturing industry. In the south, the sector of manufacturing industry is still more developed than services. In recent years, services sector has recorded a very rapid development across the country, as the majority of foreign investments were made in that sector. The investments have brought new technologies and innovations. In terms of economic growth, investments into services sector have accelerated the general trend of growth, which was evident by 2008[2].

However, another important circumstance has been neglected. That is the economy of scale, connected with enterprise size and its returns. Marshall distinguished between external economy of scale in an entire sector (where he allowed for increasing returns) and internal economy of scale in individual enterprises within a sector (which had to have decreasing or constant returns in order to maintain a model of perfect competition)[3]. The difference between internal and external economy of scale has remained to this day, but the theoretical assumptions have changed (Krugman, Obstfeld, 2009). Today, increasing internal economy of scale and monopolistic competition are dominant empirical facts. In order to explain and link those facts, economists had to abandon Marshall's model of perfect competition and revert to Chamberlin's market of monopolistic competition[4].

When addressing the issue of returns, the problem is not whether we can make a conclusion about external returns in sectors, but what is happening with internal returns in enterprises. In this paper, we made the first step in that direction, which is still insufficient for a definite conclusion, but does provide some strong indications about the pattern of developments in Serbia.

Using the data on corporate sector in Serbia, we evaluated returns on the basis of two aggregated production functions for manufacturing industry (traded goods), and for services (non-traded goods). In addition, we divided all

2 The problem with services sector is that it creates mostly non-tradable goods and services, thus increasing the risks in balance of payments. We did not research this segment of economy, even though it does deserve a closer consideration. The main reason for this is that it is impossibile to estimate interregional flows of imports and exports. The last input-output table with such data was prepared for FRY in 1994.

3 Oz (1995, ch3.) gave a nice explanation of link between returns and economy of scale.

4 In his famous history of economic thought, about ten years before the strict formulation of so influential Dixit-Stiglitz-Krugman model of monopolistic competition, M.Blaug [1968, p.402] wrote: "The revolution in price theory engendered by the *Theory of Monopolistic Competition* was to multiply the number of markets structures that economists must analyze, to show that the test of satisfactory market performance is not simply the automatic consequence of the form of competition, and that welfare pronouncements and policy prescriptions in a world of monopolistic competition and oligopoly cannot be based merely on the degree to which a particular market structure departs from the norms of perfect competition... It is precisely for that reason that we are justified in speaking of a Chamberlinian revolution in modern microeconomics in the same way that we speak of a Keynesian revolution in macroeconomics." See also Brakman, Heijdra[2004].

enterprises into two groups: large and small enterprises. This way, we inserted in our analysis Marshall's old concept of a representative firm, i.e. firm representing an entire sector. Naturally, it is to be expected that returns of representative firms will be different, being more probable that large enterprises have increasing returns, while small enterprises have constant or decreasing returns. If that is so, then large enterprises have preconditions for monopolistic competition, which corresponds to reality, as only a few large market players can form an oligopoly, while small enterprises are still governed by the laws of perfect competition. We checked these assumptions having in mind that economy of Serbia is divided into two economic regions.

Model's next feature refers to typical status of market competition. Presence of increasing returns, competition and profit maximization (including some extra monopoly profits) creates large market players. They cannot influence both prices and quantities. In practice, competition forces them to increase production and cut average costs of production. This is a well known feature of monopolistic competition. When competition overcomes a certain level, monopoly profits disappear and market players are incentivized to seek them in a less developed region, where market and competition are weaker.

Migration of labor and capital is a key factor, which affects stabilization of regional development or its further destabilization. In Serbia, it is obvious that labor migrates from the south to the north. However, the number of workers in the north is not growing, as some members of the labor force go abroad to other countries.

We could not track migration of capital as we did not have reliable data. This segment of the model requires further research in the future. Information in the media suggests that capital is moving from north to south in the sector of services, but we were unable to check this indication by confirmed statistical data.

The final segment of our model refers to transport costs i.e. costs of trading. We assessed transport costs by the distance of manufacturing location from the centre of economic activity, which we pinpointed in New Belgrade. The model implies that development of remote areas is checked by the characteristics of their location.

Therefore, the model has six testable characteristics:

1. Two regions (developed and undeveloped),
2. Two activities with uneven development potential,
3. Different technologies and returns of representative enterprises,
4. Two types of competitive market (perfect and monopolistic competition),
5. Distance from government centre as a factor of development, and
6. Mobility of labor and capital.

TESTING OF MODEL

The presented model was to serve as platform to formulate a dynamic model of general equilibrium for two regions. We wanted to test how mobility of labor and capital, as well as different types of competition, impact spatial equilibrium and its stability. However, for such a task we needed the regional input-output matrix. The most recent input-output matrix was made for FRY in 1994, and it was not possible to update it to serve our needs. The purpose of this article would be fulfilled if we managed to demonstrate the importance of having such a matrix today, if we wish to discuss future development of Serbia in realistic terms. In the meantime, we conducted a limited testing of key characteristics of Serbia's regional development model.

North-south

Municipalities served as the primary statistical units for determination of regional distribution of development. However, the trouble is that there are not data or estimates of GDP at municipal level. Therefore, we had to produce an approximate assessment of municipal GDP for 2007, as relevant data for 2008 are not available yet. We considered the expenditure, and not the revenue side of GDP. At municipal level, expenditure data is available for three groups of GDP indicators. Those are: net salaries and number of employees, investment outlays, and budget outlays of local units of self-governance. The sum of those expenditures is 1,205 billion dinars, which is slightly above 50% of the officially estimated GDP for the entire country at 2,363 billion dinars. In our opinion, this is a reasonable approximation of GDP.

Table 1: Basic figures for the core-periphery spatial model in Serbia

	GDP	Population	Enterprise sector			
			Employment	Gross revenue	Assets	# of firms
South	29%	49%	40%	12%	19%	35%
North	71%	51%	60%	82%	81%	65%

We have classified Vojvodina and Belgrade under north, and other regions under south. Table 1 contains key data about classified areas. Division of Serbia into two regions provides an even split of population into two groups, with almost mathematical precision. The difference of 2% is minimal. In terms of customers, those are two equal market areas, but purchasing power of customers is not equal. Approximately one third of GDP (29%) is spent in

the south, and two out of five workers are employed (40%). The north employs more labor (60%) and spends over two thirds of GDP (71%).

Figure 2: Spatial allocation of large firms in Serbia

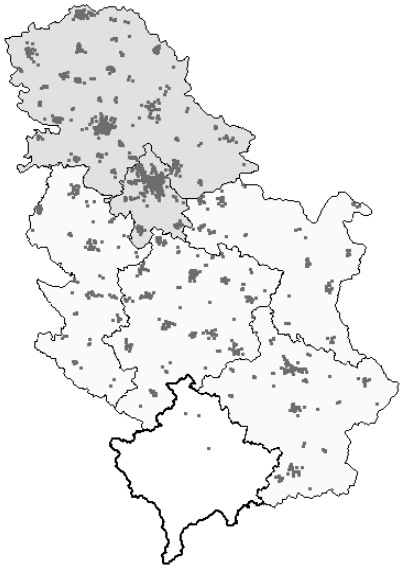
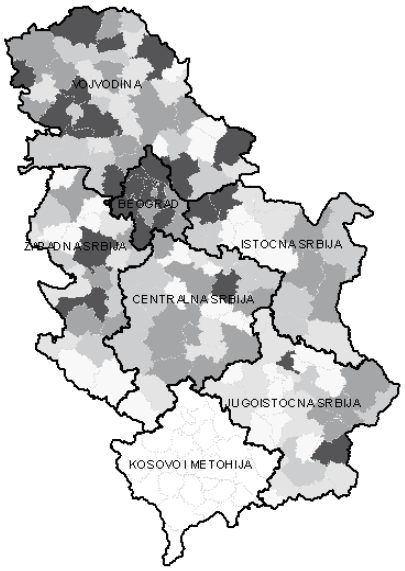


Figure 3: GDP per capita by munitipalities in Serbia



Total revenue of enterprises is the most important item on the revenue side of GDP. In 2008 it amounted to 3,698 billion dinars for the group of large and medium-size enterprises. This amount should be deducted by the cost of raw materials, in order to assess the value added. Then, the newly obtained figure should be farther adjusted by the rate of economic growth and inflation in 2008, so as to compare it to previous approximation of GDP for 2007, based on final expenditures. Unfortunately, we were unable to do the above calculation due to lack of relevant data. So, we stick to our proxy of GDP estimated from the expenditure side.

To be fully aware how productive forces in Serbia are regionally allocated, we drew locations of all larger enterprises on the geographic map of Serbia and showed it in Figure 2. Figure 3 illustrates municipalities by level of development, measured by GDP per capita. Darker colours denote more developed municipalities. We can infer from Figure 2 that there are clusters of enterprises within each region and that the density of enterprises is much greater in the north than in the south.

Number of enterprises in the north and south corresponds with shares of total expenditures by regions. However, assets and total revenue of enterprises are far greater in the north than in the south. The ratio for assets is 1:4, and for expenditures it is 1:2.

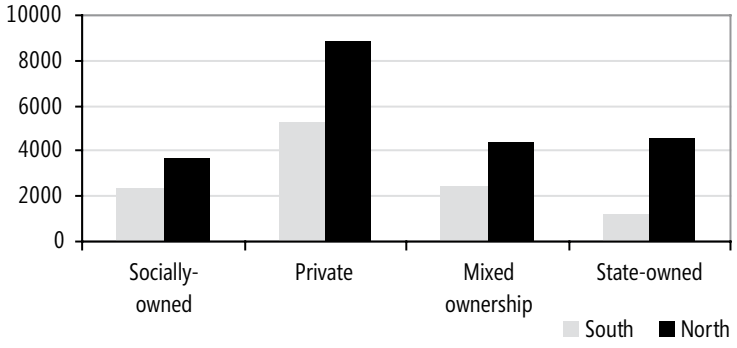
Regions also differ in terms of productivity of labor in the corporate sector of economy. Figure 4 shows a chart of average productivity of labor in enterprises, classified by regions and type of ownership. Private enterprises are far more productive than other enterprises, and especially in the north. Productivity of private enterprises in the south can be compared to productivity of state-owned enterprises in the north. However, state-owned enterprises in the south are completely unproductive and cannot be compared even with socially-owned enterprises. Evidently, the entire corporate sector in the north is far more productive than the corporate sector in the south.

Increasing returns

We wanted to test a hypothesis whether there are different returns to scale in large and small enterprises. We looked at all large and medium-size enterprises in 2008. As it has been said already, we listed 2,581 enterprise based on data reported in balance sheets and closing accounts. Official statistics classified those enterprises as large and medium-size enterprises by number of employees, gross revenue and asset value. However, we divided them into "larger" or "smaller" enterprises by number of employees. We considered all enterprises with over 100 employees as "larger" enterprises, and those with 50 to 100 employees as "smaller" enterprises. We measured the factor "labor" by the average number of employees. On the other side, we expressed "capital" as the factor of production with a CES aggregate of fixed assets and operating capital[5]. Volume of business operations is indicated by operating revenue.

5 We assigned a relatively higher importance to operating capital with parameter value of delta=0.8 and low substitution coefficient sigma=0.66. The reason for this is in the fact that many enterprises have underutilized capacity and that operating capital indicates if an enterprise actually operates or not, and if it utilizes or does not utilize available capacity.

Figure 4: Average productivity of labor by property rights and regions



Within the above framework we tested the hypothesis that performance of representative enterprises differ according to their location, i.e. whether they are located in the north or in the south. In that sense, geographic location becomes an important explanatory variable.

We used two types of aggregate production functions. CES function was the main functional form. CES production function is still highly non-linear after linear transformation and it is not much friendly for estimation:

$$\log(Q_i) = c_1 + c_4 \cdot \log(c_2 \cdot L^{c_3} + (1-c_2) \cdot K^{c_3}) + u_i \qquad i = 1,...,2851$$

where

$$c_1 = \log(\varsigma), \qquad c_4 = \frac{\upsilon}{\rho}, \qquad c_3 = \rho, \qquad c_2 = \delta$$

Returns to scale depend on the value of ν coefficient; $\nu > 1$ (increasing returns), $\nu = 1$ (constant returns) and $\nu < 1$ (decreasing returns). It is not estimated directly, but calculated by using estimates of c_3 and c_4 coefficients, $\nu = c_3 \cdot c_4$. In certain cases, there is a concern whether they is significantly different from one. Using Wald's procedure it is possible to test that null hypothesis. Usually, coefficient ν must be less than one and greater than $-\infty$ for the elasticity of substitution $\sigma = 1/\nu - 1$) to have the expected sign.

It is well known that CES production function is difficult to estimate by using non-linear least square procedure. In difficult cases we had to rely on the traditional Cobb-Douglas aggregate production function. Its functional form is well known. Coefficients c_3 and c_4 are constrained to unity, while coefficient c_2 is split into two parts: α and β. Sum of coefficients α and β determines whether returns are increasing, constant or decreasing.

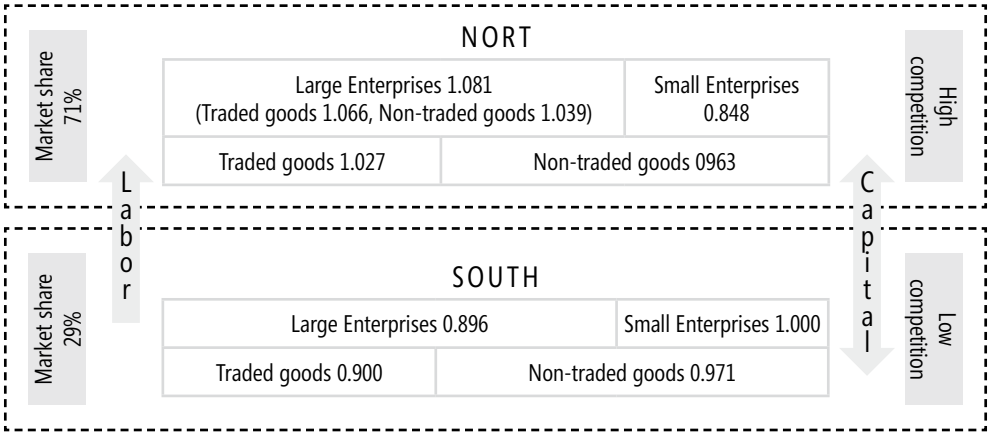
Estimates of all regression equations are reported in table A1 of the annex. We firstly proceeded by estimating regression equations for small and large firms in the entire economy, and then separately for each region. Those six equations are the key for our findings on internal returns to scale. Secondly, we switched to external returns to scale and estimated them by sectors of origin and location. That added eight more regression equations. Estimates of CES functions (9 in total) are shaded, while estimates of CD functions (5 in totals) were left unshaded. Our experience in estimating CES function by using data on the corporate sector of Serbia shows that it provides good results if sufficient data is available (700 pairs of data at least). Otherwise, non-linear least square procedure does not converge to a meaningful result. In that sense, we have reliable results for both small and large firms, two aggregated sectors across the country, two spatial regions separately estimated at the aggregate level, and small and large firms by sectors of origin in the north. We did not succeed to obtain significant results from CES function for the south; hence we had to count on CD production function. All results are shown in figure 5, which corresponds to the diagram in figure 1.

The most striking result is that large enterprises have moderately increasing returns (1,022), while small enterprises generate constant returns if we estimate them for the whole country. However, if large enterprises are filtered by regions of origin, then those in the north have sharply increasing returns (1,081). In the south, their returns are decreasing (0,896). We conclude that economies of scale exist in the north, and only in large enterprises. Wald's test of alternative hypothesis about constant returns in the north was rejected with χ^2 statistics of 5,604 and a 0,018 probability of accepting it.

Large enterprises in the north have increasing returns regardless of their sectoral origin. Size of enterprise, if it operates in the north, is the source of increasing returns, and not the sector to which it belongs. However, we need to notice that large northern firms in the manufacturing sector exhibit slightly higher returns than twin firms in the service sector. On the other hand, external returns to scale are decreasing, with the only exception related to manufacturing sector in the north. In the south, CES production function did not provide statistically reliable estimates of returns to scale. Instead, CD functions indicate decreasing returns in large enterprises and constant returns in small firms.

Figure 5: Core and periphery in Serbia

Returns to Scale in the Incorporated Sector in Serbia



Our main finding is that the existence of increasing internal returns to scale is correlated with location of firms in the north as the more developed region in the country. That

implies that spatial differences in development should be connected with the market forces which generate uneven growth and monopolistic competition.

Degree of competition

The above analysis of returns to scale in the north and south would also imply a differentiation in degree of competition by regions. The reasons for these expectations are the following. Increasing returns result in lower average costs. With increasing size of the market, economies of scale become more evident as production and trading grow resulting in lower prices. However, if market demand is a given, increasing number of enterprises causes a fall in individual supply and rising costs and prices. On the other hand, monopolistic competition allows for appropriation of monopoly profits. With growing demand, monopolists increase supply, which is possible to do only at lower prices. Entry of new enterprises leads to lower prices and elimination of monopoly profits. Consequently, monopolists have an economic interest to reallocate a part of their production to markets with weaker competition and fewer market players. In that way, the effect of increasing returns affects concentration of production in certain areas, while the effect of competition works in the opposite direction and produces territorial diversification.

In terms of degree of competition, there is some indication that these theoretical expectations will become true in Serbia, too. This means that competition should be stronger in the north than in the south and that this fact must influence geographic allocation of enterprises. The data in this area is extremely scarce, in spite of an unbelievably strong interest of the media and the public for this issue.

The World Bank and European Bank for Reconstruction and Development conduct periodically joint surveys of many enterprises in transition economies, known as the BEEPS (Business Environment and Enterprise Performance Survey[6]). The most recent survey was published in 2008/09 on a total sample of 29,387 enterprises. In Serbia, the survey was published in 2009 on a sample of 388 enterprises. Out of this number, 146 enterprises were surveyed in four regions in the south, and 242 in two regions in the north. The sample covered 17 sectors and it was stratified to include 90 small enterprises (less than 20 employees), 70 medium-size enterprises (between 20 and 100 employees) and 82 large enterprises (with more than 100 employees). The sample reflected aspects of urban development of the country through division of all enterprises into five urban zones, ranging from the capital to towns with less than 50,000 inhabitants. Evidently, the sample was structured to serve for the purposes of World Bank's research into NEG area.

We have filtered data on Serbia and analyzed degree of competition as assessed by surveyed entrepreneurs. Section of survey "E. Degree of Competition" was designed to assess degree of competition. We processed the data, which also implies our specific weighing system. Degree of competition was classified by qualitative assessments and divided into four categories by importance: "very significant", "moderately significant", "little significance" and "no significance". We assigned scored from 4 to 1 to these categories. Then we weighted obtained results according to size of enterprise: large enterprises (weight 3), medium size enterprises (weight 2) and small enterprises (weight 1). The pressure of competition was measured on the supply side, relative to domestic and foreign competitors, and on the demand side only in relation to local consumers, i.e. costumers. The obtained results are shown in Table 3.

A careful look at table 3 allows us to draw the following conclusions:

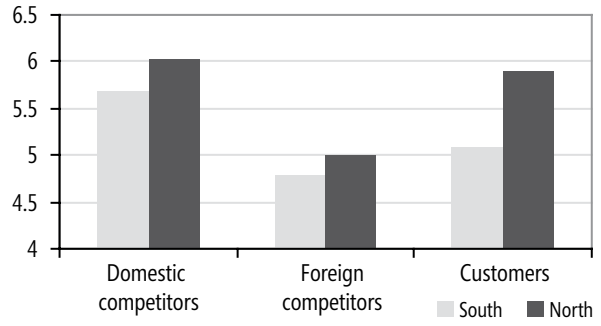
1. Competition is stronger in the north than in the south of the country,
2. Large enterprises feel stronger competition than small enterprises, and
3. Domestic competitors are rougher market players than foreign competitors.

6 http://www.ebrd.com/country/sector/econo/surveys/beeps.htm. The latest data is presented in stata format.

Table 3: Competition pressure recorded by the BEEP Survey

	Domestic competitors				Foreign competitors				Customers			
	Low	Medium	High	All	Low	Medium	High	All	Low	Medium	High	All
South	2.95	6.73	8.58	5.69	2.17	5.24	8.76	4.79	2.42	5.93	8.61	5.08
South-East Serbia	2.68	6.11	8.18	5.23	1.79	5.78	8.18	4.75	2.47	5.78	9.27	5.27
East Serbia	3.00	7.00	9.00	7.00	3.00	6.00	10.50	6.86	3.00	7.50	9.00	7.29
West Serbia	3.11	7.33	7.85	6.41	1.67	4.33	9.00	5.41	1.78	5.67	7.15	5.21
Central Serbia	3.00	6.48	9.27	5.49	2.24	4.86	7.36	4.19	2.44	4.76	9.00	4.56
North	3.20	6.23	9.58	6.04	2.36	4.93	7.98	5.00	2.94	5.98	8.98	5.91
Vojvodina	3.34	6.24	10.58	6.02	2.40	4.47	8.05	4.42	3.09	6.24	8.68	5.51
Belgrade	3.05	6.22	8.57	6.05	2.33	5.39	7.90	5.32	2.80	5.72	9.29	6.14

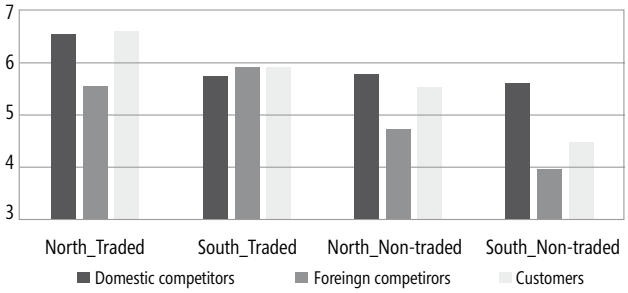
Figure 6: Competition pressure by regions



In terms of our main topic, we are interested especially in the degree of competition in the north and south of the country. We extracted those indicators from Table 3 and show them in Figure 6. Evaluations by entrepreneurs are in accordance with theoretical expectations that competition pressure is stronger when market is larger and has more market players. In our case, that is the north of the country. In the south, pressure is lower due to smaller market and fewer market players. Evaluations given by surveyed businessmen support this claim.

As we have disaggregated the corporate sector into two groups of enterprises by the sectors of origin, we will do the same with entrepreneur's evaluations of competition pressure. Results are shown in Figure 7. Reading from left to right, results refer to the traded sector in north and south, and then to the non-traded sector in the same areas, respectively. Within each group, the dark shaded bars refer to domestic enterprise, the medium shaded bars indicate foreign enterprises, and the light shaded bars represent buyers or consumers.

Figure 7: Competition pressure by regions and sectors



Competition is stronger in the north than in the south also in terms of disaggregated data. In manufacturing industry, competition is stronger than in the services sector, in both regions. Also, competition is more intense between domestic enterprises, than between domestic and foreign enterprises.

As for buyer/consumer pressure on local enterprises, we can see that it is stronger than the pressure of foreign companies, but generally it is weaker than the pressure of other domestic enterprises. In any case, these data indicate that we should not neglect the factor of demand in the process of building competitive relations in our market.

Distance from centre

Distance of periphery from the centre affects its economic development, as is evident from experience available from other economies. The closer some parts of periphery are to the centre, lesser is the difference in development. On the other hand, the farther these parts are from the centre, the more they lag in development. Reasons for this situation are numerous. One of key economic factors associated with distance is the cost of transport i.e. interconnected cost of trading. Reduction of transport costs, both in time and money, can be a significant stimulus for development of less developed areas.

The question is whether this sort of regularity exists in Serbia, and the answer is positive. We took New Belgrade as the centre and starting point for measurement of distance to every municipality. We measured the length of roads network (d_i) on Via Michelin[7]. Distance was determined as the shortest route between the largest town in a municipality and New Belgrade. Then, we regressed these data to GDP per capita in municipalities ($bdppc_i$):

$$\log(bdppc_i) = a + b \cdot \log(d_i) + u_i \qquad i = 1.,,,.165$$

Obtained results are shown in Table 4. Estimation of regression equation is quite good. R^2 is 0.467. Estimated coefficients are significantly different from zero. Coefficient of development elasticity relative to distance is -0.3. If the distance from centre is increased by ten percent, development level of a municipality is reduced by three percent. The greater the distance from centre, the lower is development level of municipality. In addition, it is not the same if municipality is located in the north or in the south. Municipalities in the north are less affected by the distance from centre than municipalities in the south.

Table 4: Estimation of distance`s impact on development of municipalities

	Coefficients	Standard errors
Intercept	12.748	0.250
Distance (ViaMichelin)	-0.303	-0.047
North (Dummy)	0.260	0.091
R2	0.467	

Migrations

Migration of labor from periphery towards the centre can be expected under the influence of polarizing forces affecting the centre and periphery. We looked at population migrations between south and north from 1971 to 2007. We did that in a specific way, which represents a continuation of analysis about impact of distance of periphery from centre.

7 http://www.viamichelin.com/.

However, in this case we focused on demographic trends and not on level of development in municipalities. We concentrated on municipalities in the south and analyzed movement of their population by years: 1971, 1981, 1991, 2002 and 2007. We determined the share of each municipality's population in total population of Serbia, and then regressed the distance to these demographic data and monitored how estimated coefficients changed over years. Regression equation was of the following format:

$$\log\left(\frac{s_{i,t}}{S_t}\right) = a_t + b_t \cdot \log(d_{i,t}) + u_{i,t}, \qquad i = 1,\ldots,67 \qquad t = 1,\ldots,5$$

where $s_{i,t}$ is number of population in i municipality, S_t is total number of population in Serbia in a t moment, $d_{i,t} = d_i$ is distance from New Belgrade. In every new moment in time, i.e. after each decade, the negative impact of distance from centre b_t had stronger influence on depopulation of periphery (see Table 5).

Table 5: Estimation of distance`s impact on migration

Year	Constant	Coefficients	R2
1971	-4.043	-0.283	0.175
	(0.329)	(0.077)	
1981	-3.934	-0.312	0.191
	(0.346)	(0.081)	
1991	-3.848	-0.333	0.203
	(0.357)	(0.084)	
2002	-3.837	-0.331	0.195
	(0.364)	(0.086)	
2007	-3.887	-0.335	0.141
	(0.315)	(0.064)	

Standard errors are within parenthesis

This explains changes in the ratio of population figures in the south and north. Today, the south is home to 49% of total population. In the beginning of observed period, 54% of total population lived in the south. We illustrated this in Figure 8. Changes in population across entire territory of Serbia are shown in Figure 9. We can draw two conclusions: 1) Population migrates from south to north, but simultaneously, 2) Total population is decreasing. This highlights the fact that population from the north is emigrating and/or natural birth-rate is falling.

Figure 8: Spatial population structure

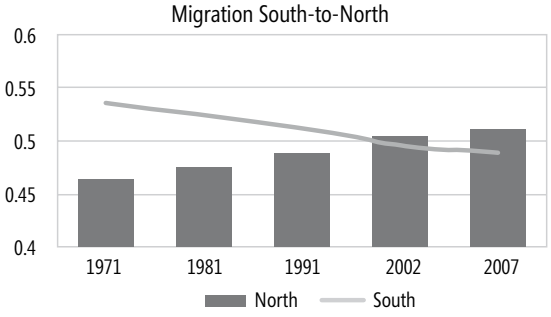
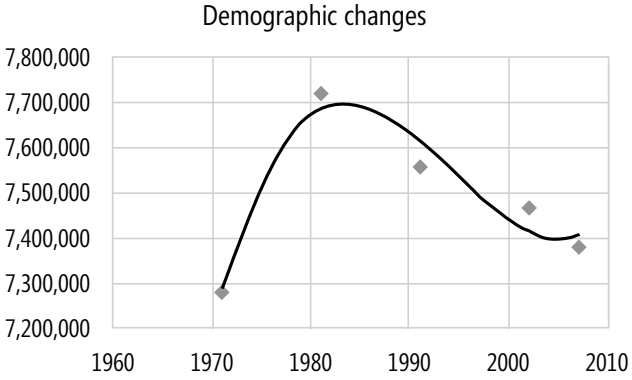


Figure 9: Population decline in Serbia



POLICY RECOMMENDATIONS

Based on the presented research, we feel that two types of recommendations are especially important. The first relates to the question of how the government should act to stimulate development, and the second is about Commission for Protection of Competition and what is to be expected of it in terms of future enforcement of new law on protection of competition. We think that current policies should be changed in both cases, and our findings indicate that a platform for this policy shift may be found in NEG.

Government intervention

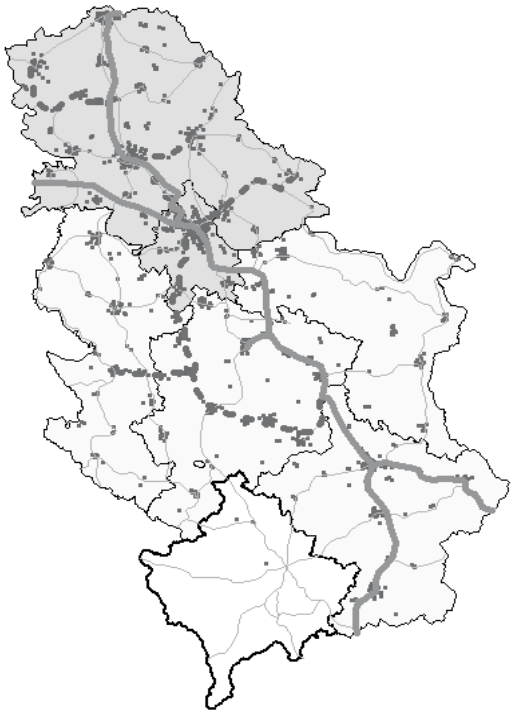
Before saying anything about government intervention, we had divided the economy into state-owned and private, according to the form of capital ownership. State-owned economy includes not only corporations owned fully by the state, but also mixed and socially-owned enterprises, as the state can have a strong influence in them. That way, we got a clear picture of division of economy into state-owned and private sector. Basic data is provided in Table 6.

Table 6: Large private and state-owned enterprises in Serbia 2008

	South		North	
	Private	SOE	Private	SOE
Number of Firms	586	300	1,253	411
Average figures				
Employers	194	300	197	499
Capital (000)	936.422	1,068.400	1,551.222	4,469.445
Nett Profit	56.111	12.255	71.688	53.075
Nett Losses	-25.239	-109.803	-56.381	-171.888

On the average, state-owned enterprises are larger than private ones, with a higher average number of employees and capital – when observed by regions north/south. However, private enterprises in the north have more capital than state-owned enterprises in the south.

Figure 10: Proposition for the future highways network in Serbia



Net profits are higher in private sector than in state-owned sector. On the other hand, losses are lower in private sector than in state-owned sector. Total losses of the state-owned sector of economy surpasses budget deficit in 2008. In the south, the loss was 33 billion dinars and in the north it was 70 billion dinars. This is an alarming situation and a strong argument to demand from the government to manage its capital more efficiently, and not only to take more loans in order to cover budget deficit.

Inefficiency of state-owned enterprises disqualifies the state as an investor, especially in respect to possible balancing of regional development. Our proposal to the government is to focus on infrastructure, although it also suffers considerable difficulties in implementation of international loans for completion of corridor X.

In Figure 2 we already showed the clusters of enterprises in Serbia. Our suggestion is to connect the most important clusters with modern highways. This is illustrated in Figure 10. The existing corridor X is marked in a solid (dark) colour. Priority network of new highways is marked with a broken line in (red) colour. The backbone of this proposal is two main routes complemented by two shorter sections in Vojvodina:

1. Vršac – Beograd – Čačak
2. Pojate – Užice and
3. Novi Sad – Zrenjanin and Vrbas – Sombor.

Necessary investments amount to cca 1,5 billion Euros, which is comparable to investments required to complete corridor X. In addition, the number of vehicles on these routes is much greater than on the sections of corridor X, currently under construction (Niš-Dimitrovgrad and Doljevac-Bujanovac). If the government is taking loans already, then it is better to use them to create an environment conducive to a faster economic development, than to finance fiscal spending on unproductive transfer payments.

This proposal does not include undeveloped areas. It is a harsh reality that construction of roads to undeveloped areas is not economically justified. Construction of highway Požarevac-Bor, for instance, would not help economic development of Bor. Modern development comes in the form of business clusters, and they will not be formed only because of modern highways if other important factors are missing. On the contrary, it is necessary to connect existing cluster and foster their development, which will have a positive influence on the surrounding areas, as well.

In the meantime, the government should provide undeveloped areas with an average level of education, health and social protection, as it is available across the country. The undeveloped areas cannot finance their needs on their own and still require budget transfers. This will have an indirect impact on economic development and provide at least a start for equal opportunities to everyone.

Competition policy

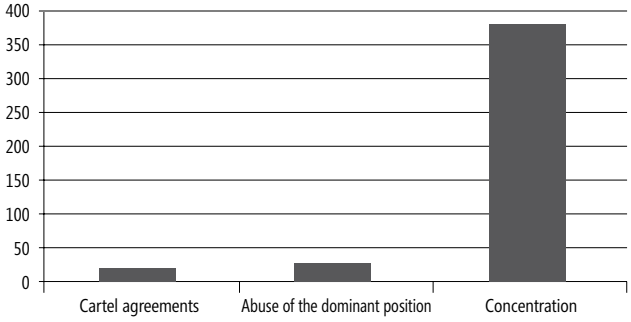
Competition is protected by legislators who prohibit excessive concentration that can have a major effect on competition, prohibit abuse of dominant position and prohibit cartel agreements between businesses. The last two authorities given by the legislator to Commission for Protection of Competition (KZK) are fully aligned with the NEG paradigm. But, the first authority on size of enterprise is debatable.

We have seen in sectors that exhibit increasing returns to scale how market stimulates growth of businesses, which lower prices and gain control over bigger market share. Technological innovations are especially important in that respect. In these situations, consumers benefit from monopolistic competition, which increases total welfare of society. So, size in itself, should not be a reason to prohibit concentration. The question is how market players behave if they have a significant share of the market, which is typical in situations of monopolistic competition. Strengthening of a dominant position, which jeopardizes competition, and its abuse, certainly call for an economic analysis before the KZK reaches its decision. Those analyses are costly and require considerable administration, which makes it unpopulare with KZK. We think that KZK did not carry them out professionally in a number of cases known to us. Instead of a

convincing economic analysis, it was quick to resort to legal arguments, seeking support in arguments "per se", and not in arguments that require "explanation" of decision.

Namely, a decision on protection of competition is made either when something is prohibited because it is "in itself" socially harmful, or based on an explained ruling that a certain behaviour caused more harm than good. The simplest way for KZK to reach a decision is to classify a specific case under an explicit ban. If a procedure required economic analysis, then it was done as a "mental exercise", and not in a rigorous way. Application of "monopoly test" for definition of relevant market represents a classic example. So far, we have not seen a single instance where this test was applied following the usual economic analysis. With the new law on competition protection and relevant by-laws, the "monopoly test" was abandoned. Instead of strengthening its administrative capacities, the KZK convinced the Government to strike this test out from the by-law determining methods of defining a relevant market.

Figure 11: Decisions taken by the Competition Commission in Serbia in the period 2006-09



Arguments "per se" are justified in cases of prohibited agreements, where any territorial limitations of market or freedom in setting (pre) sale prices constitute reasons in themselves to annul such agreements or individual clauses, therein. However, outside these two cases, the European Commission applies arguments of "explaining" decisions[8]. This is a fundamental contribution to increasing the scope of economic analysis in application of rules on protection of competition. Unfortunately, it is not the case in our country.

Now, let us look at results of KZK's work in the past four years[9]. They are shown in Figure 10. The discrepancy is obvious between cases of concentration and other two groups of cases referring to violating rules of competition. To a certain extent, there is a logical explanation for this. It says that the law has placed threshold of concentration too law, so that many cases come under the legal obligation to request permission for takeover or merger of companies. If we shall assume that this is true and that decisions on concentration are correct (which is really not the case as no decision on rejection of concentration has been confirmed in court), this does not explain why other cases are so few in numbers. The problem does not lie in numerous cases of concentration, than in a low number of other cases of violating rules of competition.

Prohibited agreements violate the rules of monopolistic competition and do not allow for economies of scale. Of course, it is not easy to determine this in practice if an agreement has this effect, unless it is prohibited "per se". That is why serious economic, and oftentimes econometric, analysis is necessary[10]. Economists admit that it is not simple[11]. However, with a different approach, competition protection becomes a strictly legal, not economic, issue. This is a risk that competition protection will be made practically irrelevant for situation in our market.

CONCLUSION

Now is the time to consider economic development and competition policy in Serbia in a much more realistic way. The New Economic Geography provides a theoretical platform for this. The practical applicability of this framework has been tested in this paper. In the corporate sector of Serbia, we identified business activities with increasing, constant and decreasing returns. In terms of aggregated data by regions, the north exhibits increasing, and the south decreasing returns. Existence of increasing returns excludes the market of perfect competition and necessarily leads to monopolistic competition. On the other hand, economic growth depends on market size. The developed north has a market twice the size of undeveloped south, and simultaneously, a more intense competition. A market of perfect competition is influenced by trade and transport costs, so that distance from New Belgrade, as the centre of business activity, is not stimulating to competition and economic development.

Increasing returns and different levels of regional development require a change in development and competition policies. In future, the state should concentrate more on development of infrastructure, and less on managing enterprises.

8 See European Commission (2009).

9 Reports of Commission for Protection of Competition in 2006-08 can be found on website http://www.kzk.org.yu/?link=106&lang=0, while 2009 report is not available yet. We used data from website http://www.kzk.org.yu/?link=108&lang=0 where it is possible to find all decisions made in 2009.

10 American Bar Association issues a special econometrics manual for attorneys dealing with competition protection, see ABA (2005).

11 „Only theory can separate the competitive from the anticompetitive", Robert Bork, *The Antitrust Paradox*, cited according to Oz (1995), p.97.

In particular, we propose development of highway network that would connect business clusters and improve competition. Going forward, Commission for Protection of Competition should be spending less time on concentration cases, and focus more on prohibited agreements. This policy shift requires sectoral and regional analyses, as market structures and degree of competition across sectors and regions are not the same. These two facts are crucial for determination of relevant market in any specific case of competition protection.

ANNEX

Standard errors of estimated coefficients are stated in brackets. AIC signifies Akaike Information Criterion, which served us as an indicator of reliability for choosing suitable functional format. The lower the AIC is, the better the choice. The last column contains a calculation of returns.

Table A1: Estimation of aggregate production functions

	c(1)	c(2)	c(3)	c(4)	R2	AIC	Returns to scale
All Large Enterprises	21.595	1.683	0.212	0.607	0.612	2.648	1.022
	(0.238)	(0.423)	(0.038)	(0.145)			
All Small Enterprises	19.975	0.507	0.130		0.505	2.669	1.000
	(0.035)	(0.163)	(0.034)				
Large Enterprises in the North	21.864	2.996	0.318	0.361	0.656	2.460	1.081
	(0.255)	(0.929)	(0.034)	(0.108)			
Small Enterprises in the North	19.676	0.317	0.246		0.502	2.417	1.000
	(0.036)	(0.120)	(0.035)				
Traded Goods Sectors in the North	20.795	2.777	0.229	0.370	0.676	2.352	1.027
	(0.237)	(1.080)	(0.038)	(0.141)			
Non-traded Goods Sectors in the North	20.743	4.213	0.301	0.229	0.632	2.443	0.964
	(0.247)	(1.955)	(0.032)	(0.104)			
Large Enterprises in the South	3.417	0.149	0.697		0.577	2.485	0.846
	(0.344)	(0.059)	(0.033)				
Small Enterprises in the South	1.202	0.100			0.489	2.996	1.000
	(0.376)	(0.051)					
Traded Goods Sectors in the South	1.467	0.028	0.890		0.561	2.860	0.918
	(0.406)	(0.062)	(0.041)				
Non-traded Goods Sectors in the South	3.097	0.290	0.684		0.527	2.817	0.974
	(0.525)	(0.086)	(0.044)				
All Enterprises in the North	21.468	2.453	0.256	0.407	0.644	2.445	0.999
	(0.191)	(0.574)	(0.027)	(0.093)			
All Enterprises in the South	2.539	0.108	0.781		0.523	2.898	0.889
	(0.321)	(0.050)	(0.031)				
All Enterprises in the Traded Goods Sector	20.491	0.662	0.022	1.426	0.625	2.612	0.944
	(0.199)	(0.257)	(0.024)	(0.536)			
All Enterprises in the Non-traded Goods Sector	21.019	4.589	0.284	0.215	0.618	2.576	0.986
	(0.242)	(2.113)	(0.031)	(0.097)			

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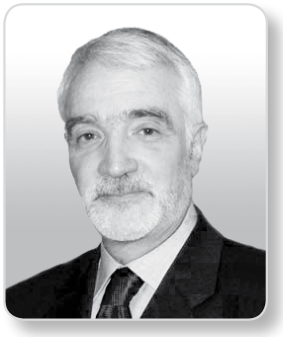

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FINANCIAL INTEGRATION AND ACCESS TO FINANCE IN TRANSITION ECONOMIES: A SECTORAL APPROACH

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Summary:

In this paper, we perform an empirical analysis of enterprise level data from the BEEPS on the access to finance in European transition economies which conducted the financial integration based economic development model in the pre-crisis period. By running a probit model, we obtain evidence that manufacturing enterprises face significantly greater problem of access to finance that services enterprises. We also saw, from a descriptive analysis of the same dataset, that exporting enterprises are concentrated in manufacturing industry. Our interpretation of the underlying mechanism of such a difference in access to finance across sectors is based on the information asymmetry theory. Since the majority of loans are intermediated by foreign banks, as uninformed lenders, these banks account in their cost of capital a certain market risk with the help of sovereign ratings by international agencies. This risk, already evaluated as high, face some lenders from sectors with lower risk (lower return rates, and longer period of return of investment, such as most of manufacturing industry) with discouraging costs of borrowing and lets them out of the lending market. This distortion in the lending market pushes then growth in sectors with higher returns (able to pay high interest rates). These are more likely services sectors which participate significantly less than manufacturing sectors in overall country's exports. In that way, besides pushing growth, this mechanism also contributes to unsustainable levels of current account deficits in these countries, which, together with high levels of accumulated external debt, create high external financing needs of these countries, all three variables being strong determinants of country's risk perception by international rating agencies.

Key words: *assess to finance, macroeconomic imbalances, industry sectors, transition economics*
JEL classification: E44, G14, G32, O16

1. FINANCE AND GROWTH IN TRANSITION ECONOMIES

There is a long-lasting record in both theoretical and empirical literature on the topic of the role of financial development in economic growth. The idea dates back to Schumpeter (1912) who emphasized the positive impact of the development of country's financial sector on the growth and level of its per capita income. The main argument behind such a stream in both the theoretical and empirical literature that emerged meanwhile, lies in market imperfections. Namely, by solving problems of information asymmetry, transaction costs and moral hazard, financial intermediaries provide the allocation of capital to the highest value use, and thus catalyse economic growth.

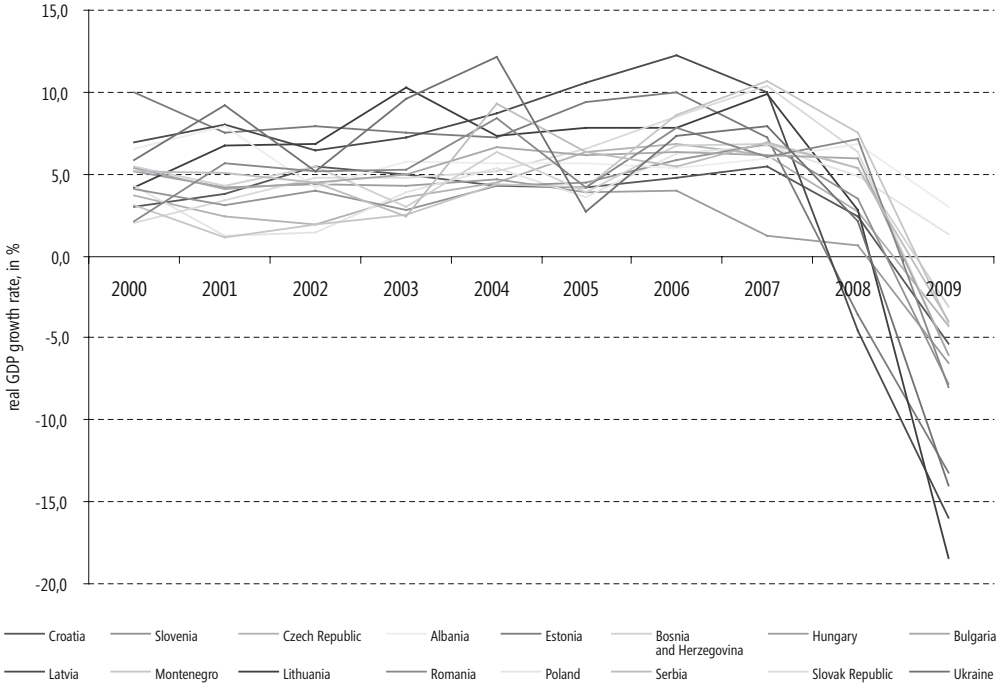
Economic growth is being influenced by the development of the financial system in five different ways having in mind the main functions provided by the financial system, as summarized in Levine (1997). Firstly, financial development improves mobilizing and pooling of savings in an economy. Secondly, the better supply of information will lead to a more optimal allocation of resources. Thirdly, there will be better incentives for monitoring of investments and implementation of corporate governance. Fourthly, it will become easier to trade, diversify and manage risks. Fifthly, transactions concerning goods and services will be facilitated. All these advantages of having a sound financial sector can contribute in two different ways to a higher per capita economic growth. Firstly, these advantages will lead to a higher capital stock (capital accumulation) and secondly they can speed up technological development. In this perception, a higher allocative efficiency leads to an increasing propensity to both save and invest, which stimulates capital accumulation and technological renewal. In the end, this will boost economic growth.

Hence, the empirical literature on the same issue suffers from the so called causality problem, since it seams that there is no strong enough evidence for the causality direction for the however significant correlation between financial development and economic growth[1].

1 Joan Robinson (1952) was among the first authors in the theoretical literature, arguing the opposite causality direction, i.e. from growth to financial development. She stated that "where enterprise leads finance follows". Moreover, some authors suggest that both financial development and economic growth could be influenced by a third macroeconomic variable, such as the marginal propensity of saving (…), or they simply ignore the link (….).

Despite the concerns about the causality direction, the result of the rich literature in this field, concerning particularly developing countries, can be summarized in the following main conclusions, as presented in the referent review of the empirical literature on the financial development and economic growth. Though admitting that "we are far from definitive answers to the question: Does finance cause growth, and if it does, how?", Levin (2004) highlights the following three tentative observations from the existing work, "without ignoring the weaknesses of and the absence of complete unanimity of results". Taken as a whole, the bulk of existing research suggests that (1) countries with better functioning banks and markets grow faster, but the degree to which a country is bank-based or market-based does not matter much, (2) simultaneity bias does not seem to drive these conclusions, and (3) better functioning financial systems ease the external financing constraints that impede firm and industrial expansion, suggesting that this is one mechanism through which financial development matters for growth."

Graph 1: Economic growth in transition countries: pre crisis expansion and crisis spillover in the region



Source : EBRD

Note : data for 2009 are EBRD estimations

2. THE MACROECONOMIC FRAMEWORK OF THE BANKING SECTOR DEVELOPMENT IN TRANSITION ECONOMIES IN LIGHT OF THE WORLD ECONOMIC CRISIS

The "development model" pursued in European transition economies[2] from the mid 90s until the spillover of the world economic crisis to the region has been qualified as "development based on financial integration"[3]. The economic integration in these countries into the global economy took place on three main fronts: trade, finance and labour. The first – trade channels – correspond to the expansion in trade volumes exchanged between these countries and EU-15 countries and achieving a significant level of trade openness (Table 1).

The second – labour channel – has manifested itself as worker remittances from EU-15 countries to European transition economies expanded particularly rapidly during the mentioned, pre-crisis, transition period. And financial integration took probably the most impressive pace. Namely, having reduced barriers to capital account transactions, these countries represented an open field for financial market development. The presence of foreign banks grew dramatically both through local subsidiaries of EU-15 based commercial banks and through direct cross-border lending of EU banks to enterprises based in European transition countries[4]. The credit to private sector has been growing at very high rates helping these markets to grow from almost an absence of financial intermediation to comparable levels of credit to GDP with developed peers (Table 2).

The described economic integration was definitely a powerful driver of growth, income convergence and rising living standards in transition economies (Graph 1). Hence, besides this incontestable benefit for the overall level of activity and living standard, the pursued integration has also been responsible for generating the macroeconomic threats such as: credit booms, large private debt stocks com-

2 European transition economies are referred as transition economies whose territory is in Europe in whole or in part as well as Turkey, and particularly those non-resource rich countries with tighter economic and financial links to the European Union. For more details see EBRD 2009, Chapter 3

3 EBRD 2009, Chapter 3, p.61

4 The financial integration has been particularly intensive in the period from 2005 to 2007, which coincided with a period of high global output growth, soaring commodity prices and abundant liquidity.

posed mainly of lending in foreign currency, large current account deficits and external financial needs in these countries. In that way, it has opened the channels for the transmission of global crisis to these economies, by contributing to macroeconomic and financial vulnerabilities. As a consequence, the severe impact of the global financial crisis in last quarter of 2008 and first quarter of 2009 registered in European transition countries created significant falls in outputs in the majority of these countries (see Graph 1), with the sudden stops of bank lending flows, while the reversals have been prevented by a coordinated action of banks, local governments and international financial institutions[5]. Hand in hand with the strong output declines, most of the transition countries have also registered depreciation pressures on local currencies, and significant increase in risk[6]. The severe impact of the crisis has probably coincided or only turned attention to the accumulated macroeconomic imbalances in these countries. As a result, a shadow has been cast over their model of economic development[7] and some questions about its sustainability and the future drivers of development and economic growth in these countries have been raised.

Table 1: Financial integration and macroeconomic framework in European transition economies

	Average CAD, 2000-2008, in % of GDP	Foreign banks, end-2008, in % of total banking sector assets	External debt/GDP, end-2008, in %	Trade openness, (Exports+Imports) /GDP, end-2008, in %
Albania	-8,9	93,6	20,4	48,3
Armenia	-7,3	50,5	na	41,0
Belarus	-3,8	20,6	24,6	119,8
Bosnia and Herzegovina	-15,8	95,0	42,5	94,6
Bulgaria	-11,8	83,9	103,5	111,6
Croatia	-5,9	90,8	82,4	64,6
Czech Republic	-4,2	84,7	41,6	131,8
Estonia	-10,9	98,2	114,1	80,2
FYR Macedonia	-6,1	93,1	49,1	109,7
Georgia	-10,9	90,8	35,6	67,9
Hungary	-7,6	84,0	114,4	135,7
Kyrgyz Republic	-1,3	72,0	45,7	116,8
Latvia	-12,3	65,7	124,0	74,2
Lithuania	-8,3	92,1	68,9	112,5
Moldova	-8,2	31,6	67,9	106,4
Montenegro	-15,7	84,6	52,7	85,7
Poland	-3,5	76,5	46,2	72,0
Romania	-8,4	87,7	49,0	56,4
Serbia	-8,6	75,3	60,4	66,3
Slovak Republic	-5,3	99,2	53,3	147,6
Slovenia	-2,3	31,1	105,7	115,5
Ukraine	2,5	51,1	56,4	84,8

Source: EBRD

5 The avoided severe impact of the crisis in the transition region has been considered as a proof of the benefits of political integration of these countries into a common European space, in parallel with is economic integration. For more details, see: Berglof et al. (2009)

6 The NPL has risen between 1,5 times, as in Poland, and 5,5 times, as in Latvia.

7 See EBRD 2009, Chapter 3, for more details.

Table 2: Domestic and cross border lending in transition economies: a complement view

Country	Domestic loans, end-2008 (% of GDP) (1)	Cross-border loans, end-2008 (% of GDP) (2)	Total loans, end-2008 (% of GDP), (1)+(2) (3)	Nominal GDP in 2008 (in USD milions) (4)
Albania	35,3	24,5	59,8	12.964
Bosnia and Herzegovina	53,5	27,3	80,8	18.469
Bulgaria	74,5	62,1	136,6	51.989
Croatia	68,1	70,7	138,8	69.332
Czech Republic	51	17,5	68,5	216.354
Estonia	91,9	118,4	210,3	23.232
FRY Macedonia	43,9	16,9	60,8	9.569
Georgia	30,2	na	-	12.870
Hungary	67,6	65,5	133,1	155.930
Latvia	89,6	90,2	179,8	34.054
Lithuania	na	66,2	-	47.304
Montenegro	87,2	63,0	150,2	4.822
Poland	55	24,2	79,2	527.866
Romania	38,5	39,6	78,1	200.074
Serbia	39,7	30,9	70,6	50.061
Slovakia	44,7	na	-	95.404
Slovenia	85,6	na	-	54.639
Ukraine	79,8	22,8	102,6	179.604

Source: EBRD for column (1); BIS for column (2), IMF for column (4)

In this context, there is emerging recent empirical literature trying to explain the way how economic crisis from developed markets hit the transition European countries. Though still in front of a vast field for studying, the already published works point to the following main findings. The fact that financial integration with the developed markets did foster the economic growth in transition countries is reconfirmed by applying both the cross country[8] and sector approaches[9]. Another valuable finding in understanding the propagation of the crisis is that, on one hand, the most of the cross-country variation in output decline can be explained by a small group of macro vulnerabilities, above all, by the pre crisis credit boom and external debt accumulation (both driven by financial integration based on foreign banks entry)[10]. On the other hand, foreign banks were seen as stabilising factor during the crisis in some way mitigating the problem that they had caused, documented by the significant effect on lower capital outflows in countries with relative larger foreign bank presence[11]. Financial integration in transition economies has also been seen as problematic for two reasons: foreign financing and/or the presence of foreign banks seemed to play a role in the accumulation of a large share of foreign currency indexed lending in transition economies[12]. Also, high concentration of loans in some industries (as the construction industry), has

8 EBRD (2009) and Abiad and al. (2009)

9 By applying the methodology proposed by Rajan and Zingales (1998) consisting of verifying if the sectors with greater external financial needs grow faster with more intensive financial integration of the economy, the EBRD economists in EBRD (2009) have obtained positive results in contributing to the impact of financial integration to economic growth in a set of transition and emerging economies.

10 Berlgof et al. (2009)

11 Berglöf et al. 2009, de Haas and Llyveld (2010), Winkler (2009)

12 See for example: Brown et al. (2009)

been registered. Both developments were making these economies and their financial sectors even more vulnerable to foreign currency and systemic risk.

As a result of the presented recent set of studies, besides the overall general conclusion that despite the crisis in transition region, the transition itself is not in crisis[13], there are also some policy guidelines for dealing with the future development and macroeconomic balances in transition region. The first is that there is a critical need for policy action in dealing with high euroization and accompanying foreign currency risk. The second is to develop instruments to mitigate and better manage fast credit growth episodes in the future.

Both on the overall level of transition economies and on the country level, the policy recommendations suffer from a certain disproportion between the problem and the proposed directives for future action in resolving it. Moreover, the directives seem lacking the concreteness for translating them into policy actions. If we put more light on the recent literature on the issue, by taking the example of Serbia, as a representative case of a European transition economy, there is several recent policy papers on this issue. These studies contain thoroughly documented, general policy recommendations which were also raised before the crisis, such as: (1) To create conditions in the economy to push the productivity and competitiveness of the local economy mainly by improving business environment[14] in order to promote exports and obtain more balanced economic growth; (2) To put in place primarly structural reforms, improve infrastructure and education and face the macroeconomic challenges of improving general investment climate and increasing savings of households and companies as well as improving the efficiency of the public sector[15]; (3) To cope with mid term fiscal flows and risks in order to achieve the sustainable fiscal position[16]. One of the most concrete, but still opened recommendations to Serbian policy makers was to find a new trigger of economic growth, other than private sector credit boom as it was the case until the crisis, one of the possible triggers being the EU integrations[17]. However, the overall impression from this set of papers is that there is no clear enough vision or the consensus about the possible future radical improvement of the development model which is considered exhausted.

The problematic in defining the new sustainable pillars of economic growth in European transition economies and maintaining the macroeconomic stability remain certainly a vast and fruitful field for future economic research and policy actions. In the following paper, we aim to tackle this issue by offering a coherent view of mechanism which could in part explain the accumulation of macroeconomic imbalances prior to the economic crisis. The understanding of this possible mechanism could open the ways to deal with them in the future and keep employing the financial integration as the main driver of economic growth while main macroeconomic balances remain stable. We apply a microeconomic approach, by looking at enterprise level data and taking into consideration a sector of activity and its link to trade balance, as well as to access to finance. Our explanation of the mechanism inherent to the financial integration of transition economies is inspired by the microeconomic theory of information asymmetry and the corporate finance theory. Some elements of the argumentation remain, however, not explored, and some are hard to deal with due to the data shortages. However, we believe that the presented view opens some reliable questions and directives for future research.

3. THE SECTOR DISTRIBUTION OF GROWTH AND EXTERNAL FINANCING: THE CASE STUDY OF SERBIA AND SOME INDICATIONS OF THE CAUSES OF STRUCTURAL IMBALANCES

Until now, we have explained the main features of the macroeconomic setting and the role of the financial sector in it, before the crisis and through the crisis. We have considered credit booms, intensive capital inflows and increase in presence of foreign banks. However, if we summarize the enterprise level data on their perception of business environment in transition countries surveyed by EBRD and WB (BEEPS), we get, in some way, confusing statistics. Namely, despite the flood in lending to these economies, the companies in transition economies have revealed that 'the access to finance' had represented the second largest obstacle for their business activities (after tax rates), Table 3.

13 EBRD, 2009

14 FREN (2009a), As particular measures, the author cite the following: increase the efficiency of public administration, making procedures more simple and more transparent, better implementation of antimonopoly policy; improve macroeconomic circumstances, improve infrastructure and education. FREN (2009) Quarterly monitor of economic trends and policies in Serbia nr.18, FREN, December 2009, Spotlight on nr.2, by Vasiljevic D, 'Economic growth and international competitiveness of Serbia, pp. 83-93

15 FREN (2009b) FREN (2009)Quarterly monitor of economic trends and policies in Serbia nr.18, FREN, December 2009, Spotlight on nr.1, by Sestovic L. and Wes M, 'Ten years of transition: experience of economic growth – what follows?'

16 FREN (2009c) FREN (2009) Quarterly monitor of economic trends and policies in Serbia nr.18, FREN, December 2009, Spotlight on nr. 3, by Lissovolik B. 'Current challenges for Serbia from the comparative perspective'

17 The Transition report 2009 presentation speech by EBRD economist Peter Sanfey in Belgrade in December 2009.

Table 3: Most serious obstacle affecting the operation of this establishment?[1)]

	Percent
tax rates	15,15
access to finance	12,78
practices of competitors in the informal sector	11,66
political instability	11,49
inadequately educated workforce	10,49
corruption	5,66
don't know	5,30
does not apply	4,59
electricity	3,94
tax administration	3,80
labor regulations	3,43
business licensing and permits	2,46
access to land	2,20
courts	2,11
crime, theft and disorder	2,10
customs and trade regulations	1,79
transport	1,04
	100,00

Source: BEEPS

1) The summary of responses for 7 761 interviewed companies in 18 countries.

Moreover, by the mean of a simple descriptive analysis of Serbian economy, for which we are able to get the reliable data, we get the following three insights in the sectoral distribution of capital flows and economic growth. Firstly, almost 90% of the economic growth in the expansion period from 2002 to 2008, coupled by the intensive financial and trade integration was based on few services sectors (non-tradables): wholesale and retail trade, construction, transportation, communication and other services, while only about 10% of the economic growth refers to the industry and agriculture (tradables), Table 4. Secondly, the pattern of external financing (bank loans) corresponds well to the previous pattern of growth distribution, Table 5. Though we do not dispose of the data on loan growth (first difference) by sector of activity in the corresponding period (2002-2008), we observe that about 70% of all loans received by enterprises in concentrated in the services sectors (corresponding to 80% of the economic growth) while only 30% of the stock of loans is placed to agriculture and industry. And finally, these sectors that were subject to extensive bank financing in the observed period, are those that registered the above average return rates, Table 5. There is no, however, a clear view about the causality direction between financing, growth and return in the observed statistical data.

Table 4: Distribution of gross value added across sectors of activity in Serbia: 2003-2008

	Contribution to GVA growth[1)]	Share in GVA growth	Share in total GVA in %
Agriculture, fishing and forestry	0,8	2,1	13,5
Minning	0,4	0,9	1,6
Manufacturing industry	2,7	7,2	17,1
Energy, gas and water	0,5	1,4	3,4
Construction	1,6	4,2	3,7
Retail and wholesale trade	10,4	27,4	11,3
Hotels and restaurants	-0,1	-0,2	0,9
Transport and communication	14,3	37,7	12,3
Financial intermediation	3,2	8,3	4,0
Other business activities[2)]	3,4	9,0	15,1
Other services	0,7	1,9	17,1
Total Gross value added	38,0	100,0	100,0

Source : Statistical bureau of the Republic of Serbia

1) Shares in 2002 used as weights.

2) Intelectual services, consulting, ingeneering design, renting and services related to real estate activities.

Table 5: Distribution of loans and profitability across sectors of activity of companies in Serbia, as of December 31 2008

	Loans		ROE in 2007	
	share in total	EUR mil		Relative[2)]
Agriculture, fishing and forestry	3,5%	790,4	1,8%	1,20
Minning	4,5%	998,8	-3,6%	-2,40
Manufacturing industry	28,4%	6.375,7	4,2%	2,80
Energy, gas and water	2,7%	596,5	-17,1%	-11,40
Construction	8,2%	1.831,6	8,9%	5,93
Retail and wholesale trade	23,8%	5.339,7	9,1%	6,07
Hotels and restaurants	1,2%	280,0	-4,5%	-3,00
Transport and communication	10,9%	2.454,2	2,9%	1,93
Financial intermediation	0,9%	196,7	12,7%	8,47
Other business activities[3)]	18,6%	4.163,2	10,8%	7,20
Other (public services)	0,8%	178,4	n.a.	n.a.
Total	100,0%	22.415	1,5%	1,00

Source: NBS, Solvency center, 'Report on the business results of companies prepared on the basis of submitted financial statements for 2008 and 2007'

1) On the basis of the financial statements submitted to the Solvency center in the National bank of Serbia (since 2010 operating within the Agency for business registries), being the legal obligation of companies. The aggregated data are based on 89934 enterprises (85% of registered 105748 enterprises) which fulfilled the legal obligation of submitting the valid financial statement.

2) Normalized with total average ROE in the economy

3) Intellectual services, consulting, architectural and engineering project offices, design, renting and services related to real estate activities.

4. SECTORAL DIFFERENCES IN ACCESS TO FINANCE: THE EMPIRICAL ANALYSIS OF BEEPS DATASET

The last three observations revealed in the previous section, lead us to make the following hypothesis about the mechanism inherent to the financial integration, and contributing to macroeconomic imbalances in the European transition economies. The incoming foreign banks that have intermediated (directly or via their local subsidiaries) the majority of capital inflows into these countries have been naturally faced with the problem of pricing the risk of their investment in transition economies. In order to determine

the expected return of investment which is further accounted in lending interest rates in a form of a premium for different risks, the foreign banks as main investors were also facing an important information asymmetry problem.

The expected return on investment in emerging markets by a uninformed foreign investor is closely related to the sovereign rating of the country. Since there is no a perfect solution to price the risk of an investment in these economies with underdeveloped financial markets and scarce information, most of the recommended models for calculating the expected return (cost of capital) consist of including the risk premium for the country risk corresponding to the sovereign rating. Thus, the overall risk of the economy is assigned to all potential investments. Moreover, additional premiums for specific sectors of the economy from developed markets are usually added to the risk free interest rate from developed markets[18].

This expected return translated into lending interest rates could induce the well known "lemon problem"[19] on the lending market where less risky (less profitable) borrowers get out from the market when they are offered an interest rate on external financing corresponding to the average risk. This interest rate is probably unbearable for enterprises in sectors of activity where periods of return of investment are longer and returns are lower, but more stable and less risky comparing to the overall country/market risk. It can be the case of the manufacturing industry in transition countries which accounts for the major part of exports at the same time. The previous mechanism, by driving the sectoral distribution of external financing, could thus represent a strong determinant of sectoral distribution of economic growth in transition economies as well as of important current account deficits across the region. For testing the existence of the mechanism, one should find the relationship between the access to finance and the sector of activity, as well as the link between the sector of activity and the risk in the transition region. In this paper we offer the first part of the argumentation.

In order to determine the relationship between the access to finance and the economic sector of activity, we proceed here with the empirical analysis of the enterprise level data from the Business Environment and Enterprise Performance Survey (BEEPS). The dataset consists of in total 29386 interviews of enterprises in 29 transition countries of Europe and CIS, in four turns (1999, 2002, 2005 and 2008/2009), always referring to fiscal year preceding the survey. The objective of the BEEPS survey was to obtain feedback from enterprises in the EBRD countries of operation on the state and private sector as well as to help build a reliable dataset which could help tracking changes in the business environment in these countries. It was collected on the basis of face-to-face interviews with owners, managers or finance officers via site visits by surveyors trained according to a standardized methodology. The survey contains very detailed questions on all important elements of enterprise characteristics, performances, as well as their perception of the business environment. The sample was structured to be representative for each country with specific quotas in terms of region, sector and enterprise size using the variable 'Total sales'. It does not include agriculture and mining as well as government departments (military, police, education, health) since there were no up to date and reliable statistics relating to that universe in the surveyed countries[20].

In line with the distinction of the European transition economies, which based their growth on financial integration unlike the resource rich countries, well documented in EBRD (2009), we take 18 out of 29 transition countries covered by the survey. We use the following criteria for taking country as a representative of 'the financial integration based economic development': (1) current account deficit (CAD) present all along the pre-crisis period, (2) ratio of domestic credit to GDP at the end-2008 superior to 30% and (3) significant foreign bank share (more than 50% of total banking sector assets). All these countries registered a significant stock of external debt at the end-2008 (from 50% of GDP to over 100% of GDP).

Thus we obtain a homogenous set of countries that have followed the same "development model" based on financial integration and not based on resources exploitation and exports as in resource rich countries. Our final dataset consists of 6841 observations.

In order to test the determinants of the access to finance as an obstacle for companies operations in transition economies, we run the probit model, presented in the Table 6 together with estimation results (marginal effects). Our dependent variable (LHS) is 'access to finance' dummy, which equals 1 if the firm responded that its major obstacle in the business environment is 'access to finance', and equal 0 if it was any other answer offered by the questionnaire (for descriptive statistics on this question see Table 3). Alternatively, we rerun the same estimation with the dummy variable 'access to finance alt.' relating to the specific question on the degree of the obstacle access to finance (which includes availability and cost, interest rates, fees and collateral requ-

18 Bancel F. and Perrotin T, 1999 ; Vernimmen 2006

19 Akerlof, 1970

20 For details see 'BEEPS 2008-2009, a report on methodology and observations'

irements). It equals 1 if the access to finance is qualified as 'major obstacle' or 'very severe obstacle' for establishment's current operations, and equal 0 for 'no obstacle' or 'minor obstacle' or 'moderate obstacle'. On the RHS, among the explanatory variables, our variable of interest is 'manufacturing' dummy corresponding to the question on the activity sector of the enterprise, as observed by the interviewer[21]. We control, however, for all reliable enterprise's characteristics available in the questionnaire which could impact its access to finance. Thus, on the RHS, we include the variable 'foreign ownership' for the share of foreign capital in total equity of the company, and the variable 'state ownership', as the share of government ownership in company's capital. We also control for the possible illiquidity of the company which could explain its access to finance, with the dummy variable 'overdue utilities or taxes' corresponding to the cases where companies have overdue payments for 90 days or more for utilities and taxes payments in the preceding year. We introduce the size dummies 'small' and 'large', thus obtaining the marginal effects to the access to finance of these two sizes relative to the medium one. We also control for the variables describing the share of company sales placed to foreign markets 'sales exported'. We verify in that way if the exporting companies benefit from an easier access to finance. We control for the pressures of the domestic competitors (variable 'domestic competition', foreign competitors ('foreign competition') and customers ('pressure customers') which represent the answers to the questions of the following type "How important is pressure from domestic competitors/foreign competitors/customers in affecting decisions to develop new products or services and markets?'. We control for the log of the establishment's age (variable 'ln(old)'), for the dummy 'have an account' representing the answer to the question "if the company has a checking account with a bank", and the dummy 'applied for a loan' "if the company has applied for a loan in a previous year". We introduce on the RHS the variable 'audited' as the dummy controlling for the fact that company's financial statements were audited in the previous fiscal year. We introduce 17 country dummies for taking account of country-specific effect on the access to finance.

By running the probit model, we obtain the evidence that the fact that an enterprise operates in manufacturing industry increases the probability that the enterprise faces the access to finance as its main business constraint by about 5 percentage points, Table 6.

21 There is often the discordance between the declared industry sector of a company and the factual industry sector of its core operations. It is convenient that the BEEPS includes the observed sector as a more objective data.

Table 6: Probit model : Estimation results

Explanatory variables	Dependent variable: Access to finance dPr[Access to finance=1]/dX	Dependent variable: Access to finance alt dPr[Access to finance alt=1]/dX
Manufacturing	0.053*** (0.009)	0.040*** (0.011)
Large	-0.16 (0.011)	-0.029** (0.014)
Small	0.029*** (0.010)	0.045*** (0.012)
Sales exported	0.000 (0.000)	0.000 (0.000)
Foreign capital	-0.001*** (0.000)	-0.001*** (0.000)
State capital	0.001* (0.000)	0.002*** (0.001)
Overdue utilities or taxes	0.042** (0.022)	0.142*** (0.029)
Ln Old	0.002 (0.005)	0.002 (0.006)
Apply for loan	0.066*** (0.009)	0.080*** (0.011)
Have a loan	-0.036* (0.022)	-0.039 (0.027)
Purchased fixed assets	-0.015 (0.009)	0.010 (0.012)
Pressure domestic competitors	0.007 (0.012)	0.056*** (0.015)
Pressure foreign competitors	0.005 (0.012)	0.049*** (0.016)
Pressure customers	-0.001 (0.012)	-0.003 (0.015)
Audited	0.009 (0.009)	0.004 (0.011)
Country dummies	Yes	Yes
Observations	6841	6841
Wald Chi2(31)	282.05	449.69
Prob > chi2	0.000	0.000
pseudo R^2	0.05	0.06

*Notes: *, ** and *** represent 10, 5 and 1% significance, respectively. Standard errors are in parentheses.*

Source: BEEPS; own calculations

On the other hand, a simple descriptive analysis of the dataset shows that the most of exporting companies operate in the manufacturing industry. One half of all manufacturing enterprises from the sample are exporters, while only one fourth (about 25%) of other enterprises operating in the services and construction sectors are exporters in the sense of our definition (any part of total sales exported abroad). If we restrict the definition of the exporter to 20% or more of total sales sold abroad, we obtain that about 30% of manufacturing and only 10% of non-manufacturing enterprises are exporters, Table 7. The weighted average of the share of 'total sales being exported' (total sales used as weights) across enterprises in the selected European transition region gives that manufacturing enterprises export 25% of their total sales, while non-manufacturing enterprises export only about 8%.

Table 7: Distribution of exporters across industries

	Exported any % of total sales	Exported at least 20% of total sales	Average % of sales exported (weighted by total sales)
Manufacturing	47,56	30,73	25,32
Non-manufacturing	21,96	10,64	8,49

Note: based on 17618 observations in 18 countries.

Source: BEEPS; own calculations

5. DISCUSSION OF RESULTS, CONCLUSION AND POLICY IMPLICATIONS

In this paper, we gave only a tentative microeconomic explanation of the mechanism relating to financial integration and macroeconomic imbalances. Besides the strong intuition from the banking experience, we based our arguments only on our first results from a detailed empirical analysis of micro data from the BEEPS on the access to finance in European transition economies which conducted the financial integration based economic development model in the pre crisis period. By running a probit model, we obtain evidence that manufacturing enterprises face significantly greater problem of access to finance that services enterprises. We also saw, from the descriptive analysis of the same dataset, that enterprises that export are concentrated in manufacturing industry. Our interpretation of the underlying mechanism of such a difference in access to finance across sectors is based on the information asymmetry theory. Since the majority of loans are intermediated by foreign banks, as uninformed lenders, these banks account in their cost of capital a certain market risk with the help of sovereign ratings by international agencies. This risk, already evaluated as high, face some lenders from sectors with lower risk (and lower return rates being concentrated in the manufacturing industry) with discouraging costs of borrowing and lets them out of the lending market. This distortion in the lending market pushes then growth in sectors with higher returns (able to pay high interest rates). These are more likely the services sectors which participate significantly less than manufacturing sectors in overall country's exports. In that way, besides pushing growth, this mechanism also contributes to unsustainable levels of current account deficits in these countries, which, together with high levels of accumulated external debt, create high external financing needs of these countries, all three variables being strong determinants of country's risk perception by international rating agencies. Our explanation, however, relies on the hypothesis of the existing correlation between the level of risk and sector of activity in a manner that manufacturing industry enterprises are on average less risky that the non-manufacturing ones. We also build our arguments on the hypothesis that finance induces growth in transition economies, as evidenced by recent empirical studies. We are also aware of a need for deeper empirical analysis of few other aspects of our argumentation.

We have opened, however, in the presented paper some concrete insights which could generate specific policies aiming to help the problem of information asymmetry in pricing the lower risks in transition economies. If the proposed mechanism is in place in transition economies, it opens a new stream for future research. Moreover, it offers a valuable path for innovative policies solutions in transition countries which could help mitigate the accumulated macroeconomic imbalances and provide the environment for future economic development based on financial integration at the same time.

One of the possible solutions that naturally emerge would be the reconsidering of the role of the state in financial intermediation in these countries. We are all aware of the benefits of denationalization of the banking sector in transition economies and the withdrawal of the state from direct impact on lending through the monetary policy, as was the case before the transition was launched. Nevertheless, the idea of the state action in helping the access to finance of the private sector in developing countries is not novel or unconsidered. Yet, the recent empirical analysis and discussion papers are rather in favour of some kind of soft state intervention ('visible hand') in form of rules and regulation which promote indirectly the access to finance of informationally opaque but valuable projects[22].

In our opinion, future policy actions in these countries should focus on two main fronts. One is to improve the general business environment (adequate infrastructure, energy stability etc.). The other is to commit to a long term (at least five to seven years) set of measures, aiming to help in correcting the structural imbalances of the economies. These measures could help in developing few strategic production sectors which are able to reduce current account deficit by exports or imports substitution. The state here has to find a systematic and transparent way to participate in the risk perceived by investors in these sectors. In that way, these sectors would benefit from new investments and external financing and finally register higher growth rates. It seems that, since the market itself is not able to provide a balanced model of economic growth, there is a place for active government involvement, but in a systematic and not discretionary manner. This kind of intervention could correct structural imbalances in transition economies, such as Serbia, where growth was based on foreign financial borrowing and concentrated in a few non tradable sectors as a consequence of market imperfections. Moreover, it is hard to expect in the near future to have another episode of abundant international liquidity as in the pre-crisis era.

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RESUMING GROWTH IN SERBIA: CASE FOR FISCAL RESPONSIBILITY LEGISLATION

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Summary:

Paper addresses a problem of resuming growth in the post-crisis Serbia, by focusing on the crucial issue of fiscal adjustments, looking both at its size and institution necessary to make it happen. Namely there are few empirical studies showing that future growth in most of the emerging Europe hinges on two pillars: reducing fiscal deficits and resulting public debt, and rebalancing its economy from large consumption and imports to higher savings and exports. Addressing the former pillar, the paper make a case for introducing fiscal rules by law in Serbia, explores alternative options in comparative perspectives, and offers a tentative framework. The latter advances rules for a transitional period of large fiscal adjustments e.g. through 2015, subsequently rules for steady state. Independent fiscal council is envisaged as it has been in almost all countries that adopted fiscal rules.

Key words: *growth, economic crisis, fiscal policy, fiscal rules.*

1. RISKS TO MEDIUM-TERM GROWTH

The growth in the 2000s in the economies in central and eastern Europe (CEE) and even more so in the south and eastern (SEE) ones, has been driven by large capital inflows from the West, resulting credit boom and consequent fast increase in consumption and investments. However, an important side effect has been rapid increase in external private debt[1]. It is financial integration in Europe that made possible this downhill movement of capital from developed West to the emerging Europe, thus enabling the latter to grow at faster pace and hence converge to higher income levels in the West[2]. Let us stress that this economically rational downhill movement of capital has not been recorded outside the Europe, and that even an opposite trend appeared, e.g. from Chine to US. Thus financial integration in Europe, through international banking groups proved beneficial for its emerging economies.

The financial crisis hit emerging Europe through sharp decrease in capital inflows, i.e. 'sudden stop', thus exposing a flip side of strong financial integration. Namely this region has been hit by the crisis more than any other region in the world. Nevertheless, large outflow of capital and consequent currency and banking crisis has been avoid so far and again there is some evidence that this could also be attributed to the presence international banking groups in emerging Europe[3]. Thus there are blessings of financial integration, but also the downsides, and the latter is hoped to be addressed by the improved or new regulatory framework that policy makers in developed world and specifically in Europe are now thoroughly exploring.

Medium term ('potential') growth in emerging Europe may decrease after this crisis compared to the pre-crisis level. Namely, one should expect that economies relying on large capital inflows before the crisis will not be able to attract similar inflows after it and consequently growth pace would decrease. These are the economies that have run large trade and current account deficits, Serbia being a notably example, and they should change their growth model in order to regain sustainable and high growth. Thus instead of relying on strong capital inflows channeled to non-tradable sectors (e.g. financial sector, real estate, domestic trade etc) the future growth should come from tradable sectors and particularly exporting ones. Moreover the latter implies substantial increase of domestic savings in these economies that would offset decrease in foreign capital inflows and be channeled into tradable sectors. These restructuring, even if successful will take time to achieve and hence would meanwhile lower the growth.

The growth prospect, apart from lower capital inflows, will be also affected by another fallout from financial crisis – sharply deteriorated fiscal position. As the crisis stroked, output and hence public revenue dropped, while some recession related expenditure, e.g. unemployment benefits, rose. Governments did not adjust their expenditures downwards and large fiscal deficits emerged. That has been right thing to do as government expenditure step in to offset plummeting private consumption, hence preventing even deeper drop

1 Cf. Berglof , Erik et al. "Understanding the Crisis in Emerging Europe." *EBRD* WP 109, Novemebr 2009.

2 Cf. Abdul Abiad, Daniel Leigh and Ashoka Mody. "Financial integration, capital mobility, and income convergence" Economic Policy, April 2009.

3 Cf. Berglof et al. (2009).

in output. However these deficits will be present for several years to come thus leading to sharp increase in public debt, and hence questioning fiscal sustainability of corresponding economies. This may seriously affect the growth downwards, at minimum by crowding out private sector credit growth and gradually rising interest rates for private borrowers leading to the slower expansion of private sector. There is also risk from rapid increase in interest rates as investors recognize early the potential threats of large fiscal deficits and resulting spikes in public debt.

The narrative above stating that capital inflows and fiscal sustainability are main determinants of medium term (potential) growth after crisis is vindicated by some econometric estimates. Thus an estimated growth regression for emerging Europe that relates growth rates across these countries to growth determinants in pre-crisis period is used for after crisis scenario analysis[4]. The question has been asked what would happen to the growth rates upon expected fall in foreign capital inflows and increase in public debt. Although one should take these results with grain of salt, they are nonetheless very indicative. Thus the estimates suggests that the crisis could decrease medium-term growth by 0.6 to 2.5 percentage points in the new EU member states, and by 0.4 to 2.2 percentage points in other European emerging economies. Obviously countries that in pre-crisis period heavily relied on capital inflows are bound to experience a larger drop in medium term growth, hence positioning itself in the upper segment of reported intervals. Thus among the new member states it is Bulgaria that is expected to slow down its growth the most i.e. by 2.5 percentage points, while among others the 'leader' is predicted to be Serbia with the drop of 2.2 percentage points[5].

Serbia shared the experience of other emerging Europe countries in the 2000s explained above, albeit pushing it to extreme. Thus the inflow of capital (i.e. current account deficit) was regularly above 10% of GDP, and by the end of the period even above 15%[6]. Consequently the reported result suggesting that its medium term growth would decline 2.2 percentage points, hence implying decrease from pre-crisis 6% to below 4% after crisis. Looking closer at the determinants of envisaged decline shows that decrease in foreign capital inflow and increase in public debt have approximately the same impact[7]. Although these estimates are tentative they still indicate the main lines to be pursued by economic policy and reforms in order to resume sustainable and high growth in Serbia. These are medium term fiscal consolidation and related reforms on one hand, and structural reforms and exchange rate policy that would boost tradable sectors growth and domestic savings to compensate for drop in foreign capital inflow on the other hand.

In the remaining of the paper we shall focus on medium term fiscal consolidation in Serbia, while the issue of structural reforms and growth is addressed, at least partly, in *Quarterly Monitor* 18 spotlights[8].

2. LARGE FISCAL ADJUSTMENTS ARE DUE IN SERBIA

Serbia is experiencing high fiscal deficit as a consequence of the crisis: around 4% of GDP in 2009 and the similar deficit is expected for 2010. When crisis hit the economy GDP declined but even more so did domestic consumption and imports. As the latter are the main tax base in Serbia, tax revenue plunged, i.e. dropped much more than GDP. This threaten to result in unsustainably large fiscal deficit, and therefore the government with the support from IMF, undertook expenditure cutting, the main measure being public wage bill and pensions freeze. Since the fiscal deficit has been still high additional adjustments are called for, and the government refused to increase tax rates, but proposed further expenditure cuts. The latter has not materialized as planned and ultimately additional expenditure decrease was achieved by curbing public investment, i.e. the vital item both for economic recovery and medium term growth.

The threat is that this pattern of forced unplanned public investment decrease may become a common practice in the medium term adjustment. Namely, on one side is a huge challenge to contain public wage and pension growth while on the other the government's rejection to increase tax rates in order to offset decline in public revenues. The latter will come about as a result of necessary rebalancing of the Serbian economy from huge imports and consumption to increase in export and savings. Consequently, with the same e.g. VAT rate the revenue (as a share of GDP) would drop.

For 2010[9] the same fiscal deficit i.e. 4% of GDP is agreed with IMF under current standby arrangement (SBA), while expenditure should drop 1.5 percentage points of GDP to 41.4%. Now the latter is welcome adjustment but with the

4 See IMF Regional Economic Outlook, Europe, October 2009, Box 5, pp. 35-6.

5 See IMF Regional Economic Outlook, Europe, October 2009, Box 5, p. 36.

6 Cf. *Quarterly Monitor (QM)* various issues.

7 See IMF Regional Economic Outlook, Europe, October 2009, Box 5, p. 36.

8 See L. Sestovic and M. Wes. "Ten Years of Transition: The Serbia's Growth Experience - What Next?" and D. Vasiljevic. "Serbia's Economic Growth and International Competitiveness."

9 This section draws on M. Arsić and P. Petrović: "Macroeconomic Policy in Serbia: Short and Medium Run" NDE and Economics Faculty, February 2010 (in Sebian).

caveat that this only offsets unreasonable fiscal expansion in 2006-08 period. Hence we are now paying high price for the imprudent, pro-cyclical fiscal policy of 2006-08, that made Serbian economy particularly vulnerable to the world financial crisis shocks. Public investments are foreseen at last to increase this year, and equally important the share of large infrastructure projects (e.g. corridor 10) is predicted to go up. Moreover interest payments on public debt will also increase, and consequently current expenditure should go down 2.4% of GDP i.e. more than total public expenditure. The latter gives exactly the pattern of the required medium-term adjustment, i.e. above the average (relative to GDP) decline in current expenditure.

The envisaged decline in current expenditure in 2010 crucially hinges on the extended freeze of pensions and wage bill in the public sector. However, although agreed with IMF, wage freeze is openly questioned by some ministers, thus undermining fiscal discipline and threatening to push fiscal deficit above the already high level of 4%. But even more importantly, this shows low commitment to essential downward adjustments of current expenditure in years to come, as they would imply containment of pension and public wages growth.

Public revenues in 2010 are also, as expenditure, predicted to decline to 37.7% of GDP. This is the consequence of tax rate decrease that imprudently started before the crisis, although now in 2010 is the result of lower tariffs on import from EU. While the latter is obviously desirable in the broader context of EU accession, the above decrease in public revenue puts large strains on indispensable medium-term adjustments.

Public debt is bound to increase sharply as the result of large fiscal deficit in two consecutive years (2009 and 2010), that are almost exclusively financed through the government borrowing. It might reach some 35% of GDP at the end of 2010, and would be some two percentage points higher if the Kosovo's debt to World Bank has not been removed. Although the level of debt is still acceptable, it is the pace of its increase that is alarming: almost 10 percentage points of GDP in two years. This vividly points to necessary deficit and expenditure reduction in years to come in order to prevent further sharp increase in debt. Section 1 above has already referred to the research indicating that large public debt is one of the most important impediment to future growth in emerging Europe, and particularly so in Serbia.

There is yet another issue related to the rising public debt i.e. it is going to be financed by borrowing abroad. Although this is beneficial for private sector at home as this would leave space for its borrowing, nevertheless this would increase Serbia's cumulative foreign debt. As it already reached 73% of GDP by the end of 2009, the foreign debt could easily surpass a critical level of 80% if the increase of public debt is not curbed. Excessive foreign debt may on its own lead to drop in medium term growth rate by rising doubts about its sustainability among foreign investors, and hence cutting back vital capital inflows.

Looking beyond 2010 government is envisaging large increase in public investments. As explained above its share dropped in 2009, as other expenditure were harder politically to contain. Thus from 3% of GDP in 2009 public investments should be raised to 5-6% in the medium term, as Serbia is lagging far behind emerging Europe with its infrastructure. Thus World Economic Forum put in 2009 Serbia's infrastructure at a very low 110th place out of 133 countries, and this substantially accounts for Serbia's overall low ranking in competitiveness i.e. 85th place.

Thus investments in infrastructure are badly needed to spur medium term growth. Moreover in 2010 and the next year these investments should help to pull out the economy from the recession. Having said that a word of caution is due, i.e. the list of infrastructure projects that are circulating might add up as much as 10 billion euros in next five years. This by far exceeds government financing capacity and can lead to the explosion of the public debt. Thus sharp prioritization of these projects should be made based on cost-benefit analysis that should also include their impact on the increase of public and via it on foreign debt. Even crude assessment of the list shows that a number of projects should be at least postponed and its finance should rely more on foreign direct investments rather than government's borrowing.

Another public expenditure item that is bound to increase in the medium term is interest payments on public debt. These payments used to be 1% of GDP, but they will double i.e. to 2% of GDP and only so if the public debt does not exceeds 40 and 45% of GDP. Lastly, Serbia in comparative perspective spends below average on social safety net[10] and hence should adjust that expenditure upwards. This is urgent priority as in 2010 and a few next years we may expect lower GDP growth in Serbia that will adversely affect employment and poverty.

On the other side, fiscal deficit should be decreased from the current 4% of GDP to somewhere above 1% in next five years. It has been already explained that public revenues (as share of GDP) will not increase and may easily drop as Serbian economy rebalances to larger exports and savings.

10 Cf. *Doing More with Less: Addressing the Fiscal Crisis by Increasing Public Sector Productivity*, World Bank Report, 2009.

All this implies that (remaining) current expenditure should adjust downwards, i.e. grow at a lower pace than GDP.

These current expenditure are, as mentioned above, public wages and pensions, but also recently increasing subsidies and soft government ('development fund') loans extended to real sector.

Pension reform is pending. The key issue for the medium term fiscal adjustment is how pensions will adjust to the growth of the economy. It seems that agreement on medium term target has been easily achieved, i.e. that pensions should be about 10% of GDP in 2015 thus decreasing from 13% in 2009. But 2015 looks as distant future hence the main controversy is about the path that would produce this considerable downward adjustment. It is obvious that pension should grow slower than GDP if its share is to decrease. Hence the IMF proposal that pensions should index only to inflation, i.e. remain constant in real terms, and only increase in real terms if GDP grows above some reasonable level e.g. 4% per year. Alternative propositions for indexation imply faster pension growth at least in near future, so that the 2015 target will not be achieved, or the increase in the pension will be halt by the end of the period. Although this discussion may look a bit too technical, it conveys a broader message. Namely elections are due in 2012, so the intention seems to be to postpone adjustment of pensions after election. However, this is not only economically harmful, but also non-credible. One can easily imagine what will be pre-election promises related to pension reform – certainly not those that would suggest its slower growth. In fact we already ran this 'experiment' – after previous elections pensions were increased by 10% in October 2008 despite the fact that world recession was coming to Serbia.

3. FISCAL RESPONSIBILITY LEGISLATION

As explained above large fiscal adjustment is essential in Serbia if it wants to resume high growth after crisis. We now argue that in order to achieve necessary downsizing of public sector, Serbia should introduce fiscal responsibility legislation (FRL) i.e. binding fi1scal rules.

A case for fiscal rules might be made as follows. We have witnessed that even at the beginning of 2010 agreed adjustment i.e. freeze of public wage bill has been questioned by authorities. More importantly in spring of 2011 SBA with IMF expires and that is also pre-election year, thus one can expect enormous pressure on public expenditure to increase. This would annul preceding expenditure cuts, keep on high fiscal deficits that would result into large rise in public debt.

Serbia has already experienced the pattern described above: in each quarter (Q) preceding or immediately after elections public expenditure and fiscal deficit surged (cf. Table 1). Thus one would need a stronger medicine i.e. FRL to try preventing from happening it again.

Table 1: Fiscal deficit before and after (2008Q4) elections

% of GDP

	2003 Q3	2006 Q4	2007 Q4	2008Q4
General Government Deficit	5.0%	8.1%	8.0%	6.5%

Source: Quarterly Monitor (QM) various issues

As shown in section 2 above, Serbia has led pro-cyclical fiscal policy in 'good days' i.e. 2006-2008, and even worse it increased its underlying ('structural') fiscal deficit. This could be partly due to misperception that 'good days' have been there to stay for ever, or it was just the case of seizing opportunity to spend more without considering future consequences. Thus instead of saving for 'rainy days' (anti-cyclical fiscal policy), government faced crisis and consequent fiscal deficit without any substantial reserve to finance it. Therefore necessary increase of domestic demand in recession through large fiscal deficit (anti-cyclical fiscal policy) led to the sharp increase in public debt as shown above. FRL is intended to ensure economically sound anti-cyclical fiscal policy.

Fiscal responsibility legislation should also improve medium expenditure framework in Serbia. Current framework, i.e. fiscal and economic policy memorandum has lost its credibility. Each April government accepts Memorandum containing relatively prudent fiscal policy only to routinely change it to the worse while preparing budget in the fall. With medium run i.e. Memorandum's three years expenditure projections things are even worse – as a rule actual expenditures by far exceed the projected ones.

Introducing legally binding fiscal rules should enhance stability of tax system, as thanks to predictable medium term framework government need not resort to ad hoc introduction of new taxes or changes in tax rates. Finally, FRL should in many respects support Serbia's accession to EU. First and foremost the legislation would help by improving fiscal policy and management thus enabling Serbia to comply with Maastricht criteria and particularly with the stability and growth pact (SGP). But also important are improvements in fiscal reporting, internal control, external audit, public procurement etc.

There is considerable *empirical evidence* showing that large fiscal adjustments are better achieved with *fiscal rules*, as the results below from an IMF study show.

Some lessons for Serbia from the review above are that fiscal rules are critical for large adjustments; they also improve budgetary performance and keep the debt level under

control. Moreover, sizeable fiscal adjustment asks for stricter rules than otherwise, and they are usually set as balance budget and expenditure rules. Finally, although the study finds that success does not depend on whether the rules are set by a law or just by political agreement, this may well be due to the sample used that include a large number of developed countries (cf. the box above) with strong institutions. However this is not the case of Serbia, where as demonstrated above 'fiscal rule' embedded in memorandum of fiscal and economic policy although politically accepted (i.e. by government) is routinely changed later on.

Growing number of emerging European countries have been introducing FRL, and particularly our EU neighbor such as Hungary, Slovenia and Romania. Thus although they should comply to EU fiscal rule i.e. the stability and growth pact (SGP), they opted for additionally binding natio-

Box : The Role of Fiscal Rules in Large Fiscal Adjustments

A forthcoming study by the IMF's Fiscal Affairs Department will examine the role of fiscal rules in large adjustments. Across advanced and emerging market economies there have been 24 episodes since 1980 where large and sustained reductions in government debt were achieved primarily through fiscal consolidation efforts.[1] A review of the experience in these countries yields the following insights:

- While several countries achieved large fiscal adjustments without fiscal rules, adjustments in countries with fiscal rules were on average larger and more front-loaded than those in countries without rules.
- Budget balance and expenditure rules were the most common fiscal rules among large adjusters. Both types of rules, the former anchored in budget targets and consistent with implicit medium-term debt goals, have proved effective in improving budgetary performance and lowering debt levels.[2]
- Most fiscal rules for large adjusters had wide coverage and applied either to the general or central government. In countries with strong decentralized structures, strict targets at the regional or local level contributed to anchoring general government budgetary performance and thereby to the success of large fiscal adjustments.
- Whether a rule is enshrined in law or simply in a political agreement does not seem to affect its likelihood of success.
- Fiscal rules in place during large adjustments were in general stronger than rules in other countries (see also European Commission, 2007). Using criteria (in addition to coverage and statutory base) such as enforcement, monitoring, and visibility, shows that fiscal rules were particularly strong in large adjusters. Moreover, to sustain consolidation efforts over many years, rules were often reformed over time, reflecting the need to address risks of consolidation fatigue and other shortcomings that had emerged.

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[1] We focus the analysis on large public debt reductions spurred by fiscal adjustments. These fiscal consolidations were also supported in part by real GDP growth and were linked to simultaneous structural reform efforts in most countries. A large reduction in government debt is defined as a drop by at least 10 percentage points of GDP over three years or more and by 20 percent of the initial debt stock. Among a set of 45 OECD, G-20, and EU countries, 33 episodes since 1980 fulfilled these criteria. Excluding oil exporters and those episodes in which the reduction in debt was predominantly driven by rapid real GDP growth and inflation (mostly in the new EU member states) reduces the number of cases to 24. This sample of the analysis matches closely those of earlier studies where adjustment was defined in terms of improvements in the cyclically-adjusted primary balance and the impact on debt (see e.g., Kumar, Leigh, and Plekhanov, 2007).

[2] Econometric studies that have analyzed the link between fiscal rules and budgetary performance more generally, find that budget balance and debt rules have contributed to better budgetary outcomes (e.g., Debrun et al. 2008). While this has not necessarily been the case for expenditure rules, Debrun et al. found that expenditure rules have helped to rein in primary spending.

Box : Continued

Types and Coverage of National Fiscal Rules and Large Fiscal Adjustments 1/

	Fiscal Adjustment				Role of Fiscal Rules				Type and coverage of fiscal rules 6/			
	Year when public debt-to-GDP ratio first dropped (t)	First year of sign. improve-ment in CAPB 2/	Change in public debt-to-GDP ratio (t to i) 3/	Lenth of episode (no. of years) 4/	Year of adoption of fiscal rule 5/	Fiscal rules at start in place?	Fiscal rules adopted/ revised during adjustment period?	Fiscal rules adopted later?	ER	RR	BBR	DR
Australia 7/	1995	1995	-24.2	14	1998	No	Yes	No		CG	CG	CG
Belgium	1994	1993	-53.0	14	1993	Yes	Yes	No	CG, SSS	CG	RG, LG, SSS	
Brazil	2003	2003	-21.0	4	2000	Yes	No	No	GG		GG	GG
Bulgaria	2001	2000	-60.4	8	2003	No	Yes	No	GG			GG
Canada 7/	1997	1995	-19.6	4	1998	No	Yes	No	CG		CG	CG
Denmark	1994	1997	-57.7	15	1992	Yes	Yes	No	GG		GG	
Finland	1995	1996	-15.4	8	1995	Yes	Yes	Yes			LG	CG
Finland	2004	na	-11.0	5	1999	Yes	Yes	No	CG	SSS	CG, LG	
Iceland	1996	1995	-15.4	5	2004	No	No	Yes				
Iceland	2002	2004	-20.5	4	2004	No	Yes	No	CG			
Ireland	1994	1993	-69.6	13	2004	No	Yes	No	CG		LG	
Korea	1983	na	-14.6	12	na	No	No	No				
Mexico	1991	1995	-25.2	3	2006	No	No	Yes				
Netherlands	1996	1996	-25.6	7	1994	Yes	No	No	GG	GG		
New Zealand 7/	1993	1993	-44.2	16	1994	No	Yes	No			GG	GG
South Africa	2004	na	-10.0	5	na	No	No	No				
Spain	1997	1996	-31.3	11	2002	No	Yes	No			GG	RG, LG
Sweden	1997	1994	-19.7	4	1996	Yes	Yes	Yes	CG, SSS			
Sweden	2002	na	-18.6	7	2000	Yes	Yes	No	CG, SSS		GG, LG	
Switzerland	2004	2005	-13.5	5	2003	Yes	No	No	CG			
Turkey	2002	2001	-38.1	6	na	No	No	No				
United Kingdom	1985	1988	-15.7	7	1997	No	No	Yes				
United Kingdom	1998	1995	-12.0	5	1997	Yes	No	No			GG	GG
United States	1994	1994	-16.9	7	1990	Yes	No	No	CG		CG	

ER = Expenditure rules; RR = Revenue rule; BBR = Budget balance rule; DR = Debt rule; GG = General government; CG = Central government; RG = Regional government; LG = Local government; SSS = Social security system; na = non-applicable.

1/ Includes episodes in G-20, OECD and European Union member states (except oil exporters) in which the public debt-to-GDP ratio dropped by at least 10 percent of GDP and at least 20 percent of initial public debt stock and this reduction was primarily driven primary surpluses (accounting in principal for more than 25 percent with the other three factors being inflation, real growth, and stock flow adjustments).

2/ Changes in the cyclically-adjusted primary balance (CAPB). Improvement of at least 1 percent of GDP.

3/ t is the year before the public debt-to-GDP ratio drops. i is the last year of the drop.

4/ Number of years when public debt-to-GDP ratio continously dropped.

5/ Refers to the adoption date of a major fiscal rule applicable to the central or general government.

6/ Includes only those rules in place or adopted during adjustment.

7/ While fiscal rules are not legislated in Australia and New Zealand, the fiscal responsibility laws provide a framework for the formulation and conduct of fiscal policy. In Australia, numerical targets are laid out in the government's annual "Fiscal Strategy Statement" for the coming four years. In New Zealand, the FRA places emphasis on transparency but also requires the government to set specific fiscal targets for the next three years and publish 10-year objectives. Canada has adopted de facto fiscal rules in 1998 when the authorities targeted a balanced budget or better and committed to a debt repayment plan. This was preceeded by two-year rolling deficit targets and the legislation of balanced budget rules for a number of provinces and territories.

Sources: IMF Fiscal Affairs Department Database on Fiscal Rules, European Commission Database on Fiscal Rules, Country Reports, and staff calculations based on WEO data.

This Box is taken from: "The State of Public Finances Cross-Country Fiscal Monitor: November 2009" IMF Staff Position Note.

nal fiscal responsibility legislation (FRL) to support their fiscal policy. SGP in practice proved to be hardly binding constraint – it says that the fiscal deficit should be on average (over the cycle) in balance and that it should not exceed 3% of GDP even in bad times. Nevertheless, Hungary in good pre-crisis period by far exceeded the upper deficit limit of 3%. In the current crisis a number of developed EU countries ran huge deficits, notably Greece, Spain, Portugal, Ireland etc. with underlying (average,'structural') deficit most probably above SGP limit. Interestingly enough, Germany with strong and credible institution introduce the new budget rule in 2009 embedded into its constitution.

A review of fiscal rules is presented in Table 2.

Numerical rules, rather than procedural, are relevant for countries with relatively weak institutions as is the case with Serbia. But let us add that even the countries with more than respectable institutions such as Germany and Sweden opted for numerical rules.

Deficit numerical rule combined with quantitative expenditure ceilings seems to be effective for large adjustments (cf. box above). However, within fiscal deficit rule there are several options. The rule that fixes actual deficit is easy to monitor, but it is too rigid, i.e. it does not allow higher deficit in recession as now is the case, nor the surplus in boom, hence implying pro-cyclical fiscal policy which is bad. Hence the alternatives: structural balance rule and balanced growth rule, that basically target balance or a predetermined deficit over the cycle, while in each year actual deficit could be above or below the targeted one depending whether an economy is doing well or bad. Thus Serbia should have run fiscal surplus in 2006-2008, and deficit subsequently, if this rule is to hold.

Table 2: Overview of fiscal rules

Type of Rule	Design Issues	Advantages	Disadvantages	Possible remedies
Procedural rule	General principles on public debt, tax policy, role of fiscal policy in limiting economic fluctuations against which fiscal policies will be evaluated	Flexible as it does not legislate a precise fiscal target	Requires strong institutions to assess conformity of fiscal policy with the objectives. May still require defining an operational numerical fiscal rule to facilitate fiscal policy formulation.	
Numerical rules				
Debt rule	Debt ratio or changes in the level of debt	Focuses on the ultimate objective; accounts for quasi-fiscal operations	Limited guidance for short-term fiscal policy; difficult to control with large foreign currency debts and exchange rate volatility	
Deficit rule		Easy to monitor	Procyclical fiscal policy; ignores off budget and quasi-fiscal activities	Set a tighter fiscal deficit target to make room for contingent liabilities; strengthen monitoring and reporting of fiscal risks
Structural balance rule	Methodology for estimating potential GDP	Allows for countercyclical fiscal policies	Difficult to monitor with uncertainty to the output gap; ignores off-budget and quasi-fiscal activities	Independent assessment of potential GDP
Balanced growth rule	Assumption on trend growth	Relatively easy to monitor	Ignores quasi-fiscal activities; uncertainty with respect to the trend growth rate	
Golden rule	Excludes investment from the fiscal target	Avoids investment taking the brunt of fiscal adjustment	Not all investment necessarily raise productivity and growth; risk of reclassification of current spending as capital; not necessarily compatible with the overall debt objective; ignores off budget and quasi-fiscal activities	Exclude only IFI-financed capital projects
Expenditure ceilings	Timeframe; rolling or fixed; nominal or real	Provides for countercyclical fiscal policy; easy to monitor	Ignores quasi-fiscal activities; uncertainty to revenue and no anchor in a fiscal deficit objective	Independent revenue projections; rule out tax reductions unless offset by corresponding spending cuts

Source: IMF Fiscal Affairs Department

Amended deficit rule is golden rule which excludes public investments from the deficit in order to protect them. These investments as discretionary spending are often the first victim of fiscal adjustment as it was the case with Serbia in 2009 (cf. section 3 above).

Tentatively, *Serbia may opt for* some version of *balanced growth rule* while excluding some of public investments, i.e. with elements of golden rule. This should be complemented with expenditure ceilings. Public debt could also be observed as an indicative target.

However, since Serbia is facing large fiscal adjustments, one could envisage a transitional period for these adjustments to take place and subsequently a steady state ('long-run') period. Different set of rules would then be applied in these two periods. This is similar to the German approach, where also transition period is allowed for before a structural deficit of maximum 0.35% of GDP rule is to be applied[11].

Tentatively one may envisage five years transition period in which Serbia should adjust to some target deficit. Namely approximately in five years Serbia might be ready to join EU. But also adjustment period through 2015 will encompass both pre-election (2012) and post election subperiods thus hopefully preventing populist fiscal expansion that has been regularly related to previous elections in Serbia (cf. Table 1). Target underlying fiscal deficit (balanced growth one) to be reached by the end of the period might be up to 1% of GDP. As the interest payments on public debt will be at least about 2%, target deficit would imply primary (without interest payments) surplus. Moreover, assuming realistically that GDP growth rate will be around or a bit below interest rate, the public debt as a share of GDP would be stable.

In order to decrease fiscal deficit from currently 4% of GDP to 1%, relative (to GDP) decrease in public expenditure must take the main burden. As mentioned previously the main items are pensions and wage bill. The forthcoming pension reform should contain the corresponding expenditure at sustainable size, and it looks that approximately 10% of GDP in 2015 is agreed level. The path leading to the target is also important and politically sensitive, hence the current disputes about alternative indexation schemes (see section 2 above). It is clear that pensions should grow slower than GDP in order to adjust, but also for the plan to be credible they should decrease at approximately the same pace throughout the whole period. Indexation

11 See "Reforming the Constitutional Budget Rules in Germany", Deficit Rule Reform Team, Federal ministry of Finance, August 2009.

schemes that foresee small decrease at the beginning of the period (i.e. before election) and then catching up afterwards are non-credible.

Same as pensions, wage bill in the public sector must grow slower than GDP, hence adjusting downwards through 2015. At the same time public sector reform dealing with public administration, education and health service should be advanced, and as a result employment downsized. The same applies to wage bill employment in public enterprises. On the other hand, public investments should increase in the medium term from 3% of GDP in 2009 to 5 to 6%.

For the time being, political stance is that tax rate should not be increased. As explain above this would decrease tax revenue relative to GDP, due to necessary rebalancing of the Serbian economy, i.e. from consumption to savings and from imports to exports. Now if the resulting medium path of tax revenue confronted with expenditure above does not lead to a target deficit we may end with unsustainable and growing public debt. Then society, and politicians as its representatives, is facing a choice of whether to pursue further expenditure cuts or to raise taxes.

Thus as to the fiscal rules, beside targets referring to deficit and expenditure, total and those for pensions and wages in public sector, the corresponding paths of these magnitudes throughout this period should be derived. Nevertheless, some flexibility of these paths is always allowed for taking care of unexpected swings in output growth. Swedish approach might be relevant for Serbia where ceilings for total expenditure are always fixed for two years in advance while for the third year indicative limit is determined. Serbia could apply this rolling two plus one year procedure while setting ceilings on total, but also expenditure on public wage bill and pensions. This should address the glaring problem that Serbia now has with non-credible three years expenditure projections given in the memorandum of fiscal and economic policy.

As to the fiscal rules once adjustment in the transitional period is completed, Serbia may opt for balanced growth deficit rule with some elements of golden rule. This means that Serbia would run balanced budget or small deficit on average, i.e. over a cycle, while some well defined public investments would be exclude from the expenditure. This may be complemented with expenditure ceilings, as explained above. A supplementary indicator should be the public debt, which strictly speaking would not be binding if the above deficit rule is honored. However, due to potential off budget activities and contingent liabilities (coming e.g. from public enterprises) the public debt may increase above targeted level even if deficit is kept under control.

Complementary to fiscal rules is an institution of fiscal counsel which is commonly introduced by fiscal responsibility legislation (FRL). Thus almost 20 EU countries have fiscal counsel of one form or another. Its role is to monitor whether fiscal rules and corresponding fiscal policy are pursued. Namely as explained above, the rules should contain some degree of flexibility, hence the need for independent assessment whether government comply with the fiscal rules. The counsel might also assess impact of alternative fiscal policies, issue corresponding reports and recommendations, and thus enhance public debate on fiscal policy. European Commission study (2006)[12] finds that fiscal counsels in EU have contributed significantly to fiscal discipline and to public debate on fiscal policy.

12 European Commission, *Public Finance in EMU*, 2006, Ch. IV.

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INDUSTRIAL TRANSFORMATION: KEY TO ECONOMIC GROWTH

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'The safest road to high productivity and, accordingly, to a high standard of living is to expose national industry to world markets and ensure strong competition with enterprises that have adopted cutting-edge technologies'
(Samjuelson&Nordhaus)

Summary:

Serbian industry is going through a difficult transformation period. The non-restructured and inefficient industrial system is facing global recession, the deepest one for the past 60 years. The crisis-laden 2009 annulled the entire transition contribution manufacturing industry had made to economic growth, the share of 12% in GDP being the lowest in the region. Consequently, macroeconomic vulnerability indicators strengthened. The golden period of the economic growth model based on the inflow of foreign capital is behind us. Particularly serious are those effects transition has made on the key development resource which is most difficult to regenerate - human capital. Namely, restructuring of manufacturing industry largely boiled down to rationalization of industrial workers, i.e. reduction of 'redundant employees'. The transformation model of economic growth in the long run will hinge on dynamics of structural changes in manufacturing industry, boosted investment efficiency, and faster sector reallocation of the growth factors towards propulsive and export-competitive industrial sub-sectors.

All transition economies that are successfully developing have developed strategic plans of economic development. *'Development needs to be planned, it must be managed'*. The industrial policy entails strategic operating of the country, and that by means of a series of managing mechanisms (measures and instruments), in the field of regulation of the economic environment created by the government for the purpose of achieving its strategic development objectives. Industrial policy objectives are derived from the very concept of development, which is to mean from the core project of development of a society.

Key words: *manufactoring, economic growth, transfomation, sectoral realocation, investment, export competitiveness, strategic planning economic development, industrial policy accelerators.*
JEL classification: L60, P21, O25, O11

INTRODUCTION

Transformation of Serbian economic and social system has lasted for nine years now. In terms of development, the decade of economic distortion and economic collapse was followed by the decade of economic consolidation and the setting up of a new economic system. Nonetheless, consequences of the lost decade are still detected in all segments of the economic system. Serbia is still coping with the economic lag generated in 1990s. A strong wave of the global economic crisis has severely hit the territory of Southeast Europe and a myriad of misbalances and systemic aberrations have surfaced.

Particularly serious are those effects transition has made on the key development resource which is most difficult to regenerate – human capital. Human capital presents the only investment which has the potential for bringing in limitless revenues and 'exponential growth'[1].

Table 1: Demographic and economic misbalance 2009

Overall population*	Employed	Unemployed	Pensioners	Supported
7,334,935 (100%)	36%	10%	21%	33%

Source: author's calculations based on RSO data
** RSO estimate of total population (01.01.2009, without Kosovo and Metohija)*

Demographic trends have been extremely adverse, particularly so over the last two decades[2]. The economic structure of the population has undergone major changes over the previous transformation period. What affects development most is a rapid decline in active population, i.e. in the number of the employed. On the other hand, almost 2/3 of the total population structure is accounted for by categories of the unemployed, pensioners, and supported persons.

In 2009 the transformation model of economic growth was faced with numerous problems manifested as syste-

1 Nobel prize winner Gary Becker.

2 The natural increase is constantly negative, the population is one of the oldest in Europe, and the rate of infant mortality is far above the European average. Pertinent demographic estimates by 2020 vary between 7,300,000 (the optimistic scenario, without AP of KiM) and 6,600,000 citizens (the pessimistic scenario).

mic misbalances. The key misbalance, which is the idea underlying this paper, is the fact that sustainable economic growth is not feasible if there are no investments in industry, primarily in manufacturing industry. Serbian industry is going through its toughest period: **almost entire transition growth in 2001-2008 of 15.8% was annulled by the crisis-laden 2009; the number of employees in manufacturing industry was halved** (a decrease of 47% over the period 2001-2009), which presents one of the greatest economic transformations seen in any country of the region[3]. Overall transition growth of averagely 5.4% of GDP growth was based on the growth of services. A key macroeconomic misbalance lies in the fact that manufacturing industry contributes with 95% to total exports.

Table 2: Macroeconomic vulnerability indicators

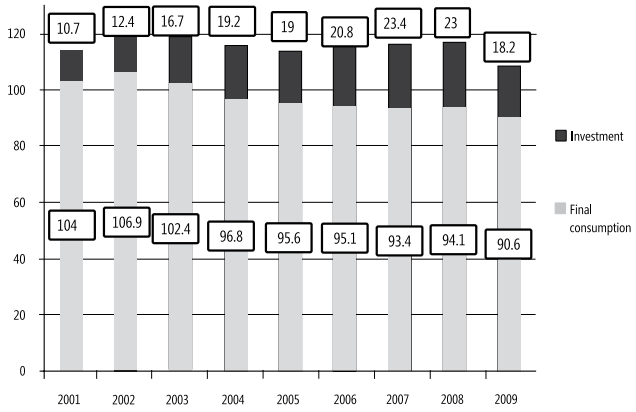
	2008	2009
Industry	1.1%	-12.1%
Employment	-0.1%	-5.5%
Investment	4%	-23%
Export of goods	15.5%	-19.7%
Fiscal deficit (% BDP)	-2.5	-3.2
Foreign debt (% BDP)	63.6%	73%
Public debt (% BDP)	25.6	31.3
Inflation (consumer prices, end of the period)	8.6	6.6

Source: autor's calculations on the basis of the RDB

The macroeconomic model of economic growth in 2009 was under a strong impact of vulnerability indicators triggered by the global economic crisis. Industry, investment, and exports saw the sharpest decline, a regularity of all the economic crises since Great Depression. Despite the reduction of public consumption in GDP, budget deficit increased. What strikes as most alarming is the indicator of an increased share of debt in GDP (both the total and the public debt). By the level of foreign debt, according to the World Bank criteria, Serbia is among medium indebted countries.

Transition vulnerability of economy is probably best illustrated by the ratio between domestic demand and output. During the entire transition period domestic demand was rising at a faster pace (7.5%) than output (5.4%). Consumption was permanently higher than output, by 20%. The rise in final consumption (as an aggregate of domestic demand) was making a continual impact on macroeconomic stability (deficit of the current balance of payments, etc.).

Figure 1: Domestic demand (% GDP)



Source: autor's calculations on the basis of the RDB and RSO

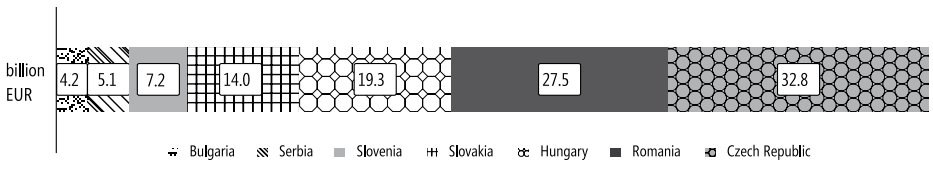
TRANSITION INDUSTRIAL TRAILING

Entire economy of Southeast Europe is very slowly adapting to the process of globalization, an ever more fierce market game, and high competition demands. In the second half of the 1990s efficient transition economies boasted a dynamic economic growth primarily owing to the rise in investments, personal consumption, and a larger export of goods and services. The backbone of their economic growth was implemented structural reforms owing to which significant changes to the structure of industrial production took place. Structural changes implemented in line with the principle of stronger international competition caused an extremely dynamic growth of industrial branches reliant on exploitation of state-of-the-art technologies and economies of scale (in the first place electro industry, industry of precision devices, and manufacture of motor vehicles), whereas the greatest drop was registered in labour intensive sectors (food, textile, and wood processing industry).

Economic growth in transition European economies has continued into the new millennium as well. Thus transition countries of East Europe, those that are members of the EU, also boast a rather high level of industrial output owing to high average rates of growth registered in 2001-2008. Owing to the structural changes but also the FDI inflow, the rise in industrial output, and exports most transition economies

3 Industrial growth 2001-2008: Hungary 55%, Poland 84%, Bulgaria 76%, Slovakia 61%, Romania 41%, Croatia 40%.

Figure 2: Manufactoring value added 2008



Source: author`s calculations on the basis of the RSO and Eurostat

of Central and East Europe have managed to increase their export performances substantially, which pushed forward entire industries of these countries. A key role in the process of export boosting has been played by the EU market, and that not only due to geographic and location factors, but also because of the fact that new EU members have comparative advantages on this market; this is why considerable industrial capacities have been dislocated from highly developed industrial economies of the EU to transition economies. The industrial advantage of transition economies lies in those branches of industry that rely on skilled but at the same time pretty cheap and productive labour.

The industry of Serbia is one of the weakest in the region. Despite the fact that during transition gross value added in manufacturing industry has doubled, manufacturing industry of Serbia produces 50% less than that of Slovenia, almost 3 times less than that of Slovakia, 4 times less than that of Hungary and as much as 6 times less than manufacturing industry of Czech Republic. A belated transition start and sluggish implementation of structural reforms are the main reasons for a major industrial trailing of Serbia.

Table 3: Industrial employment decline (in 000)

	2001	2008
Bulgaria	645	737
Czech Rep.	1,396	1,441
Hungary	959	934
Romania	1,895	1,967
Slovenia	257	237
Slovakia	517	544
Serbia	619	370

Source: RSO and national statistcs

In addition to very low industrial output, and as different from other transition economies, manufacturing industry of Serbia during 9 transition years has lost 47% of industrial employees and at the end of 2009 (October) manufacturing industry employed 331,136 people. In any economy establishment of industrial structure is a very long process – it requires permanent education and strategic planning. The fact that neighbouring transition countries employ several times more industrial workers each (Bulgaria 2 times more, Hungary almost 3 times, Romania as much as 6 times more) and that almost all transition economic have managed to retain their industrial employment speaks volume about what kind of problems Serbian industry is faced with. Beside post-privatization issues (a considerable percentage of failed privatization processes), the employment drop in 2009 was largely induced by effects of the global economic crisis.

The analysis of transition industrial productivity brings a very clear distinction between efficient transition economies and those in which structural changes in economy have not been oriented towards mid- and high-tech branches. The group of efficient transition economic includes Slovenia, Czech Republic, Slovakia, and Hungary, while the other group includes all transition economies of SEE. Productivity of Slovenian industry is 2.5 times higher, Slovakian 2 times, and Hungarian 50% higher.

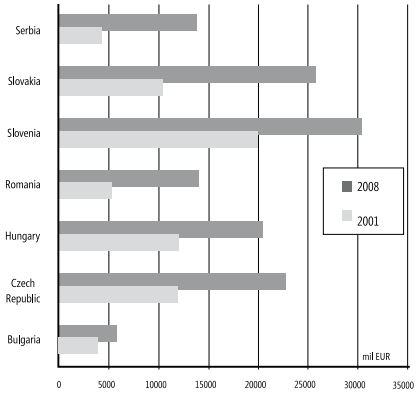
INDUSTRIAL TRANSFORMATION: EFFECTS ON ECONOMIC GROWTH

Serbian industry is going through its toughest period in the last two decades. The decade of devastation was followed by a decade of transformation. The global economic crisis stressed the problem of the economic growth model only further. Consequences of transformation of Serbian industry are very similar to those in the entire SEE region but at the same time are quite different from those experienced by successful transition economies (Czech Republic, Slovakia, and Slovenia)[4].

The transition model of economic growth of Serbia was characterized by several key features: a) economic growth hin-

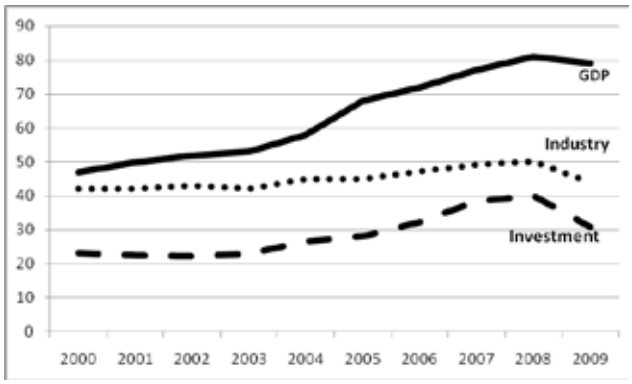
4 RDB (2009a)

Figure 3: Value added of manufacturing per employee



Source: author`s calculations on the basis of the Eurostat and RSO

Figure 4: GDP, industry, investment (1990=100)



Source: author`s calculations on the basis of the RDB

ged on the inflow of foreign capital, b) dynamic growth for the most part was induced by domestic aggregate demand (export demand was four times lower because of the structure of economy and non-competitiveness), and c) robust growth was almost exclusively contributed to by the sector of services, with an average rate of gross value added of 7%.

Negative industrial contribution to transition economic growth

Manufacturing industry did not contribute to transition economic growth. The newly created value was humble. Manufacturing industry was the first sector hit by the global economic crisis – its decline was the speediest. With or without effects of the crisis, the share of manufacturing industry in GDP had been in continual decline. Due to a slump of manufacturing industry in 2009, the total contribution to GDP growth for the entire transition period 2001-2009 was negative while its share in GDP went down from 18% in 2001 to around 12% in 2009 – all of this serves to indicate how serious problems of restructuring and structural changes are (efficient transition economies have a 20%-30% share of industry in GDP).

Table 4: Manufacturing industry

	Contribution to GDP growth	Share in GDP
2001	-0.6	17.7
2002	-0.5	16.6
2003	-1.0	15.2
2004	1.3	15.2
2005	0.0	14.4
2006	0.9	14.5
2007	0.7	14.2
2008	0.2	13.6
2009	-1.9	12.0

Source: author`s calculations on the basis of the RDB

Dynamics of structural changes

Structural changes in manufacturing industry leading to a larger share of competitive branches with high productivity propel sustainable economic growth and economic development. The rise in total productivity in competitive sectors entails a continual rise in investments and permanent integration of national economy in international developments.

Dynamics of structural changes, the rise in labour productivity, and sector reallocation of the growth factor towards highly productive sectors is what distinguishes rapidly developing economies from the other ones. In SEE transition economies the rise in productivity is still not coupled with the rise in employment. The rise in productivity in developed countries primarily depends on technological innovations. In transition countries, however, the rise is much less dependant on upgraded technology and much more on the change of the structure of production for activities of higher productivity levels.

Table 5: Manufacturing industry– transition balance

Indicators	2001	2009
Share in GDP	18%	12%
Employment	619,000	339,428
Export (% of total)	93%	95%
Import (% of total)	73%	81%
Earnings (% of average)	87%	80%
No of enterprises (% in economy)	12,538* (18.8%)	18,509** (20%)
No of large enterprises	489	277

**2002; *2008*

Source RDB

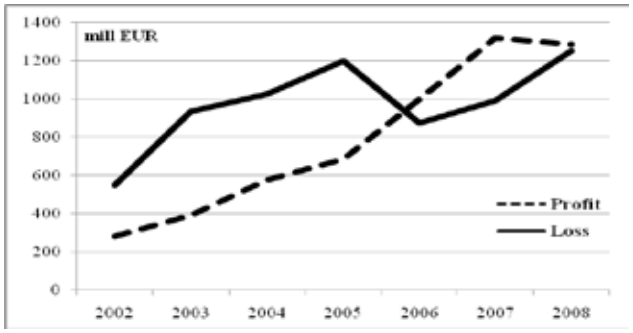
Economic reforms are of vital importance for reallocation of resources to more productive sectors of economy and for providing opportunities for the setting up of new enterprises and development of the entrepreneurial sector (which drives growth in modern market economies). One of the main reform elements in transition countries involves fundamental reallocation of resources from the social and state to the private sector, creation of a new economic structure through the process of privatization, restructuring, and modernization of economy. Privatization of social capital in Serbia is in its final phase and we can evaluate how successful it is by means of the degree of improvement of main business performances of companies and their impact on economic development.

Due to the problem of post-privatization restructuring and, first and foremost, more intensive investment in modernization of equipment and enhancement of the production process technology, in 2008 after 8 years of transition operations of 40% of privatized companies were not viable and their assets' value decreased because of high indebtedness and accumulated loss. Seven sub-sectors of manufacturing industry in 2008 reported a positive financial outcome owing to viable operating of the entrepreneurial sector. Large companies in all transition years reported that profit was higher than loss. In those sub-sectors where privatization was mostly successfully completed during the initial transition period, privatized loss-making enterprises (2002) evolved into viable enterprises (2008). Indebtedness and accumulated loss burdened operations of industrial enterprises and in comparison with 2002 had a tendency towards rising further.

In 2008 liabilities were in excess of capital 1.6 times and accumulated loss accounted for 56.2% of capital. The rate of lost industrial capital (42.0%) exceeded the average of

economy (27.5%). Large industrial loss-makers whose debt exceeded assets 4.6 times were facing the toughest problems, their accumulated loss having increased 1.8 times in comparison with 2002 (the rate of lost capital 106.7%).

Figure 5: Financial balance of manufacturing industry



Source: author`s calculations on the basis of the RDB

Most pronounced rationalization of the production factor in privatized companies was done in privatized companies, in the area of employment – two times lower the number of employees in comparison with 2002 with all the negative effects on development of total (un-)employment in the country. Incomplete privatization and restructuring of remaining large social enterprises in manufacturing industry, large public enterprises and infrastructural activities, the liquidation or bankruptcy processes not being efficient enough, as well as inadequate stimulating of post-privatization restructuring are key limits to the creation of a new and more efficient economic structure. Privatization has not contributed to the boosting of business efficiency of industry and new employment to a satisfying degree. New jobs have been mainly created in those sectors whose products are not designed for export (Financial intermediation, Trade, Real estate activities, renting, and other services).

Has there been sector-based reallocation of resources during the transformation period as it is an important source of growth and can contribute to the rise in overall productivity? What has the transition productivity growth been based on? The analyzed rise in transition productivity (measured as the ratio of GVA and employment in 2004-2008) of 7.4% suggests that productivity increased in all sectors (except in agriculture), above average productivity was reported by all service sectors (*Transport, Financial intermediation, Real estate activities, etc.*), and the sector of industry. By applying the Syrquin's[5] methodology, productivity growth can be broken down to two components, and that ***intra-sectoral profit and inter-sectoral employment shift.*** The first one we term **'productivity effect'** because of changes to productivity within each of these sectors; the second one rests on the '***reallocation effect***', i.e. depends on the flow of workers among sectors that vary by productivity. The methodology is based on the identity equation:

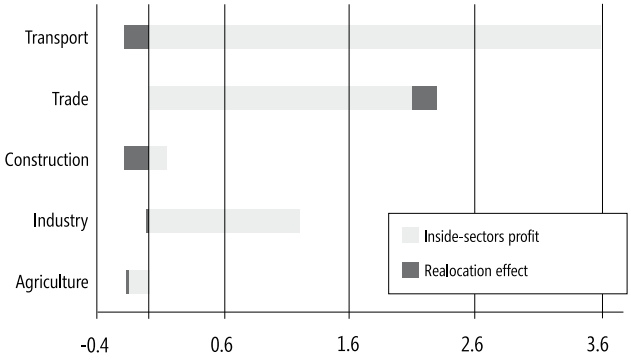
$$\xi_L = \sum_i \left[\theta\left(\hat{X}^i - \hat{L}^i\right) + \left(\theta_0^i - \varepsilon_0^i\right)\hat{L}_i\right]$$

ξ_L – productivity growth in entire economy
θ – share of sector *i* in GVA
$\hat{X}$ – GVA growth rate of sector *i*
$\hat{L}$ – employment growth rate of sector *i*
ε – share of sector *i* in employment

The economic reasoning behind Syrquin's equation is as follows: the first addend represents the component of productivity growth in entire economy that rests on 'productivity effect', and the second component is the 'reallocation effect'. The productivity effect with a negative sign demonstrates the employment rise is higher than the rise in output. By analogy, the reallocation effect that is lower than 0 can be due to two factors: the growth rate of employment is negative or the share of employment is higher than the share of output. By and large, sectors whose share of GVA is larger than the share of employment are most dynamic. Decomposition of productivity growth also serves to determine the sector contribution to growth.

From this short analysis we can infer: transition contribution of the sector of *Agriculture* is negative (the employment rise is more dynamic than the rise in output – GVA), which is mirrored in a negative rate of productivity growth of this sector; the reallocation effect positively impacted only on productivity growth of the sector of *Trade, hotels and restaurants*; the reallocation effect lower than 0 is a feature of all other sectors, being a consequence of a negative rate of employment rise in *Industry, Transport, and Other services*, and because of a larger share of employment than the share of GVA in *Construction*.

Figure 6: Decomposition of productivity growth 2004-2008



Source author`s calculations on the basis of the RDB

To sum up, productivity growth (2004-2008) built on the 'productivity effect', i.e. intra-sectoral profit. Contribution of labour reallocation among sectors was marginal in

5 Moshe Syrquin (1984)

2004-2006 and negative in 2006-2008 except in the service sector. Structural changes realized through the process of transformation of social capital and restructuring of large systems and public companies did not result in adequate enough labour reallocation. The reallocation effect of employment contributed to the rise in overall productivity in Croatia (0.38%), Slovenia (0.19%), and Romania (0.57%). The minimum impact of labour reallocation can be attributed to the reallocation within sectors still prevailing over reallocation among sectors.

Structural reforms were implemented in Serbia at a faster pace (this being confirmed by the Structural Change Index[6] and the Lillien's coefficient[7]) in the initial transition period 2001-2004 while over the last five years we have seen the slowing down. All the analyses suggest accession to the European Union has made a beneficial impact on the rate of changes after 2004 in Slovenia, Bulgaria, and Romania. Therefore one can expect that by acquiring the candidate status Serbia will have more opportunities to set up a quality industrial structure resting on high-tech and knowledge-based industries that ensure qualitative growth and development and higher competitiveness on foreign markets.

Export non-competitiveness

One of the weakest points of the transformation model of economic growth is Serbia's economy not being open, i.e. extremely low export performances. Slowing down of growth and the rise in external deficit show that chances for growth resting on domestic demand are being exhausted as high domestic demand rather determines foreign trade deficit than stimulates economic growth. In the years to come growth of economic activity, sustainable in the long run, needs to be based on the rise in investments in those areas that might lead to growth of export demand.

Serbian economy is one of the most closed ones in the region. Although the coefficient of trade openness (the ratio between export and import and GDP) is rising year in, year out, when compared to Bulgaria, Hungary, Slovenia, and Croatia it is still twice as low (when the coefficient of trade openness is higher than 50%, it is believed the economy of a country is highly dependant on international trade). *The export coefficient of Serbia* (export as % GDP) is also very low and below the global average[8]. Not efficient enough structural reforms have not yielded the anticipated rise in exports or the export that equals at least a third of generated GDP. Intensification of exports stimulates product specialization and efficient making use of all and, in particular, human resources; there is no other alternative if we want to maintain macroeconomic stability and make integration into international economic flows less painful. Numerous studies suggest foreign trade impacts positively on economic growth, while trade restrictions have a detrimental impact. Greater openness in highly regulated economies hinders national companies unprepared for challenges of strong import competition.

Table 5: Export competitiveness

	Coefficient of trade openness (%)		Export coefficient (%)	
	2005	2008	2005	2008
EU 27	74.0	82.3	37.4	41.3
Bulgaria	136.6	143.8	60.2	60.5
Hungary	133.8	163.3	66.0	82.1
Romania	76.3	74.4	33.1	30.9
Slovenia	124.9	138.4	62.2	67.7
Croatia	102.7	92.2	47.1	41.9
Macedonia	108.3	131.2	45.5	52.6
Serbia	59.0	76.8	17.7	20.2
World	46.2	51.7	22.8	25.6

Source: author`s calculations on the basis of the RSO and Eurostat

Table 6: Specialization indexes

Modified Gini-Hirschman index of concentration of Serbian export and import		
	Export	Import
2000	0.02455	0.03410
2005	0.12503	0.18450
2006	0.12564	0.18555
2007	0.11766	0.17744
2008	0.12251	0.19336

Source: author`s calculations

Dynamic transition growth of Serbian export to the EU (doubled) largely rests on primary products that cannot ensure a long-term competitive position of any economy. Export per capita is among the lowest ones in Europe (USA $ 1,481) – 50% lower than Bulgarian, 54% than Croatian, 20% than Macedonian, as much as 6 times lower than Hungarian and 10 times lower than Slovenian. In the initial transition years the structure of Serbian exports was pretty diverse whereas specialization was low. An increased value of the export specialization index in 2005 and 2006 serves to show that export is slowly focusing on some groups of products but these are largely resource-intensive groups that cannot

6 *Structural Change Index* measures the pace of change of GVA structure between two periods.

7 Lillien's coefficient of sector reallocation is often used in transition analyses. It deals with reallocation among sectors and tracks deviations of the growth rate of GVA (or employment) of a sector from the average of economy that are weighted by the share of the sector in matter in the structure of GVA (or employment). Lillien's coefficient is counter-cyclical as it shows the total number of employees fluctuates among sectors more during recession periods than in periods of expansion. See more in: Republic Development Bureau, Report on Development of Serbia, 2008, p. 82

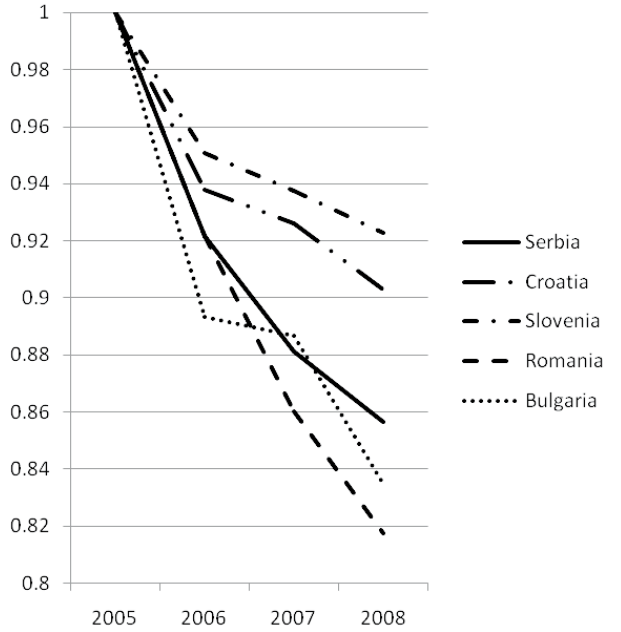
8 RDB (2009b)

provide for high values of the concentration coefficient in the long run. Slow and delayed recovery of export in sectors that make intensive use of technology and knowledge diminished the level of export specialization in 2007 when the export again included a larger number of product groups but at a smaller individual share in total exports. In 2008 the specialization index went up but for the primary reason of diminished export demand due to recession developments and not because of genuine specialization of export and import (only necessities were traded). Coefficients of export and import concentration still have low values and indicate a lack of specialization. Export specialization for a small country like Serbia involves mastering of production and marketing of a certain group of products, a rising share, and increased competition on markets abroad. For the time being not a single group on the export side stands out by its production potential, export capacities, or traits that would make it distinctive on the international market.

That export restructuring is not taking place at the pace of transition countries in the region is also indicated by the coefficient of export restructuring (**Finger-Kreinin Index of Structural Similarity,** F-K Index[9]). Reasons for this lie in non-restructured industry and transitional lagging behind. In the course of 1990s all SEE countries faced the need to restructure and modernize existing export structures. Back then their exports comprised mostly raw materials, reproduction materials, agricultural products, and labour-intensive products (textile, clothing, footwear, etc.). The situation has somewhat changed since 2000 with investments of large multinational companies that impacted on a qualitative promotion of the export structure.

The modern concept of measuring investment efficiency is based on the ICOR concept (*incremental capital output ratio*) that is quite suitable for transition economic with a medium level of income per capita (this not being the case with highly developed countries because of low growth rates, i.e. with underdeveloped countries because of negative economic growth in the majority of years). Countries that register the highest average rates of growth have an average share of investments in GDP, an above average investment efficiency (measured by the ICOR concept), and an average share of FDI in GDP.

Figure 7: Coefficient of export restructuring (F-K Index)



Source: author`s calculations

Results of the F-K analysis ***(a comparison of the export structure of a country with the export structure of that country in a base year)*** show that dynamics of restructuring of Serbian exports was not intensive. Slovenia managed to complete this process much earlier and by undertaking rather slow changes to the export structure it only maintains its competitive position. The most intensive restructuring of exports was managed by Bulgaria and Romania as new EU members. In addition, the comparison of the structure of EU exports with the structure of exports of other countries shows that the index value is rising, which means that Serbian products are not competitive enough and are easily replaceable. Throughout the entire period Serbia and Bulgaria have had a most similar export structure, i.e. they export very similar products.

Due to great similarity of the export structure of Serbia to that of Romania and Croatia in 2008, products made by these countries pose the most serious threat to our future exports. The F-K analysis stresses that overlapping of Serbian export structure with the EU demand is, after BiH, the lowest in comparison with adjacent countries; with EU member states and Croatia, the EU candidate country, F-K index increased, and economies with high F-K indexes also have a larger share of industrial products in export structure.

Inefficiency of investments

For transition economies the word 'investment' is a magic one. Results of many studies show that FDI can have positive effects on export, import, and foreign trade, also on employment and thus on efficiency of the country as a whole but this is no rule. The impact on foreign trade is

9 Finger-Kreinin Index of Structural Similarity (F-K Index) is used for various structural comparisons of foreign trade, both within a country and with exports and imports of selected countries. F-K Index is computed as the sum of the minimum of share pairs of same-type products traded by two countries. The maximum value 1 means a completely identical trade structure, and the zero value indicates complete structural difference between exports/imports of the countries of reference, with no common products whatsoever.

positive as long as a new enterprise set up owing to foreign investments starts to export more, i.e. if exports and FDI are complementary (i.e. if imports and FDI are supplementary), and this positively impacts on employment too.

Economic growth primarily hinges on investments efficiency and not that much on their level, i.e. on the portion of investments in GDP. Serbian economy since 1980s has been facing inefficiency, particularly in manufacturing industry. The marginal capital coefficient[10] in periods 1981-1985 and 1986-1989 was extremely high (over 21). Generally speaking, the most efficient investment period was 1956-1965 and, interestingly enough, the first transition cycle, 2001-2005 (when the marginal capital coefficient was 2.62). It should be noted that the period 1990-2000 was the one of typical disinvestment, therefore because of negative growth rates and GDP and investments correct interpretation of capital coefficients is methodologically impossible.

Figure 8: Marginal capital coefficient 1956-2009

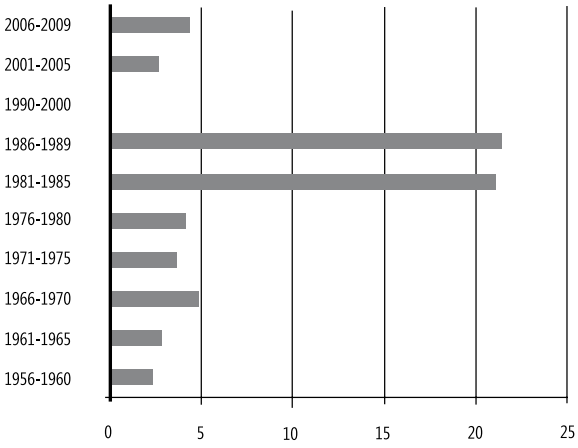
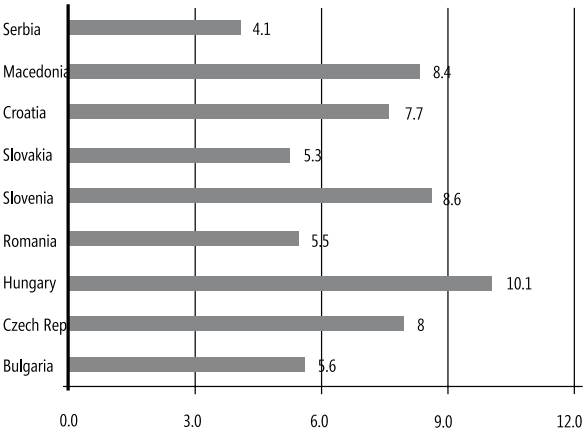


Figure 9: ICOR 2001-2009



Source: *author`s calculations on the basis of the RDB*

Methodology-wise, ICOR is a measure of investment efficiency and is defined as the ratio between the rate of investments (the share of gross investments in GDP) and the rate of growth of real GDP. In addition, ICOR might also serve for estimating the GDP growth rate as it shows by how much percent the rate of investment should go up in order for the real rate of GDP growth to go up by 1%, at an unchanged efficiency.

A high value of ICOR means that investment efficiency is low as for the same rate of growth of real GDP it takes a high investment rate and, vice versa, a low value of ICOR means investment is efficient (not taking into account negative growth rates). Therefore the rate of growth of real GDP of some countries can differ for two reasons: *because of the level of the share of gross investments in GDP* (a higher share at an unchanged ICOR means the rate of GDP growth is higher) or *because of the efficiency of gross investment usage* (a lower ICOR at an unchanged rate of investment will result in a higher rate of GDP growth).

One of major drawbacks of the ICOR concept is that it disables interpretation of investment efficiency when rates of real GDP growth are negative, which is very frequently the case in transition economies, particularly during initial transition years. Therefore in analyses the average ICOR is used so as to overcome this limitation.

Since 2000 Serbia has been increasing the share of investments in GDP constantly but investment efficiency has been variable. Investment usage was most efficient in 2004 (2.3%) when the highest real rate of GDP growth was registered (8.3%).

The ICOR comparative conclusion that Serbian economy is most efficient of all the observed economies needs to be toned down due to the following facts: 1) all transition EU member countries before entering and immediately upon entering the European Union had the greatest share of investment in GDP (even over 30%); b) except for Macedonia, all transition economies are on a rather high development level and so the structure of investments is different; c) the methodological pitfall is in the fact that rates of economic growth during the transition period 2001-2008 in Serbia were too high (on average at 5.4%) and that the fall in 2009 was smaller than in observed countries (estimates at -2.7%), and d) what is most important, transition economic growth in Serbia did not build on industrial growth but on the growth of services.

From the perspective of structural changes, what worries most are results of the analysis of efficiency of investments in manufacturing industry. The marginal capital coefficient points to exceptional inefficiency of manufacturing industry.

10 Marginal capital coefficient shows how many units of investment are needed for GDP to increase by one unit.

Table 7: Inefficiency of manufacturing industry 2001-2008

Indicators	Economy	Manufacturing	Ratio
Marginal capital coefficient	2.7	18.1	1:7
Efficiency coefficient*	36.8%	5.5%	

** Coefficient of investment efficiency is a reciprocal value of the capital coefficient, it shows by how much investment units will raise GDP in %*

Source: author`s calculations on the basis of the RDB

Transition efficiency of investment in manufacturing industry is almost 7 times less favourable than the efficiency of investment in the rest of economy. The inherited burden of investment inefficiency has not been reduced during the transition period, which is yet another indicator of difficulties in manufacturing industry.

Sub-sectoral structure "status quo"

The sub-sectoral structure of manufacturing industry over the last 8 transition years has been almost unchanged – it still rests on labour-intensive sub-sectors. **In low-tech and medium-low-tech sub-sectors 75% of workers are employed, 90% of companies operate, and 76% of new value added is created.**

Table 8: Sub-sectoral shifts 2004-2008

Sub-sectors	No of companies		Employment		GVA	
	2008	Change	2008	Change	2008	Change
Low-tech	64.0	-0.2	51.2	-1.0	50.7	-1.9
Food	18.8	-0.9	23.0	0.2	29.9	-3.9
Textile	12.9	-1.0	9.9	-2.1	4.9	0.9
Leather	1.7	0.0	3.0	0.0	1.4	0.1
Wood	9.1	0.2	3.4	0.0	2.1	0.4
Paper, printing	10.9	0.9	6.1	0.2	8.1	-0.3
Other	10.6	0.7	5.8	0.8	4.3	0.9
Medium-low-tech	25.4	0.1	23.1	0.2	25.4	3.5
Coke and oil derivatives	0.1	0.0	0.2	0.1	0.3	0.2
Rubber and plastic	5.4	-1.2	5.3	0.5	6.0	0.0
Other minerals	5.1	0.3	4.8	-1.4	6.0	-0.3
Metal	14.8	1.0	12.8	1.1	13.1	3.6
Medium-high-tech	5.4	0.5	18.8	0.0	16.4	-2.6
Chemical	2.1	-0.3	5.3	-0.3	7.7	-3.1
Machines and devices	2.4	0.5	7.0	0.1	5.0	0.0
Transport equipment	0.9	0.2	6.4	0.2	3.8	0.5
High-tech	5.1	-0.3	6.9	0.8	7.5	1.0
Electronic	5.1	-0.3	6.9	0.8	7.5	1.0

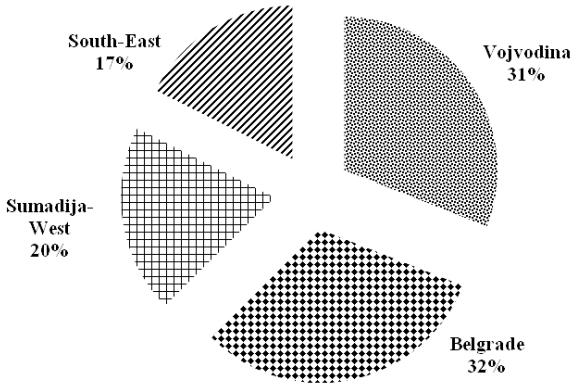
Source: author`s calculations on the basis of the RDB

Positive shifts were registered as the rise in productivity of sub-sectors from the group of medium-low-tech development with which the rise in gross value added was larger than the rise in employment. The problem of productivity and slow technological restructuring of enterprises from the group of medium-tech and high-tech development is permanent. Still, what encourages is the fact that in comparison with 2004 the contribution of three *Medium-high-tech* sub-sectors to the total generated turnover increased. In addition, sub-sectors *Manufacture of electrical and optical devices and manufacture of transport equipment* generated 11.3% of GVA of Manufacturing industry, which was 1.5 structural points more than in 2004.

Regional asymmetry

Economic transformation brought to the fore the deepening of regional asymmetries manifested in two ways: first, as an ever larger concentration of economic activities in the Danube-Sava area and, second, through emergence of new transition poverty, the so-called 'devastated area'. These are former industrial centres that used to be mainstays of economic development for decades but with the collapse of large economic systems they became transition lame ducks with huge development problems.

Figure 10: Regional structure of manufacturing industry 2008



Source: author`s calculations on the basis of the RDB

The fact that 63% of manufacturing industry is concentrated in two regions (Vojvodina and Belgrade) and that 37% of manufacturing industry is located in the remaining two (Sumadija-West and South- East) speaks volumes about the need to draft specific solutions to regional development of Serbian industry.

STRATEGIC PLANNING OF INDUSTRIAL DEVELOPMENT

The global economy is undergoing deepest changes. Hit by the global economic crisis, the most severe one since the Great Depression of 1930s, the global economy is actually faced with three crisis manifestations: a) the financial crisis, b) effects of climate changes, and c) increased food prices and global poverty[11]. A strong wave of the global economic crisis has severely hit industrial sections of transition economies and so strategic planning (programming) of industrial development has once again become the cen-

11 Tony Addison, Channing Arndt and Finn Tarp (2010), p. 1-19

tre of attention of research teams of developed countries. Strategic planning of economic development in Serbia has been on the rocks for more than two decades now. The transition period to some extent brought to the surface planning as a development instrument, mainly in the form of numerous development strategies and policies. However, systemic planning, being the main method for transforming a society, failed to play the key role in development (in particular regional development) which would be a way to cushion transition impacts (economic, social, regional, and political) and it was not instrumental in neutralizing strong market effects of transformation and the shift to a market economic model. In developed and efficient transition economies strategic planning of economic development is an efficient management method for reducing economic, social, regional, and ecological misbalances.

Although planning can be analyzed from a theoretical, ideological, or any other perspective, planning is primarily the most comprehensive regulation method. The planning serves to establish regulation of balanced usage of management mechanisms and instruments[12]. The intertwining of knowledge and planning and its impact on structural changes in society was perhaps best accounted for by Friedmann, who said: ***'Planning is the main instrument the state enforces to impact on the course of social processes and structural changes in society13***. The objective of the planning is to make more rational and comprehensive public decisions through a multidimensional and multisectoral approach (econ0omic, social, regional, and ecological). Some authors stress two things with planning as a method: a) the government has a central role in defining future objectives; reforms are decided on relatively independently from the government but they are market-based, and b) the purpose of planning is public interest[14].

Modern trends of globalization, internationalization, regionalization, and Information systems require a new, modified rose of the state. The development role of the state is challenged, particularly so in the wake of the devastating threefold crisis. We bear witness to the fact that most developed economic of the world are making their economic 'state-owned' in order to reduce detrimental effects of the global crisis.

The scarcity of many resources will only boost the relevance of economic planning as a development instrument**. Strategic (development) planning** is back on track both due to a desire to diminish adverse effects of the global economic crisis and owing to increased importance of ecology and sustainable development planning, but also because of the needs of planning authorities on various levels of management as well as of local communit1ies for more security in an environment of uncontrolled growth and its negative consequences. Strategic planning integrates economic and regional planning and, ever more often, the social and environment components. Efficiency of strategic planning will increasingly depend on **coordination of all entities, evaluation, and implementation of planning decisions.**

Transition planning in Serbia has primarily been based on formulation of development strategies and policies. The primary purpose of development policies has been to ensure a high rate of economic growth – a reasonable way of proceeding for a devastated economy. Modern planning of economic development favours human capital. Endogenous theories of growth (as different from classical ones) attach great significance to planning (through coordination of development policies) and its impact on *resolution of infrastructural problems, deregulation of economy, more investments in research and development, and education reforms.* All research show states that pursue liberal market policy, trade liberalization, and protection of human rights boast a rather high level of human capital and rather high level of economic growth. That growth does not necessarily mean development is proved by some dimensions of growth in transition economies.

Industrial policy

The first step of a country towards strategic planning of industrial development of Serbia is to design a new industrial policy of Serbia in line with strategic development goals of Serbia and taking into account criteria and standards of the European industrial policy. Structural gaps of Serbian industry have been there for decades, gaps between industrial sub-sectors and the market are deep. Due to high transition costs of social peace industrial sectors are still inefficient and non-restructured. The inefficient industrial system directly impacts on macroeconomic stability – the longer periods of economic discord with the market, the larger import dependence, and thus macroeconomic misbalances as well. Industrial policy entails strategic operating of the country through a series of management mechanisms (measures and instruments) for the regulation of an economic environment created by the state for the purpose of achieving strategic development goals. **Industrial policy objectives are derived from the very concept of development, which is to mean from the core project of development of a society.**

Industrial policy comprises a whole set of economic

12 Eugen Pusic (1989), p. 328

13 John Friedmann (1987), p. 38-40

14 Philip Allmendinger (2002), p. 41-42, 52, 118

policies that overlap through various modalities. Industrial policy consists of a set of government measures that affect industrial sub-sectors, whereby the intention is to fulfill certain specified goals (macroeconomic, sector, sub-sector, and regional). There are even theoretical views that entire economic policy is in fact industrial policy as all economic decisions affect industry as such.

Industrial policy of the European Union is on the top of the list of EU priorities primarily because of substantial trailing of the EU behind the USA, Japan, and China. EU economic growth is driven by manufacturing industry and subsections with the highest share of knowledge that avail of cutting-edge technology (electronic, automobile, and chemical industry, biotechnology, ICT, and space technologies); implementation of stringent environment and social standards in all fields of industrial policy that each enterprise must abide by is common. **The basic view of the EU is that isolation of economy leads to it stagnation** and that market liberalization helps entrepreneurs to stay competitive in an environment of a more global world market. Competitiveness is the main principle of EU industrial policy[15]. According of the very well-known Bangemann's recommendations set core principles of a modern industrial EU policy which underline a horizontal approach to industrial policy (adoption of measures that stimulate development of key inputs: labour, capital, infrastructure, research, and development), the duty of the government is: *to create a stable* environment as a prerequisite for active industrial policy, *stimulate necessary structural changes,* and ensure a full-functioning market.

The focus of competitive EU industry is the development of new technologies and innovations, which is why the EU allocates huge funds for stimulation of research and establishment of an environment that spurs innovations. Through a horizontal approach, i.e. coordination of several policies (free movement of goods, rights, intellectual property, public procurement, the policy of market competition, environment protection) the EU strengthens its entrepreneurial sector as entrepreneurs propel employment and innovation[16]. The greatest problem of the EU is low productivity (in comparison to the USA), slow reallocation of resources towards most productive industrial enterprises, i.e. rigidity of EU legislation. Analyses of the European Commission show that over-regulation of the European market hampers further development of industry[17], which impacts on fast introduction of innovation, setting up of new enterprises, and growth of existing ones.

Accelerators of industrial policy

Major prerequisites for the creation of a competitive industrial EU climate are: macroeconomic stability, competition (state subsidies must be controlled), a high level of skilled labour force, establishment of economic and social cohesion, and high standards of environment protection.

Accelerators of Serbian industrial policy

1. Construction of industrial infrastructure
   - common infrastructure (network of roads, ports, airports, telecommunications)
   - industrial zones, parks, hi-tech parks, free zones
2. Stimulation of investment in export and propulsive (hi-tech) industrial sectors
3. Development of regional industrial clusters (car industry, ICT, metal complex, agro-industry, pharmaceutical industry, etc.)
4. Addressing the problem of large industrial loss-makers (restructuring or bankruptcy)
5. Stimulating entrepreneurship (clusters, deregulation, etc.)
6. Adapting the educational system to changes in industrial structure, i.e. market needs
7. Promotion of corporate management
8. Energy efficiency
9. Sector programmes of development, research, and innovation (fostering intensive communication with science)

One should note that key accelerators of industrial EU policy are technological promotion of industrial capacities (a whole range of measures and activities within the triangle economy-education-research and development), development of entrepreneurship, and labour market policy. In spite of all these horizontal measures of industrial policy, the EU industrial policy is still under a strong impact of elements of vertical or structural measures[18].

15 The new approach to industrial policy known as 'Bangemann's Proposal' was defined by the EU in 1991, Walser (1999), p. 109

16 Industry of the EU accounts for 80% of research and development costs of the private sector.

17 European Competitiveness Report (2006)

18 Industrial policy of the EU has been divided into two proactive branches: the so-called 'sunset industries', such as manufacture of steel, textile, etc. in which the EU is in charge of slowing down the speed of adapting as these industries are politically sensitive so that their development could be entirely left to market developments. Measures of industrial policy should prolong the process of structural changes and thus cushion their negative impact. On the other hand, the EU strives to foster development of the so-called 'sunrise industries' such as development of ICT and biotechnology. In this case measures of industrial policy tend to speed up the process of structural changes. - Walser, (1999), p. 115

CONCLUSION

'One cannot simply fritter away parts of living city without considering its long tradition even if it might strike foreigners as awkward… This is our tradition and our people. We have lived under a communist dictatorship for long but now we come to realize that life under dictatorship of business people is no better. They do not care in the least for what is the country they are operating in.'

/Grigori Gorin, Russian writer, 1993/

Transformation of the economic system of Serbia from a socialist to a market-based economy kicked off with a huge trail behind other transition economies, market discrepancies and inefficiency, in the wake of a decade-long industrial devastation and at a high degree of physical and technological amortization of fixed assets. The transformation model, as in other post-socialist states, was based on substantial new investment, efficient privatization coupled with introduction of new corporate liability, stimulating macroeconomic policy, dynamic development of the entrepreneurial sector, efficient judiciary and public administration, expansion of the market by entering the free trade zone, etc. However, a number of transition model principles has not been realized, some of them have been realized partly and some selectively. Restructuring of manufacturing industry largely boiled down to rationalization of industrial workers. Throughout the entire transition period manufacturing industry has been facing high expenditure, loss (current loss went up by 160%), indebtedness (EUR 16.7bn in 2008, an increase of 90% in comparison with 2002), a high rate of lost capital (42%), the export sector has had additional competition problems)the exchange rate policy, etc.). Large industrial loss-makers (110) increasingly burden macroeconomic balances (the loss and liabilities equal 17% of GDP). The process of transformation of social and state enterprises is not complete[19]. Transformation of state public enterprises is in its early days. This partly restructured economic system has been badly hit by the greatest crisis since Great Depression. Macroeconomic vulnerability is higher as stability of the macroeconomic model of Serbian economy rests on export opportunities of manufacturing industry (95% of total exports).

A new model of economic growth needs to be based on strategic planning of industrial development. ***'Development needs to be planned, it must be managed"***[20]. Dynamic economic growth is impossible without structural changes to manufacturing industry. Strategic activities of the state[21] understand defining of industrial policy in the context of quite different external conditions caused by the economic crisis. Industrial policy should comprise a series of management mechanisms (measures and instruments) for regulation of economic environment created by the state in order to attain strategic development goals. Efficiency of industrial policy will depend on the degree of coordination of a whole range of economic policies that overlap through various modalities. Industrial policy is to define specific state mechanisms, measures, and incentives that impact on development of accelerators of key industrial sub-sectors, all of this with the view to achieving the defined development objectives (macroeconomic, branch, sub-sectoral, and regional).

19 'Chinese state enterprises form a group of efficient wealth destroyers. It would be cheaper to close them all and continue payment of workers' ,The Economist (1998), p. 25

20 'The state needs to take care of its development and needs to realize there is no self-induced development.' Nebojsa Katic (2010), p 15

21 'Planning of economic development is a general request of citizens that formulate it as a necessity to have a development strategy", Branko Horvat (2007), p. 214

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SECTOR POLICIES: ROADMAP FOR TOURISM RECOVERY

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Summary:

Tourism in the global economic crisis proved to be highly flexible sector, which gained significant growth, as soon as the world economy showed signs of recovery. Analysis of changes in trends, rapid and appropriate responses will help the tourism industry to continue to maintain and improve its competitiveness. This will require the promotion of cooperation, research and exchange of information between public and private sectors, international organizations and educational institutions, as well as development of new tools and systems of analyzing data. It is necessary to encourage the construction of the knowledge network for tourism on national, regional and international level. The partnership of public and private sectors should further strengthen, particularly in terms of preserving and creating new jobs, introducing tax relief in certain time frame, simplification of procedures, regulations, and increase of productivity.

Directions to the recovery of tourism is a strategic guide, a sort of manifesto of how tourism, as the largest generator of employment, may contribute to the general economic recovery in long term. Recovery includes measures directed at strengthening the sector and improving flexibility and development of various incentives, and the ultimate challenge will be to increase public awareness of sustainable tourism and to stimulate its transformation towards the production and consumption patterns adopted by the green economy. It is important for tourism to be integrated into national, regional and international strategies on how to develop (green) economy.

Key words: *tourism, recovery, stimulus, green economy, transformation, public private partnership*

INTRODUCTION

The latest IMF report stated the expectation, that the strong growth of gross domestic product of Serbia, at the level before the crisis, will continue in 2012. Domestic demand will only stagnate this year and, as it is added, export growth will accelerate until 2011, given the slow demand forecasted for the main Serbian trade partners in 2010. The IMF report on Serbia, said that reconstruction of the external stability requires a turnaround, from the growth in domestic consumption to growth led by external factors.

Serbia, after the Fund completed a second review of stand-by arrangement, at the end of December 2009. was enabled the withdraw second installment, amounting to around 350 million euros. With the withdrawal of these installments, the total amount of approved funds from a loan of 2.9 billion euros, increased to 1.12 billion.

Given these projections, the Government of the Republic of Serbia and the Ministry of Economy and Regional Development, as competent Ministry for tourism, went for a strong, expansive growth and significant investment in tourism in 2010; predicted investments are almost doubled than in 2009. Stimulating funds, subventions and loans for tourism, will be directed and intensified for the development of priority tourism destinations and products, improving infrastructure, providing support to the propulsive travel companies and tourist organizations. Serbian Government has recognized the importance of tourism, and opportunities provided primarily in terms of achieving economic growth through increased foreign exchange earnings and generating revenues in general, balanced regional development and employment of labor.

GLOBAL ECONOMICS CRISIS - YEAR LATER

What about the consequences of the global economic crisis after more that a year since its outbreak? Today, some economies are recovering, but the unemployment rate is still high in many countries. The global economy starts to get out of a deep recession with high government intervention, which measures the billions of dollars.

Bankruptcy of "Lehman Brothers", one of the largest financial institutions on Wall Street was preceded by a decision from a week earlier, from the U.S. government to nationalize mortgage banks," Freddie Mac" and "Fannie Mae", which held almost half of all housing loans in the U.S. Breakdown of " Lehman Brothers" shook the bankers, officials and investors and led to one of the largest stock index falls in U.S. history. One year after the collapse of one of the largest financial institutions in the U.S., the market recovery is noticeable, more people are ready to take risks. The fact that the U.S. economy recorded a growth of the annual rate of 3.5 percent, after four quarters of negative economic growth in the period between July and September, favors the opinion

that exit from recession is certain. Figure is higher than that expected, although it is possible it will be subsequently refined. This news was hailed as a "relief " in the U.S. and was rated as good not only for America but for the rest of the world, because it is the first sign that the global economic locomotive is back on the track. Also, what is encouraging is the fact that exports grew faster than imports, and the largest world market usually went vice versa till now.

Stock market indices have recovered but are still below the point they had year and a half ago. The real estate market shows some signs of stabilization and recovery.

However, the price that was paid for this recovery is not small. On the contrary. The U.S. has spent almost a trillion dollars (thirty annual domestic products in Serbia) for rescue and maintenance of a large number of companies. Budget deficit has long crossed the 10 percent, and total indebtedness of the world's largest economy has assumed alarming proportions.

The main concerns now is whether this pace will be sustainable. The prevailing assessment is that it will not because, among other things, program that encouraged car sales has ended (the outcome was that the sales in September compared to August dropped drastically), while the relief program for the purchase of apartments expires in November. In addition, options of Obama's administration for additional incentives are limited with record budget deficit of 1.4 trillion (thousand billion) dollars, which is about 10 percent of GDP-a.

One of the limiting factors will be also, according to the analysis of the "Washington Post", structural changes economy is going through, which are so large that it will require a long time to stabilize everything. American transition includes many sectors, from housing to the automotive industry and the financial sector. The strategic goal is to spend less, and save and invest more.

"The patient was released from intensive care but is still under a strong dose of medicine", diagnosed one American economist. The second applied more picturesque metaphor for the state of the economy : "The engine was started on crank, but it still hiccups".

The December report on (un) employment extinguished the hope that the United States are at the beginning of long-term economic recovery. The unemployment rate held in December at a height of only 10% due to the fact that there was an extraordinary reduction of available labor force: some 661,000 people just gave up on search for a job. In short, unemployment has improved from the level of difficulty and concern to the current disaster. According to the "Bureau of Labor Statistics" (BLS), today there are some 15.3 million unemployed Americans.

Latest figures show that the recession in Europe began to back down and that economy of the two biggest economies, Germany and France, recorded growth again. Some analysts say these figures show that the worst period of recession has passed.

In the 16 euro-zone countries, the total product of all goods and services, in April, May and June, decreased in only one-tenth of a percentage, which is a significant improvement over the prior quarter and better than most economists predicted.

Gross national product of Germany and France has increased in the second quarter to three-tenths of one percent, which represents a substantial jump compared to the drop recorded in the initial months of this year.

Retail market is important as an indicator of living standard trends and developments in the sector of production of consumer goods. As expected, global recession had a significant influence on changes in consumer behavior, which are becoming more aware of the "values" and less directed to great shopping, and dining outs. It is anticipated that the duration and depth of fall of recession in purchasing power will influence the current trend in consumer behavior, even when the economy gets out of recession. Such a trend will be particularly present in those markets that are characterized by excessive consumption based mainly on credit in pre-recession period.

Retailers in the U.S., finally recorded a positive result. Already in the last quarter of 2009. there were reason for optimism, given that, according to all indicators, retail sales compared to same period in 2008, increased by about four percent.

British retail giant "Tesco" has, according to Bloomberg, recorded strong sales growth for the first time in three years. In the last quarter of 2009. the turnover in retail was 2.8 higher, and on the annual level it rose by 4.9 percent.

Market recovery is best seen by trend of increased sales of branded and luxury goods, and with sales growth in non food sector, it's a good sign that confidence is returning and purchasing power of consumers and the global economy is recovering.

Despite of one of the heaviest economic crises in the past few decades, the leading global retail chains have managed to increase their turnover by 5.5%. So 250 of the world's largest retail chains in the past fiscal year reached total sales of 3.8 trillion USD, says the report-audit consulting company "Deloitte", entitled "Global retail power in 2010."

The report shows that a global recession still affected profitability of business, which in retail sector dropped from 3.7% in the previous period to 2.4% in this one.

In the group of ten major retail chains, which achie-

ved over 30% of total sales in the Top 250 list, there are no significant changes. The leader is still American "Wall-Mart", followed by the French "Carrefour". German retail chain "Metro" has risen to third place, due to favorable exchange rate against the U.S. dollar, going over the British "Tesco" in that position.

Sales via the Internet still occupies a modest part of total retail, only 6.6% among the Top 100 retail chains. However, further increase in the percentage is expected as more companies develop capacities for e-commerce. Many retail chains with emerging markets gradually become players in the global scene, while successfully coping with giants in their own markets. Their next step will be to invest in developed markets.

The fact that the profits of retail chains, specialized in sales of clothing halved, and reduced profits of those specialized in food, is saying that everything is not as great as it seems. U.S. retail giant "Wal-Mart" announced in early January 2010. that it will terminate about 11,500 jobs in the U.S., in its "Sam's Club" chain, while only a week before it announced that it will close 10 stores with the release of about 1,500 vendors. Most of the dismissed workers will be from the sector in promoting trade, and such decision is rendered after the "Wal-Mart" decided to reduce costs in this way and for the same jobs hire cheaper foreign associates. After New Year's holidays, the American retailing is facing a wave of store closure, bankruptcy and acquisitions primarily due to falling sales of about 8 percent. Financial reporting agency "Bloomberg" reports that the clothing chain "Ann Taylor" and "Talbot's" are among those who plan to close stores with poor sales results. The report states that prediction during 2009. was that about 12 thousand shops would be closed. "IKEA" also plans to close a number of facilities and release about 5 thousand employees.

"Spending Pulse", which collects data on retail, said that American consumers in November and December, spent about 20 percent less on electronics, women's clothing and jewelry than in the same period in 2008. At the same time, internet sales company "Amazon.com" announced that this holiday season was the best so far.

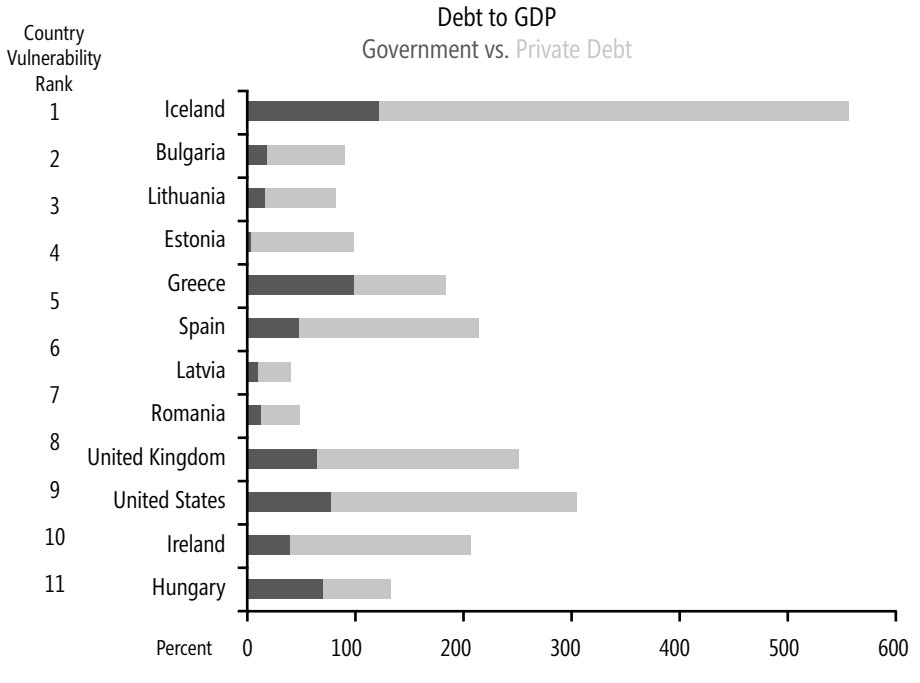
On the other hand, the French have unexpectedly received two encouraging news in the midst of economic crisis, which strongly affects the Europe - the statistic data published in the last week, shows that there was an increase in consumption and a slight fall in unemployment in June. Despite predictions, the economy in the second quarter rose 0.3 percent, while household spending in June rose by 1.4 percent. Results in the second quarter showed growth of spending by 0.7 percent, which did not happen by end of 2007.

Usually cautious when it comes to their pocket, the French continued to spend, unlike most of their European neighbors. Although France is known as one of European countries with the largest number of unemployed, it's percentage fell 0.7 percent for the first time after a year. The eurozone unemployment reached 9.4 percent in June, representing about 15 million unemployed, which is the highest number in the last ten years.

Unexpected improvement in June, is explained with the fact that sales started earlier and were more than generous and better sales in car industry, thanks to government assistance that offered thousands of euros to get rid of all those old cars and purchase of new ones. Data on the increase in spending suggests that current strategies of the French government is good, unlike the strategy of many European countries. It, in short, helps businesses rather than consumers.

Unlike Britain, which reduced the value added tax for all consumer products, hoping that it will attract customers and start consumption, France invested in companies in order to prevent their closure, and even more unemployment, which

Figure 1: Most vulnerable countries from the aspect of lending (debt) and GDP (blue: the state debt; orange: private debt)

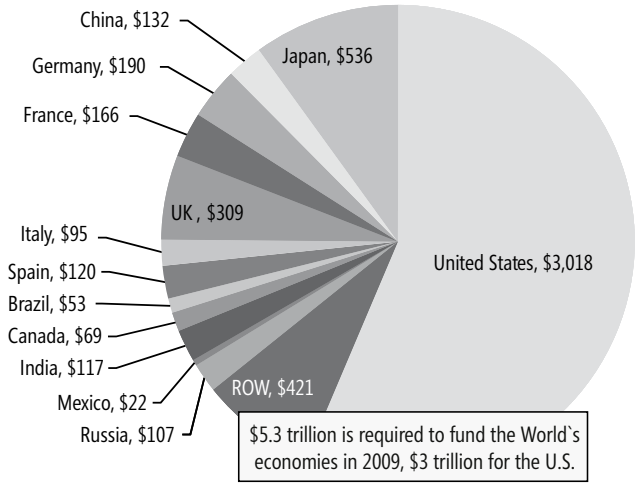


Source: Global Research, Builten (GEAB N ° 40)

could lead to new social tensions. Besides companies, assistance is directed towards the unemployed and those with low incomes. British strategy proved costly and inefficient. Targeted measures that were applied by the French government did not cost much, and proved to be effective.

No matter the prognosis are that the world economic crisis will reach crisis proportions of 1929, did not came up, many analysts believe the crisis will touch the new critical point starting with the spring of 2010. Then it will really become difficult, almost impossible to manage the public finances of most western countries, and simultaneously - due to the failure of various stimulating measures from 2009, and because the amount of budget deficits prevents any significant new spending, it will become clear that new measures are needed to support the economy. According to announcements, year 2010. will be labeled by three trends - one of which will be "state bankruptcies": from Dubai to Greece, and through more and more concerning reports from agencies that are assessing the reliability of credit debts of Britain and the U.S. - or on draconian Irish (hurled) budget, and also in the eurozone and suggestions on how to negotiate public deficits; newspaper titles are recording growing inability of countries to deal with their debts.

Figure 2: New loans guaranteed by the state in 2009. (in billion USD)



Source: PhoenixProject, 07/2009

Interesting is the case of Greece. Public finances of Greece are in crisis – it's a fact, but assumptions about its consequences for the eurozone, many consider excessive. On the other hand, this crisis indicates the continuous growing tensions in relation to debts under state guarantee (Sovereign Debt) - Achilles heel of United States and Great Britain.

Greece is a country that did the worst edit of their approach to the EU, and since 1982. various governments were doing anything other than using the EU as an inexhaustible source of subsidies, not taking any measures to modernize the financial and social structure of their country. With almost 3% of GDP that went to Greece directly from Brussels in 2008, Greece really fed itself with that intravenous infusion from Europe over 30 years. But it is hard to believe that a country that produces only 2.5% of eurozone GDP (1.9% of the EU GDP), could apply catastrophic consequences to unique European currency and to eurozone.

Poland and Latvia were given deadline until 2012 from EU finance ministers to descend the gap between government spending and revenues under a maximum of three percent of gross domestic product (GDP). Hungary, Romania and Lithuania have to do the same until 2011.

Although none of these countries are members of euro zone, they are required to adhere to strict limits in order to reduce the differences between European economies. Public debts and deficits have risen in the past year since financial crisis forced EU countries to spend generously in order to save the banks, stabilize currencies and save more for assistance when tax revenues are falling.

Hungary, Latvia and Romania have received rescue packages from EU, the International Monetary Fund and others. And Malta, a member of the euro zone, was given the deadline to reduce the deficit till 2010. by the EU.

IMPLICATIONS OF THE GLOBAL ECONOMIC CRISIS ON TOURISM

After the outbreak of economic crisis, World Tourism Organization (WTO) estimates for 2009. were stagnation or slight decline in foreign tourist traffic (from 0% to -2%), especially in the first 6 to 9 months, and that Europe will be most affected in terms of overall results, because most emitivnih markets has already faced or will face recession. The predictions were saying that the domestic tourist traffic, an important destination for many in 2009. will decline. However, these same authors were pointing a year ago, that recent experiences show that the tourism sector is highly flexible and that it will return to significant growth in traffic, when the world economy starts to show signs of recovery and that it will give a significant contribution to the fight against poverty and eliminating consequences of the crisis. As an important export industry, tourism, according to the recommendations of the WTO, should get adequate support from public sector primarily through a tax moratorium, for a specified time, support of PPP projects and the like.

Expectations were that sales during the first four months of 2009. will be very weak compared to the same period in 2008. Short-term forecasts varied by countries and regions. Open Skies Agreement between the Gulf and Maghreb countries in 2008, was supposed to stimulate demand for air travel in these regions. In 2010, according to estimations

from the 2009, disturbances in air traffic in Asia are expected. Japanese plan, also known as Asia Gateway Plan is supposed to open up access to other regional airports. China is in the process of implementation of "domestic open sky" and the new agreement should create an open sky between the ten members of the Association of Southeast Asian countries (ASEAN) and probably China, Japan and India.

Growth returned to international tourism in the last quarter of 2009 contributing to better than expected full-year results, according tothe latest edition of the UNWTO World Tourism Barometer. Internationaltourist arrivals fell by an estimated 4% in 2009. Prospects have alsoimproved with arrivals now forecast to grow between 3% and 4% in 2010.This outlook is confirmed by the remarkable rise of the UNWTO Panel of Experts' Confidence Index.

International tourist arrivals for business, leisure and other purposes are estimated to have declined worldwide by 4% in 2009 to 880 million. This represents a slight improvement on the previous estimate as a result of the 2% upswing in the last quarter of 2009. In contrast, international tourist arrivals shrank by 10%, 7% and 2% in the first three quarters respectively. Asia and the Pacific and the Middle East led the recovery with growth already turning positive in both regions in the second half of 2009.

The global economic crisis aggravated by the uncertainty around the A(H1N1) pandemic turned 2009 into one of the toughest years for the tourism sector. The results of recent months suggest that recovery is underway, and even somewhat earlier and at a stronger pace than initially expected.

Experience shows that tourism earnings generally follow the trend in arrivals quite closely, even if they suffer somewhat more in difficult times. Based on the trends through the first three quarters, receipts for 2009 are estimated to have decreased by around 6%. While this is unquestionably a disappointing result for an industry accustomed to continuous growth, it can also be interpreted as a sign of comparative resilience given the extremely difficult economic environment. This becomes even more evident when compared with the estimated 12% slump in overall exports as a consequence of the global crisis.

Similarly to the situation in previous crisis, consumers tended to travel closer to home during 2009. Several destinations have seen domestic tourism endure the crisis better and even grow significantly, often with the support of specific government measures aimed at leveraging this trend. This was the case among many other countries, of China, Brazil and Spain, where the domestic market, representing a large share of the total demand, contributed to partially offsetting the decline in international tourism.

Regional overview

- Europe ended 2009 down 6% after a very complicated first half (-10%). Destinations in Central, Eastern and Northern Europe were particularly badly hit, while results in Western, Southern and Mediterranean Europe were relatively better.
- Asia and the Pacific (-2%) showed an extraordinary rebound. While arrivals declined by 7% between January and June, the second half of 2009 saw 3% growth reflecting improved regional economic results and prospects.
- In the Americas (-5%), the Caribbean returned to growth in the last four months of 2009. The performance was more sluggish in the other sub-regions, with the A(H1N1) influenza outbreak exacerbating the impact of the economic crisis.
- The Middle East (-6%), though still far from the growth levels of previous years, had a positive second half in 2009.
- Africa (+5%) was a robust performer, with sub-Saharan destinations doing particularly well.

2010 – 'year of transformation'

Against the backdrop of both the upturn in international tourism figures and overall economic indicators in recent months, UNWTO forecasts a growth in international tourist arrivals of between 3% and 4% in 2010. The International Monetary Fund (IMF) has just recently stated that the global recovery is occurring "significantly" faster than expected, as compared with its October assessment which already counted on a clear return of economic growth in 2010 (+3.1% worldwide, with stronger performance for emerging economies at +5.1%, alongside a more sluggish one for advanced economies at +1.3%).

These improved prospects are confirmed by the encouraging steep rise in the UNWTO Panel of Experts' Confidence Index for 2010, despite persistent uncertainties regarding the global economy and the operating environment for tourism. The experts who judge prospects for the current year as 'better or 'much better than would reasonably be expected' (61%) clearly outnumber those rating it as 'the same as' (32%), or 'worse' (7%). The average score for 2010 (131), is well above the neutral 100 and close to the level of the boom years 2004-2007.

As a result, 2010 promises to be a 'year of transformation', and provides several upside opportunities, while naturally not eliminating downside risks.

Table 1: Upside opportunities and downsize risks

Upside opportunities:	Downside risks:
• Business and consumer confidence has picked up; • Interest rates and inflation remain at historically low levels and are expected to rise only moderately in the short term; • A slump is generally followed by a rebound due to pent-up demand and destinations are expected to actively leverage this opportunity; • There is scope for a revival among source markets which were hard hit in 2009 such as the Russian Federation or the UK; • Major international events will take place in South Africa (FIFA World Cup), Canada (Winter Olympics) and China (Shanghai Expo), creating potential extra travel demand; • The momentum of the spirit of cooperation and partnership bred by the crisis is expected to be maintained by stakeholders; • The flexibility shown by the tourism sector in dealing with rapid shifts in demand and volatile market conditions has made it stronger; • Crises provide an opportunity to address underlying structural weaknesses and implement strategies fostering sustainable development and the transformation to the Green Economy.	• Unemployment is the key challenge. The jobs crisis is not over yet, particularly in major advanced economies and many valuable human resources are still at risk; • Economic growth in major source markets, specially in Europe and the USA, is still fragile; • Stimulus measures are likely to be phased out due to increasing public deficits while a number of advanced economies may see increases in taxation, putting extra pressure on household and company budgets;Oil prices remain volatile; • Although the overall impact of the influenza A(H1N1) virus was milder until now than anticipated, experience from previous pandemics shows that the situation could once again become challenging; • Security threats and the potential of increased related hassle and costs for travellers are still a challenge; • Revenues and yields are expected to recover at a slower pace than travel volumes.

Source:UNWTO

ROADMAP FOR TURISM AND GLOBAL ECONOMY RECOVERY

Tourism is one of the world's top job creators. Provides more than 75 million direct jobs (and about 220 million indirect jobs) or 2.7% of total employees worldwide and offers fast entry into the workforce, particularly for youth and women in urban and rural communities. It is lead export sector, particularly for developing Countries; 30% of the world's exports of services (US$ 1 trillion a year) and up to 45% of the total export of services in developing countries. A key for tourism stimulus and the its transformation to a green economy lied in its contributions to global job creation and economic recovery. Accounting for a comparatively low share, 5% of CO2 emissions, tourism is well-positioned and committed to progressively reducing its carbon emissions and contributing to the transformation towards a Green Economy.

The Roadmap, which was unanimously endorsed by Members States, is a manifesto on how tourism and travel, one of the world's biggest sources of jobs and export earnings, can be a primary vehicle for job creation and economic recovery. The document aims to show how the tourism sector can contribute to the ongoing actions to respond to the current crisis – by creating jobs, promoting trade and enhancing development – and to the long-term challenge of the transformation to a green economy.

Table 2: The roadmap for tourism and global economy recovery

Resilience	Stimulus	"Green Economy"
1. Focus on Job Retention and Sector Support; 2. Understand the Market and Respond Rapidly; 3. Boost Partnerships and („Coopetition'); 4. Advance Innovation and Technology; 5. Strengthen Regional and Interregional Support.	1. Create New Jobs – particularly in SME's; 2. Mainstream Tourism in Stimulus and Infrastructure Programs; 3. Review Tax and Visa Barriers to Growth; 4. Improve Tourism Promotion and Capitalize on Major Events; 5. Include Tourism in Aid for Trade and Development Support.	1. Develop Green Jobs and Skills Training; 2. Respond Effectively to Climate Change; 3. Profile Tourism in all Green Economy Strategies; 4. Encourage Green Tourism Infrastructure Investment; 5. Promote a Green Tourism Culture in Suppliers, Consumers and Communities.

Source: UNWTO Road Map for Recovery

I RESILIENCE - supporting the sector's immediate response through job retention and training, partnerships and regional support, innovation and the enhancement of the use of technology;

Tourism is an economic activity that provides jobs for millions in the sector and in many connected industries. Well-trained staff has the skills to move across the workforce. Globally, tourism grows faster than GDP, doubling the jobs created every 10 to 15 years. During the recession it is important for governments and industry to undertake actions to retain the core workforce and maintain training standards. Relevant strategies should recognize the special needs of SME´s, particularly in less developed countries.

Close monitoring and analysis of changing trends and early reaction will help the turism to maintain its competitiveness. It will require increased collaboration, research and information exchange between public and private sectors, international organizations and educational institutions as well as the development of new tools and data analysis. Building networks for tourism knowledge at national, regional and international level should be encouraged. PPP should be strengthened wherever possible to help preserve and create jobs, streamline procedures, simplify regulations and increase productivity.

II. STIMULUS - advocating the inclusion of tourism in general economic stimulus packages, namely in regards to fiscal and monetary measures, highlighting its capacity to contribute to the global objectives of job creation and economic recovery;

Providing credit lines (including micro credit), special finance plans, loans and skills training, either by sector specific mechanisms or by prioritising tourism in general programs, is of crucial importance for the economic viability of tourism enterprises, particularly for SME's, and for the creation of new jobs. Consideration can be given to specific educational programs and vocational training for the tourism.

Tourism should be of major consideration in stimulus programs – areas such as tax reduction, export promotion, job support or retraining can also benefit the industry. Tourism can gain greatly from investment in infrastructure because of its direct effect on jobs in construction and related sectors.

Diversified tourism strategies should avoid dependence on any one activity or market. Foreign visitors are high value exports and must be considered as part of national export promotion action. Marketing programs should address underlying demand shifts for better value/deals as well as competitive realities. Embracing the shift in consumer preferences towards internet and multimedia delivery is fundamental. Partnerships and regional cooperation should be explored to enhance tourism promotion.

III. GREEN ECONOMY - advancing tourism in the Green Economy as a sector that can deliver on smart growth, intelligent infrastructure and clean energy jobs.

As the world shifts to a progressive carbon reduction regime - a fundamental target of the Green Economy - tourism can be a lead change agent to encourage and provide employment in sustainable activities. The key will be to identify Green programs and new associated jobs, as well as to provide the appropriate training. Particular consideration should be given to how this goal can be extended to developing countries in an affordable and viable way. Vocational training, 'voluntourism' and alignment with overall tourism green training programs are also important. Tourism should be integrated into national, regional and international different (Green) economy strategies. It should also be profiled high in Green employment strategies. Green investment, planning, procurement, fuel efficiency, renewable energy programs must also cover tourism.

Given the massive impact of consumption in modern society, the ultimate challenge will be to increase public awareness on sustainable tourism and stimulate the transformation towards the production and consumption patterns of a Green Economy. Adjustments in public expectations and a widespread industry participation in credible environmental certification programs are both necessary.

SERBIAN TOURISM IN 2009. - ACHIEVED RESULTS

The package of measures of the Serbian Government to mitigate negative effects of the global economic crisis, directly or indirectly had impact on the business tourism industry in 2009. In addition to incentives in the form of grants primarily intended for improving the tourist infrastructure, promoting and improving the quality of tourist products and tourist area, improving receptive tourist catering services, education and establishing a system for sustainable development (20 projects in 2009.), projects implemented through the NIP - National Investment Plan (certainly most significant is the protection of the archaeological site project Lepenski Vir), as well as loans that were assigned under favorable conditions (repayment period of five years, with a grace period of 12 months and interest rate of 1% per year) to encourage the quality of catering services of private business, as well as small and medium enterprises in tourism (22 projects in the 2009.), the Ministry of Economy and Regional Development, as part of a package of measures the Government of the Republic of Serbia, introduced subsidized interest rates on consumer loans that besides the purchase of certain consumer goods, relates to the purchase of individual services and tourist trips whose destination is in Serbia. Users of these loans paid the loan interest rate up to 4.5% per year, with a repayment period of 6 to 12 months. Also, users were able to buy services directly at the hotel, pension, etc. or through travel agencies.

The goal of the subsidized loan approval conditions was to allow the economy to overcome the crisis in order to welcome the new expansion with preserved human and physical capital, and to increase the liquidity of real and service sectors, and to reduce lending costs and other expenses, in order to preserve National competitiveness in domestic and foreign markets with the maximum possible preservation of employment, to stimulate domestic demand for domestic tourist destinations, and to preserve the dynamics of growth of exports in conditions of reduced foreign demand.

Balance of the most important activities in the field of Serbian tourism in 2009. is as follows:

- adaptation of a new law on tourism and 26 by-laws;
- Selection of Serbia to the Executive Council of the World Tourism Organization (Astana, Kazakhstan), which is currently the most important position of Serbia in the UN;
- beginning of the project "Sustainable Tourism in the function of rural development" - a joint program of United Nations agencies - the largest project of the UN in the world dedicated to the development of tourism, worth four million dollars and financed by the

Fund to achieve the Millennium Development Goals. The project will be implemented in three phases over the next 2.5 years;
- presentation of Serbian Tourism for EU parliamentarians in Brussels;
- first presentation of Serbian tourism in the Bundestag, in front of representatives of all parliamentary parties in Germany;
- first presentation of Serbian tourism in Timisoara (Romania), promotional appearances in Slovenia, Hungary, Bosnia and Herzegovina, as well as the most important tourism fairs in the world: Berlin, London, Madrid, Moscow, Tokyo;
- Tourism Fair 2009 in Belgrade gathered more than 800 exhibitors and over 50 000 visitors;
- Belgrade hosted the World Congress of the International Association of Hotel and restaurateur - IH & RA. The Congress was attended by about 200 representatives of hotel industry in Serbia, the Balkan region and the whole world, and the theme was "New Trends in the hotel industry and the Balkans as a new tourist market of Europe." During the Congress of International Association of Hotel and restaurateur (IH & RA), agreement with the International Labor Organization (ILO), was signed in order to enable creation of new jobs and improve working conditions;
- first interstate tourist group meeting Hungary - Serbia in Szeged;
- Cooperation between the Government of the Republic of Serbia and the German Organization for Technical Cooperation (GTZ) – new projects implemented such as "The new system of classification of restaurants" and "Setting of the signaling on the Danube bicycle route in the Republic of Serbia from Belgrade to Stara Palanka";
- Danube Competence Center was founded in Belgrade in cooperation with GTZ and the Government of Germany;
- completion and opening of visitors center "Sirmium" in Sremska Mitrovica - very important protected cultural monument - the Roman Imperial Palace of the late third and early fourth century;
- different training programs and education held - 313 students passed the 13 courses and seminars, and a total of 510 hours of classes were held (activities financed exclusively from European funds).

Yet, despite the measures taken, the tourist activity in 2009. recorded a decrease: the total number of arrivals decreased by 11% compared to 2008, while the number of foreign tourists was at the same level as in 2008; what is indicative, is that the number of domestic tourists dropped by almost 15%. Tourists in Serbia made 6.8 million overnight stays, of which the number of overnight stays of foreign tourists increased by 5% and the number of nights of domestic tourists decreased by 11%. The average length of stay of tourists in Serbia was 3.35 days.

SERBIAN TOURISM ECONOMIC POLICY IN 2010.

Serbian Government and the Ministry of Economy and Regional Development, as the competent Ministry for tourism, chose expansive growth and investment in tourism in 2010. Tourism has long ceased to be the sea, swimming and beaches. Modern tourism is a generator of foreign exchange earnings, the ability to create new jobs and family businesses, a great way to preserve environmental and cultural-historical heritage, but also the opportunity for balanced regional development. According to modern understanding of the importance and the chances that tourism brings, the Government of the Republic of Serbia earmarked 4.5 billion USD for investments in tourism in 2010. (almost double compared to the funds foreseen by revision in 2009.). The largest part of investment is related to means of incentives for the construction of tourist infrastructure and suprastructure, and the continuation of works on the most important tourist destinations (Kopaonik, Stara Planina, Zlatibor and Lepenski vir), the implementation of projects on the Danube and active participation of Serbia in the creation of the Danube strategy, Serbian accession to the development of "green economy" through the implementation of projects, classification of solid waste, construction of sanitary and similar points. Budget for 2010. also provides increase in funds earmarked for promoting Serbia as a tourist destination (about 220 million USD), and the promotion of quality and improvement in tourist resorts offers, regions, and education training in tourism, and for the first time funding the participation of Serbia (republic or local level) in the withdrawal of funds from the EU (IPA, etc.).

Table 3: Tourist traffic by the tourist places in Serbia

Types of Tourist Resorts	Arrivals			Nights		
	2008	2009	index 2009/2008	2008	2009	index 2009/2008
Republic of Serbia	2,266,166	2,021,166	89	7,334,106	6,776,763	92
Main Administrative Centers	772,251	660,521	86	1,417,859	1,348,576	95
Spas	366,098	358,481	98	2,367,730	2,286,661	97
Mountain Resorts	448,854	391,316	87	1,912,008	1,687,734	88
Other Tourist Resorts	577,208	525,263	91	1,377,867	1,251,409	91
Other Resorts	101,755	85,585	84	258,642	202,383	78

Source: Republic Statistic Bureu

In addition to grants, the means for loans are provided to encourage quality of hotel offer of private individuals and small and medium enterprises in tourism for 2010, in the amount of USD 400,000,000. Loans are granted for a period of five years, with a grace period of 12 months and interest rate of 1% per year. It is important to say that these funds can finance up to 50% of the total value of the project. As in past years, this stimulatory measure first of all, wants to encourage the construction, arrangement, reconstruction and improvement of supply of accommodation facilities in Serbia, improvement in marketing of domestic restaurants, and souvenir production and preservation of artifacts.

The challenge for Serbian tourism in the coming period will represent the visa liberalization in the context of its impact on the intensity and structure of the domestic tourist traffic. Namely, the decisive factor for Serbian tourist and catering facilities to strengthen its competitive position and offer, not only in international but also in the domestic market is for domestic tourist arrivals to stay on the same level. Travel agencies will soon face competition from large tour operators in the domestic market (TUI, Thomson etc.) and most of them, if they want to continue to conduct the activity, will have to adapt to new situation and to turn to development of receptive tourism, in terms of providing better services and more aggressive promotional performance and better organizing should contribute to attractiveness of Serbian tourist destinations for domestic and for foreign tourists.

CONCLUSION

Although prospects have improved, 2010 will still be a demanding year. Many countries were quick in reacting to the crisis and actively implemented measures to mitigate its impact and stimulate recovery. Although return of growth is expected in 2010, a premature withdrawal of these stimulus measures and the temptation to impose extra taxes may jeopardize the pace of rebound in tourism. Tourism can make a vital contribution to economic recovery, particularly as a primary vehicle for job creation and the transformation to the Green Economy; it also needs serious global policies that are supportive of tourism.

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INSIGHTS INTO GLOBAL FUTURE SCENARIOS: PROJECTED TRENDS IN FOOD AND ENERGY INDUSTRIES

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Summary:

This paper analyzes growing resource scarcity problem worldwide, the scenarios of its appereance in the following decades, and possible implications on Serbian economy in the future. The paper has four sections. First section describes global geopolitical, demographic and economic trends and prospects, important for utter understanding of food and energy sector issues. Second section is dedicated to current trends and potential future scenarios for agriculture and food business in general. Third section deals with current trends in energy sector and gives potential trajectories for its future development. In the second and the third part special attention is paid to price prospects for agricultural, energy and metal commodities. Last section summarizes key insights and gives final conclusions.

Key words: *food, energy, prices, future, scenarios, Serbia.*

INTRODUCTION

The global economy's downward spiral is nearing its end with disposition to mildly reverse. The road to recovery will be extended and tiresome. The IMF (International Monetary Fund) claims that the global slump is bottoming out, with contraction in 2009 of about 1.4 percent [12]. IMF analysts expect a 2.5 percent rebound for the economy in 2010, which they say will increase demand and elevate prices for energy products, metals, industrial commodities and construction materials. Moody's analysts claim the near-term economic outlook is a U-shaped cycle, so buyers needn't fear a repeat of 2008, when prices spiked to record highs [27]. In fact, analysts say that 2010 prices, though slightly above 2009 prices, will be below the 2008 averages.

In this paper, we will try to shed more light on resource scarcity problem, by analyzing production, consumption and price trends and prospects in agriculture and energy industries worldwide. These industries are assumed to be of strategic importance for Serbia's future economic development and it would be interesting to get familiar with the nature, direction and relevance of possible future scenarios. The exhibited analyses and projections in the paper should be considered more as a description of the factors likely to shape future events than a precise prediction of what will actually happen. Nevertheless, the value of predictions lies in better contingency planning for all relevant actors, including investors, producers, industry associations and national authorities. Timely and well-informed intervention can decrease the likelihood and severity of negative developments and increase the likelihood of positive ones.

1. GLOBAL GEOPOLITICAL, DEMOGRAPHIC AND ECONOMIC TRENDS AND PROSPECTS

According to US National Intelligence Council analysts [23], the international system as constructed following the Second World War will be almost unrecognizable by 2025 owing to the rise of emerging powers, an ongoing transfer of relative wealth and economic power from West to East, and the growing influence of non-state actors in political decision making (religions, environment organizations, social movements, regional groups, etc.). The trend toward greater dispersion of authority and power is likely to accelerate because of the emergence of new global players, led by BRIC countries (Brasil, Russia, India and China). Although the United States is likely to remain the single most powerful world actor, the United States' relative strength, even in the military terms, is expected to decline.

The unprecedented transfer of global wealth and economic power is now under way from West to East. This transfer stems from two sources: first, increases in oil and commodity prices have generated enormous profits for the Gulf states and Russia; and second, lower costs combined with local government incentives have shifted the location of manufacturing and some service industries to Asia. Growth projections for BRIC countries indicate they will collectively match the original G-7's share of global GDP by 2040-2050 [14]. China is expected to have more impact on the world over the next 20 years than any other country. If current trends persist, by 2025 China will have the world's second largest economy and will be a leading military power. It also could be the largest importer of natural

resources and the biggest polluter in the world. Russia has the potential to be richer, more powerful, and more self-sustainable in 2025 if it invests in human capital, expands and diversifies its economy, and integrates with global markets. On the other hand, Russia could experience a significant decline if it fails to take these steps and oil prices remain in the $50-70 per barrel range.

Greater regionalism would have global implications, reinforcing a trend toward three financial power centers: North America, Europe, and East Asia [7]. Regional clusters could compete in setting global standards for information technology, biotechnology, intellectual property rights, and other branches of the 'new economy'. Furthermore, establishment of such regional centers would have implications for the ability to achieve future global agreements (for example, within the World Trade Organization). Existing global multilateral institutions (such as World Trade Organization, World Bank or International Monetary Fund), designed for a completely different geopolitical order, will have difficulty adapting quickly to undertake new missions all over the transformed and regionalized world.

Resource issues will be central topic on the international agenda in the following decades. Global economic growth, expected to revive after 2011, will continue to put pressure on a number of strategic resources, including energy, food, and water. The demand is projected to outweigh available supplies over the coming decades. For example, non-OPEC oil production will struggle to grow in line with demand pace in non-OPEC countries. As a result of this and other factors, the world is expected to embark on a fundamental energy transition away from oil toward natural gas, clean coal and renewable alternatives. New technologies could provide solutions to energy scarcity problem, but the crucial question is when this would be possible. Namely, all current technologies are inadequate for replacing the traditional energy technology at least by 2025 [1]. The pace of technological innovation will be of crucial importance. The conflicts over resources could reemerge. Perceptions of energy scarcity could drive countries to take actions to assure their future access to energy supplies in order to maintain domestic stability.

The World Bank [25] estimates that demand for food will rise by 50 percent by 2030, as a result of growing world population and the shift to Western dietary preferences by a growing middle class. Lack of access to stable supplies of water is reaching critical proportions, particularly for agricultural purposes, and the problem will worsen because of rapid urbanization worldwide and the roughly 1.2 billion persons to be added to the world population over the next 20 years. Climate change is expected to exacerbate resource scarcity. Although the impact of climate change will vary by region, a number of regions will begin to suffer harmful effects, particularly water scarcity and loss of agricultural land.

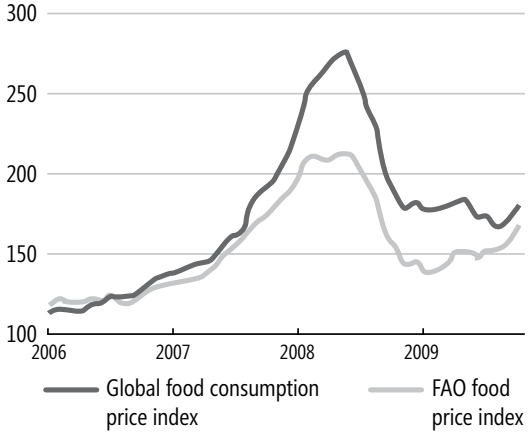
Altogether, the world is faced with many discontinuities, some of which are energy transition, demographic and urbanization flows, resource constraints and possible conflicts over resources, global multilateral institutions perspective, destiny of state and liberal capitalism models, wealth transfer to the East, and many others. The next two sections will try to shed more light on the impact of global disturbances on future trends in food and energy businesses.

2. GLOBAL TRENDS AND PROJECTIONS IN AGRICULTURE

2.1 General trends in agriculture and food industry

The world population is faced with expensive food and beverage products. Sudden upswing of food prices between 2005 and 2008 was a result of simultaneous demand increase and supply decrease. Demand increase was pushed by population growth, increased purchasing power in emerging countries with higher growth rates, and speculative pressure from commodity investors with the surplus of liquiduty. Decrease in supply of agriculture products was a result of reallocation of edible agriculture products into production of non-edible products (such as biofuels), banned food export by several large food exporters due to increased fear over food security, and reduced yields due to several consecutive droughts. Beside demand-supply imbalance, the increase in food prices was further dynamized by cost pressure made by sudden increase in input prices (crude oil and fertilizers), as well as persistent weakening of US dollar.

Figure 1: FAO price indices (2006-2009)



Izvor: FAO (2009): Food Outlook [8, p. 101].

Food basket price hit the maximum in June 2008 (*Figure 1*). Although this trend reversed in the second half of 2008 and first half of 2009, due to reduced demand in the context of economic downturn, the current level is by significant margin higher than that from the beginning of 2006. According to FAO Outlook Report for December 2009 [8], the FAO Food Price Index, a measure of the monthly change in international prices of a food basket composed of cereals, oilseeds, dairy, meat and sugar, has risen continuously since August 2009. Among the agricultural products the largest jump in price has been recorded for sugar, dairy, oil and fats.

In developed and some developing countries, increased investment and technological progress have transformed agriculture into high-productivity sector. On the other hand, in most of developing countries, agriculture continues to suffer from a chronic lack of investment. The relative neglect of agriculture is reflected in the numbers [22]. For example, although the total agricultural gross capital formation (GCF) in developing countries tripled between 1980 and 2007, to US$ 355 billion, agriculture's share in total GCF fell from 17 to less than 10 percent of the total over the same period. Similarly, official development assistance (ODA) in agriculture to developing countries, both in gross terms and as a share of total ODA, has been declining since its peak in 1990. A fall of investment in agriculture is not by itself an issue for concern, since this can signify both rising productivity in the sector and a growing economy that is diversifying into other industries and sectors. What is of concern is that the above-mentioned decline in investments is often the greatest in the poorest countries. For instance, during 1980-2007 period the share of agriculture in total GCF in developing countries fell from 16.8 to 9.3 percent. Eastern Europe (EE) countries experienced even higher decrease in agriculture share in GCF from 18.8 percent in 1995 to 10.3 percent in 2007 [22]. Current importance of agriculture in developed, developing and EE countries is exhibited below (*Table 1*).

The insufficient level of investment in agriculture in particular regions and countries is one of the factors contributing to poverty and hunger. In bold terms, 923 million people were undernourished in 2007 [10]. The reduction of poverty and hunger has been declared the first of the United Nations Millennium Development Goals (MDG) [20]. Increasing investments in agriculture in developing countries is set as a priority, but it is likely to be hampered by the current financial and economic crisis. FAO (Food and Agriculture Organization) estimated that agriculture worldwide needs additional annual investment injection of at least 30 billion dollars in order to alleviate the problem of hunger according to MDG plan [8]. The favourable trend in the last couple of years, fed by growing food prices, is growing absolute capital inflow in agriculture of developing countries made by foreign private investors, investment funds, and sovereign wealth funds of financially strong countries.

In general, the inflow of foreign investments in agriculture in developing countries has promoted commercialisation and modernization of agriculture. Foreign investors have contributed to knowledge and technology transfer, provided financial support to other participants in the value chain and integrated earlier segmented and dispersed producers. On the other hand, home countries should be aware of negative consequences that can arise from foreign investments in agriculture, such as crowding out domestic investments, marginalization of traditional small farmers, environment degradation or excessive market concentration.

From geographic perspective, the most popular investment destinations for agriculture are Asia and Pacific, Latin America and transitional countries in Southeast Europe and former Soviet Union. As for investments in agriculture in Serbia, they have been realized through privatisation of former state-owned companies. State-owned agricultural firms and cooperatives were bough mostly by large domestic private investors, such as *Delta Agrar, Danube Foods, Victoria Group, MK Group* and *Invej*. Foreign investors and companies participated in this process either directly through privatisation or indirectly through reprivatisation of privatised companies. Largest volume of investments is registered in beer, tobacco, confectionary and sugar industries.

2.2 Projected future trends in food production, consumption and prices

Despite the significant impact of the global financial crisis on all sectors of the economy, agriculture is expected to be relatively better off, as a result of relatively higher

Table 1: The importance of agriculture in economic structure

Region	Share in total export	Share in total employment	Share in GDP	Share of rural in total population	Share of agricultural in total population
Developed countries	6,9%	4,4%	1,6%	24,7%	4%
Developing countries	5,9%	40%	10,2%	57,3%	49,1%
Eastern Europe countries	13,4%	25,8%	10,7%	47,8%	15,3%

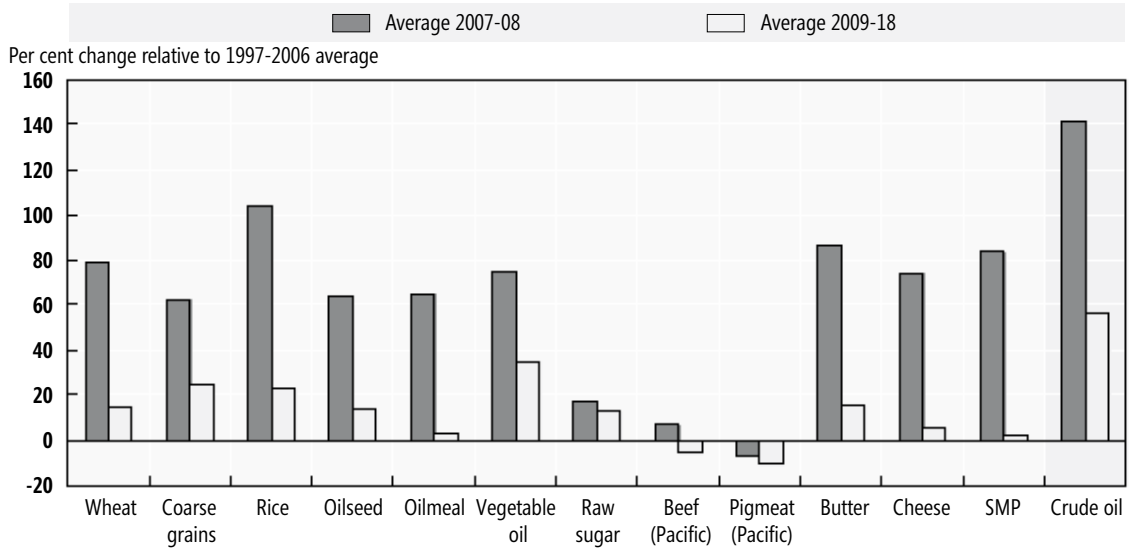
Combined sources: UNCTAD [22], ILO [11], FAO [8], World Bank [25].

income in the recent period and income-inelastic demand for food. However, in the case of prolonged or even deeper crisis, manifested through lower GDP and incomes, agriculture would be seriously affected [17]. Demand for higher cost livestock products, such as beef, pork and dairy, would be the most seriously affected. Crop and biofuel prices would be less sensitive, which proves higher resilience of these products. On the other hand, if the world economy starts to recover, agriculture is expected to be one of the major drivers of economic growth. In that case, most of the growth in agriculture production and consumption is expected to come from developing countries. The question is: which scenario will prevail? In general, many relevant analysts claim that the difficulties facing markets today are different from those experienced during the 2008 food price surge [9].

The suggested way to predict the price of food commodities is to calculate 'implied volatility', which represents the market's expectation of how much the price of a commodity is likely to move in the future [17]. It is called 'implied' because, by dealing with future events, it cannot be observed, and can only be inferred from the prices of derivative contracts, such as options. The more divergent are traders' expectations about future prices, the higher the underlying uncertainty and hence the implied volatility of the underlying commodity. Although the projections vary by commodity, average crop prices in real terms for the next ten years are expected to reach the level above the levels prior to 2007-2008 peaks, despite low economic prospects and much lower energy prices than seen before 2008 [17]. At the same time, crop prices in real terms are expected, on average, to be much below their 2007-08 average peak levels (*Figure 2*). The crops expected to undergo the largest fall in real prices, compared to their 2007-08 average, are: rice, wheat, butter, cheese and skim milk powder. But, over the next ten years, real prices of all products, other than beef and pork, are expected to be above their average 1997-2006 levels by 10-20 percent. Vegetable oil prices are expected to be more than 30 percent higher. Average dairy prices in real terms are likely to be slightly higher relative to 1997-2006 average.

World cereal inventories, having reached very low levels in recent years, are expected to increase over the projection period, which should help to buffer or restrain upward price movements. As a consequence, wheat prices in real terms are projected to resume their long-term decline, albeit from a higher level and at a somewhat slower rate. Coarse grain prices in real terms should also resume their downward trend, but only from around 2015 when the United States mandate for maize-based ethanol reaches its maximum level. Concerning rice prices, the trend in falling real prices could stabilize, making rice slightly more expensive relative to wheat. Nevertheless, in nominal terms most crop markets are expected to see increasing prices over the next ten years. Rising demand for vegetable oils, both for food and the growing biodiesel sector is expected to continue upward trend over the medium-term. However, prices of oilseeds, oilseed meal and vegetable oil, once corrected for inflation, are expected to remain stable over the 2009-2018 period, but would stay above long-term trend levels. Lower expected growth in sugar consumption and imports in the developing countries undergoing economic contraction, could result in lower sugar prices over the medium-term. However, a recovery in demand growth accompanied by inventory depletion could lift prices. Previously described price trends and prospects are displayed in *Figure 3*.

Figure 2: Estimated real commodity prices average in 2009-2018 period relative to 2007-2008 average



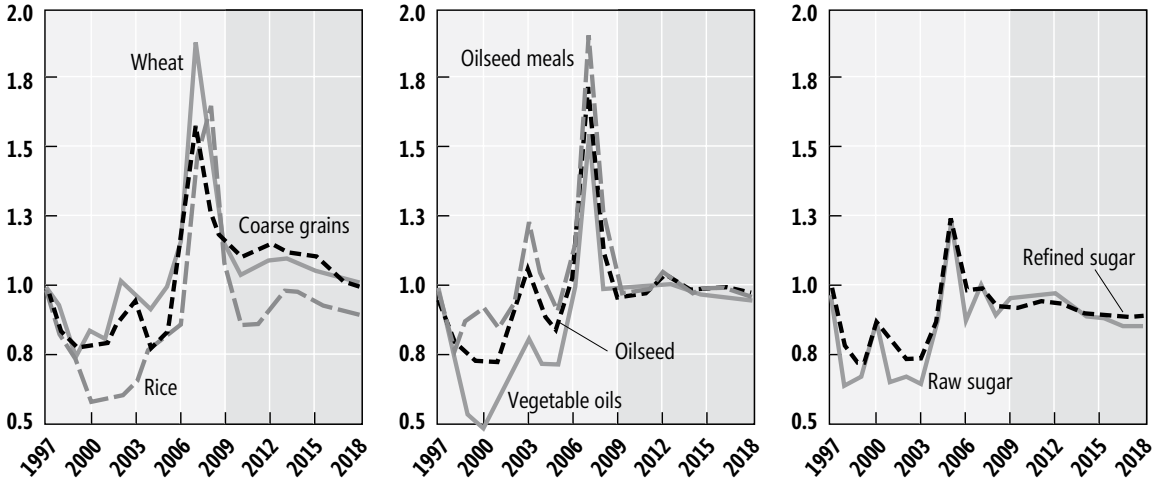
Source: OECD-FAO (2010): OECD-FAO Agricultural Outlook 2009 [17, p.14].

Falling incomes in the short term, stable or growing animal feed prices and growing meat capacities in developing countries will drive meat price (in real terms) down in the projection period. On the other hand, world dairy product prices are expected to rebound from 2011 onwards, even in real terms. While this upward trend could slow down in the second half of the projection period (from 2013 onwards), average prices in real terms over the outlook period are expected to stay slightly above the 1997-2006 average (*Figure 4*).

As for food production projections, for the medium term the projections imply an increase of 10 percent or more for almost all agricultural products, suggesting more ample future supplies (*Figure 5*). For example, worldwide production of vegetable oils in 2018 is expected to be more than 40 percent greater while that of oilseeds, oilmeals, poultry, butter and whole milk powder is expected to be more than 30 percent greater. Other than wheat and coarse grains, OECD-FAO foresees agricultural commodity production increasingly shifting away from developed countries towards developing regions. Using long-term population and income projections, it is estimated that global food production needs to increase more than 40 percent by 2030 and 70 percent by 2050, compared to average 2005-2007 levels [16].

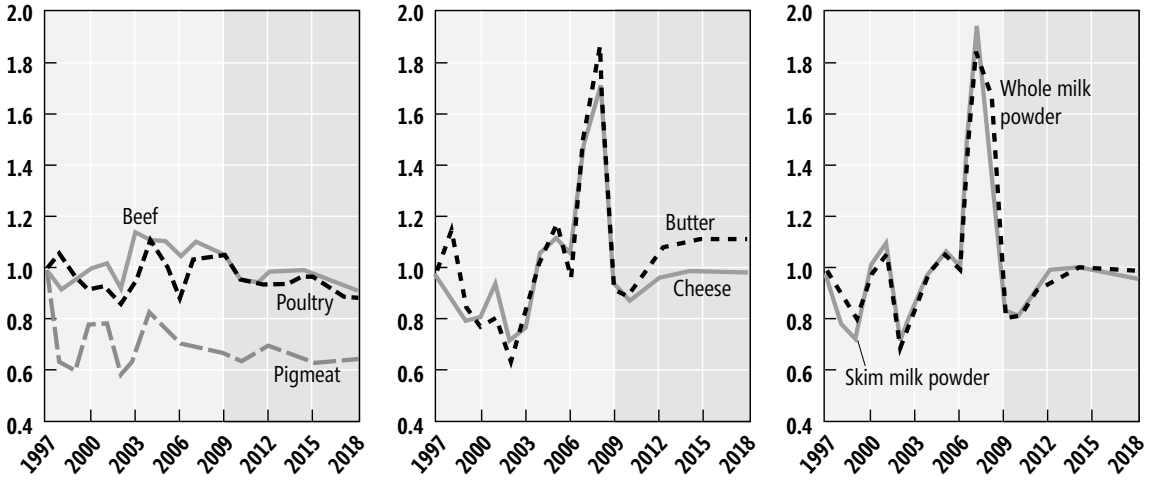
The presented outlook, mostly based on OECD-FAO projections, gives a fairly positive picture for agricultural markets: an agri-food sector relatively resilient to the current economic crisis; real commodity prices to remain above historical average; production, consumption and trade to increase in developing countries. But behind this scenario lies a more concerning story where world food insecurity has increased in the past couple of years, with extreme poverty and rising hunger. High food costs, combined with the global credit crunch, falling international trade and investment flows, lower remittances and budgetary pressures on development aid, may hinder or reverse the progress made in this sector in the second half of 2009.

Figure 3: Projections of crop, oil and sugar prices for 2009-2018 period (1997=1)



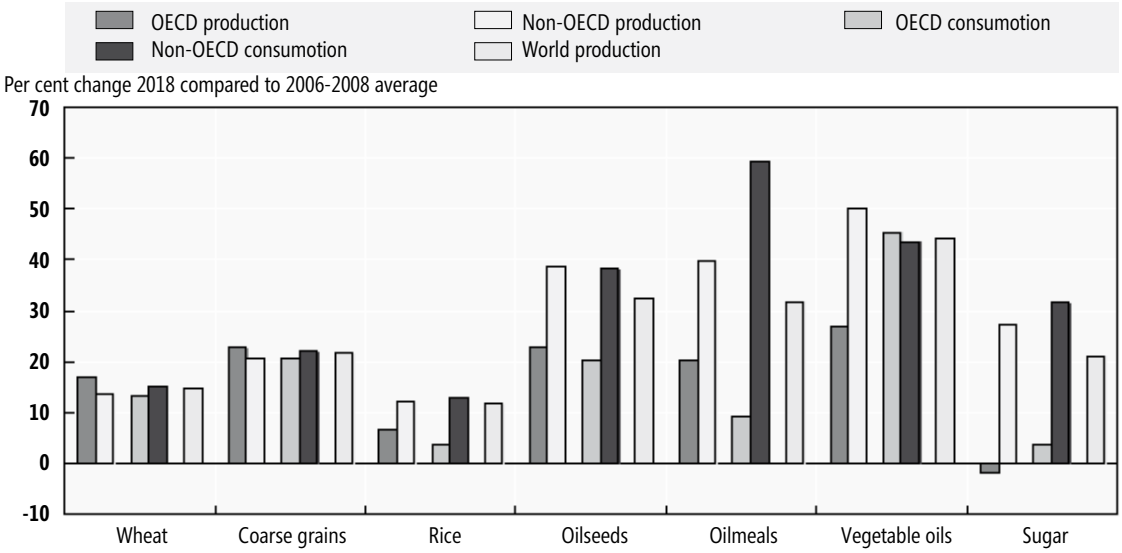
Source: OECD-FAO (2010): OECD-FAO Agricultural Outlook 2009 [17, p. 24].

Figure 4: Projections of meat and dairy prices for 2009-2018 period (1997=1)



Source: OECD-FAO (2010): OECD-FAO Agricultural Outlook 2009 [17, p. 25].

Figure 5: Estimated crop production and consumption in 2018 relative to 2006-2008



Source: OECD-FAO (2010): OECD-FAO Agricultural Outlook 2009 [17, p.14].

3. GLOBAL TRENDS AND PROJECTIONS IN ENERGY INDUSTRY

3.1 General trends in energy sector

The global financial crisis has had a dramatic impact on the outlook of energy markets [13]. World energy demand in aggregate terms has dropped, first time since 1981. Energy investment worldwide has also plunged over 2009 in the face of tougher financial environment and weakening demand for energy. Large petrochemical companies are drilling fewer oil and gas wells, and reducing spending on refineries, pipelines and power stations. Many ongoing infrastructure projects have been put off or cancelled. It is estimated that global upstream oil and gas investment budgets for 2009 have been cut by around 20 percent compared with 2008, which is a reduction of over US$ 95 billion. During late 2008 and 2009, investments in renewables fell proportionately by 20 percent. Without the stimulus packages provided by governments, renewables investments would have fallen by almost 30 percent. Any prolonged decrease in investments threatens to constrain capacity growth in the medium term, especially for long lead-time projects. The ultimate risk is a shortfall in supply. This could lead to a new wave of price surge a few years down the track, when it is expected the demand would recover. These concerns are most relevant for oil and electricity supplies.

Oil importing countries, such as Serbia, are highly dependent on energy leaders, such as Middle East countries and Russia. Serbian national petrochemical company *Naftna Industrija Srbije* was privatized by Russian Gasprom in 2008 and it is expected that this transaction would provide Serbian citizens with stable energy delivery in the future. Electricity generation is controlled by a state-owned company *Elektroprivreda Srbije*. Electricity trading is covered by several energy-trading firms, such as *Rudnap* and *EFT*.

3.2 Projected future trends in energy supply, demand and prices

According to US National Intelligence Council [23], by 2025 the world will be in the middle of a fundamental energy transition, in terms of both fuel types and sources. It is estimated that non-OPEC production of crude oil and natural gas will not be able to grow in line with demand in non-OPEC countries. The production levels of many traditional energy producers (e.g. Yemen, Norway, Oman, the UK) are already in decline. Only six countries (Saudi Arabia, Iran, Kuwait, the UAE, Iraq and Russia) are projected to account for 39 percent of total world oil production in 2025. The major producers will be located in the Middle East, which contains almost two-thirds of the world oil reserves. A partial consequence of this growing concentration will be increased control of oil and gas resources by national oil companies. National oil companies will have strong economic and political incentives to limit investment in order to prolong the production horizon. Projected breakdown of the expected use of different energy sources is displayed in *Figure 6*.

Fossil fuels (liquid fuels, natural gas, and coal) are expected to continue supplying much of the energy used worldwide. However, their share is expected to fall from 36 percent in 2006 to 32 percent in 2030, as projected high world oil prices will lead many energy users, especially in

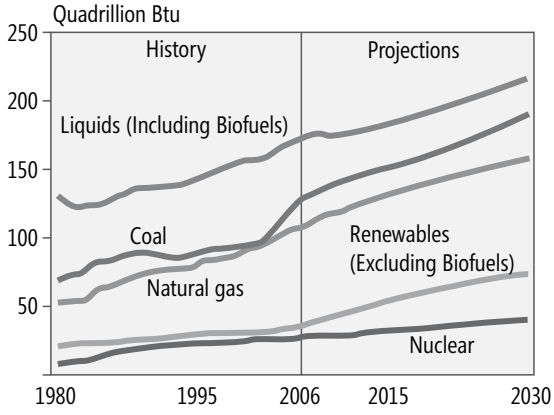
the industrial and electric power sectors, to switch away from liquid fuels, whenever possible [28].

The more popular fuel in the future will be natural gas, which use is likely to grow steadily during the next decades. By 2025, consumption of natural gas is expected to grow by about 60 percent, according to US Energy Information Agency projections [28]. Although natural gas deposits are not necessarily co-located with oil, they are highly concentrated, which makes their production more efficient. Three countries (Russia, Iran, and Qatar) hold over 57 percent of the world's natural gas reserves [29]. Considering oil and natural gas together, two countries (Russia and Iran) have been emerging as strong energy leaders.

Maybe it sounds strange at first, but coal is expected be the fastest growing energy source, in the case the clean coal technologies are more widely used. Rising prices for oil and natural gas would put additional attention on energy sources that are cheap, abundant, and close to markets, as is the case with coal. Four of the largest and fastest-growing energy consumers (US, China, India and Russia) possess the four largest recoverable coal reserves, representing 67 percent of known global reserves [3]. China will still be very dependent on coal in 2025 and it is likely to be under increasing international pressure to use clean coal-burning technologies. By 2025, China will overtake the US in the amount of carbon emissions into the atmosphere [24].

The use of nuclear fuel for electrical power generation is expected to expand, but the increase will not be sufficient to fill growing demand for electricity. Third-generation nuclear reactors have lower costs of power generation, improved safety characteristics, and better waste management features than previous reactor designs. Although most nuclear power plants are currently in developed countries, growing demand for electricity in China, India and other rapidly growing countries will increase the demand for nuclear power. The supply of uranium, which is the principal feedstock for nuclear power, is unlikely to limit the future deployment of nuclear power [5].

Figure 6: Prospects of use of different energy sources (1980-2030)



Source: PFC Energy International [26] and Energy Information Administration [28].

Note: Btu stands for British termal units.

What is the future of renewable energy? From today's perspective, all current technologies are inadequate for replacing traditional energy architectures on the scale needed, and new energy technologies probably will not be commercially viable and widespread by 2025 [1]. The present generation of biofuels is too expensive to grow, would further boost food prices, and their manufacture consumes essentially the same amount of energy they produce [19]. Other types of renewable generation sources are expected to be more promising, such as those based on wind, biomass and improved battery technology.

The crucial hurdle to efficient transition to cleaner energy sources is technology adoption lag. It takes an average of 25 years for a new production technology to become widely adopted [2]. A major reason for this lag is the need for new infrastructure to handle major innovation. For example, adoption of natural gas, a fuel superior to oil in many respects, illustrates the difficulty of technology transition. Technologies to use natural gas have been widely available since at least the 1970s, yet natural gas still lags crude oil in the global market because the technical and investment requirements for producing and transporting natural gas are greater than they are for oil-based fuels.

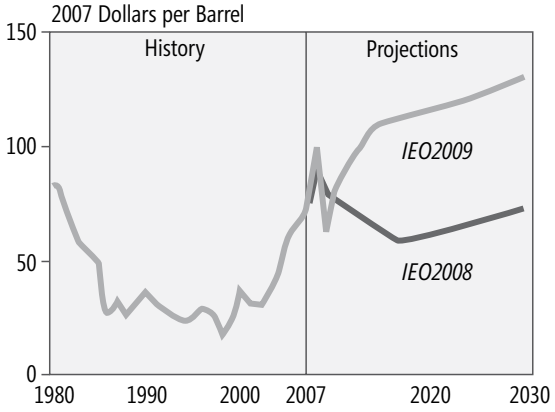
World net electricity generation is expected to increase by 77 percent by 2030. In general, the growth in OECD countries, where electricity markets are well established and consuming patterns are mature, is slower than in the non-OECD countries, where a large amount of potential demand remains unsatisfied [5].

On the energy demand side, US Energy Information Administration [5] predicts that the world energy consumption will grow by 44 percent by 2030 (2006=100). Although the current worldwide economic downturn hampers world demand for energy in the near term, in the longer term, with economic recovery anticipated after 2010, most nations are expected to return to trend growth in energy demand. The most rapid growth in energy demand is projected for non-OECD countries. Total non-OECD energy consumption is expected to increase by 73 percent, as compared with an estimated 15-percent increase in energy use among the OECD countries.

Average world oil prices increased each year between 2003 and 2008 [39]. Spot prices reached maximum at US$147 per barrel (nominal dollars) in mid-July 2008. After reaching the July 2008 high mark, however, prices fell sharply and then started to recover during 2009. Leading energy consultants

[26] believe higher energy price levels are likely, at least to 2015, because of slow-growing supply and fast-growing demand. As the world's economies recover, world oil prices are assumed to rebound and rise in real terms through 2030. According to US Energy Information Agency reference scenario for 2009 [5], the price of light sweet crude oil in the United States is expected to rise (in 2007 US dollars) from US$61 per barrel in 2009 to US$110 per barrel in 2015 and US$130 per barrel in 2030 (*Figure 7*).

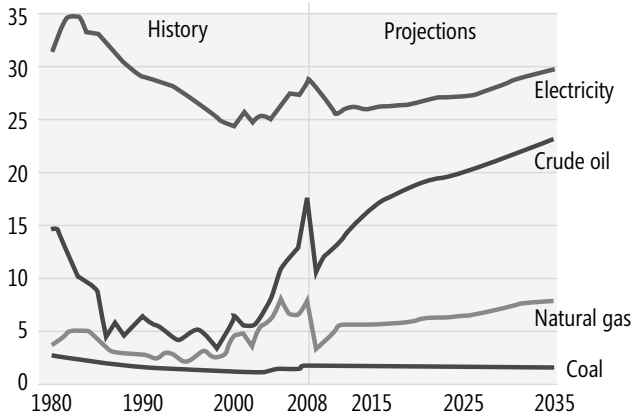
Figure 7: Projection of world oil prices (1980-2030)



Source: Energy Information Administration (2009): Annual Energy Outlook 2009 [5, p.2].

In the scenario of oil prices above US$ 100, many energy importing countries could be severely hit. These countries would need to mine and transport more domestic coal, build more nuclear power plants, and seek to improve energy end-use efficiencies to offset the higher priced imports. On the other hand, major exporters such as Russia and Iran would be better off. The extent of potential benefits would depend on how they use their profits to invest in human capital, financial stabilization, and economic infrastructure. At the same time, export-depending energy powers, such as Russia[1], may suffer serious consequences if oil price drops below US$ 50 for a longer period of time or if transition to alternative energy sources takes place before 2030. Projected prices for oil, natural gas, coal and electricity are given in *Figure 8*. In this scenario, natural gas prices increase in the short term from the low prices observed in 2009 that resulted from the sharp economic downturn. After 2012, prices continue to rise, but more slowly, as additional resources are brought into production to meet demand growth. Natural gas wellhead prices are expected to reach $8.06 per thousand cubic feet (2008 dollars) in 2035. Coal prices are expected to moderate through 2029 from their recent high levels because of a continuing shift to lower cost production. In the reference case, the price of short ton will slightly decrease from 31.26 US$ in 2008 to 28.1 US$ (in 2008 dollars). Electricity prices tend to reflect trends in fuel prices, particularly natural gas prices, because natural-gas-fired plants often represent the major power generators. There can be lags in the timing of price impacts, however, because fuel price contracts may affect the fuel costs passed through to electricity consumers. Over the longer term, real electricity prices are expected to rise as demand grows and the prices of delivered fuels increase. In the reference case, electricity prices are expected to increase from 9.8 cents per kilowatthour in 2008 to 10.2 cents in 2035.

Figure 8: Projected energy prices (1980-2035)



Source: Energy Information Administration [38]

3.3 Projections of metal consumption and prices

Table 2 shows projected consensus prices for metals in 2010 compared with 2009. It should be noted that, due to immense volatility of metal prices, it is very difficult to give any long-term predictions on their price level.

Table 2: Metal prices forecast for 2010

Commodity	2009 average price	Forecasted 2010 average price
Steel sheet	$457/ton	$521/ton
Copper sheet	$3.41/lb	$3.63/lb
Zinc	$0.64/lb	$0.76/lb
Aluminum	$0.68/lb	$0.79/lb
Nickel	$5.76/lb	$6.22/lb
Gold	$972/oz	$1.225/oz
Silver	$14.7/oz	$16.9/oz
Platinum	$1.200/oz	$1.442/oz
Rhodium	$1.445/oz	$1.723/oz

Combined sources: World Bureau of Metal Statistics [37], AME Mineral Economics [36].

According to the World Steel Association [35], the drop in 2009 steel production was 8.1 percent compared to 2008. Most analysts believe the steel mills have seen a trough in demand already in mid-2009 and are looking for expanded

1 80 percent of the Russia's export and 32 percent of state revenues are derived from production of energy and raw materials [6].

production in 2010 to support strengthening demand. This trend is in line with growing steel prices in the second half of 2009. This trend is expected to continue throughout 2012 and then stabilize at the level substantially lower than 2008 peak, but also well above pre-expansion 2005 level.

In 2010, world copper mine production is forecast to increase by 3 percent to 16.1 million metric tons as a number of new projects commence operations [34]. Production is also forecast to be higher, since a number of mines closed in 2008, as a result of low prices, are expected to reopen. Copper sheet price is forecasted to grow in similar fashion as steel.

Higher zinc prices and falling inventories in 2010 are expected to encourage some mine and refined producers to resume production or return to full capacity [33]. Thus, world output of refined zinc is also projected to increase slightly in response to recovering world demand. Zinc price is forecasted to follow the similar trend as steel.

World aluminum production, after dropping 14 percent in 2009, is forecast to increase by 3 percent in 2010 [32]. Analysts suggest that high levels of stocks will remain, which will limit any significant upward movement in world prices beyond the projected 14 percent increase to 79 cents/lb from 68 cents in 2009, but still under the $1.17 of 2008.

As a result of significant increases in nickel prices between mid-2003 and mid-2007, a number of stainless steel producers substituted other less expensive input materials such as manganese for nickel [31]. Despite a significant decline in nickel prices, many stainless steel producers haven't switched back to nickel. If this trend continues, it could limit expected nickel demand growth in 2010.

Some analysts [30] suggest that prices for precious metals will increase by 21 percent in 2010, led by a 40 percent increase in the cost of palladium in 2009. Price of platinum is projected to increase by 20% in 2010. The platinum group metals, which include rhodium, are projected to rise in price because of improved demand from makers of automotive catalytic converters. Analysts at *J.P. Morgan* [18] expect prices for gold and silver to remain volatile and rise in line with global inflation trends and dollar depreciation expectations.

4. CONCLUSION

The analysis throughout the paper showed that the world will be challenged by growing resource constraints. All the world countries have been turning their attention toward access to relatively secure and clean energy sources and management of chronic food and water shortages. Adding over a billion people to the world's population by 2025 will put additional pressure on availability of vital resources. Significant growth in demand from developing markets, combined with constraints on new production, limits the likelihood that market alone will repair the supply-demand imbalance and potential food and energy price soaring. The already stressed energy and food sectors will be further exacerbated by detrimental impact of climate change. What is needed is stronger financial and policy support from national authorities and more coordinated and flexible effort from multilateral international organizations.

Food and water scarcity are closely interrelated with climate change, energy, and demography. A sudden switch from use of arable land for food to biofuel crops represents limited solution that could worsen both the energy and food situation. Such a complex syndrome of problems could overload decision-makers, making it difficult for them to take actions in time.

The projections of renowned institutions suggest that energy and food prices will continue to grow after the economy recovers from recession. In 2010-2030 period commodity prices are expected to be for a substantial margin higher than 1997-2006 averages, but much lower than maximum prices experienced in mid-2008. The majority of analysts claim that the food, energy and metal prices' increase will not follow the spike trend seen in 2007 and 2008, but steady growth path.

What are the implications of these trends on future policies and trends within Serbian economy? In short, Serbia should invest more in primary agricultural production and food processing industry in order to ensure food security and potentially alleviate trade deficit problem. Taking into account abundant natural resources and existing expertise, the agricultural productivity and production can be significantly increased with better access to inputs, efficient use of existing and advanced technological solutions and infrastructure development. Serbia's energy reserves do not give much hope that it will decrease energy imports in the future. Apart from hydropower, other renewable energy sources are not plentiful either. From this perspective, it seems that strategic partnership with Russia, as the current and future world energy leader, was a smart strategic move. Of course, it is up to current and future governments to turn well-chosen strategic direction into a number of smart tactical and operating decisions.

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GLOBAL TRENDS – EFFECTS OF THE CRISIS ONE YEAR AND A HALF AFTER ITS ESCALATION

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Summary:

The aim of this paper is to point out the effects of global economic crises worldwide and specially to emphasize its effects on Serbian economy. This paper is organized as follows. The first chapter provides a picture of global macroeconomic overview a year and a half after financial crisis escalation. The second chapter gives insight into the trend of commodity prices and its implications on world trade and output. The third chapter analyzed FDI trends by forms, sector and regional structure. The fourth chapter provides brief impact of the global economic crisis on Serbian economy. Finally, the last section summarize key message and indicates main conclusion of global trends and its consequences.

Key words: *output, inflation, commodities, investments, Serbia, perspectives*

INTRODUCTION

In summer 2007, the crisis in the US mortgage sector spilled over to asset basket securities. Consequently, money market dried up, risk premium rose sharply and directly affected corporate borrowing. After escalation of the financial crisis in September 2008, by the end of 2008 most countries were affected to some extent. Even though the financial crisis was started on relatively small segment of US banking sector, it was spread over the real sector and acquired global dimension.

Dramatically decrease of commodity prices in July 2008 and cut of capital inflows led to extraordinary sharp output declines. Many countries experienced large declines in industrial production and the stock of outstanding bank credit began to contract for the first time after booming period. Construction, manufacturing and financial services were directly stricken by crisis severity. By February 2009 the crisis was spilling back over from the real to the financial sector, as fears of bank credit losses triggered a new wave of currency pressures.

Year and a half after escalation of the crisis it seems that the global economy is expanding again, and financial conditions have improved markedly. The global recovery is off to a stronger start than anticipated earlier but is proceeding at different speeds in the various regions. Emerging and developing economies are further ahead on the road to recovery, led by revival of Asia. In general, emerging economies have withstood the financial turmoil much better than expected based on past experience, which reflects improved policy frameworks.

The aim of this paper is to point out the effects of global economic crisis worldwide and specially to emphasize its effects on Serbian economy. Regarding that, all relevant macroeconomic indicators as well as investment trends will be analyzed. The results will be summarized in the last section.

1. GLOBAL MACROECONOMIC OVERVIEW

The world faced the severest credit crunch and recession since the Great Depression. In the second half of 2008, the world economy came to a halt. World trade flows collapsed in the last quarter of 2008, with global exports projected to decline in 2009 for the first time since 1982. With contracting world trade, slowing domestic demand and sharply reduced access to external financing, global economy has the weakest growth rate since Second World War.

Table 1: Overview of the world economic outlook projections

	2008	2009	2010	2011
World output	**3.0**	**-0.8**	**3.9**	**4.3**
- Advanced economies	0.5	-3.2	2.1	2.4
- EU	1.0	-4.0	1.0	1.9
- Emerging and developing economies	6.1	2.1	6.0	6.3
...- Central and Eastern Europe	3.1	-4.3	2.0	3.7
...- Commonwealth of Independent States	5.5	-7.5	3.8	4.0
World trade volume (goods and services)	**2.8**	**-12.3**	**5.8**	**6.3**
Import				
- Advanced economies	0.5	-12.2	5.5	5.5
- Emerging and developing economies	8.9	-13.5	6.5	7.7
Export				
- Advanced economies	1.8	-12.1	5.9	5.6
- Emerging and developing economies	4.4	-11.7	5.4	7.8

Source: IMF World Economic Outlook, January 2010.

Following the deepest global downturn in recent history, economic growth solidified and broadened to advanced economies in the second half of 2009. In 2010, world output

is expected to rise by 4 percent, following a contraction in activity of about 1 percent in 2009. The latest IMF projections published in January 2010 represents an upward revision of ¾ percentage point from the October 2009 World Economic Outlook.

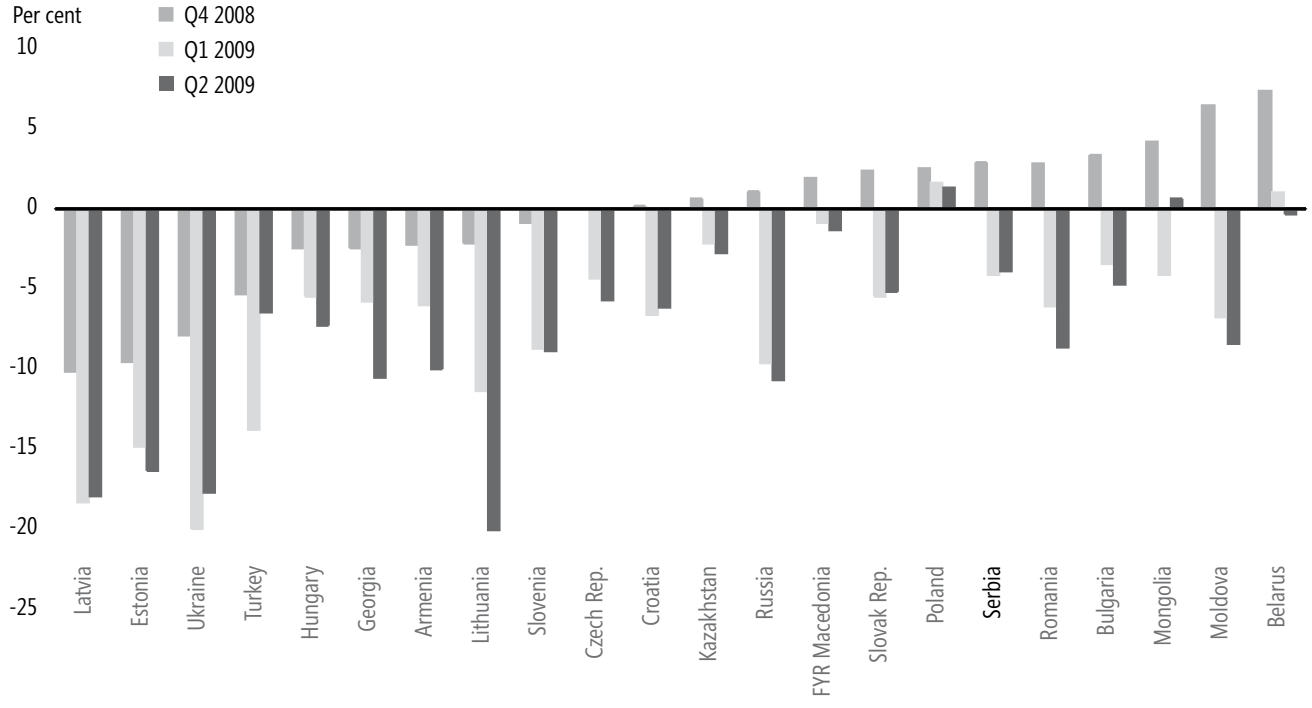
IMF expects that the output in the advanced economies will expand by 2 percent in 2010, following a sharp decline in output in 2009. [5] The new forecast reflects an upward revision of ¾ percentage point. In 2011, growth is projected to edge up further to 2½ percent. In spite of the revision, the recovery in advanced economies is still expected to be weak by historical standards, with real output remaining below its pre-crisis level until late 2011. Moreover, high unemployment rates and public debt, as well as not-fully-healed financial systems, and in some countries, weak household balance sheets are presenting further challenges to the recovery in these economies.

Growth in emerging and developing economies is expected to rise to about 6 percent in 2010, following a modest 2 percent in 2009. The new projection reflects an upward revision of almost 1 percentage point. In 2011, output is projected to accelerate further. Stronger economic frameworks and swift policy responses have helped many emerging economies to cushion the impact of the unprecedented external shock and quickly re-attract capital flows. Within both groups, growth performance is expected to vary considerably across countries and regions, reflecting different initial conditions, external shocks, and policy responses. For instance, key emerging economies in Asia are leading the global recovery.

Even though European transition countries as the region have experienced the highest decrease in GDP, there are significant differences between them. While five countries (Estonia, Latvia, Lithuania, Ukraine and Moldova) recorded 10-20 percent falls in GDP, Poland is the only country which has positive economic growth since financial crisis exhalation in 2008 (see figure 1). The rebound of commodity prices is supporting the growth in commodity producers in all regions. IMF projections suggest that economies in transition as the region will have gradual recovery in 2010. CIS countries will probably have average rate of 3.8 percent of GDP, while Central and East European countries will have average rate of 2 percent GDP.

The current crisis in transition economies shares the most similarities with the Asian crisis in 1997. [10] There are two common characteristics of the both crisis. Firstly, both of crises ended a period of large capital inflows that fuelled domestic demand and asset price booms and led to large current deficits (see figure 2). Following the financial crisis of the late 1990s, all three regions enjoyed high per capita growth, with the European transition economies grooving faster – 6.8 percent against 5.2 percent in emerging Asia and 3.7 percent in Latin America. Despite credit similar real GDP growth rates, current account deficits were lower in Asian countries because of less pronounced credit expansion and stronger export base. Secondly, both crises were accompanied by large outputs declines and sharp reversals

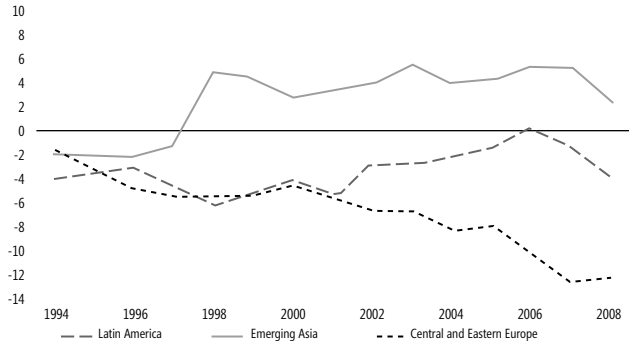
Figure 1: Real GDP growth in transition economies



Source: EBRD, Transition Report 2009.

of capital flows. On the other hand, the current crisis occurred in a much difficult macroeconomic environment than 1997 Asian crisis. IMF projects a constriction in the global trade volume of 12 percent in 2009 (see table 1), while in 1997 global trade volume was positive. IMF estimates retrenchment of capital inflows into emerging markets to almost zero level, while in 1997 despite Asian crisis capital inflows into all emerging markets was 1.5 percent.

Figure 2: Current account deficit as percent of GDP



Source: EBRD, Transition Report 2009.

Capital inflows into Asian countries in the first half of the 1990s were largely intermediated through capital market rather than subsidiaries and branches of foreign banks. Banking systems in European transition region are generally majority foreign owned, while in East Asia foreign ownership was very low (see table 2). Countries that relied on foreign financing have tended on average to grow more slowly than those have reliant on domestic savings. In transition economies, sharp rose of credit share in GDP is the consequence of widening the network of affiliation of foreign banks, especially after 2003. Capital inflow on that basis was higher than in others regions of the world due to high rate of economic development in that countries. The share of debt in foreign currency was about 26 percent on average, with almost one-fourth of firms reporting a foreign debt ratio higher than 60 percent. [1] There is widespread view that financial integration has contributed to the credit booms, large private debt stocks and lending in foreign currency that made transition region vulnerable on external shocks. It could be the main reason why the region has been hit so hard. Even though, the level of support given to the most hit banks in Indonesia and Thailand (17 and 22 percent of GDP, respectively) is far above liquidity support given banks in Latvia and Ukraine (6.75 and 7.50 percent of GDP) as the worst hit banking systems during the current crisis in transition economies.

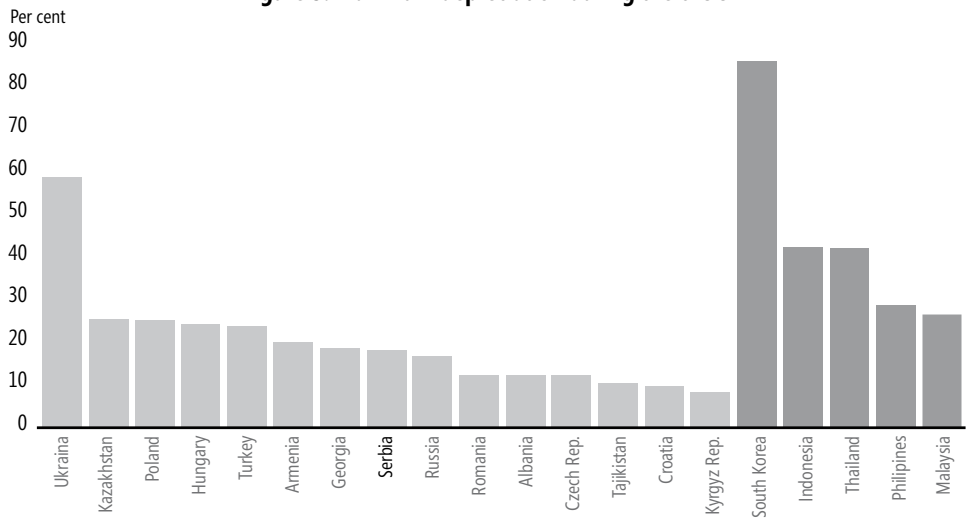
Table 2: Comparison of financial systems in transition countries and East Asian countries

	Total financial assets as % of GDP	Share of banks	Share of non-banks	Share of foreign owned banks in banking assets
Croatia	116	74	26	85
Check Republic	146	75	25	84
Estonia	141	89	11	99
Kazakhstan	74	82	18	16
Latvia	154	92	8	60
Lithuania	80	95	5	75
Poland	97	75	25	70
Romania	74	83	17	88
Russia	158	33	67	17
Slovak Republic	95	89	11	96
Ukraine	na	na	na	55
Indonesia	90	86	14	4
Korea	300	70	30	2
Philippines	115	92	8	2
Thailand	190	74	26	9

Note: Referent year for East Asian countries is 1996, while for transition countries there are the latest available data. Source: EBRD, Transition Report 2009.

Financial distress in transition economies has been limited in current crisis due to consistent response of the domestic and internationally policy. Government attempted to uphold financial sector stability through a range of instruments, including deposit guarantees, liquidity injections and the recapitalization of banks. Central banks took measures to expand banking system liquidity. Monetary policy has been eased, although a few countries were forced to maintain tight policies as they sought to defend curren-

Figure 3: Maximum depreciation during the crisis



Source: EBRD, Transition Report 2009.

cies. With exception of Ukraine, exchange rate depreciations were milder and far more controlled. [2]

IMF tripled its resources in the region to US$ 750 billion, while EC quadrupled support to US$ 50 billion. These two institutions jointly agreed stabilization progmmes with Hungary, Latvia and Romania. IMF agreed stabilization arrangement with Armenia, Belarus, Bosnia and Herzegovina, Georgia, Serbia and Ukraine. IMF created and a new flexible credit line for countries with sound macroeconomic environment. Poland as the only country, which managed to escape output declines, received access to EUR 20 billion.

Generally, we can say that mutual intervention on national level as well as support of international financial organization, gave positive results and that financial markets have recovered faster than expected. [3] Nevertheless, financial conditions are likely to remain more difficult than before the crisis. Money markets have stabilized, and the tightening of bank lending standards has moderated. Moreover, most banks in core markets are now less reliant on central bank emergency facilities and government guarantees. Nonetheless, bank lending is likely to remain sluggish, given the need to rebuild capital, the weakness of private securitization, and the possibility of further credit write-downs, notably related to commercial real estate. Equity markets have rebounded, and corporate bond issuance has reached record levels, amid a reopening of most high-yield markets. However, the surge in corporate bond issuance has not offset the reduction in bank credit growth to the private sector. [11]

2. TREND OF COMMODITY PRICES

The gradual pace of recovery points to a prolonged period of subdued inflation and vulnerability to mild deflation. Although the risks of sustained deflation have diminished over the past quarter, deflation pressures—as gauged by a broad indicator that comprises various price indicators, estimates of capacity utilization, and asset prices for most G20 economies—are expected to remain relatively high over the coming year. In the advanced economies, headline inflation is expected to pick up from zero in 2009 to 1¼ percent in 2010, as rebounding energy prices more than offset slowing labor costs. [5] In emerging and developing economies, inflation is expected to edge up to 6¼ percent in 2010, as some of these economies may face growing upward pressures due to more limited economic slack and increased capital flows.

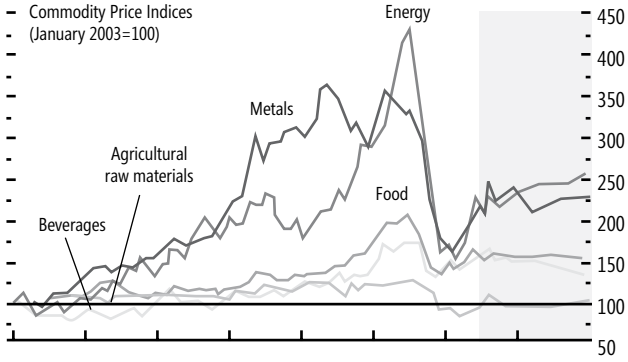
Table 3: Consumer and commodity prices

	2008	2009	2010	2011
Consumer prices				
Advanced economies	3.4	0.1	1.3	1.5
Emerging and developing economies	9.2	5.2	6.2	4.6
Commodity prices (U.S. dollars)				
Oil	36.4	-36.1	22.6	7.9
Non-fuel (average based on world commodity export weights)	7.5	-18.9	5.8	1.6

Source: IMF World Economic Outlook, January 2010.

Sharp decline in oil and food prices in June 2008 marked the end of the highest commodity price boom in the past century. Like earlier booms, this one was driven by strong global economic growth and ended with the sudden slowdown in the global economy. The commodity price boom was characterized by a large number of commodities and reflected the resilience of developing country growth during this period. Between early 2003 and mid-2008, oil prices climbed by 320 percent in dollar terms, and internationally traded food prices rise by 138 percent. [12]

Figure 4: Commodity and petroleum prices



Source: IMF, World Economic Outlook, October 2009.

Commodity prices have been stabilized in early 2009 despite generally high inventories that resulted from the weak demand through the current recession period. The early commodity price rebound has raised a question about whether prices are increasingly driven by commodity financial investment. The increase in financial investment in commodity assets was affected by negative correlation between U.S. dollar fluctuations and commodity prices. Considerable pressure on spot prices eased while the degree of its increases was different across commodities, thus reflecting differences in the cyclical sensitivity of commodities as well as commodity-specific factors, as discussed below. Particularly, prices in oil markets were supported not only by recovery expectations, but also by OPEC supply cuts, while metal prices have been buoyed by restocking in China. Commodity prices, especially in cyclically sensitive sectors, have thus responded strongly to news about an earlier than- expected recovery in emerging Asia in the second quarter of 2009. Commodity demand prospects now depend increasingly on growth in emerging and developing economies, given the steady rise in their market shares.

In the current downturn, global oil consumption contracted much more deeply than in any recession since the early 1980s. The great demand declines are largely affected by advanced economies, particularly the United States and Japan, although oil-consumption growth in emerging and other developing economies also slowed down and, in some cases, reached negative values in the first quarter of 2009. Facing the decrease in demand, OPEC reduced production aiming at supporting oil prices. By August 2009, the reduction in OPEC production from the September 2008 base level was estimated at 70 percent of the target, while non-OPEC production has broadly stagnated through the contraction. Oil prices have responded strongly to perceptions that the worst of the global recession is over and to signs of a jump in demand in China. After reaching a low of $36 a barrel on February 27, 2009, oil prices started to rebound in March and climbed to $82 on October 23. In mid February 2010 oil price per barrel is US$75 and it is expected to move towards the US$90 in 2010, mainly led by strong growth in consumption in 'emerging Asia' and the Middle East as well as gradual recovery in G7. [14]

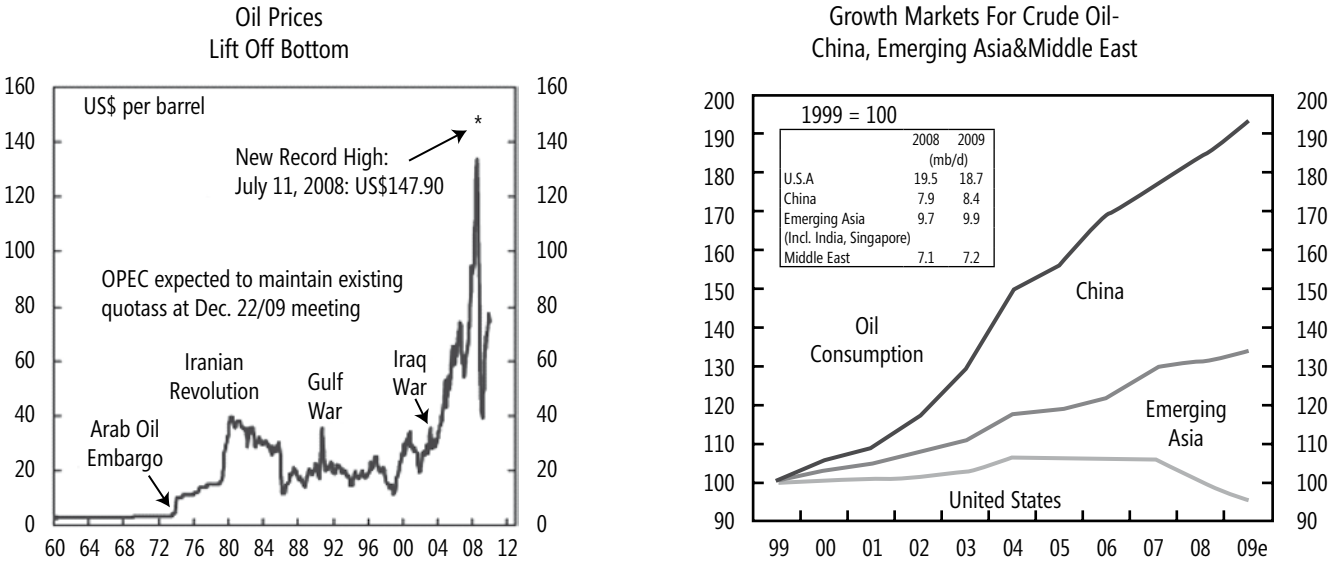
Looking to the medium term, the oil price outlook and risks of a renewed price spike will depend on prediction for maintaining sustainable demand-supply balances. Accordingly, the IMF's baseline petroleum price projection is unchanged for 2010 and revised up by a small amount in 2011 (to $82 a barrel, from $79 a barrel in the October 2009 WEO). [6] Oil demand is expected to have robust growth in emerging economies but should remain controlled in advanced economies. On the supply side, the capacity expansion will remain at the average as in 2005–08 period. The main supply-side concerns, however, continue to be oil investment regimes and geological and technical constraints. On the other hand, new oil fields are smaller in size and present greater technological and geological challenges, and the decline rates of many existing fields have raised by more than expected. As a result, more investment is needed just to maintain current capacity.

In accordance with global industrial downturn, total production of a few key metals (aluminum, tin, and zinc) declined by about or more than 10 percent (seasonally adjusted annual rate) during the period April 2008–February 2009. However, revival of production base metals is visible during 2009 due to revival of China's consumption.

Despite a deep global recession in early 2009, China's imports of many key base metals and iron ore quickly moved to record highs, reflecting 'strategic' position of China's State Reserve Bureau at bargain prices and then re-stocking by manufacturers. Private metal demand in China also started to increase because of a rebound in industrial production. Along with a rising price differential at the Shanghai Futures Exchange relative to the London Metal Exchange, this boosted net imports to China. The revving up of China's industrial activity has brought base metals into four of the top five best performing commodities of 2009 and raised base metal prices by mid-2009. Accounting for 38.8 percent of world consumption of the four key base metals (copper, zinc, nickel and aluminum) compared with the United States' 10.3 percent (based on 2009 estimates), China has dominant position in materials markets.

Due to improvements in near-term global economic and financial prospects, the most metal prices increased in the second quarter of 2009 and by end-July. The IMF metal daily index had risen by nearly 60 percent from its trough

Figure 5: Oil prices and growth markets for crude oil

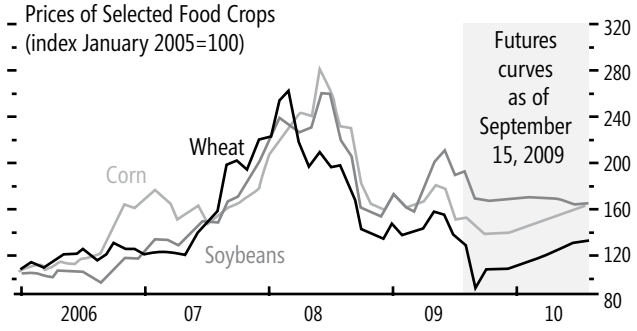


Source: www.scotiabank.com

earlier in the year—led by copper, lead, and nickel. However, the impetus from restocking in China will be temporary, and metal price prospects depend on the speed at which activity in China strengthens and on the pace of recovery in the rest of the world. Further strong price increases in base metals in the near term are less probable due to substantial excess capacity.

Food prices enjoyed a broad-based modest recovery after visible signs of improving global economic and financial conditions in March 2009. The overall food price index, which includes prices of major global crops (wheat, corn, soybeans, rice) increased by 15 percent through the first seven months of 2009. It is expected that food prices will rise only gradually throughout the global economic recovery. However, commodity-specific factors—including stabilizing weather conditions and expanded area crops in major crop producers—have led to wide divergence in price changes across the crops. For instance, 5 percent decline in corn prices is the consequence of corn declining demand for industrial usage, including ethanol.

Figure 6: Recent developments in markets for major food crops



Source: IMF, World Economic Outlook, October 2009.

In comparison with other commodities, food demand is relatively insensitive to the business cycle and future harvests are expected to be abundant, although there is the prospect that natural disasters may affect production of some crops. However, there are upside risks to prices. Agricultural supply-demand balances remain relatively tight, with the global stock-to-use ratio for the major crops expected to remain below their average levels over recent decades. Low inventory ratios are a result, in part, of food demand in emerging economies, which rose quickly during 2001–07. The renewed pickup in growth in these economies over the coming years will keep market balances tight, and risks are that the increases in food price volatility observed over the past decade or so will be sustained. Another risk is related to the higher cost of energy, particularly as oil prices remain well above their decade averages, which drive up the cost of farming through fuel inputs and fertilizer prices. An indirect effect of higher oil prices is the increased incentive to divert food crops toward biofuel production.

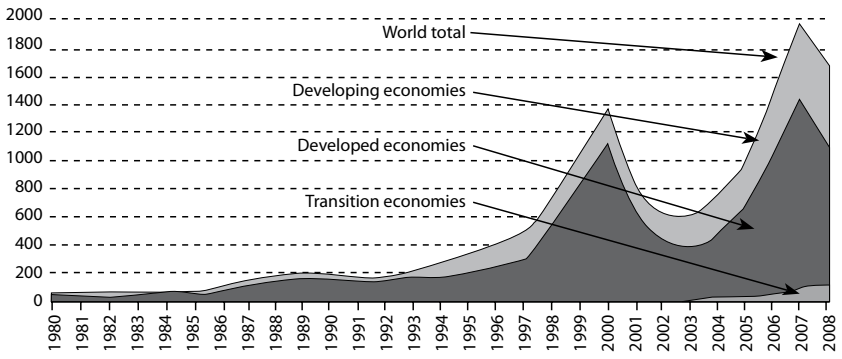
3. GLOBAL FDI TRENDS

Global FDI flows have been severely affected worldwide by the economic and financial crisis. The fall in global FDI in 2008–2009 is the result of two major factors affecting domestic as well as international investment. First, the capability of firms to invest has been reduced by a fall in access to financial resources, both internally – due to a decline in corporate profits – and externally – due to the lower availability and higher cost of finance. [1] Second, the propensity to invest has been affected negatively by economic prospects, especially in developed countries that are hit by the most severe recession of the post-war era. [4]

According to World Investment Report 2009 of United Nations, after uninterrupted growth in FDI activity in the period 2003–2007, global FDI inflows fell by 14% in 2008 to $1,697 billion, from a record high of $1,979 billion in 2007. Inflows are expected to fall from $1,7 trillion to below $1,2 trillion in 2009, with a slow recovery in 2010 (to a level up to $1.4 trillion) and gaining momentum in 2011 (approaching $1,8 trillion). [8]

All of the three major types of FDI (market seeking, efficiency seeking and resources seeking) will be impacted by the crisis, although with different magnitudes and consequences on location patterns. [9] At the same time, there were declines in all three components of FDI inflows: equity, reinvested earnings and other capital flows (mainly intra-company loans) – in late 2008 and early 2009, particularly in developed countries. Negative impact of economic crisis on FDI has been twofold: because of reduced access to finance, it has affected firms' capacity to invest, while their propensity to invest has been affected by gloomy economic market prospects, and heightened risk perceptions. FDI flows have fallen mainly due to fall of the new investment through cross-border M&As or green field projects. Green-

Figure 7: FDI inflows, global and by groups of economies in billions of dollars



Source: World Investment Report 2009

field investments were initially more resilient to the crisis in 2008, but were hit badly in 2009. On the other hand, cross-border M&As have been on a continuous decline, but are likely to lead the future recovery. Divestments were particularly significant during the crisis.

The setback in FDI has particularly affected cross-border mergers and acquisitions (M&As). Available cross-border M&A data by sector indicate that companies in a limited number of industries increased their FDI activities in 2008. In general, the primary sector witnessed a growth of 17 percent in the value of M&A sales in 2008; whereas manufacturing and services – which account for the largest proportion of world inward FDI stocks – reported declines of 10 percent and 54 percent respectively. Among industries, FDI flows to financial services, automotive industries, building materials, intermediate goods and some consumption goods have been the most significantly affected in 2008. But the consequences of the crisis are quickly expanding to FDI in other activities, ranging from the primary sector to non-financial services. Practically all sectors have been affected by a decrease in cross-border M&A in 2008, with the exception of oil, mining and agri-food businesses.

For oil and gas industry, 2008 has been a year of record profits for many major companies. Rising prices of oil and other commodities in the first half of 2008 triggered a further increase in the value of cross-border M&A investments in the mining, quarrying and the petroleum industry to $125 billion. Despite global economic crisis there were high FDI investments in Russian Federation, Kazakhstan, and Uzbekistan. Inflows to the Russian Federation are driven mainly by large investments in the liberalized power generation industry. The world's fourth largest producer of electricity (behind the United States, China and Japan), Russian RAO UES has started unbundling and a number of the stakes has been acquired by various European TNCs. At the same time, some Russian TNCs with large cash reserves, but which are new to foreign expansion, expanded in early 2009 despite the financial crisis. For example, Surgutneftgaz bought 21.2% shares in the National Hungarian Oil Company, MOL, from the Austrian National Oil Company OMV for $1.4 billion, marking the first major acquisition abroad by that Russian company. In Kazakhstan FDI inflows are driven by additional investments in three main oil and gas projects (Kashagan, Tengiz and Karachaganak), as well as in geological exploration activities by foreign investors in major deposits of uranium, gold, zinc and copper. In Uzbekistan, the Government signed a production sharing agreement with Malaysia's Petronas for three oil fields in the northern region of Ustyurt.

The FDI inflow to agriculture sector in recent years has been increasing gradually. In 1990s, FDI capital in the world's agriculture reached nearly $1 billion a year while in 2005-2007 the figure climbed to $3 billion/year. However, this still constituted less than 1 percent of total world FDI inflows. Additionally, the multi-national groups now pay attention to lower sources (including processing and supermarket) as well as the upper sources (production, signing the consumption contract with farmers). As per forecast of WIR [8], the trend will be maintained in the future because the demand for agricultural products fairly is sustainable, demand of importing agricultural products will continue rising strongly in large population countries such as China, India, Brazil and Korea and others in shortage of land and water resources.

The impact of the global crisis varies widely, depending on region and country, with consequences for the geographic pattern of FDI. It is important to emphasize that the present situation is very different from the 1997 Asian crisis, which originated in developing countries [10] and had a significant negative influence on FDI inflows in a number of them (such as Indonesia). In contrast, the current financial crisis began in the developed world, though it is rapidly spreading to developing and transition economies. Developed countries have thus been directly hit by the financial crisis, while its effects on developing economies in 2008 have been indirect in most cases, with varying degrees of severity among regions and countries. This has had clear consequences on the geographical patterns of FDI inflows in the past year.

Developed countries have so far been the most affected, with a significant decline in FDI inflows in 2008, due mainly to sluggish market prospects. FDI inflows and outflows of developed countries plunged in 2008, with inflows declining by 29 percent and outflows by 17 percent. In 2009, developed countries' FDI inflows are estimated to have dropped by another 30–50% compared with the second half of 2008. The United States continued to be the largest single recipient of FDI during 2008, followed by France, China, the United Kingdom (which lost its top spot in Europe), Russia and Spain. The biggest sources of outward flows were the United States, France, Germany, Japan and the United Kingdom. Japan, Switzerland and Canada were particularly notable for the growth of their outward investment in 2008. Countries suffering particularly sharp declines in inward investment included the United Kingdom, Italy and Germany.

In contrast, developing and transition economies saw FDI inflows rise in 2008 to record levels for both, with their shares in global FDI inflows growing to 37 percent and 7 percent respectively. Their inflows, however, started to decline in late 2008 as the economic downturn in major export

markets began to seriously affect their economies, and as the risk premiums of their sovereign and corporate debt sharply increased. Thus, the downturn in FDI inflows into developing and transition economies began almost one year after it had started in developed countries. This reflects the time lag associated with the initial economic downturn and consequent slump in demand in developed-country markets, which are important destinations for goods produced by developing country and transition economy firms.

In 2008, FDI inflows into South East Europe and the Commonwealth of Independent States reached $114 billion, up by 26 percent. Inflows are unevenly distributed, with four resource rich countries (the Russian Federation, Kazakhstan, Ukraine, and Azerbaijan in that order) accounting near 90 percent of the region's total FDI. The bulk of FDI in these countries continued to be in natural resource related projects (extraction, as well as oil and gas refining), though a substantial amount of natural-resource-based FDI is financed from round tripped Russian capital.

Natural recourses rich countries experienced strong growth until 2008. Russian GDP growth measured in US dollars was almost six-fold over the period 1999-2008, compared with the real GDP growth of 93 percent, while the Azerbaijan's growth was still faster – 20 percent annually in real terms in 2005-2008. Economic development in hydrocarbon rich countries has been very rapid financial development. In Russia bank credit to the private sector increased from under 10 percent of GDP in 1999 to over 40 percent by the end of 2008. Kazakhstan saw an even faster growth of its banking system, with the credit-to-credit GDP ratio peaking 60 percent in comparison with 7 percent in 1999. In Azerbaijan, the stock of bank sector credit increased from 10 percent of GDP in 2005 to 19 percent in 2009, with year on year growth of aggregate loan portfolio exceeding 100 percent. The rapid growth of bank loans was made possible through the abolition of capital controls, the active use of wholesale funding markets and the entry of foreign banks (except in Azerbaijan).

Because of the collapse of oil prices in the summer 2008, growth in Azerbaijan declined dramatically from 16.5 percent in the first half of 2008 to 3.6 in the first half of 2009. In Russia, the decline was even greater, from 8 percent growth in the first half of 2008 to -10.4 percent in the first half of 2009. However, commodity rich countries have been less severely affected than other countries. Fiscal and foreign currency reserves accumulated by major oil and gas producers have substantially widened the policy options available during the downturn. International reserves helped Azerbaijan to defend its currency and Russia and Kazakhstan to manage orderly currency depreciations in the face of oil receipts and capital outflows, while preserving financial stability through the provision of large-scale liquidity support to the banking system. In all mentioned above countries governments drew on the reserves of sovereign wealth funds to provide a fiscal stimulus, boosting social transfers, targeting particular industries and earmarking funds for the recapitalization of banks. However, the fall in commodity prices and the slowdown of economic growth, coupled with the near-exhaustion of major privatization opportunities, is likely to lead to a strong decline in FDI in these countries. Preliminary data for FDI flows in the first quarter of 2009 and cross-border M&As for the first half of 2009 support this finding. [8]

4. PERSPECTIVE OF SERBIAN ECONOMY

IMF in Country Report for Serbia projected that the recovery from the crisis will be gradual and leave permanent scars in the levels of GDP and, especially, absorption. [7] In line with sluggish projected demand in main trading partners, export growth is projected to regain cruising speed only in 2011. Moreover, absorption growth is expected to remain flat in 2010, reflecting the combined impacts of declining real incomes and employment, drawn-out corporate deleveraging, and tight credit conditions. The contraction in GDP has been limited relative to regional comparators, but absorption and external trade have fallen faster than expected. IMF expects a 3 percent decline of real GDP this year, with a modest recovery of 1.5 percent real GDP growth in 2010. Recent industrial production and trade indicators suggest that the output decline will likely bottom out during the second half of 2009, consistent with a full-year real GDP contraction of 3 percent. However, with tight credit and corporate insolvencies rising, investment and imports have slumped, and absorption (domestic demand) in 2009 is now projected to contract by 8 percent. The large current account deficit has been shrinking fast. Private consumption has held up relatively well, partly reflecting the role of mattress money as a financial crisis buffer.

Inflation, while still high in regional comparison, has fallen faster than projected. Inflation slowed to 6.6 percent end of period, mainly because of decelerating food and utility prices after sharp regulated price increases earlier in the year. Continued disinflation is nevertheless supported by weak demand, as well as prudent monetary and fiscal policies, notably continued nominal freezes of public sector wages and pensions. Upside risks to the inflation outlook lie in faster-than-projected demand growth, high regulated price increases, and a possible surge of global energy and food prices. A continued disinflation trend would provide scope for further gradual easing of monetary policy.

The inflation-targeting regime has proved successful so far despite persistently high euroization, but the monetary transmission mechanism has further weakened in the crisis. In the period ahead, the monetary authorities will have to balance the risks from continued high inflation expectations with the impact of weak absorption growth and the agreed nominal freeze of public wages and pensions.

Financial sector support program has successfully safeguarded financial stability during the market turmoil. Diagnostic studies and stress tests indicate that the banking system is adequately capitalized. Putting in place a more effective debt collection and restructuring framework is the most pressing financial sector issue. Standard & Poor's (S&P) upgraded the outlook on Serbia's credit ratings from negative to stable, citing eased external pressures amid the ongoing narrowing of the country's current account deficit and its commitment to consolidate the budget in the medium-term in line with the SBA with the IMF. S&P affirmed 'BB-' long-term and 'B' short-term sovereign credit ratings for Serbia. S&P suggested that the outlook could be further upgraded if Serbia follows up with reforms of its public administration and pension system, making public finances more sustainable. The authorities' policies supported by the SBA—along with their actions to stabilize the markets—boosted international reserves, eased pressures in the foreign exchange market, and helped mobilize significant international financial assistance in support of Serbia's budget and economic recovery. On December 4, the NBS intervened for the first time in nine months in the FX market because of increased exchange rate volatility.

Table 4: Selected economic indicators for the period 2006-2010

	2006	2007	2008	2009	2010
Real GDP, in percent	5.2	6.9	5.5	-3	1.5
Consumer prices, in percent	6.6	11.0	8.6	7.5	6.5
Current account balance, in percent of GDP	-10.1	-15.5	-17.1	-7.2	-9.3
Trade of goods balance, in percent of GDP	-21.1	-22.5	-22.3	-14.7	-14.5
Capital & financial account balance, in percent of GDP	31.7	17.9	12.4	5.7	6.1
Fiscal balance, in percent of GDP	-1.6	-1.9	-2.5	-4.5	-4
Gross debt, in percent of GDP	42.6	33.3	31.7	31.4	33
External debt (end of period; billions of euro)	14.9	17.8	21.8	22.5	25.1
External debt as per cent of GDP	63.3	60.2	63.6	70.9	74.1

Source: IMF Country Report No. 10/25, January 2010.

With recent economic indicators starting to point upward, the short-term outlook for growth and external financing is now less worrisome, but fiscal and external vulnerabilities remain high.

Implementing sound and credible fiscal adjustment measures is the key policy challenge. High fiscal policy fragmentation is at the root of Serbia's struggle to maintain spending discipline, particularly during boom periods. For 2009 and 2010, the revised program deficit targets of 4½ and 4 percent of GDP, respectively, are relatively high. To restore sustainable public finances, the government has decided on a strategy, which consider nominal freezing of public wages and pensions—with large adjustment payoffs given Serbia's relatively high inflation rate—and deep cuts in discretionary spending, including capital. Adjustment will come through large, but backloaded reductions in current spending. This will require implementing a package of structural spending reforms covering public employment, education, health care, and pensions. General government debt in Serbia remains sustainable under the revised program scenario, which envisages a higher deficit in 2009–10 against the backdrop of a somewhat deeper economic downturn. However, rollover risks have increased with the use of short-term treasury bills to finance the budget. Further, its sensitivity to exchange rate shocks highlights potential vulnerabilities in the context of the current economic downturn.

Serbia's external debt has been rising since 2004, resulting in high vulnerabilities. Following persistently large external imbalances—and despite rescheduling operations and early repayments to some multilateral creditors, including the Fund—external debt reached around €22.6 billion in December 2009. The rise was due to private debt, which tripled since early 2006. In particular, nonbank private debt rose sharply, as prudential regulation on bank activity became tighter and companies switched to direct foreign borrowing, often with domestic commercial banks acting as intermediaries. This trend was interrupted in the end of 2008, an retrenchment of the private sector has been ongoing through the first half of 2009. External debt is now projected to peak at about 75 percent of GDP in 2011, although a large depreciation shock remains a risk. A stronger global economic recovery, especially in the EU, would further improve prospects for a pick-up in external demand and private capital inflows. On the downside, a delayed global recovery, or contagion events in Eastern Europe could result in weaker output than presently forecasted. With improved global and domestic conditions from 2011 onward, external debt ratios are expected to start declining by 2012.

5. CONCLUDING REMARKS

The current financial and economic crisis is different in nature and magnitude from those of the last 20 years, for at least three reasons. First, originating in the developed countries, it has rapidly impacted the world economy as a whole due both to its unusual scale and to the existence of large diffusion channels related to globalization. Second, it is not a "usual" business cycle incident; it reveals structural

weaknesses and shortcomings in the regulation of the world financial system. Third, it might also reflect changes in economic power between the advanced economies – considerably affected by the crisis, including for inward FDI flows – and emerging and cash-rich developing countries, whose position in the world.

The analysis showed that there are three key channels of transmission of the global economic and financial crisis: a step drop in commodity prices in late 2008, a sharp reduction in financial flows as well as a fall in demand for manufactured goods and tradable services.

Unstable resource prices can generate macroeconomic volatility, which discourages investment, especially in countries with underdeveloped financial institutions. In the late 1970s many major oil exporters run budget deficits, borrowing against future revenues and paving the way to a disaster when oil prices eventually dropped. The analysis emphasized the potential benefits of financial development in reducing macroeconomic volatility and alleviating credit constraints of companies operating in the agribusiness and non-oil related manufacturing sectors, which tend to be particularly dependent on external finance. At the same time, financial flows in hydrocarbon-dependent economies tend to be closely correlated with oil price movements. It is sure that financial development can exacerbate the commodity price cycles and increase leverage and vulnerabilities in the banking system. Moreover, credit fuelled consumption booms may shift demand and production structure further toward services so magnifying the Dutch Disease symptoms, which refers to the idea that natural resource exports may come at the expense of the manufacturing sector.

Macroeconomic policies to address the confidence crisis in financial markets and stop its fallout in the real economy should be adapted to country circumstances. Countries with strong fundamentals may have room for monetary and fiscal stimulus. Several emerging markets have taken steps this year to stimulate economic activity through expansionary monetary and fiscal policy, and further stimulus may be needed in 2010. Countries in weaker macroeconomic position—facing unsustainable fiscal and current account deficits, less access to external financing, and large external debt—will have less room for maneuver. They may have no choice but to prioritize improving their fiscal and external accounts, while seeking to mitigate negative effects on domestic growth prospects

Global economic trends confronting Serbian economy with two shocks - a "sudden stop" of capital inflows resulting from the global deleveraging process, and a collapse in export demand associated with the global slump. The deleveraging process has had particularly negative repercussions for countries that had foreign currency credit booms and now face large debt overhangs.

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BALANCED REGIONAL RURAL DEVELOPMENT

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Summary:

Taking into account that huge differences in the level of regional development could not be removed without devoting a significant attention to the rural development, main purpose of this paper is to point out the importance of integrated concept of regional and rural development. First of all, the current status of regional development in Republic of Serbia will be presented and than assessed main indicators of rural development. Finally, this work will propose the model of balanced regional rural development that includes cutting edge concepts applied within developed countries, but also takes into consideration specific circumstances related to Serbia though defining strategic objectives and measures for their achievement.

Key words: *rural development, regional development, model of balanced regional rural development*

INTRODUCTION

Main problems that today Serbian society has to face with are a rapid downsizing and aging of rural population, as well as devastation of agriculture that are consequences of negligence regarding rural development for several decades. Agriculture is prevailing activity in most of the rural areas and it is characterized by small households, low level of productivity and low level of income per household. As most of the rural areas inhabitants are engaged in agriculture, depopulation of these areas also means devastation (squalor) of agriculture and all agricultural areas. For years, agriculture in Serbia is stagnating that is evident in case of cattle breeding. Also, capacities in argi-food industry are not used sufficiently.

However, what fascinate most is the fact that, although agriculture is completely neglected, this sector still has a significant share in creation of gross added value and export incomes in Serbia. This reflects the incomprehension regarding potentials that Serbian rural areas have and that their appropriate usage could be sustainable for a long term and become a part of balanced regional development of country.

Bearing in mind that strengthening of rural development policy is becoming more and more important and that it represents one of the main development priorities of EU, this could be a good indicator for Serbia if it wants to become a full member of European Union. On this road, Serbia could use scientific achievements and expertise of developed countries mainly as Serbia is the most rural country in Europe, but unfortunately delays with implementation of modern concepts of rural development and has far less financial means for transitional adjustments.

This paper represents the contribution for creation of Serbian rural development model that could enable the fulfillment of national goals regarding regional development, with implementation of cutting edge achievements and experiences of countries that in great deal reached the objectives of convergence and social cohesion. Besides empirical proofs about the benefits of presented recommendations, this paper will also indicate the theoretical concepts that are foundation for justification of their acceptance.

1. REGIONAL DEVELOPMENT IN SERBIA

Along with inequalities that determine relations between urban and rural areas, Serbia has also significant differences in development level of certain regions and especially municipalities. Achieved national income per capita indicates the disparity between Belgrade and Jablanica Administrative County of 1:7, while this disparity is even more on municipal level as it is 1:15. Considering the level of social differences, measured by unemployment rate, we could see differences of 1:10 as unemployment rate in Municipality of Savski Venac is around 6,5% while in Municipality of Tutin unemployment rate is 60%. For several decades Serbia is facing with depopulation process that is highly indicative on regional level where in some municipalities negative birth rate is around 10% [20]. As a consequence of this there are significant differences in value of physical and human capital. Average salary by municipalities is between 14.000 RSD (Municipality of Bela Palanka) and 57.000 RSD (Municipality of Kosjeric) while price of land is exposed to a much higher differences that go up to 300 times. For example, 1 ha of land along highway near Belgrade cost around 1 million euros while the same surface in rural areas cost around 3.000 euros. If we analyze positioning of citizens incomes per square kilometer, we cold see that the incomes in three central Belgrade municipalities are around 625 times bigger than incomes in Southern Serbia. On one

hand, we could mark around 4,2% of Belgrade population as poor while, on the other, almost 23,5% of population in south of Serbia could be identified as poor. It is interesting that almost the same level of differences could be seen within one region (for example Sopot / Savski Venac) that clearly indicates the problem of polarization between center and periphery. In a past few years, eight of ten RSD invested in Serbia are within the circle of 50 km around Belgrade. Agriculture is still the most important sector of economy in Serbia, but budget for its development is decreasing. Economic, demographic and social indicators of development show that Serbia is moving more into divergence instead of convergence of regional development.

According to aforementioned one could conclude that the institutions dealing with the issue of regional development in Serbia do not have sufficient capacity or are not using the capacities in the most effective manner. Financing of programs envisaged by state strategies are almost completely based upon borrowings from State Development Fund and donor assistance. With relatively low interest rates and extended grace period, lending policy of State Fund accept inequalities in development level of certain municipalities, but it is not enough to overcome infrastructural limitation of these areas mainly in the field of energy supply and transportation. European Union only, in period from 2001 to 2009 has invested around 200 million euros in projects of regional development in Serbia [9]. However, donor assistance is mainly focused on capacity building and development of human resources for regional development and just a small part of assistance was directed to infrastructural investments and communal services of most undeveloped regions.

2. MAIN INDICATORS OF CURRENT CONDITIONS IN SERBIA'S RURAL AREAS

Rural areas represent between 70 and 85% of Serbia's territory, depending on classification methodology, with between 43 and 55% of total number of inhabitants. These data are comparable with EU countries average where in year 2007 rural areas represented around 90% of territory of all 27 member states and around 56% of population lived in these areas, but data are not comparable when it comes to the financial assets allocated to the improvement and quality of living among rural population. One of the major structural and development problems of Serbian society is a lack of balance and increase of differences on relation rural-urban. Due to stated differences, for several years Serbia is facing with disturbing trends such as decrease of rural population (depopulation) that is a result of negative birth rate and migrations. Of approximately 4.800 villages in Serbia almost every fourth or 1.200 villages will disappear in decade and a half if life does not retune into it [5]. Main reason for this lays in fact that living in rural areas is economically unsustainable as incomes of farmers in Serbia are much lower that Serbian average as well as there are no job opportunities due to the collapse of industry related to agriculture. All this cause high unemployment rate and poverty in rural areas. Additional problem to stated situation is also the lack of development perspectives of rural areas that could be seen in poor communal, social and transportation infrastructure.

How important agriculture is for Serbia could be illustrated with share of agriculture in country's GDP that between year 2000 and 2008 was from 11,8 to 15,5%. If we assess overall contribution of agriculture to other areas of economy, this share is more that 40% of total GDP [6]. Besides this agriculture employ one third of active population in Serbia. Importance of this sector could also be seen through export earnings as it was around two billion USD in 2009 (around 20% of total export income). Agriculture is the only sector of Serbian economy that has trade surplus and in spite of negative effects of economic crises in 2009, agriculture incomes where about 500 million of USD [13].

However it is sad and very painful fact that achievements of this sector are not result of accepted strategic importance that agriculture has for survival and development of country, but rather huge efforts of population living in rural areas and natural resources that Serbia has. Particularly, through all transitional process agricultural production in Serbia is determined by big fluctuations in production turnover but there are no visible improvements regarding changes of production structure that is at first place related to capital intensive production such are cattle breeding and production of industrial plants. It is very disturbing that from year to year there is an increase of uncultivated land and decrease in production of basic agricultural plants. Serbia is also interesting as it completely left agriculture to be influenced by open market circumstances, although this sector is everywhere in the world protected to the certain extent [12]. Potentials of meadows and pastures are not used sufficiently for more intense and increased farm production that is reflecting on decrease of livestock in Serbia as it is now on level that country had a century ago. Reason for this is a lack of efficient measures of agriculture policies that have to be determent by influence of climate factors on agricultural production.

Although Serbia has significant agricultural land per inhabitant (0,68 ha per inhabitant [10]) that is above European countries average it is characterized by very small households. There are 778.891 family households in Ser-

bia and most prevailing are those with surface up to 3 ha (59,4%) [19], only 8% has surface between 8 and 15 ha and there are 2% of households that have more that 15 ha (in United Kingdom average size of farm is 69,3 ha, in France 41,7 ha, in Denmark 42,6 ha, in Holland 18,6 ha , in Germany 31,0 ha, in Belgium 20,6 ha). The biggest number of enterprises-landlords is in category of 50 ha (20,8%) and the smallest is in category above 5 ha (2,6%) [19]. Productivity level among enterprises is 30% higher in relation to family households.

Consumption of mineral fertilizers in Serbia is among lowest in Europe (there is a decrease from 1.450.000 t used in year 1985 to 300.000 t used in year 2003 [11]) while agrochemical products are very expensive and in huge disparity with prices of basic agricultural products. If in forthcoming years Serbia does not increase the consumption of mineral fertilizers, lower lever of nutrition will cause decrease of yield. Agriculture yield from year 1988 to year 2007 decrease for 20% in wheat production (from 4,5 t per ha to 3,7 t per ha) [11], and for sugar beet decrease is 27% (from 47 t per ha to 37 t per ha). In dry period decrease of yield is even bigger. Agricultural mechanization and equipment used in agriculture are totally depreciated.

In Serbia only 1,2% of arable land is under irrigation systems but only one sixth of installed systems are in usage. All surrounding countries irrigate in average more agricultural land that Serbia does (Hungary 5%, Croatia 7,5%, Rumania from 10 to 16%, Bulgaria 18% and Albania more than 60%) [8]. In European union around 11% of arable land is under irrigation systems and in world approximately around 15%.

Regarding all aforementioned it is clear that strategy of agriculture development can not be based upon economy of relatively small and unstable production turnover and offer of eventual surpluses on international market as well as that strategy of rural development can not be based on dominant concept of metropolization or development of few urban centers and socio-economic negligence that lasts for decades. Besides all of this, state institutions do not pay enough attention to the issue of rural development. The best illustration for this statement is the fact that Serbia has no any state body that is in charge for research of villages, defining of policy and strategy of rural development as well as that there are no separate budgetary allocations for these purposes. Therefore it is not strange that there is a misbalance between agricultural budget, that could easily be double to what is at the moment, and contribution that agriculture gives to gross added value, employment and export incomes of country in spite of all the challenges that this sector is facing with.

This is the consequence of incomprehension that rural areas are natural capital and therefore a very tangible potential that could contribute in fostering country's development. It is necessary to base future reconstruction and recovery policy of Serbian rural areas on appropriate agricultural, economic, regional, development and cultural policies that fundamentally defer from what we had so far and use the best practices of developed countries.

3. THEORETICAL FOUNDATIONS OF REGIONAL AND RURAL DEVELOPMENT

Process of regional convergence also refers to the equalization of development level of regions in the conditions of economic growth. Discussions on relation between economic growth and convergence started in works of Solow and Myrdal in late 1950's, but the true interest for this issue started in nineties due to the increased dissatisfaction related to the fact that in spite of assets allocated for decrease of disparities in the level of development of regions, especially urban and rural areas, there was not significant improvements [1]. At that time several different growth theories occur that initiated wave of new researches.

Solow model of conditional convergence, developed on grounds of neoclassical theory, could be explained by the thesis that more developed regions are faster in accumulating capital that in a long term leads to decrease of marginal products of capital. Therefore capital is moving to the regions with a lack of capital, where it has higher price and bigger yields. Production factor- labor migrates towards the regions with higher salary rates causing the slowing down of growth. In this manner convergence in both types of regions is encouraged. This theory could without any doubt explain major part of foreign direct investments as well as numerous examples of developed production lines in rural and underdeveloped areas. On the other hand, many of the most undeveloped areas of Serbia could not attract investments witch proofs that this theory is not sufficient enough to be the base for future development. Process of convergence could only be possible if certain preconditions are fulfilled [17]:

- If companies are focused on maximizing the capital yields
- If there are full and correct information abut the prices within the regions
- If all prices are flexible
- If there are competitiveness among equal market players so that no one has dominant market position
- If there is a perfect mobility of production factors between regions

Also, it is necessary to indicate the influence that on

mobility of production factors have non spatial factors introduced by Felsenstain and Portnov such are openness of economy, social differentiation, centralization of country, dependence upon external economic influences, level of transaction costs (transportation, telecommunications, prices of public sector services, local taxes and fees) that are significant for mobility and determination of geographic remoteness of region [4].

Due to this, cohesion policy that aims to balanced regional development of country needs to foster convergence based on privatization, promotion of economic potentials of region, investments in public infrastructure in order change current conditions and to increase productivity of private capital and growth of region. If it could be said that measure of technological progress and depreciation is equal to all regions, than the measure of capital yield is determined by savings that allows investments in human capital and growth of population.

Sectoral (exogenous) approach to rural development was dominant within the strategies developed during 1960's and at the beginning of 1970's. Basic principles were related to the economics of scale and concentration of resources. Development concepts of that time forced the expansion of urban economy, while rural areas where just "supplier" of food and row materials [16]. In concepts focused on development of production rural areas had inferior position. At that time polices of rural development had objectives to modernize and diverse the agriculture as well as to encourage the mobility of agricultural working force and capital. Key elements of policy in agriculture sector where radical land reforms (firstly in developing countries and newly industrialized Asian countries) and diffusion of technological innovations brought by Green revolution.

While neoclassical theory is based on inversed feedback that leads to equilibrium of region's development level, Myrdal talks about cycle- cumulating process that enhance initial differences. Nevertheless, possibility for existence of both positive and inverse feedback is allowed and process of convergence and divergence depends upon the fact what kind of relation supersede at certain moment.

Differences among authors are created mainly in the field of declaration what kind of relations overcomes in the circumstances of external interventions. While Hirschman in the long term envisage domination of convergence processes, Myrdal thinks that divergence is even bigger as regions are more separated by the development level. Due to this, stated theory is also marked as theory of divergence development. Final conclusion is that state intervention is necessary as external factor in fostering inverse feedback in development cycles.

Obviously, besides "absorbing" flows there are also reverse strengths within the regions especially if transportation infrastructure is developed. Higher prices of work force initiate that business activities migrate out of center and cause the migration of workers from center to periphery. In this sense, regional processes are shaped as letter U, from progression of regions (convergence) to stagnation of regions' growth (divergence). With the existence of bias for mobility of labor (geographical, linguistic, and educational) or capital (fiscal, ownership) process of divergence will be strengthened.

Theory of endogenous growth expends the neoclassical approach by including technological progress within the model. In neoclassical theory technological progress is external factor that could only initiate economic growth in the long run. Within theory of endogenous growth technological progress is explained through factors of human capital as size of employee's potential to absorb achievements of new technologies and their engagement in the field of research and development [18]. In this it is consider that human capital is external effect of investments in physical capital.

Productivity of human capital will be higher if there is good technical equipment that allows application of technological innovation. Technological knowledge creates preconditions for upgrade and initiate cumulating growth that in the context of regional development could start divergence process in other regions.

Theorists in general agree that concepts of rural development based upon human potential are not appropriate taking into account high mobility of educated and well trained working force. Risk for such approach is that experts or workers educated and qualified through contribution of local community could simply migrate with their resources to cities with better economic perspectives. This approach introduced some new things by insisting on following values [3]: (1) Local experience and traditional knowledge, (2) participation of farmers in research and appliance of technical innovations and (3) development of self-initiative and managerial competences among farmers ("individual" agenda of farmers).

According to Krugman [15], new economic geography takes into account transportation costs and positive externality effects related to contribution of production range. Sectors with increasing yields from production range stimulate the process of concentration of production at one place. As a consequence of imperfect competition in regions with higher share of these sectors, salaries are also higher. This will cause inflow of mobile work force and cumulative effect (easier access to the market, qualified labor and new

knowledge). Result of this could be creation of a new spatial model center- periphery. Leading regions have benefits form savings created by close geographic and technological relations among production partners.

Previously explained theories where based upon creation of geographic clusters. Post- Ford literature gives special attention to new types of industrial regions. These new approaches are concepts of industrial and innovative (high-tech) clusters or so called "learning regions". These approaches are more based on experience and therefore they can not be explained by some valid theory. Main assumption of innovative clusters is accumulation of local knowledge, interaction among companies and local institutions as well as interaction among companies itself, creation of small and medium sized enterprises and technologically skilled workers.

Neo-endogenous regional policy is combining certain number of diverse approaches to regional development and for this reason it is also known as eclectic theory. Typical measures of this approach are: (1) Support to SME's, (2) Support to creation and expansion of innovation, (3) Processes of deregulation and decentralization, (4) Support to public-private partnership, (5) Programs of permanent cooperation with foreign investors (follow-up programs, after care programs), (6) Investments in human resources and (7) Support to quality of living and social environment. Common denominator of these measures is their endogenous orientation manifested by endeavor to initiate better usage of local and regional potentials.

During 1980's, while United Kingdom was under huge pressure of globalization process that was even more strengthened by neo-liberal policy of PM Margaret Teacher, economic and social polarization among regions were created. New economical and social problems become a basis for launching the project called "Changes of system of settlements and regions". Project had an aim to find out foundations of different reactions and adaptive strategies formulated for seven micro-regions created during process of economy reconstruction. This project led to acceptance of new approach in regional development based upon open participation of different parties that are relevant for micro-region and local communities as well as on decentralization in planning and implementing the measures of regional development.

Spatial approach in European policy of rural development started during 1980's as the policy shift from exogenous towards endogenous development concepts. Main principle of these models was reliance on local development potentials and their innovative elements- local structures and members of local communities [16]. Limitation factors are insufficient local capacities or structure of social capital and capability for inclusion in development activities. Strategies based upon spatial approach focused on development and upgrade of overall local resources- institutions, infrastructure, knowledge, networks. Neo-endogenous development model during 1990's had concentrate on usage of local physical and socio-cultural resources, so the main principle and modus operandi were participation and partnership through gathering of public servants, entrepreneurs and volunteers.

Trough almost half a century of conducting Common Agricultural Policy of EU (CAP) development of rural areas was traditionally relied on agricultural production as a main pillar of economic development. After essential changes implemented during 2003 and 2004 CAP have moved from agricultural production support to integrated policy that contribute to other elements of social policy, towards development of rural areas, increase of quality of products, facing the challenges of market, usage of new development potentials and environment protection. Common Agricultural and Rural Policy of EU (CARPE) represents concept of life-long learning where main message is to ensure economically efficient and environmentally sustainable agriculture in conditions of stimulating integrated development of EU rural areas [21]. This shift is followed by significant changes of rural development policy that from year 2007 to 2013 will have three major goals [7]:

1. Increase of competitiveness of agriculture and forestry
2. Improvement of environment and rural areas
3. Improvement of living quality in rural areas and support to diversification of rural economy

Policy that advocates this approach needs to systemize and have time programming of following four elements [21]:

- Stabilization of market- bringing back the policy of joint market organizing to its fundamental principles, due to the necessity of securing safety net for products in case of uncontrolled market fluctuations
- Compensations for environment and cultural ambient/ compensations should be used in order to protect rural resources and cultural environment in rural areas and enhance the development of these resources
- Incentives for rural development/ related to all aspects of rural development including development of agriculture, but the accent is on stimulating possibilities for non-agricultural usage of resources at farms
- Allocations for assistance during process of tran-

sitional adjustment/ means are devoted to assistance in shifting from agricultural to rural policy (from CAP to CARPE)

Relations among four stated elements and structure of CAP are illustrated on flowing graphic, where vertical pillar represent share in national budget. Modern European concept of rural development is based upon approach "bottom up", respect of local distinctions and establishment of local development partnerships (local action group- LAG) where representatives of all three sectors (public, private and civil) participate in the development and implementation of local development strategies. Strategy is implemented through projects aimed at resolving specific local issues.

4. THE CONCEPT OF BALANCED REGIONAL RURAL DEVELOPMENT- BRRD

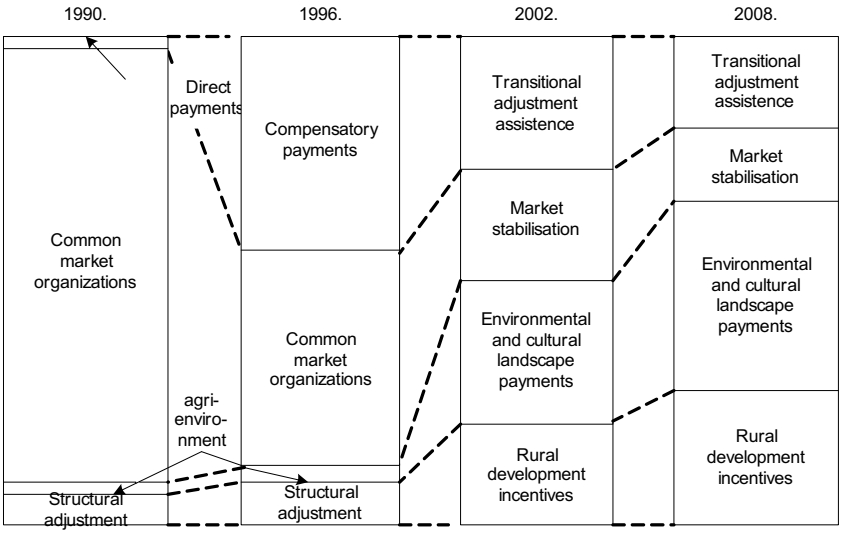
Given the scope of the rural territory in Serbia and the number of population that inhabits it, it is evident that a balanced regional development at the national level is impossible to achieve without an adequate solution to the problems present in the rural areas. A specially improtant observation this paper highlights is that the least developed regions almost entirelly depend on the output they gain in the agricultural sector, as well as in other industries characteristic of rural environment (forestry, tourism). Hence the policy of balanced regional development that does not take into account the goals and the measures of the rural development policy would be inappropriate, inefficient and irresponsible.

Since the rural areas in Serbia are rather heterogenous, the problems they encounter, their comparative advantages and their opportunities cannot be equal. Hence the need for a typology of rural areas that would not be administrative, but based on numerous criteria (Table 1), so that they could be homogenous enough to allow for the implementation of specific programmes of developmental incentives within the strategy adopted, for the purpose of protecting the identity of each area and employ the specific competitive advantages in the best way.

Table 1: Typology of rural regions in Serbia [2]

Region type	Characteristics
Highly productive agriculture and integrated economy	This region contains the most fertile land and is thus dominated by intensive, well-funded agricultural production. Compared to other parts of Serbia, it is characterized by more benign demographic trends, increased entrepreneurship, a diversified industrial sector and a well developed physical and economic infrastructure. Economically, this region is the most developed and well integrated.
Small suburban economies with labour intensive agriculture	This region comprises the areas around the major urban centres and the larger towns and their immediate surroundings. The economy is dominated by intensive farming (the production of fruit, vegetables and livestock) to feed the great number of consumers in the adjacent cities and towns, and consequently has the lowest unemployment rate in Serbia. Compared to other parts of Central Serbia, the infrastructure, economy (especially with regard to productivity rates) and access to communal and public services are better developed.
Natural resources oriented economies mostly mountainous	Due to variation in geographical characteristics, this region is highly heterogeneous. The economic structure is based on the exploitation of natural resources, through mining and agriculture. Unfavourable demographic trends are typical of this area, with the highest rates of rural poverty and unemployment in Serbia. Facilities to process the raw materials produced are lacking, but their development offers a way to improve the local labour market.
High tourism capacities and poorly developed agriculture	This region comprises those parts of Serbia with the greatest tourism potential and the highest rate of tertiary-sector contribution to the economy. Agricultural output of feedstuffs is underdeveloped.

Elements of CAP and CARPE [21]



The macro-level reforms can ensure a sound political framework and effective incentives. It is, however, the interventions on the regional level that allow for the majority of people in rural regions – especially the poor ones – to take their opportunities and face the challenges. Appropriate solutions can be worked out on the regional level that will take into account the natural and socio-cultural environment and make the systems of services available. Contrary to local interventions, the regional approach is concerned with a broader context of commercial systems, the service systems and the ecological systems, thus increasing the opportunity for replication and synergy. The regional programme with a dominantly multisector approach can facilitate an undisturbed coordination of sectorial intervantions.

The regional rural development (RRD) should be oriented towards people as well as towards provision of adequate living conditions, which means that the decisions on the priority issues in each of the regions are made having in mind its specific features. The main objective of the RRD can be defined as a "permanent improvement (or at least stabilization) of the living conditions for the population in rural regions, especially the poor ones". In order to be permanent, the improvement of the living conditions has to be based on the economically and ecologically sustainable, socially and culturally adequate, self- determined, and institutionally feasible means of resource utilisation.

The notion that the integration of concepts of regional growth and rural development is a logical solution can be illustrated by the review of compatibility of theories and strategies described above (Table 2).

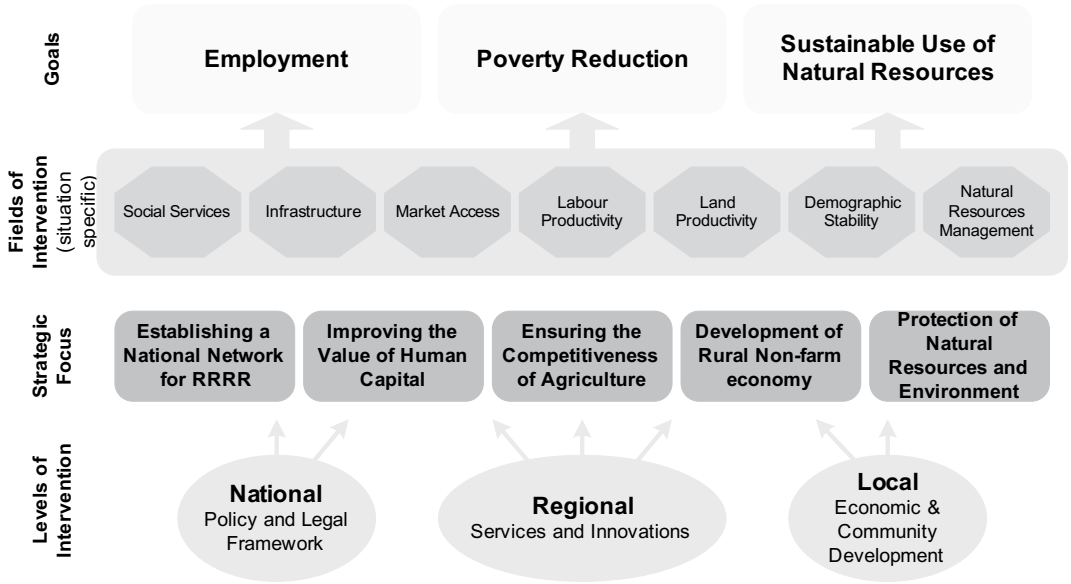
Table 2: Theories of regional growth and strategies of rural development

Theories of regional growth	Strategies of rural development
• Neoclassical theory (Theory of conditional convergence)	• Strategies focused on individual sectors (sectoral approach)
• Theory of polarization	
• Theory of endogenous growth	• Strategies focused on population
• New economic geography	• Strategies focused on rural areas (spatial approach)
• Theory of innovative clusters and learning reagion	
• Neo-endogenous regional policy	

That is why this paper proposes to adopt an approach that is based on balanced regional rural development– BRRD, that would create a real basis for achieving the balanced regional development (BRD) on the national level. Such an approach would allow for implementing a multidisciplinary, multisector and integrated institutional approach, instead of the present one that treats the problems of regional and rural development as separate problems.

This requires a policy of the balanced regional rural development as a multidimensional process – political-institutional, socio-cultural, economic and ecologic, based on the idea of an integrated approach to achieving strategic aims in the areas of: (1) Establishing a national network for a balanced regional rural development (legal framework, institutions and structures); (2) Improving the value of human capital in rural regions; (3) Ensuring that the agricultural sector be competitive; (4) Developing a non-farm economy; and (5) Protecting natural resources and environment (Figure 1). It is also necessary that some measures should be adop-

Figure 1: The concept of a balanced regional rural development [14]



ted for the purpose of the implementation of the programmes, the projects and the activities defined in the strategy of the sustainable regional rural development.

Establishing the national network for BRRD

Serbia adopted the national strategy of regional development as well as the strategy of rural development; the departments in charge of their execution and further improvement are active in two separate ministries, the Law on regional development was adopted, agencies for regional development as well as rural development centres were established. Each of these institutional assumptions, however, has some weaknesses that hinder the set objectives to be achieved. These weaknesses are due to the fact that a balanced regional development on the national level is impossible to reach without simultaneously achieving the rural development, and treating them separately results in duplicating administrative capacities, in ambiguity of authority, in the atomisation of financial assets at disposal and in the los of synergy effects that would be achieved if this issue were treated in an integrated manner. This is further supported by the fact that the newly-established National Agency for Reagional Development will include the department of small and medium enterprises as well as the department of infrastructure, whereas the rural development will remain in the competence of the Ministry of Agriculture, Forestry and Water resources, although the developed countries have long abandoned the sectoral approach and adopted the spatial approach to rural development.

In order that the strategy of sustainable regional rural development be implemented successfully, it is necessary to establish a department of rural development with the Agency for Regional Development that would ensure a quality system support to the rural development in Serbia, especially in villages. A modern approach to the problems in village development requires that they should be observed and preserved in the context of the development of sustainable rural areas, which, in addition to settlements themselves, include natural and economic resources. The Agency would be engaged in strategic planning of the development of rural communities in Serbia in order that the conditions for life in the rural areas as similar as possible to the urban conditions should be created; it would also be responsible for creating a national network of rural development, bringing into contact the public and the private sector in order to establish regional centres as basis of support decentralization, for providing an interactive link between the national and the local levels, as well as for the preparation, implementation and control of the strategies and projects designed for the regional rural development.

The basic goal of establishing a national network for rural development is to ensure that the services granted by the state be available to farmers and other stakeholders in rural areas, to inform them on the opportunities to obtain support for their development initiatives, on the events and business opportunities both on the territory of Serbia and abroad, as well to improve the marketing of agriculture and its accompanying industries. The project of establishing the national network for rural development would result into the establishment of regional centres for rural development support as well as community centres for information and development of villages in all the municipalities of the Republic of Serbia.

Improving the value of human capital

Improving the value of human capital has both qualitative and quantitative properties, reflected in the achievement of sustainable population policy and in training people in rural areas. This requires that an adequate legal framework be established, with clearly defined regulations and solutions that would, among other things, provide for the institutionalization of an executive body with the Ministry of Work and Social Policy, in charge of renewal and demographic development in the country, especially in rural areas, and entitled to adequate financial assets and subsidies allocated by the state budget. This would include granting special incentives such as children allowance and tax relief, as well as taking adequate measures to grant welfare benefits (health care, pension and disability insurance) to farmers.

In order that the prospects of attracting people to remain living in rural areas should be discussed at all, it is necessary that these people be granted elementary living conditions, which requires much larger investments into the development and construction of an entire infrastructure (transportation, communal utilities and telecommunications), as well as housing and other necessary buildings.

A special attention must be paid to the education and development of young people in rural areas. This requires the provision of transportation for the schoolchildren who live far from schools, giving priority to students from Serbian rural areas over the foreign students when it comes to granting rooms in students' residences, etc. In order to create conditions for employment of young people in rural regions, it is necessary that the secondary school curricula be changed periodically, so that the education system be better geared to the demands in the labour market. Another benefit would be provided by the universities, which could open their departments in rural areas, in accordance with the strategy to ensure a balanced national coverage and a diversity of career profiles, thus ensuring a higher level and a higher

accessibility to education for the population and reducing the migrations of the young.

As to a major demand for improving the farmers' knowledge, special attention should be paid to their education/training, both as regards financial assets (grants from national and international funds), introducing standards and information technologies implementation (HACCP, ISO 9000 and 14000, ERP), best agricultural practices and sales (improving the market information provision system), marketing (branding) and farm management.

Ensuring agricultural sector competitiveness

The development of agriculture should become a corner stone of a general policy of development in Serbia and should be allocated far larger financial assets from the budget compared to the previous period. These means will be in accordance with the share agriculture has in the gross national income and exports, as well as with the strategic importance it has as regards the safety of food supply and employment.

In order that the competitiveness of agricultural sector be improved, it is necessary to work out a system solution to its financing, so that the farmers could accurately anticipate the incentives in at least a middle-term period, the increase in incentives, and thus be in a position to plan timely. These require that agricultural policy and budget, as well as the activities to be conducted by these means, be known for the period of at least five years, as well as that a clear mechanism of cost control and the control of the efficiency of measures financed from the agricultural budget be established.

Also necessary is the state support to farmers in solving the issues of purchase of agricultural produce, creating conditions for building new farms, smaller plants for processing farming produce, storehouses and purchasing cold-storage chambers. Special care should be taken to build the necassary infrastructure for crops protection against elements, to develop the irrigation systems, etc. Given that Vojvodina today has 22,000 kilometres of canal network, it is possible to irrigate 44,000 hectars on condition 100 metres of soil is included on either bank of the canal. The idea is by no means a new one, if it is well-known that the objective of the construction of the Danube-Tisa-Danube canal was to drain the surplus of water from one million hectars and water 510,000 hectars. The canal served well in performing the former function until 2006, however, due to an inadequate maintenance there was much erosion and mud choke, and this operation is not successful any longer. As to the latter, it has never been fully accomplished (only 30,000 hectars are irrigated) [12].

Special measures should be taken in stimulating the farmers and other social groups in villages to form cooperatives and associations (adopting a Law on cooperatives, forming export alliances). The state support must also be granted to building a regional identity, and to the implementation of active marketing and branding.

Development of rural non-farm economy

The economic insustainability of small farms, with less than 5 ha of land, of which there are over 600 thousand in Serbia, the suppost to amassing the land, the seasonal character of agriculture and forestry, the de-industrialisation in a majority of regions as well as a decrease in employment in public services– all these resulted in an ever-increasing unemployment and in an increase in migrations from these areas, regardless of the fact that the rate of depopulation rises daily. On the other hand, the land, the forests and waterlows, the geographical position, the cultural heritage, the specific handicrafts and other features of a rural area make the advantages on which new development opportunities can be built, apart from farming. Hence one of the crucial objectives of the social and economic stability of rural regions is the development of a non-farm economy.

The development of a non-farm economy is related to the support given to the inhabitants of a rural community who are willing to take new development opportunities and prospects and be included (demand-pulled), this producing a favourable impact upon employment and income of other subjects of the rural community, or to the support and protection for the poorer members of the rural community who are forced to search for employment outside the farm (distress pushed). As the former approach is largely related to the investments, it is logical to assume that it can result into a greater diversification outside agriculture (tourism, transportation, processing, packaging) whereas the latter results into the development of industries based on agricultural resources (handicraft and services, seasonal employment in construction work and tourism). However, these differences were not taken into consideration in defining the measures of support to the poorest municipalities, which is further documented by the number of applications for loans, those coming from more developed regions being by far higher than the number received from undeveloped ones, although the conditions of borrowing are less favourable.

The factors stimulating the diversification are the same as those that stimulate economic growth, which means, in effect, that diversification can be viewed in the context of

endogenous theories of growth. The local natural and physical resources are not the only ones on which decisions are made. The level of infrastructure and the availability of communal utilities are also important, which implies the presence or the absense of social and economic links with urban society. The accessibility to loans and financial sources is not proportional to the levels of poverty in the regions, hence the removal of this barrier is of vital importance in encouraging enterpreneurship and local investments. The rural non-farm economy finds the quality of local administration always to be of more importance compared to the state policy and programmes, which allows for an adequate adjustment of policies and measures implementation, depending on the specific features of the respective rural community. The development of local business and manufacturing partnership, as well as tourism (clusters, cooperatives) have more impact on the local economic development than trade and personal services, as they allow for the inflow of capital from other parts.

Protection of natural resources and environment

A massive but unprofessional application of chemical products in farming, of medicines and aditives in cattle breeding results in land degrading in Serbia and the fall in the product quality. Also, tendency to alter the culture of land, from inarrable to arrable, as well from arrable into construction sites or manufacturing districts, threats the sustainability of an ecologically safe production. But, given that the rural regions in Serbia are rich in eco-systems and biodiversity, the priority has to be given to the preserving of both renewable and non-renewable natural resources, especially drinking water, mineral-water sources, forests, medicinal herbs, fresh air and any other natural resources, by implementing appropriate agro-ecological measures.

The land on which the organic food is grown in the European Union has in the past decade been doubled, the leading producers being Slovakia and the Check Republic, regardless of the fact that they had joined these processes somewhat late in comparison to other member-countries. The fact that 10 percent of inhabitants (46 million) in the EU prefer to use the food free from genetically modified organisms (GMO), means an opportunity for Serbia to declare itself as the producer of food free from GMO. This is also an opportunity for the rural development, as well as a way to prevent the dying out of the Serbian villages [12]. In addition to economic effects, the setting of this objective will have a significant impact upon employment, as it is widely known that the production of organic food demands three to five times more direct human labour and far more expertise compared to the production using conventional methods.

Special attention must be paid to adopting the measures that can help meet the most recent challenges such as the impact of climate changes upon agriculture and food production in a most adequate manner. The most important measure in this sense is investing in the reconstruction of the existing canal network and provision of new systems for irrigation or drainage of arrable land. As regards the energy efficiency, the use of plant stubs in crop farming is a potential that is not exploited in Serbia at all, although the use of those renewed energy sources can result in annual savings of more than 100 million euros and in additional earnings for people who would be engaged in their preparation, to be used both in households and in economy.

CONCLUSION

A lag in the implementation of modern concepts of rural and regional development requires that the bodies in charge in Serbia should be more efficient, in that they should ensure a much fasted transition from sectorial to spatial approach. Given that the improving capacities of people is the most important factor in the implementation of endogenous theories of development, it is necessary the orientation towards citizens, demography and education during the spatial approach. The implementation of the strategic focus of the proposed BRRD model in the fields that are in sore need of intervening (demographic stabilization, social services, market approach, infrastructure, increase in productivity) can ensure the achievement of the key development objectives– full employment, reduction of poverty and a sustainable exploitation of natural resources– which will put the rural development in the function of achieving a balanced regional development of the country.

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