UDC 65

YU ISSN 0353-433 X

YEAR LX

SEPTEMBER - OCTOBER 2012

Ekonomika preduzeća

Serbian Association of Economists Journal of Business Economics and Management

Jože Mencinger
Europe 2020 – A New Strategic Fantasy?
217

Đuričin Dragan and Iva Vuksanović
Reduction of Systemic Risk in Serbia through Intelligent Risk Management in State-Owned Enterprises
229

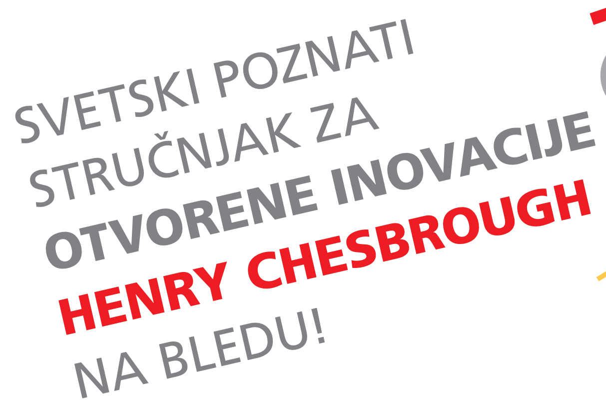
Mladen Vedriš
Croatia on the Threshold of the European Union: A Challenge or a Problem
Competitiveness or How to Be Better
248

Dušan Vujović
Serbia: Policies to Enhance Competitiveness
261

Vladimir Vučković, Sanja Vučković and Dragana Aleksić
Financing for Competitiveness: Some (Missed) Opportunities and Regulatory Constraints
275

Tihomir Domazet
Regional Cooperation Striving for Competitiveness and Finance
290

Ana Trbović, Goran Radosavljević and Jana Subotić
Competitiveness GAP in Serbia'a Metals and Electronics Industry
301



25. Predsednički forum "Otvorenim inovacijama do uspeha"

Bled, 19. oktobar 2012.g.

Najznačajnija poslovna paradigma poslednje decenije je koncept "**otvorenih inovacija**", čijeg autora, **prof. Henry Chesbrougha** sa Univerziteta Berkeley u Kaliforniji, lestvica Thinker 50 svrstava u sam vrh mislilaca u oblasti menadžmenta. Kao centralni govornik na Predsedničkom forumu IEDC-Poslovne škole Bled, prof. Chesbrough će nastupiti po prvi put u Sloveniji. Pozivamo Vas da nam se prdružite!

Za sve dodatne informacije i prijavu, molimo Vas da posetite www.iedc.si/pf, ili da nas kontaktirate na: seminars@iedc.si, odnosno na telefon: + 386 4 5792 529

20 years. open minds. STUDIO MODERNA

Na poziv Studio Moderne, povodom 20 godina rada

IEDC Bled School of Management

A School with a View

UDC 65 YU ISSN 0353-443X

Ekonomika preduzeća

Journal of the Serbian Association of Economists and Serbian Association of Corporate Directors
Founded in 1947 in Belgrade
Year LX September-October
No. 5-6 Page 217-316
Publisher: Serbian Association of Economists
Editorial Office and Administration
Dobrinjska 11/1
Bulevar Mihajla Pupina 147
11000 Belgrade, Serbia
Phone: 011/264-49-80; 361-34-09
Fax: 011/362-96-89
Account No: 205-14935-97 Komercijalna banka
Web: www.ses.org.rs
E-mail: office@ses.org.rs

President of the Serbian Association of Economists
Aleksandar Vlahović
President of the Serbian Association of Corporate Directors
Toplica Spasojević
Editor in Chief
Dragan Đuričin
Deputy Editor
Nikola Stevanović
Editorial Coordinator
Iva Vuksanović
Senior Editors
Jelena Birovljev
John Humphreys
Nebojša Janićijević
Stevo Janošević
Miroslav Kržić
Dragan Lončar
Stipe Lovreta
Rene Magdalinić
Dejan Malinić
Blagoje Paunović
Jelena Perović
Goran Petković
Danica Purg
Jovan Ranković
Ljiljana Stanković
Mladen Vedriš
Associate Editors
Jasna Atanasijević
Veljko Mijušković
Prepress:
Branko Cvetić

Printing office:
"Kuća štampe" 011 307.5.307
stampanje.com
Printed in 500 copies
The journal is published four times a year

This edition of Ekonomika preduzeća - SAE Journal of Business Economics and Management is dedicated to analysis of competitive position of the SEE economies, as well as to possible solutions for overcoming major problems and joining the path of more sustainable and prosperous growth.

In *Introductory paper,* Maestro *J. Mencinger* cautions about pitfalls embedded in the EU restrictive anti-crisis rhetoric and strategic documents as a guide to future economic growth leaned upon enthusiastically proclaimed knowledge-based competitiveness. As he elaborates, ups and downs in economic activity are explained by movements of final demand rather than by supply-side restrictions, which puts a shed on the new documents focused on production. Also, rather than concerning about how to foster technological development and increase value and competitiveness of EU products, the EU will eventually struggle to diminish the competitiveness of low cost "Chinese" products. This way the author brings soberness that most jobs in the decade before the crisis were lost in manufacturing, due to knowledge-based growth and moving production to "China". He underlines that technological change creates better not more jobs, at least not directly. On the other side, the culprits to deeply embedded problems in the EU seem to be searched for in the wrong place. He points that rising public expenditures are not to be blamed for the prolonged and unsolved crisis triggered by, clearly, other set of flaws created and nourished by neo-classical liberal capitalism. To the contrary, public sector had to grow in response to the financial stress created by the financial private sector's greed, excessive risk taking and inadequate control mechanisms.

The major section of this journal dedicated to *Transition and restructuring* consists of four papers. *D. Đuričin* and *I. Vuksanović* continue their quest for feasible solutions for exiting the combined crisis Serbia struggles with for the last few years and for reaching the sustainable growth path. The overwhelming threat for the economy remains large systemic risk that is practically unmanageable from the companies' side and constantly increasing. The authors concentrated their attention on some anti-crisis program's components on the way to recovery. They analyze possible effects of the expanding role of state-owned enterprises, primarily in the energy sector, and intelligent risk management as a key microeconomics policy tool for effective corporate governance therein. The energy sector - as the largest and the most attractive sector from the perspective of future demand and returns - could play a pivotal role in fostering investment expansion in the years ahead. They also emphasize that politics could facilitate or remain the stumbling-stone for progress in Serbia. Good political systems launch and maintain a virtuous spiral, while bad political systems nourish a vicious circle at everybody's loss.

The second paper in this section written by *M. Vedriš* stands as a warning testimony of how much time has already been irrevocably lost during the period of delayed and politically influenced transition in this region, precious time missed to be used for development of stronger and resilient national economies. For no more time to be lost, the author argues what must and must not be done, what are the limits and requirements in creating Croatian national competitiveness. As he explains, sharing the similar destiny of the other SEE countries, Croatia has faced development limitations in different phases of the transition process. These countries, hence, do not possess competitive advantages that according to classical theory ensure growth, especially when it comes to resources or an exceptional geographic and/or geopolitical position. Thus, he points, a more difficult course remains - building one's own national competitive advantages and/or attracting global players. An intelligent and strong, not large, state plays the most important role in that respect.

The third paper by *D. Vujović*, continues in the same rhythm and discusses an apparent erosion of competitiveness of the Serbian economy and proposes a set of policy interventions that would restore the pre-crisis level of competitiveness, as well as support the resumption of institutional and policy reforms needed to close the gap with new EU members and other candidate countries. The author identifies the key constraints to competitiveness and sustainable growth of the Serbian economy that need to be addressed in short sequence to restart the engines of export-led growth. He shows that real effective exchange rate represents an immediate binding constraint on competitiveness and growth. He cautions, however, that finding and maintaining equilibrium real effective exchange rate is not a panacea that will cure all problems of tradable sector in Serbia.

The paper written by *V. Vučković et al.* in the section *Finance* explores alternative financing arrangements, such as debt-to-equity swap, factoring, negotiated financial restructuring, as well as alternative funding frameworks, such as development bank and venture capital. The authors believe that more traditional sources of financing will become much more scarce and expensive for the real economy in the future, largely due to deepened recession and increased interest of commercial banks in other forms of investments. To open the door to the new financing options for Serbian enterprises, thus accelerating economic growth, relevant regulation needs to be adjusted.

In the second paper in the *Finance* section, *T. Domazet* provides rather different view from that of *J. Mencinger*, finding that knowledge and intangible assets share the most important role in fostering economic growth and social change in this geography. He forecasts that the new economic paradigm will rely heavily on investment in education and knowledge in order to assure sustainable economic growth. The development of this intangible asset is aimed at enhancing competitiveness of SEE products. To achieve the previous tenet he suggests closer regional cooperation. Providing sources of financing for such cooperation remains the critical issue. He suggests *inter alia* establishment of the SEE agriculture bank in order to support and develop competitive agriculture and deliver SEE products on large EU markets.

In the last paper in the section *Transition and restructuring, A. Trbović et al.* analyse the role of metals and electronics industry in Serbian economy. They argue that export in the mentioned sector has a sound basis for future growth, where vicinity of EU markets coupled with favorable trade regime since 2000 creates a crucial competitive advantage. The major competitiveness drawback is that the companies in metals and electronics industry have limited access to finance, which results in insufficient investments in technology and innovation. They also analyse skills gap and infrastructure limitations as key challenges to future development.

THE 2012 SEE MANAGEMENT FORUM

How to Improve Competitiveness of SEE: Context, Strategy, Economic Policies and the Role of Business Leaders

September 19-20, 2012

Chamber of Commerce and Industry of Serbia Belgrade

Under the patronage of the Government of the Republic of Serbia

Organized by

In cooperation with

The South East Europe (SEE) economy is clearly struggling to recover from double dip recession of unusual depth and duration. Reductions in tax receipts, the stimulus spending necessitated by the financial crisis and rapid growth in the health care outlays due to population aging are to leave governments with soaring deficits and debts. In the same time SEE national economies face less visible but more fundamental challenge: a series of underlying structural changes that could permanently impair their ability to raise the competitiveness. Today the danger of doing nothing is most serious problem for policy makers. Also, if government and business leaders react only to the downturn and fail to confront deeper challenges, they will leave the economy with weak long-term prospects.

Business leaders from the region can and must play a far more proactive role in transformation of competition and investing in local industries than being passive victims of controversial public policy. We could have double digit economic growth for the next two decades and still have big deficits and indebtedness. Deficits and debt consume the resources we must invest in keeping the SEE competitive. That would not address the fact that demographics have changed and health care costs are increasing at a much faster rate than the GDP. The rate of growth of health care costs in these countries should be, at most, one percentage point more than the GDP growth rate due to population aging. We could not solve the problem just by raising taxes. Also, mentioned contradiction cannot be solved entirely with cost cuts. The solution will require economic growth. It will require industry policies, some revenue which could come from new investments, monetary model justification, simplifying the tax code, broadening the tax base, and eliminating the deficit back door spending.

In times of crisis, business as an institution faces rising skepticism in society. Not to decide is to decide. All of us in business must put aside our individual wish lists and think about what is really important for the country. If we are unwilling to do that, then future generation, are going to be in a word of hurt. Polarized and sometimes paralyzed political system is not alibi for business leaders. In some national economies big state investments in infrastructure development lead to "crony capitalism" which triumphs at the expense of the entrepreneurship and true innovation. Current account and budget deficits are a new bubble, one with terrible ripple effects. Some current SEE strength such as workforce skill levels were seen as declining. The SEE cannot enjoy any more a "late mover" advantage relying on cheap labor, natural resources and imported ideas and innovations. The raising costs of labor, energy, and row materials are already undercutting the competitiveness. In the future the main competitive tenet will not be "made-in SEE" but "created-in SEE". To do that you need strategists, first-class researchers, inspired entrepreneurs, imaginative financiers and statesmen.

From macro perspective, a competitive nation requires sound monetary and fiscal policies, strong human developments, and effective political institutions. Macro foundations create potential for long term productivity, but actual productivity depends on microeconomic conditions that affects business itself. A competitive nations exhibit a sound business environment including imaginative industry leaders, strong clusters of firms and supporting institutions such as technological platforms. All previous requires stronger links among innovators, businesses, and universities. Discrete reforms would undoubtedly help, but real progress will come only from a systemic, well choreographed approach to creating positive sustainable change.

Tuesday, September 18
Serbian Business Club "Privrednik"

20.00-21.00 Welcome Party

Wednesday, September 19
Chamber of Commerce and Industry of Serbia, Resavska 13-15

08.30-09.00 Registration

09.00–09.30 Welcome address

Milos Bugarin, President, Chamber of Commerce and Industry of Serbia
Aleksandar Vlahovic, President, Serbian Association of Economists

09.30-09.50 Keynote speech

Ivica Dacic, Prime Minister, Government of the Republic of Serbia

09.50-10.20 Special guest

Indermit Gill, Chief Economist for Europe and Central Asia, World Bank

10.20-11.20 Plenary session 1: Macroeconomic context and new competitiveness strategy

Jorgovanka Tabakovic, Governor, National Bank of Serbia
Radovan Zerjav, Minister of Economic Development and Technology, Government of the Republic of Slovenia
Kemal Kozaric, Governor, Central Bank of Bosnia and Herzegovina

11.20-12.40 Plenary session 2: New competitiveness strategy basics

Joze Mencinger, Professor, School of Law, University of Ljubljana
Ljubo Jurcic, President, Croatian Association of Economists
Dragan Djuricin, Professor, School of Economics, University of Belgrade
Erhard Busek, President, IDM Austria

12.40-13.00 Coffee break

13.00-14.30 Plenary session 3: Beating crises: Policy perspective

Loup Brefort, World Bank Office Director in Serbia
Miroljub Labus, Professor, School of Law, University of Belgrade
Kosta Josifidis, Professor, School of Economics, University of Novi Sad
Radovan Jelasic, CEO, Erste Bank, Hungary
Tihomir Domazet, President, Croatian Institute of Finance and Accounting
Vladimir Vuckovic, Member of the Fiscal Council, Serbia
Slavko Caric, President of Executive Board, Erste Bank, Serbia
Matjaz Rakovec, President of the Management Board, Zavarovalnica Triglav

14.30-15.30 Plenary session 4: The use of translational science and technological platforms

Petar Petrovic, Professor, Faculty of Mechanical Engineering, Belgrade University
Rok Ursic, President, Instrumentation Technologies, Slovenia
Mark Plesko, President, Cosylab, Slovenia
Dragoljub Vukadinovic, Chairperson, Metalac Gornji Milanovac
Branislav Grujic, Chairperson, PHP Farman
Stjepan Car, Chairperson, Koncar–Electrical Engineering Institute, Croatia

15.30-16.00 Lunch – sponsor Chamber of Commerce and Industry of Serbia

16.00-17.30 Panel 1: Energy and environmental policy proposals

Parallel tracks

Panel host:
Aca Markovic, Chairperson, Elektroprivreda Srbije

Panelists:
Martin Novsak, Director, GEN energija
Vojin Lazarevic, Chairperson, Rudnap Group
Peter Baloh, Member of the Board, BISOL
Dusan Bajatovic, CEO, Srbijagas
Goran Novakovic, Partner, Energowind
David Allison, HSE director, NIS
Stjepan Car, Chairperson, Koncar–Electrical Engineering Institute, Croatia

Panel 2: Information and communication technology as a development challenge

Parallel tracks

Panel host:
Branko Radujko, CEO, Telekom Srbija

Panelists:
Ivica Mudrinic, Chairperson, T-HT
Goran Vasic, Chief Corporate Affairs Officer, Telenor, Serbia
Biljana Weber, General Manager, Microsoft
Peter Hajdu, General Director CEE, Cisco Systems Hungary

17.30-19.00 Panel 3: The role of fast growing companies in economic recovery

Parallel tracks

Panel host:
Goran Percevic, CEO, Interkomerc

Panelists:
Miroslav Okuka, CEO, Tarkett Eastern Europe
Miroslav Bogicevic, CEO, Farmakom
Jasmin Hoso, CEO, Tondach SEE
Tomislav Debeljak, Chairperson, DIV, Croatia
Janez Skrabec, President, Riko

Panel 4: Influence of political, physical and conceptual infrastructure on human capital

Parallel tracks

Panel host:
Toplica Spasojevic, President, Serbian Association of Corporate Directors

Panelists:
Vidosava Dzagic, Vice President, Serbian Chamber of Commerce
Ana Trbovic, Professor, FEFA
Vidoje Vujic, Acting President, Primorsko-Goranska County
Nadya Zhexembayeva, Coca-Cola Chair for Sustainable Development, IEDC-Bled School of Management

Thursday, September 20
Chamber of Commerce and Industry of Serbia, Resavska 13-15

09.00-09.15 1st Day panel reports

09.15-09.35 Keynote speech

Mladjan Dinkic, Minister of Finance and Economy, Government of the Republic of Serbia

09.35-10.05 Keynote speech: What to do from glocal perspective?

Danica Purg, President, IEDC-Bled School of Management
Aleksandar Vlahovic, President, Serbian Association of Economists

10.05-11.35 Plenary session 5: Innovative financiers in crisis

Draginja Djuric, President of the Executive Board, Banca Intesa, Serbia
Marko Voljc, General Manager, KBC Bank, Slovenia
Dejan Soskic, Professor, School of Economics, University of Belgrade
Vladimir Cupic, President of Executive Board, Hypo Alpe Adria Bank, Serbia
Philippos Karamanolis, President of the Executive Board, EFG Bank, Serbia
Goran Pitic, President of the Management Board, Societe Generale Bank Serbia

11.35-12.15 Plenary session 6: How to improve competitiveness: Policy perspective

Mladen Vedris, Professor, School of Law, University of Zagreb
Dusan Vujovic, Professor, FEFA

12.15-13.45 Panel 5: Regional business alliances in agriculture, food processing and confectionary

Parallel tracks

Panel host:
Miodrag Kostic, Chairperson, MK Group

Panelists:
Slobodan Petrovic, CEO, Danube Foods
Enzo Smrekar, Senior Executive Director and Member of the Board, Droga Kolinska
Ante Todoric, Executive Vice Chairperson, Agrokor
Zoran Mitrovic, Chairperson, Victoria Group
Bojan Radun, Executive Director, Nectar
Zlatko Bazianec, Director, AT Kearney
Zvonimir Mrsic, Chairperson, Podravka

Panel 6: The new role of insurance industry

Parallel tracks

Panel host:
Rudolf Ertl, Member of the Extended Executive Board, Vienna Insurance Group

Panelists:
Milenka Jezdimirovic, CEO, Dunav Insurance
Antonio Marchitelli, CEO, AXA Insurance
Andrea Simoncelli, Chairman and CEO , Delta Generali Insurance
Franz Weiler, Executive Director, UNIQA International

13.45-14.00 2nd Day panel reports

14.00-14.30 Closing keynote

Toplica Spasojevic, President, Serbian Association of Corporate Directors

Привредна комора Србије је независна, савремена и одговорна небуџетска институција, национална асоцијација свих српских привредника која своју традицију, искуство, знање и стручност ставља у службу најбољег интереса својих чланица и српске привреде.

Били смо и остајемо одговоран партнер и подршка вашем пословању кроз услуге пословног информисања и саветовања, издавања докумената и сертификата, унапређења економске сарадње са иностранством, независног суђења и арбитраже, едукације, као и заступања, заштите и промоције интереса наше привреде у земљи и свету.

ПРИВРЕДНА
КОМОРА
СРБИЈЕ

www.pks.rs

ORIGINAL SCIENTIFIC PAPER
UDK: 338.1(4-672EU) ; 005.21:005.412
Date of Receipt: August 19, 2012

Jože Mencinger
University of Ljubljana
Faculty of Law
Departmant of Legal
and Economic Sience, Ljubljana

EUROPE 2020 – A NEW STRATEGIC FANTASY?

Evropa 2020 – nova strateška fantazija?

Abstract

Modern societies are preoccupied with efficiency and economic growth; the EU concentrated this preoccupation in Lisbon strategy of 2000. It should turn Europe into the most efficient knowledge based economy. Growth was to be achieved by increased competitiveness assisted by globalization. In 2005, the "old" strategy was replaced by a "renewed" one. The "scientific" pillar of both strategies was production function while their Achilles' heel was total negligence of aggregate demand.

In 2010, the two failed strategies were replaced by Europe 2020. According to it, the EU should become a smart, sustainable and inclusive economy. Europe 2020 is a slightly more realistic plan than the predecessors but nevertheless a kind of pre election program with a lot of promises, newly invented expressions, and empty slogans; the demand side is again ignored. Therefore, Europe 2020 will most likely soon turn to a worthless political document providing speech-making and jobs for the EU bureaucracy responsible for its "implementation".

The negligence of the demand side is however much more fateful in actual economic policies which insist on the assumption that excessive public expenditures is to be blamed for the crisis and try to heel it by hysteric savings. In reality, the crisis was created by long lasting redistribution of GDP, hyper production, creation of demand by credits, and financial speculations. Public sector became "excessive" because governments had to prevent financial collapse created by private sector. Steadiness on current economic policies and savings hysterics therefore do not threaten only the Europe 2020, they threaten the sole existence of the EU. Euro, for many years the most prestigious element of European unification turned to its threat, as well.

Key words: *economic growth, production function, technological change, globalization, EU, euro, monetary union, fiscal union, aggregate demand*

Sažetak

Moderna društva preokupirana su efikasnošću i privrednom rastom; EU je ovu preokupaciju koncentrisala u Lisabonskoj strategiji 2000. Ona bi trebalo da pretvori Evropu u najefikasnije na znanju bazirano društvo. Rast bi trebalo postići povećanjem konkurentnosti kojoj bi pomogla globalizacija. U 2005, „stara" strategija zamenjena je „obnovljenom ". „Naučna" osnova obe strategije je proizvodna funkcija, a njihova Ahilova peta je potpuno zanemarivanje agregatne tražnje.

U 2010, propale strategije zamenjene su strategijom Evropa 2020. U skladu s njom trebalo bi da Evropa postane pametna, održiva i inkluzivna privreda. Evropa 2020 je realističnija od svojih prethodnica ali ipak ostaje dominantno „predizborni" program sa mnogim obećanjima, na novo izumljenim frazama i izrazima te puna praznih slogana; agregatna tražnja je ponovo zanemarena. Zbog toga će i Evropa 2020 verovatno brzo postati bezvredni dokument za pravljenje političkih govora i stvaranje radnih mesta za EU birokratiju, odgovornu za „implementaciju" strategije.

Zanemarivanje tražnje je pak mnogo sudbonosnije u aktuelnim ekonomskim politikama koje se oslanjaju na pretpostavku, da su krizu stvorili suviše veliki javni izdaci i da je zbog toga iz nje moguće izaći histeričnom štednjom. U stvarnosti, kriza je stvorena u decenijama preraspodele društvenog proizvoda, hiperprodukcije, stvaranja tražnje kreditima i finansijskim spekulacijama. Javni sektor je postao suviše velik jer su države morale sprečiti finansijski kolaps koji je stvorio privatni finansijski sektor. Istrajavanje na sadašnjim politikama histerične štednje neće ugroziti samo Evropu 2020, ono ugrožava i samu Evropsku uniju. I euro, koji je mnogo godina služio kao najprestižniji element evropskog udruživanja, pretvara se u njegovu pretnju.

Ključne reči: *privredni rast, proizvodna funkcija, tehnološke promene, globalizacija, EU, euro, monetarna unija, fiskalna unija, agregatna tražnja*

Empty talks of Lisbon strategies

Modern societies and governments are preoccupied with efficiency and economic growth[1] which is taken as limitless due to enhanced total factor productivity and prevalence of services over production of goods. The EU condensed this obsession in the Lisbon strategy signed in March 2000. The strategy should have ensured Europe to become by 2010 the most efficient knowledge based society of full employment, and an economy which could compete in the globalization contest. After some years of mantras on strategy, actual development and the report of the Wim Kok committee at the end of 2004 brought soberness and admittance that the EU was not only far from the Lisbon goals, but also heading in the opposite direction. European Commission reluctantly admitted that Lisbon strategy failed. The "old" strategy was therefore replaced in February 2005 by the "renewed" one: "Partnership for Growth and Jobs – New Beginning of the Lisbon Strategy". In it, the ending year 2010 was abandoned, number of goals was reduced, and responsibilities were turned to the governments of member states. The "renewed" strategy was said to be simple, pragmatic, and tangible[2]. It was supposed to be based on the partnership between the Commission and member states, which were supposed to create their own "lisbons" and become responsible for efficiency, increase of productivity, and employment. The sum of local "Lisbons" was aimed to result in common EU "Lisbon". Economic growth and job creation were at the core of it; they were planned to be attained by assistance of healthy macroeconomic policy supporting structural reforms. The "Lisbon Action Plan" was supposed to improve the management of the strategy, for example, by founding national ministries for the implementation of the strategy (Mr. or Mrs. Lisbon).

While the goals of the "Partnership" (growth, jobs, and social security) were not questionable, the "renewed" strategy was not more trustworthy than the "old" one, which was already equally utopian in 2000, when it had been accepted, as it was in 2005. The "renewed" strategy did not assure that low economic growth accompanied by budget deficits, high unemployment, and moderate inflation will end. There were no provisions for the turning point of such development. Instead, the new strategy surprised with the abundance of words, empty talks, newly invented phraseology and concepts, action plans and programs, priorities, mobilizations, new institutions and similar claptraps[3].

The supply side and technological change

The "scientific" pillar of the two strategies was production function. Let us consider, for simplicity, that it has a form of Cobb-Douglas production function $Y = A*K^a*L^b$. It simply says that one must work (L) and have machinery (K) to produce (Y) while a and b indicate how changes in K and L affect Y. Growth which cannot be explained by the increases of K and L is attributed to technological change or total factor productivity (embodied in A), which provides room for slogans on competitiveness, human capital, entrepreneurship, efficient and inexpensive state administration etc.

Though production function can have many different forms, the essence and the causality is clear; output is a dependent variable while labor, capital, and technological change are independent variables. A (total factor productivity) is the crucial element of Lisbon strategy; less attention is given to capital and labor, though shallowness of the capital market and inflexibility of the labor market were often blamed for low growth and higher unemployment in Europe compared to the USA. The inflexibility of labor implies that workers in the EU countries are not willing to work for 200 € a month while Chinese workers are

1 Contemporary economics is based on the relation : Selfishness →Profit →Growth; most textbooks start with the assertion that economic activity attempts to fulfill limitless needs. However, if needs are limitless, so must be economic growth. Can we therefore talk about limitless growth? The logical answer is no. If the needs are limitless, they cannot be fulfilled, if we produce in a finite environment, growth cannot be limitless. Nevertheless, the idea that economic growth is not limitless has only a few supporters. Most economists believe in the old assertion that productivity of natural resources is growing exponentially [19] and that economic growth is based on services and limitless growth of knowledge. Thus, production of material goods is not very relevant. This should assure that growth can be limitless [1].

2 Communication to the Spring European Council, *Working together for Growth and Jobs*, A new start for the Lisbon Strategy, COM (2005) 24, Brussels, February, 2.2005;

3 See for example: *Delivering on Growth and Jobs: A New and Integrated Economic and Employment Co-ordination Cycle in the EU*, Companion document to the Communication to the Spring European Council (COM (2005) 24) Brussels, February 3,.2005;

willing to work for much lower wages. The shallowness of the capital market implies that financial sector lacks new financial products and that the credit/output ratio is too low.

Crucial for the lagging[4] of Europe was nevertheless supposed to be slow growth of total factor productivity caused by modest investment expenditures for research and development, inappropriate education, and feeble spread of knowledge. Thus, research and development, innovations, and knowledge should, according to the strategy, assure competitiveness of the EU in the world market in which other countries compete with cheap labor and abundance of raw materials. The importance of scientific inventions and organization of European research area, which had been stressed already in the "old" Lisbon strategy, remained the pillar of growth and jobs in the "renewed" strategy, as well. Thus, to end the lagging of the EU behind the USA, the EU member countries should increase their R&D expenditures to 3 percents of GDP from the existing 1.93 percent (2002)[5]. The European Commission (EC) itself proposed doubling the amount of money for R&D from 5 to 10 billion € in the EU budget for the 2006-2013 fiscal period which would create research friendly environment. This financial effort would be enhanced by creating numerous more or less necessary bureaucratic institutions such as Joint European Technology Initiative, 22 European Technology Platforms, European Research Council, European Strategy Forum for Research Infrastructures, and National Contact Points. The EC apparently believed that production of scientific discoveries can be assured by creation of institutions dealing with orderly arranged procedures for research proposals and their financing. However, there are no inevitable causal links between expenditures for R&D, growth, and jobs[6].

4 Whether the EU actually lags behind USA, depends on how one defines performance, which is a matter of value judgments.

5 Expenditures for R&D in USA reached 2.76 percent (2003) of GDP and they were 3.14 percent in Japan.

6 For example, in the period 1995-2002, Ireland attained far the fastest average growth in EU, 8 percent per year, while its expenditures for R&D in the same period were among the lowest, slightly more than 1 percent of GDP, and decreasing. Two countries with the highest expenditures for R&D, Sweden and Finland, attained rather modest growth. While expenditures for R&D in Sweden were constant in the observed period, Finland was the only country in which the share of R&D expenditures was growing; it was accompanied by the declining growth of GDP.

Let us assume that reorganization of science, its regulation, and institutionalization within the EU would indeed bring new technological inventions and economic growth. They should, according to the strategy and in combination with more flexible labor market, bring more and better jobs, transfer of workers from jobs with low value added to jobs with high value added, and reduce unemployment. However, technological change is most often labor saving; it undoubtedly increases productivity and creates better jobs, it, however, at least directly, does not create more jobs. New jobs created by it in a specific industry, in which change takes place, are most likely fewer than jobs which are in the same industry eliminated by change. Only some of the workers who lose jobs because of technological change can find new jobs in the same or other industries producing material goods with higher value added. Some of them move to the service sectors with the same, higher, or lower value added jobs, while some of them move to the activity with zero value added jobs, thus, among unemployed. Technological change, which directly reduces jobs, however, enable creating new jobs in services, public or private, with higher (public servants, lawyers. etc.) value added jobs or lower (waitresses, garbage workers etc.) value added jobs. In the last decade, practically all new jobs in the EU countries have been created in services, share of services in GDP therefore increased to more than70 percent. Indeed, the aggregate effects of technological change on employment and unemployment are a combination of different effects; some reducing, others enhancing employment.

The EC, while admitting that the central role in job creation belonged to the public sector, however, at the same time, assumed that liberalization of the labor market in public services would create more jobs. This was a rather strange assumption, as liberalization of the labor market is to increase efficiency, which implies that the same amount of public services could be provided by fewer public servants. Furthermore, value added in services, particularly public, is determined by monopolistic power of their suppliers and inclination of the state to make these services obligatory. If, for example, notaries - their number and their required services are regulated

by the state - earn more than anybody else, their value added is by a definition the highest.

The Achilles' heel of Lisbon strategies, the "old" one and the "renewed" one, was total negligence of aggregate demand and full reliance on the premises of neo-classical economics, according to which demand equals supply because of perfect adaptation of economic subjects. This is also evident by the central role of the production function in the strategy. Production function is, by no doubt, a useful device for establishing potential growth but it is much less useful for establishing actual growth. Causality implied by the production function is, namely, not very relevant in an economy in which companies are much more concerned with how to sell products than with how to produce them, and in which capital and labour are abundant. Therefore, for a contemporary market economy, aggregate consumption function, aggregate investment function, and aggregate employment function are far more relevant in determining output and jobs than production function.

Globalization – opportunity or threat?

Economic globalization, as defined by Bhagwati, "constitutes integration of national economies into the international economy through trade, direct foreign investment (by corporations and multinationals), short term capital flows, international flows of workers and humanity generally, and flows of technology" [2, p. 440]. It is supposed to diminish transaction costs, enable efficiency in allocation, and enhance trade based on comparative advantages. The pressures of the world market are also considered more than proper alternatives to government interventions.

Admirers of globalization believe that it is a positive-sum game which enables equalization of incomes in more and less developed countries, increases employment and wages, and also abolishes provincialism, racism and ignorance. Thus, it should at least in the long run, enhance welfare of everybody. Theoretical pillars for these beliefs are to be found in neoclassical economics stressing perfect adaptability of economic units, and benefits of competition; therefore denouncing barriers to it. Critics and skeptics are warning of the "globalization trap", they are cautious regarding the increases in efficiency, and stress negative social features. For them, only a few individuals and countries enjoy fruits of globalization as it increases income disparities among and within countries, creates unemployment in developed countries while keeping wages in developing countries meager. Merciless battles for the market shares enhanced by mergers and acquisitions lead into a kind of economic cannibalism.

Globalization occurred when American model of capitalism prevailed not only over socialism but also over other models of capitalism. The collapse of socialism was simply attributed to the advantages of the "western" world, which was most often reduced to the American institutional arrangements considered to be the only viable and eternal. This belief was best expressed by the Francis Fukujama`s "end of history" which implies globalization of market fundamentalism[7]. One should also not overlook that the linkages between national state on one side and globalization and internationalization on the other, have changed. While fast internationalizations in the past were linking national economies and preserving their national sovereignty, globalization is weakening it. It creates borderless world for corporations and multinationals in which nation states become redundant economic subjects.

By creation of the EU some of the globalization challenges of the member states were shifted from the national to the EU level. However, it soon became obvious that also the EU as an entity has been unable to preserve European social model, existing standard of living, and economic growth while competing in global economy. Huge enough decrease of labor costs (by further liberalization of labor market or by administrative reduction of wages and social benefits) which would suffice for the competition with much more ruthless societies, China, in particular, would imply the abandoning of the social market economy model which is politically impossible and socially unacceptable. Due to the vanishing of the traditional employer-employee relationship, predominance of "shareholder value" maxim, and unbounded mobility

7 Fundamentalism is not meant to be insulting. I simply want to express doubts in ideological constructions of reality which are often expressed by American economists who consider themselves being liberals and who overlook that American institutional arrangements are not the only ones that work.

of capital, production was moving to the countries with exceptionally low labor costs. This happened not only in many traditional industries with low value added jobs (textile) but also in industries of goods and services with high value added jobs. By their relocation to the countries with miserable wages and nil social security (and despite high initial profits), these industries also swiftly turned to endangered industries with low value added jobs. The relocation of production, thus, also diminished the ability of the EU countries for indirectly creating more jobs in services. It is for this reason why the EU might be forced, while repeating slogans of adherence to free trade, to gradually close its markets. How to do that is unclear; one of the possibilities is offered by imposing "ISO standards" requesting that imported goods and services are produced in accordance with the rules which exist in the EU. It is certain that by higher economic growth and by increase in the standard of living in the rest of the world, new markets will emerge, but their emergence will however lag behind loss of jobs due to production being shifted from the EU.

Indeed, the assertions that globalization increases welfare and economic growth, have recently become conditional and the claims that globalization reduces poverty less affirmative. The proper answer is most likely that "globalization may bring enhanced growth, but need not, and it may lead to increased poverty, but need not" [20, p. 466].

Europe 2020

Flood of strategies, some stretching to 2060, others dealing with how to exit the crisis, was in 2010 enriched by *Europe 2020***:** the EU's growth strategy for the decade. The collapses of two previous strategies made European planners a little bit more cautious and the third strategy a little bit more realistic. For example, the former pillar of economic progress – globalization is now put among long run problems together with scarcity of natural resources and aging of the population. At least here, Europe 2020 is right. The idea that European "knowledge based economy" can compete with socially much more ruthless societies on the world market has been condemned to fail in advance; knowledge is even more flexible than capital. The ability to request "fair" trade and competition which would request that other countries comply with minimal social norms and rights of workers has been missed by greed of the EU multinationals and its own thoughtlessness.

In the introduction to the document and in an accompanying document [5] the EC assessed the causes of current economic crisis. According to the commission, structural deficiencies, low investments, non-dynamic management environment, aging of the population, lower employment rates, and minor working efforts than in the USA and Japan should be blamed for it. This is totally wrong. The commission sees the problems on the supply side and considers the crisis being unpredictable like recent earthquakes in Chile and Haiti; according to the views of the EC Lisbon strategies actually helped that the damage of the crisis is similar to the damage in Chile and not to the damage in Haiti. Indeed, the EC overlooked its own role, though the Commission can be easily considered one of the accomplices for the crisis. Instead of preventing spread of ideology which led to the crisis, the EC supported it. The EC consented to the ideas of full adaptability of markets and believed in comparative advantages of the EU as a seller of knowledge, it supported privatization of public services and "sound" economic policies. The pillar of the latter should be reduction of wages and social security benefits which would make the EU competitive to much more ruthless societies. It overlooked that all jobs which were lost in production of goods cannot be replaced by jobs in services, and that high value added activities turn to low value added activities when they are transferred to a country with low wage and no social security. Indeed, reduction of labour costs by lower wages and less social security sufficient for competition implies abandoning of European social market economy.

According to Europe 2020, the EU should become a *smart, sustainable and inclusive economy***.** Europe 2020 is to deliver growth which is: *smart* (based on more effective investments in education, research and innovation); *sustainable*, (thanks to a move towards a low-carbon economy); and *inclusive* (with a strong emphasis on job creation and poverty reduction). The strategy is focused on five goals in the areas of *employment* (75% of the 20-64 year-olds to be employed), *innovation* (3% of the EU's GDP

to be invested in R&D), *education* (reducing school drop-out rates below 10% and at least 40% of 30-34–year-olds completing third level education), *poverty reduction* (at least 20 million fewer people in or at risk of poverty and social exclusion), and *climate change* (lowering energy greenhouse gas emissions by 20%, increasing energy production from renewable sources by 20% and increasing energy efficiency by 20%). Member states are committed to achieving Europe 2020 targets and also had to translate them into national targets and growth-enhancing policies; each member state should adopt its own national targets and actions at national level to underpin the strategy.

The first goal of Europe 2020 (75 per cent employment rate) which does not include economic growth indicate an important shift in philosophy or awareness that the basic problem of contemporary world is lack of jobs and that economic and political development in the near future will be determined by employment and unemployment and their social consequences. The problem of the world is not the shortage of goods and wealth, but their distribution, large enough consumption, and creation of jobs. Unemployment is far the biggest problem of the EU and the EU apparently has to create jobs. When a new production unit is opened, nobody cares for what will be produced in it, everybody is preoccupied with a number of jobs which will be created. Business companies are not concerned with the question how to produce a product or a service but with the question how to sell it. Ups and downs in economic activity are explained by movements of final demand categories rather than by supply side restrictions. Creation of new services and institutions is needed to nullify the effects of technological change on employment and to prevent formation of "one third society". Out of three kinds of economic growth: "smart, sustainable and inclusive", the EU will therefore have to care for the inclusive growth: creation of new jobs. Also sustainability of growth appears to be a kind of an excuse for job creation. Actual concern with competitiveness will be how to diminish the competitiveness of "Chinese" products rather than increasing the competitiveness of the EU products. Most jobs in the decade before the crisis were lost in manufacturing, partly because of "smart" growth or technological change, and partly because of moving production to "China"; part of manufacturing and employment in it can only be brought back by actually holding back imports to the EU while repeating free trade rhetoric.

"Smart" growth is linked to the second goal "3 per cent of the EU's GDP to be invested in R&D. The goal implies that expenditures for R&D bring technological change, economic growth and employment, though this is not confirmed empirically regardless of data used: cross section, time series or panel. As stated above, technological change creates better jobs, it, however, at least directly, does not create more jobs. Its aggregate effects on employment and unemployment are a combination of different effects; some reducing, others enhancing employment. In the last decade, practically all new jobs in the EU countries have been created in services, share of services in GDP therefore increased to more than70 per cent which was indirectly enabled by technological change in production of goods.

When we come to the third goal "reducing school drop-out rates below 10% and at least 40% of 30-34–year-olds completing third level education" we cannot overlook the damage produced by Bologna reform which should increase efficiency of higher education but ended in lowering the quality of higher education which was predictable and predicted. Whether poverty will endanger 20 million less people than now depends on the fulfilment of the first goal, 75 per cent employment rate. High employment rate does not prevent poverty but it is the best way to reduce it.

As a document, Europe 2020 remains a kind of pre-election program with a lot of promises and newly invented expressions well manifested for example in "smart, sustainable and inclusive growth", and empty slogans such as "Europe must succeed". If rhetoric would suffice, the goals would most likely be attained but as this is not the case, Europe 2020 will most likely turn to a worthless political document sharing the fate of two previous strategies. Though, it is less dogmatically than the two predecessors linked to supply side economics, flexibility of the labour market, and financial deepening, Europe 2020 ignores aggregate demand. The document will therefore provide only jobs for the EU bureaucracy responsible for its "implementation" in the centre and in the member states.

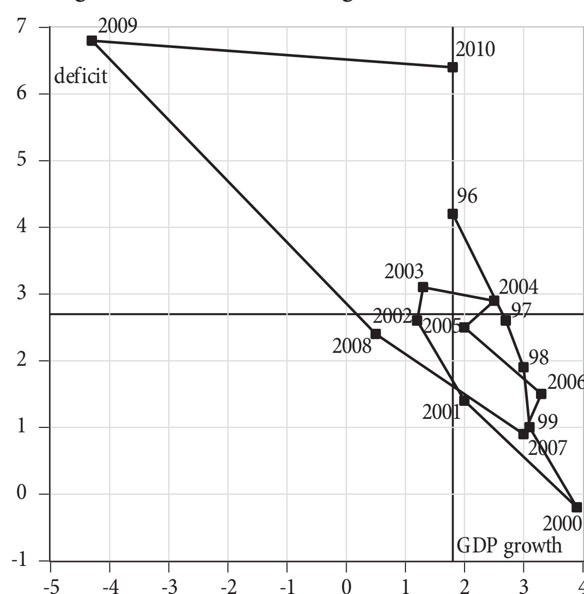
The EC has, namely, set up a whole bunch of administrative rules in yearly cycle of economic policy coordination called the *European Semester*. According to it, the EC is to undertake a detailed analysis of economic and structural reforms and to provide the member states with recommendations for the next 12-18 months. The semester starts when the commission adopts its annual growth survey, usually towards the end of the year, and sets out EU priorities for the coming year. In March, the EU heads of state and government issue guidance for national policies, the Spring meeting of the EC is to survey overall macroeconomic situation, progress towards the five EU-level targets, progress under the flagship initiatives and to provide policy orientations covering fiscal, macroeconomic structural reform and growth enhancing areas, and to advise on linkages between them. In April, member states must submit their plans for sound public finances (Stability or Convergence Programs), and reforms and measures to make progress towards smart, sustainable and inclusive growth (National Reform Programs). In May and June, the Commission assesses these programs and provides country-specific recommendations as appropriate which are then endorsed by the European Council. Finally, end of June or in early July, the Council formally adopts the country-specific recommendations. If the recommendations are not acted on within the given time-frame, policy warnings can be issued. There is also an option for enforcement through incentives and sanctions in the case of excessive macroeconomic and budgetary imbalances.

Reality 2012

Europe 2020 has been much less used for political speeches than two predecessors were in the period preceding the crisis. Indeed, at the very beginning of the crisis, the EC representatives continued to adhere to the rhetoric of Lisbon strategy and Stability Pact though it was evident that supply side economics is inappropriate and that "sound" economic policy cannot prevent spread and deepening of the crisis. Lisbon rhetoric was afterwards abandoned while the EU adhered to "sound" economic policies in seeking to placate credit rating agencies and "financial markets". Excessive public expenditure has been proclaimed the culprit of the crisis. This implied that the crisis should be heeled by savings in the public sector and its cutback. In reality, the crisis was created by long lasting redistribution of GDP in favour of capital, shifting of production to "China" and resulting hyper production, creation of demand by credits, and financial speculations. Public sector became "excessive" because governments had to prevent financial collapses of the countries.

The size of "normal" budget deficit of a country in the long run is determined by its fiscal system, historical development, and the size of public debt, while in the short run it depends on economic growth. High economic growth decreases budget deficit because it increases tax revenues due to increased tax bases (amount of transactions, income, profits), while stagnation necessarily increases budget deficit for the same reason, i.e. the squeeze of tax bases. This is enhanced by the increased needs for social transfers. However, admitting that large budget deficits and growing public debt are inevitable consequences of the squeezed economic activity would request giving up ideology of Stability Pact by which "eternal" economic growth is ascertained by small share of public sector in the economy and balanced budget. Preventing growth of budget deficits and introducing "structural" reforms during the recession to squeeze "natural" European level of public sector is but not only harmful for a country, it is destructive for the existence of the EU (see Figure 1 and Table 1).

Figure 1: Growth and budget deficit in EU27



Source: Eurostat

Although the whole of the euro area is in recession, it is much more severe in "southern" (Greece, Spain, Italy, Portugal, Slovenia) than in "northern" part of it (Germany, Austria, Netherland, Finland). Greece has been faring far the worst, with GDP drop by over 17% in four years of the crisis. It is followed by small new member states, in which most of the drop was created by enormous decrease of exports in 2009. These are Slovenia, Estonia (euro zone members) Latvia and Lithuania; the speed of their recovery has differed; the slowest being in Slovenia. Among "old" member states the drop of GDP was the largest in Ireland, Portugal, Spain and Italy. Poland is the only country which has passed the crisis unharmed (see Figure 2). GDP between 2008 and 2012 increased by 13 percent while real GDP in 2012 is to be higher than in 2008 also in Sweden, Slovakia, Malta, Germany, Belgium, Austria and France.

Unemployment shows a similar divide. The overall jobless rate in the first quarter of 2012 was 10.7 per cent in EU27 and 11.5 per cent in euro zone. It was nearly 25 per cent in Spain and 23 per cent in Greece; but only 4.4 per cent in Austria. In twelve countries unemployment exceeded 10 per cent; Germany is the only country with jobless rate lower in 2012/I than in 2008. Unemployment is definitely the most important economic, social, and political challenge which the EU is to face in the near future.

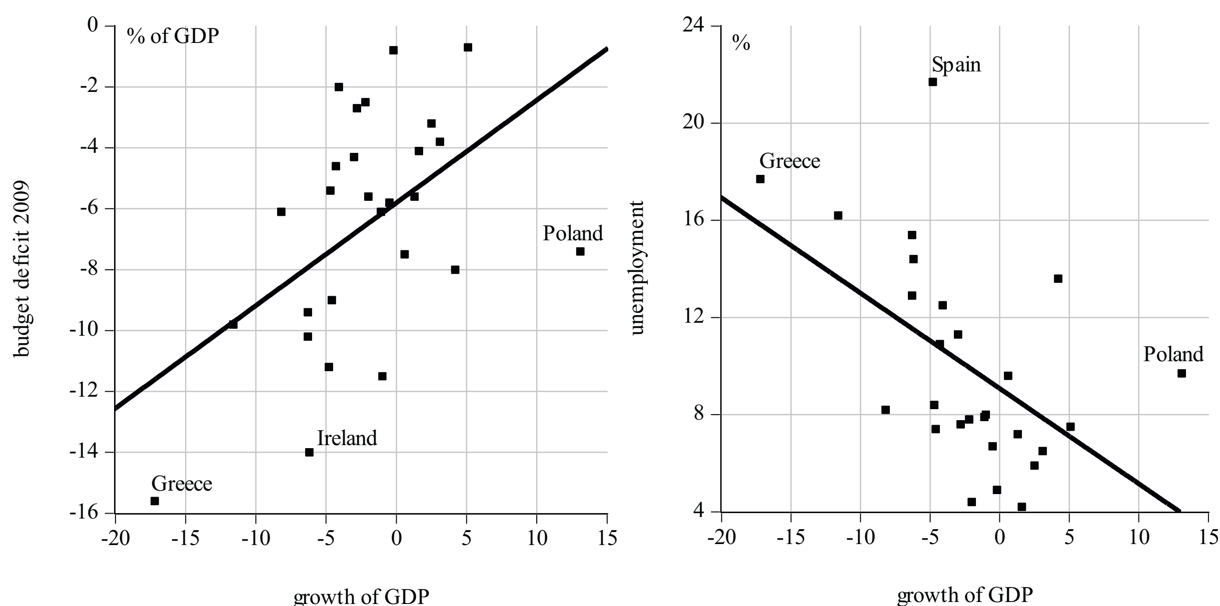
Government debt at the end of 2011 reached 82.5 per cent of GDP in EU27 and 87.4 per cent in euro zone. It was above 100 per cent of GDP in Greece, Ireland, Italy and Portugal. By contrast, it was only 6 per cent in Estonia and 16 per cent in Bulgaria. Budget deficits in 2011 were lower than in 2009 which is a result of savings hysterics, prolonging and deepening the recession (see Table 2).

Table 1: Fiscal state in the crisis EU-27

	2007	2008	2009	2010	2011
GDP (bill €)	12397	12465	11750	12246	12629
Budget balance	–110	–302	–810	–805	–564
(% GDP)	–0.9	–2.4	–6.9	–6.6	–4.5
Expenditures (% GDP)	45.6	47.1	51.0	50.6	49.1
Revenues (% GDP)	44.7	44.7	44.1	44.1	44.4
Public debt (bill. €)	7315	7791	8779	9816	10422
(% GDP)	59.0	62.5	74.7	80.2	82.5

Source: Eurostat

Figure 2: GDP growth, budget deficits and unemployment in the crisis



Source: Eurostat, own calculations

Is Euro irreversible?

One should admit that the EU has proved to be a stable association, though, the pillars of the EU stability are rather strange: inertia, ability to disregard its own rules, democratic deficit, constant creation of new institutions, and empty talks. There are many cases to prove the claim. Inertia, for example, can be observed in slow adaptation of CAP. That the EU disregards or adapts the rules according to political needs is manifested by admittance of Italy or Belgium to the euro area though their public debt was twice higher than required by the rules. The benefits of democratic deficit were well demonstrated when negative voting on the EU constitution in France and Netherlands was replaced by Lisbon treaty. By creating new and new institutions not only in Brussels but also in the member states one get more and more people with vested interests in the EU. Finally, the documents produced by the commission are full of empty talks and resemble similar documents produced in Yugoslavia thirty years ago. However, this does not imply that rather strange pillars of the EU stability are useless. On the contrary; they enabled enlargements and have been keeping the EU together.

Enlargement of monetary union to the whole EU was in the past considered natural and desired future of the EU; all new EU members entering the EU should become members of monetary union. This was based on wrong assumption that euro area will become an optimal currency area. However, euro was from the very beginning a political project without sound economic foundations. It was therefore obvious that euro area will run into difficulties due to the loss of exchange rate and monetary policies in an area which is not optimal currency area, and that euro might increase rather than decrease economic and social

Table 2: Performance of the EU during the crisis

	public sector share	drop of GDP	budget deficit % GDP			Debt % of GDP		unemployment rate		
	2001-2011 average	2012 /2008	2009	2010	2011	2008	2011	2008	2012/1Q	Youth 2011
European Union	47,6	-0,9	-6,9	-6,5	-4,5	62,5	82,5	7,1	10,7	21,4
Euro area	48,1	-0,7	-6,4	-6,2	-4,1	70,2	87,4	7,6	11,5	20,8
Belgium	50.7	1.3	-5.6	-3.8	-3.7	89.3	98.0	7.0	7,2	18.7
Bulgaria	38.3	-3.0	-4.3	-3.1	-2.1	13.7	16.3	5.6	13,0	25.0
Czech Republic	43.8	-0.5	-5.8	-4.8	-3.1	28.7	41.2	4.4	7,2	18.1
Denmark	54.4	-2.8	-2.7	-2.5	-1.8	33.4	46.5	3.4	8,2	14.2
Germany	46.6	2.5	-3.2	-4.3	-1.0	66.7	81.2	7.5	6,0	8.6
Estonia	36.7	-4.1	-2.0	0.2	1.0	4.5	6.0	5.5	11,8	22.3
Ireland	40.3	-6.2	-14.0	-31.	-13.	44.2	108.2	6.3	15,0	29.4
Greece	47.5	-17.2	-15.6	-10.	-9.1	113.0	165.3	7.7	22,8	44.4
Spain	40.7	-4.8	-11.2	-9.3	-8.5	40.2	68.5	11.3	24,6	46.4
France	53.9	0.6	-7.5	-7.1	-5.2	68.2	85.8	7.8	10,0	22.9
Italy	48.6	-4.7	-5.4	-4.6	-3.9	105.7	120.1	6.7	11,1	29.1
Cyprus	43.1	-1.1	-6.1	-5.3	-6.3	48.9	71.6	3.8	11,4	22.4
Latvia	38.0	-11.6	-9.8	-8.2	-3.5	19.8	42.6	8.0	16,6	31.0
Lithuania	36.2	-6.3	-9.4	-7.2	-5.5	15.5	38.5	5.8	14,7	32.9
Luxembourg	40.4	-0.2	-0.8	-0.9	-0.6	13.7	18.2	4.9	5,9	16.4
Hungary	49.9	-4.3	-4.6	-4.2	-4.3	73.0	80.6	7.8	11,8	26.1
Malta	43.8	3.1	-3.8	-3.7	-2.7	62.3	72.0	6.0	6,1	13.8
Netherlands	47.2	-2.0	-5.6	-5.1	-4.7	58.5	65.2	3.1	5,2	7.6
Austria	50.9	1.6	-4.1	-4.5	-2.6	63.8	72.2	3.8	4,4	8.3
Poland	43.8	13.1	-7.4	-7.8	-5.1	47.1	56.3	7.1	10,7	25.8
Portugal	46.1	-6.3	-10.2	-9.8	-4.2	71.6	107.8	8.5	15,6	30.1
Romania	36.7	-4.6	-9.0	-6.8	-5.2	13.4	33.3	5.8	7,9	23.7
Slovenia	46.6	-8.2	-6.1	-6.0	-6.4	21.9	47.6	4.4	8,7	15.7
Slovakia	39.1	4.2	-8.0	-7.7	-4.8	27.9	43.3	9.6	14,1	33.5
Finland	50.8	-2.2	-2.5	-2.5	-0.5	33.9	48.6	6.4	8,1	20.1
Sweden	53.4	5.1	-0.7	0.3	0.3	38.8	38.4	6.2	8,0	22.9
United Kingdom	45.2	-1.0	-11.5	-10	-8.3	54.8	85.7	5.6	8,3	21.1

Source: Eurostat, own calculations

differences among member states, creating tensions and well known accusations of "exploitation" [14]. After fourteen years during which it was indecent to doubt into euro and its eternity, economic arguments are relevant again and the discussions, whether euro can be preserved, and if so, what are the costs of its upholding are getting relevant again.

The debates on euro concentrate on the question whether centralized monetary system and policy can coexist with decentralized fiscal system and policy. Three options appear: fiscal disintegration, fiscal pact, and fiscal union.

In the first case, monetary union could coexist with decentralized fiscal system and policy, if a member of the union is solely responsible for its economic situation and will not be bailed out by other members[8]. The question in this case is why do we need monetary union at all?

8 In this case, Greece would be allowed to bankrupt; this would most likely happen if bankruptcy would not endanger French and German banks.

According to the second option, centralized monetary policy and decentralized fiscal policy can coexist if the latter is coordinated by for example the so called "golden rule" on budget deficit. In reality it implies that fiscal policy of the mighty (Germany) is the right fiscal policy regardless of enormous differences in the size of public debt in member states, the ways in which public debt was created, different economic situations in the countries and therefore the differences in the real burden of the debt. Furthermore, coordinated fiscal policies synchronize and enhance economic cycles. In short, asymmetric shock of fiscal pact will join asymmetric shocks of monetary union.

In the third option, monetary union is accompanied by fiscal union, thus, by the shift of fiscal policies from "republics" to the "federation". This option however implies fiscal federalism i.e. agreements on what are the tasks of different levels of government and corresponding

Table 3: Balance of payments 2001–2010 average, % BDP

	Current account					Financial account Investments		
	Total	goods	services	incomes	transfers	direct	Portfolio	other
Belgium	1,81	0,74	1,18	1,63	–1,75	1,87	–0,63	–2,53
Bulgaria	–10,74	–15,77	3,52	–1,65	3,17	12,38	–1,39	4,78
Czech Republic	–3,64	–0,16	1,45	–5,17	0,25	4,57	0,34	0,67
Denmark	3,24	2,74	2,08	0,14	–1,72	–1,37	–2,24	2,21
Germany	4,50	6,53	–1,61	0,91	–1,33	–1,00	0,56	–4,16
Estonia	–8,20	–12,59	8,34	–4,87	1,04	5,69	–2,73	4,83
Ireland	–2,26	19,54	–6,03	–15,63	–0,15	–2,46	1,28	5,23
Greece	–9,59	–15,05	6,95	–2,99	1,50	0,09	5,39	2,19
Spain	–6,17	–6,32	2,64	–2,13	–0,36	–1,57	4,23	2,87
France	–0,28	–1,26	0,82	1,30	–1,20	–1,82	0,50	1,30
Italy	–1,80	0,20	–0,26	–0,51	–0,75	–0,88	1,90	0,77
Cyprus	–7,51	–27,07	23,16	–3,84	0,33	3,14	–18,54	24,33
Latvia	–9,45	–17,11	4,83	–0,28	3,11	3,34	–0,33	8,46
Lithuania	–6,32	–9,86	3,04	–2,15	2,65	2,77	0,95	2,73
Luxembourg	9,05	–10,31	44,00	–21,84	–2,81	n.a.	114,64	–96,29
Hungary	–5,77	–1,59	1,51	–5,82	0,13	2,54	1,70	3,60
Malta	–5,16	–16,01	13,78	–3,10	0,18	9,23	–24,46	20,23
Netherlands	5,70	6,48	0,76	0,18	–1,71	–3,73	1,26	–1,22
Austria	2,47	–0,40	3,96	–0,45	–0,63	–1,30	1,50	–2,17
Poland	–4,13	–3,04	0,52	–2,41	0,79	2,59	1,69	1,35
Portugal	–9,80	–11,23	3,06	–3,37	1,73	0,65	2,32	4,89
Romania	–7,58	–9,10	0,00	–2,24	3,81	4,94	0,45	5,59
Slovenia	–2,02	–3,45	2,97	–1,37	–0,18	0,64	0,13	2,78
Slovakia	–6,39	–3,47	0,47	–3,31	–0,08	5,59	–0,30	3,12
Finland	4,60	5,48	0,05	–0,16	–0,77	–0,12	–2,99	0,19
Sweden	7,00	4,89	2,05	1,26	–1,20	–2,00	–0,95	–0,91
Un. Kingdom	–2,22	–5,48	2,50	1,70	–0,94	–0,20	3,32	–0,96

Source: Eurostat, own calculations

distribution of revenues and expenditures [13]. A decision on taxes belonging to "federation" or on which "federation" and "republics" participate is needed. Custom duties and eventual Tobin´s tax on financial transactions would not suffice for the creation of fiscal union, larger "federal" participation on VAT or excise tax would be needed. It is not very likely, that member states could reach an agreement on the revenue side of fiscal union. It is but much more unlikely that they could reach an agreement on the expenditure side of the budget. Whether creation of a fiscal union is a feasible solution depends on the amount of redistribution of GDP among member states[9].

Though, euro was recently proclaimed irreversible by ECB governor Draghi, the question whether it can be preserved should be replaced by a question whether the costs of preservation are not higher than the benefits. European countries outside the single-currency zone like Sweden, Poland and Britain may now be happy for not joining the euro. Though they are being hurt by the crisis by tight trading and financial links they are better off because they can fight the crisis with exchange rate and monetary policy, while member states are forced to "beggary". The exclusion of Greece would not help much as other "poor" members would follow until monetary union is reduced to the optimal currency area or to "DEM union" composed of the countries which used to be the members of de facto monetary union (Germany, Austria, Belgium, Netherland, Luxembourg) before euro. Which countries belong and which do not belong to proper optimal currency area can be easily found out by their balance of payments characteristics in the last decade presented in Table 3. The countries with current account surpluses are Germany, Belgium, Luxembourg, Netherlands, Austria and Finland (euro zone members) Denmark and Sweden.

Unfortunately, the debates on Euro bear resemblances to similar debates in the eighties in Yugoslavia, when the country gradually disintegrated as an economic entity, and on the taboo themes of that time, when it was inappropriate to doubt into eternity of "brotherhood and unity". Euro has also been considered irreversible; no legal provisions were created for a country to leave euro area which also reminds someone on Yugoslavia; there were no legal provisions for a republic to leave. Indeed, some resemblances are striking: heterogeneity in the level of development, a political question on what is more democratic "one man, one vote" or "one state, one vote" and the most worrisome is what I label the "Yugoslav syndrome". Namely, during the stagnation in the eighties, people began looking for who is to be blamed and who exploits them. At the end, each republic was "exploited" by all other republics. This is what is more and more appearing in the EU. Yugoslavia survived a decade long stagnation before falling apart. Can euro zone survive a crisis which would last a decade? This does not mean that it will happen. Entry and exit are not symmetrical; euro might persist simply because nobody knows how, dares to, or is able to leave.

9 For hypothetical calculations, a »Yugoslav« model of tax revenue participation was used for monetary union. According to it, revenues of the customs belonged to federal authorities, revenues of direct taxes (social contributions) to republics, while revenues of indirect taxes (sales tax) were split between federation and republics. In the experiment, VAT and excise tax rates in the member states were first equalized. After their equalization, "federal" government in Brussels would be entitled to 50 percent of the fiscal revenues generated by indirect taxes which would amount to 6.5 percent of GDP of member states. The "federal" revenues would then be used for all citizens of the federation equally or distributed among member states in accordance with their shares in population of the fiscal union. In such a case, GDP of eight member states would decrease and of nine member states would increase. Luxemburg would lose most: 4.37 percent of GDP, while Germany would lose 0.44 percent, France 0.47 percent, Ireland 2.46 percent, Netherlands 1.40 percent, Austria 1.08 percent and Finland 1.29 percent. On the other side, GDP in small "new member states" (entering the EU in 2004) would increase substantially; in Slovakia for 11.45 percent, in Estonia 8.97 percent, in Slovenia 4.10 percent. GDP would increase also in some "old member states"; in Greece and Cyprus for 2.41 percent, in Portugal 4.91 percent, in Spain 1.16 percent, and in Italy 0.40 percent. [15]

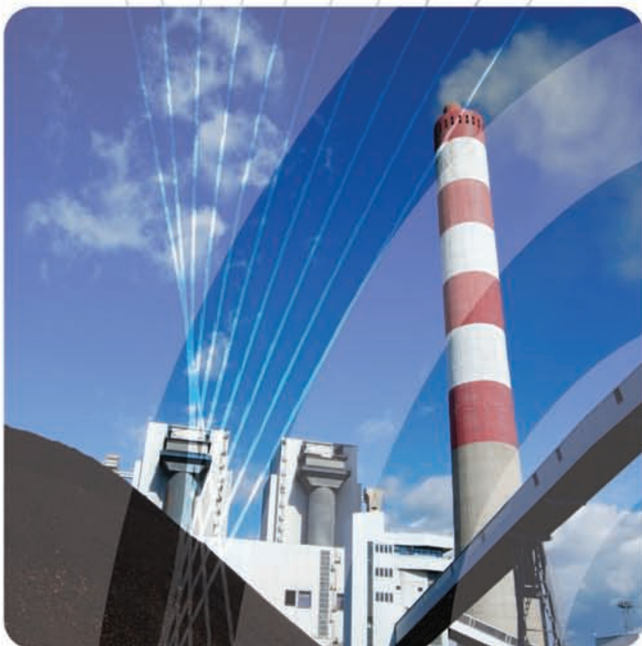
References

1. Ayres, U.R, in Warr, B. (2004). "Accounting for growth : the role of physical work", *Structural Change and Economic Dynamics*, Vol 16, 181-209 ;
2. Bishop, G., Peres, J., van Tayll, S. (1996). *User Guide to the Euro*, Salomon Brothers;
3. Bhagawati, J. (2004). "Anti-globalization: why?", *Journal of Policy Modeling*, Vol.26, 439-463;
4. European Commission (2010): *Working document: Evaluation of Lisbon Strategy,* Brussels, February,2.2010;
5. European Commission (2010)**:** *EUROPE 2020 – Strategy for smart, sustainable and inclusive economy,* Brussels, March 2010;
6. European Commission (2005): Communication to the Spring European Council, *Working together for Growth and Jobs, A Restart for the Lisbon Strategy,* COM (2005) 24, Brussels, 02.02.2005;

7. European Commission (2005): *Delivering on Growth and Jobs: A New and Integrated Economic and Employment Co-ordination Cycle in the EU*, Companion document to the Communication to the Spring European Council (COM (2005) 24) Brussels, 3.2.2005;
8. European Economists for an Alternative Economic Policy in Europe (2002): *Better Rules, Tools and Institutions for Full Employment and Social Welfare in Europe,* Memorandum 2002, 26, mimeo;
9. Fleming, J.M. (1971). "On Exchange Rate Unification", *Economic Journal*, 81, 467-488;
10. Fuest , C. (2011). "Will the Reform of the Institutional Framework Restore Fiscal Stability in the Eurozone?", *CESifo FORUM***,** 34-39;
11. Haberler, G. (1970)."The International Monetary System: Some Recent Developments and Discussions", in Halm, G.N. *Approaches to Greater Flexibility of Exchange Rates***,** Princeton University Press, 115-123;
12. Kroes, N. (2005). *Building a Competitive Europe – Competition Policy and Relaunch of the Lisbon Strategy*, Milan, February 7, 2005;
13. Konrad, K.A. and Zschapitz, H.(2011). "The Future of the Eurozone", *CESifo FORUM,* 46-49**;**.
14. Mencinger, J. (1998). "Tolar in evro" (Tolar and Euro), *Gospodarska Gibanja***,** February 1998
15. Mencinger, J.(2005). "Leporečja lizbonske strategije in Slovenija" (Empty words of Lisbon strategy and Slovenia), *Gospodarska Gibanja*, 367, February, 2005, 23-39.
16. Mendelson, P. (2005). *Strengthening the Lisbon Strategy: the Contribution of External Trade to the Growth and Competitiveness in Europe*, Stockholm, February 15, 2005;
17. Moutot, P. (1997). "Monetary Policy in European Monetary Union: Instruments, Strategy and Transmission Mechanisms", *Monetary Policy in Transition*, Oesterreichische Nationalbank, 1/1997, 82-103;
18. Potočnik, J. (2005). *The Future of EU Research – chances for the new Member States,* Warsaw, February 4, 2005;
19. Sollow R. (1957). "Technological Change and the Aggregate Production Function", *Review of Economics and Statistics*, 312-320;
20. Stiglitz, J. (2004). "Globalization and Growth in the Emerging Markets", *Journal of Policy Modeling*, June 2004. 465-484;

Joze Mencinger

graduated in Law at the University of Ljubljana, received his MSc in Economics from the University of Belgrade and PhD in Economics from the University of Pennsylvania, Philadelphia, USA. He is a professor of Economics at Law School, University of Ljubljana. He is the author of a number of articles and publications, author and co-author of a number of econometric models. He served as Rector of the University of Ljubljana (1998-2005). Since 1987 he has been the editor of a monthly publication "Gospodarska Gibanja" dealing with current macroeconomic issues and short run predictions. He also served as Deputy Prime Minister and Minister of Economic Affairs of the Republic of Slovenia (1990 - 1991), member of the Board in the Bank of Slovenia (1991-1997), and member of the State Council, Republic of Slovenia (2002- 2012). He currently holds the position of Director of EIPF (1993 - 2001, 2012 -). He is an active member of the European Academy of Sciences and Arts (1997-) and SAZU (2011-).



www.eps.rs

ЕПС

ORIGINAL SCIENTIFIC PAPER
UDK: 005.332:338.124.2(497.11) ; 005.334 ; 338.22(497.11)
Date of Receipt: August 22, 2012

Dragan Đuričin
University of Belgrade
Faculty of Economics
Department of Business Economics and Management, Belgrade

Iva Vuksanović
University of Belgrade
Faculty of Economics
Department of Business Economics and Management, Belgrade

REDUCTION OF SYSTEMIC RISK IN SERBIA THROUGH INTELLIGENT RISK MANAGEMENT IN STATE-OWNED ENTERPRISES

Smanjenje sistemskog rizika u Srbiji pomoću inteligentnog upravljanja rizikom u javnim preduzećima

Abstract

These days, the effects of the combined crisis in Serbia have been larger than ever. Serbia was already in a transitional recession when it entered global economic crisis of 2008. The global double dip recession and this domestic recession, caused by structural imbalances before and during the transition, exacerbate each other's negative effects. Consequently, companies find themselves exposed to systemic (or external) risk that is beyond their control, and is continually increasing.

The current global economic crisis is a result of human misconceptions about the modeling of economic system and its institutions. The prevailing macroeconomic orthodoxy asserted that there was no incompatibility between keeping inflation low and stable and seeking maximum economic growth (or a minimum output gap). But, inflation does not provide actionable information for sustainable development because it covers up many fractures in the economic system.

The U.S. and the EU have shown that this orthodox policy platform is not sustainable, especially in the case of deregulation and securitization. Also, the episode with Serbia's transition, founded on a neoliberal ideology and the so-called "Washington Consensus" economic policy platform, has shown that inflation targeting, when output is below the radar, has not been able to help a transitional economy change from being in a recession to prosperity. Even if the financial system is restored to perfect health, there are problems with the real economy, which will trigger, sooner or later, a negative feedback loop with the financial sector. In principle, when the output gap is small and stable and the economy is overheating, inflation targeting has proved to be effective. But, in the case of transitional recessions (as well as other recessions) any monetary policy, including inflation targeting, has been virtually useless in turning things around.

Economic policy makers in Serbia must react to the main transitional contradiction that price stability is not followed by sustainable employment. Employment is not only determined by price stability but also by institutions influencing the internal capacity of companies to react positively to external stimuli, the general societal climate towards enterpreneurship, the prevailing strategy of industrial leaders, endogenous incentives to innovate, etc. Consequently, the key dilemma in the recession is: whether economic policy has to maintain the orthodox anti-inflation line or to cross over to a heterodox one. In the heterodox line, the macroeconomic policies (monetary, fiscal, and financial) are important, but so are industrial policies. Output (not inflation) is the center of economic policy. Reindustrialization through industrial policies creates foundations for recovery and could correct main structural imbalances.

In our last two articles, [2] and [3], we sought to identify the seeds of Serbia's economic crisis and to determine a framework for recovery using a microeconomic and macroeconomic perspective, respectively. In this article, we will focus on the expanding role of state-owned enterprises (SOEs) in the energy sector as a first step towards recovery and on intelligent risk management as a key microeconomics policy tool for effective and efficient corporate governance in SOEs. Intelligent risk management is approach that focuses not solely on risk mitigation, but also on risk-taking as a means to achieving higher future returns.

This is what this paper will attempt to discuss in five parts. The first part discusses the necessity of a heterodox approach in conducting economic policy in the recession. The second part analyzes macroeconomic policy measures, especially monetary policy during the crisis. The third part consists of a strategic analysis of Serbia's economy. The fourth part reviews arguments for prioritizing energy policy in Serbia's anti-crisis program. The fifth part analyzes an intelligent approach toward risk management in SOEs as a key tool in the strategic implementation of industrial policies.

Key words: *Serbia, systemic risk, industrial policies, SOEs, anti--crisis program, intelligent risk management*

Sažetak

Danas su efekti kombinovane krize u kojoj se Srbija nalazi jači nego ikad. Srbija je ušla u globalnu ekonomsku krizu 2008. godine sa svojom tranzicionom recesijom uslovljenom strukturnim neravnotežama pre i tokom

tranzicije. Globalna kriza sa duplim dnom i lokalna tranziciona recesija se međusobno pojačavaju. Posledično, sistemski (ili eksterni) rizik, kao rizik kojem su izložene kompanije bez mogućnosti uticaja ili kontrole, se kontinualno povećava.

Sadašnja globalna ekonomska kriza je posledica ljudskih zabluda u modeliranju ekonomskog sistema i njegovih institucija. Ortodoksna ekonomska teorija je tvrdila da ne postoji razmimoilaženje između održavanja inflacije na niskom i stabilnom nivou i očekivanja maksimalnog rasta (ili minimalnog autput gepa). Međutim, inflacija nije informacija za akciju za održiv razvoj pošto to merilo prikriva puno pukotina u ekonomskom sistemu.

Iskustvo sa SAD i EU je pokazalo da ortodoksna platforma za vođenje ekonomskih politika nije održiva, posebno u slučaju deregulacije i sekjuritizacije. Takođe, epizoda sa tranzicijom u Srbiji zasnovanoj, takođe, na neoliberalnoj ideologiji i platformi vođenja ekonomskih politika poznatoj kao „Vašingtonski konsenzus" je pokazala da sa inflacionim targetiranjem, kada je autput ispod radara ekonomskih politika, ne postoji privreda u tranziciji koja može da napravi zaokret iz recesije prema oporavku. Čak i kada je finansijski sistem potpuno zdrav, postoje problemi sa realnim sektorom koji iniciraju, pre ili kasnije, negativni povratni uticaj na finansijski sektor.

Načelno, kada je output gap mali i stabilan, ali je privreda pregrejana, može se pokazati da je inflaciono targetiranje učinkovito. Međutim, u slučaju tranzicione recesije (kao i svake druge recesije) ne postoji monetarna politika, uključujući inflaciono targetiranje, koja stvari može da vrati u normalu.

Danas nosioci ekonomskih politika u Srbiji moraju pronaći odgovor na glavnu kontradikciju tranzicije da stabilnost cena nije praćena održivom zaposlenošću. Na zaposlenost ne utiče samo stabilnost cena, već i institucije koje deluju na interni kapacitet preduzeća za pozitivnim reagovanjem na spoljne stimulanse, opšti odnos društva prema preduzetništvu, preovlađujuća strategija granskih lidera, unutrašnje inicijative za inoviranjem i sl. Posledično, glavna dilema u recesiji je: da li da ekonomske politike nastave da prate ortodoksnu liniju razmišljanja ili da pređu na heterodoksnu liniju. U heterodoksnoj liniji razmišljanja makroekonomske politike (monetarna, fiskalna i finansijska) su važne, ali na važnosti dobijaju i industrijske politike.

U heterodoksnom pristupu autput (umesto inflacije) je u centru ekonomskih politika. Reindustrijalizacija pomoću industrijskih politika stvara osnove oporavka i može da koriguje glavne strukturne neravnoteže.

U naša poslednja dva rada [2] i [3], nastojali smo da indentifikujemo klice ekonomske krize u Srbiji kao i da skiciramo okvir za oporavak iz mikroekonomske i makroekonomske perspektive, respektivno. U ovom članku, skoncentrisaćemo se na rastuću ulogu javnih preduzeća u energetskom sektoru kao prvi korak u dobrom pravcu prema oporavku kao i na inteligentno upravljanje rizikom kao ključni mikroekonomski alat za efektivno i efikasno korporativno upravljanje u javnim preduzećima. Inteligentno uptavljanje rizikom je usmereno ne samo na izbegavanje rizika, već i na prihvatanje rizika kao načina za ostvarivanje većih prinosa u budućnosti.

O tome govori ovaj članak kroz pet delova. U prvom delu se razmatra neminovnost ortodoksnog pristupa u vođenju ekonomskih politika u recesiji. Drugi deo analizira neka rešenja glavnih ekonomskih politika, posebno monetarne, u periodu recesije. Treći deo sadrži strategijsku analizu privrede Srbije. Četvrti deo daje pregled glavnih argumenata za davanje energetskoj politici mesta najviše prioritetnosti u anti-kriznom programu Srbije. Peti deo analizira inteligentno upravljanje rizikom kao ključni alat strategijske implementacije industrijske politike u javnim preduzećima.

Ključne reči: *Srbija, sistemski rizik, industrijske politike, javna preduzeća, anti-krizni program, inteligentno upravljanje rizikom*

Industrial policies in economic crisis: new old economic policy challange

The 2008 financial crisis, which arose from the subprime mortgage bubble in the U.S., led to the largest global economic crisis since the Great Depression of 1929. The current financial crisis is compounding and interacting with economic downturn. The bankruptcy of *Lehman Brothers* was only the tipping point. Even the most optimistic had to admit that the "great moderation" was just an illusion.

Any crisis is a litmus test for the current model of economic development, its institutions, and policy tools. Ambiguity is the key characteristic of the current crisis, now known as the Big Recession. There is no consensus or dominant trend in the search for a solution (free trade vs. protectionism, public sector expansion vs. economic fundamentalism, conventional macroeconomic policies vs. industrial policies). Consequently, contradicting developments appear at the same time (low interest rate with slow investment or inflation with a decline in sales).

Economic crises have a particularly unfortunate feature. They are rarely the consequence of a single, underlying force. They are not mutually exclusive and usually come as a mixture. Identifying causes and consequences between them is difficult since their interaction forms rather a vicious circle. As an example, Figure 1 shows the vicious circle of 2008 global economic crisis. As shown in the figure, there are six underlying forces. In the beginning, the economy slid into a crisis due to the credit crunch. The credit crunch was a man-made disaster influenced by the deregulation of financial markets and securitization. The spill over of negative expectations ("fear from fear") in consumption was an early indicator of the incoming crisis. The next underlying factor is the demand squeeze. Logically, sales decline when credit extensions plummet.

The combination of the demand squeeze and the credit crunch caused a delay in vendor payments. This created fractures in the supply chain. Without inputs from suppliers, the production of goods was interrupted, cutting off the ability to sell goods to paying consumers. Liquidity shortage was the next early warning indicator. The economy in crisis faced another shock, a decrease of the return on equity. As long as profitability is knocked down, it is impossible to keep output at the pre-crisis level because investments are plummeting. An output gap is unavoidable. When trust and confidence in the economy evaporate, government and bank "runs" are inevitable.

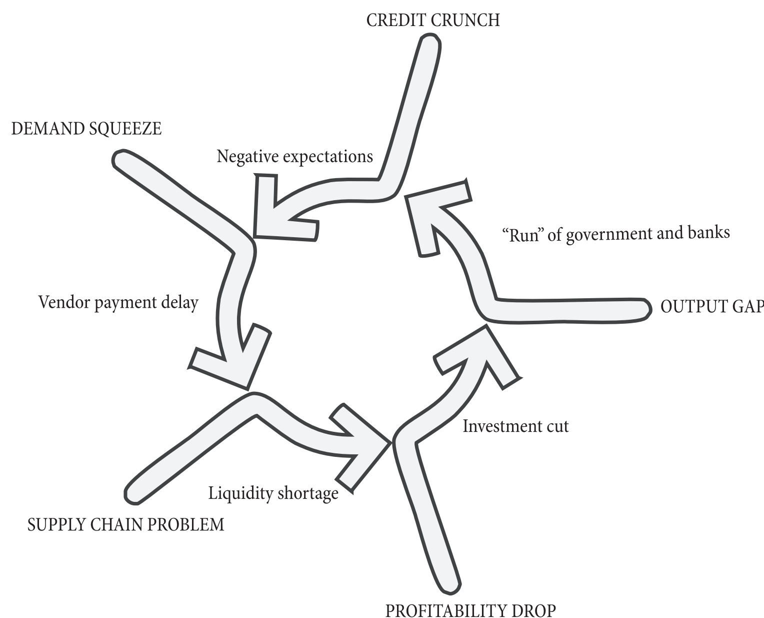
There are strong interactions between the aforementioned underlying forces. Some forces exacerbate the effects of others, while policies designed to address one may reduce the impact of policies designed to remedy the others.

Output growth is the center of the anti-crisis programme. There are two different views regarding what policy tools create increases in output. For supply-siders, the best policy is tax-relief. Reducing taxes provides an incentive to work longer (labor increase) and to devote more attention to innovation and organizational change (total factor productivity increase). According to this perspective, the primary role of government is to create the institutions that help the market to operate at full capacity. The problem with this school is that no developing economy has ever experienced rapid growth from poverty to wealth. As a result, other economists have argued almost the exact opposite, that the government as a corrector of market failures is the way to boost output. As a consequence, government-led industrial policies can be the best way to increase productivity. In this approach, industrial policies lead, macroeconomic policies follow.

There is well-established evidence that the market is not self-correcting. As a result, each national economy has created economic policies that serve as the government's "visible hand" when correcting the work of the market's "invisible hand". The purpose of these economic policies is to avoid market failures that have systemic consequences, increase sustainable national economic growth, to capitalize new technological opportunities, and to transform external and internal handicaps into advantages through organizational change.

The attitudes towards economic policies defer in the developed from developing world. For a long time, developed economies were ignorant towards industrial policies. By contrast, macroeconomic policies in developing economies are not viewed as wheels of prosperity, but rather as the oil, which lubricates of output growth and renders the motion of tradable sectors. Thanks to industrial policies, government and regulatory bodies in these economies intervened extensively to create tradable sectors. This export-led, managed growth strategy, in terms

Figure 1: The vicious circle of the last global economic crisis



of *R. Rajan* [18, pp. 47-8], enabled extraordinary growth in some developing economies and for them to quickly reach the ranks of the developed ones. It is clear that the best practices include intensive government support in the first stage of development of infant industries and steady and continuous focus on tradable sectors (with export and/or anti-import tenets). Since private sectors in these economies were relatively uncompetitive, they were left with few choices. They could opt for the role of an active government by founding and managing SOEs, or the role of an enabler that would build and expand hard and soft infrastructure in order to encourage the development of competitiveness in private companies.

L. Jones and *I. Sakong* [11] summarize that government investments in SOEs are characterized by large size, high forward linkages, high capital intensity, output-market orientation (sometimes called "commercial SOE's"), and production of non-tradable good for import substitution. These types of investments are hardly ever made by the private sector, however they provide the infrastructure for its growth and their absence leads to market failures. A good example of successful industrial policy in the energy sector is Turkey. In this country, energy prices, timely adjusted and regulated according to full cost pricing and the competitive foreign exchange (FX) rate would encourage efficient usage of energy and domestic production to cut down on imports, while avoiding loss build up in the public sector.

Proponents of industrial policy often use East Asian countries as a business case for how it should be implemented. In the 1960s, South Korea was poorer than many sub-Saharan countries. Today it ranks 25th in the world in terms of GDP PPP pc. According to *D. Rodrik* [19], there is a strong, positive relationship between the level of the real FX rate (adjusted for the *Balassa-Samuelson* effect) and growth. Countries that managed to keep their FX rate competitive grew more rapidly. South Korea and Taiwan in the 1960s and 1970s and China in the 1990s are good examples. In all of these cases, growth was preceded and accompanied with a substantial rise in the undervaluation index of their currencies.

Generally, crises lead to investment suicide because the risk appetite is going down (risk aversion is going up). Some market players and institutions must change the trend in order to make a turnaround. Is the state a solution? Yes and no. But mostly, yes. In the heterodox model, industrial policies come before macroeconomic policies with sustainable employment as the ultimate tenet, instead of the output gap and inflation (both low and stable), which are the main tenets of the orthodox model. Like the orthodox model, the heterodox model also needs automatic stabilizers (monetary and fiscal).

Countries differ in their economic success due to differences in their institutions, rules influencing how the economy works and incentives that motivate business development. Sometimes, incentives are organized systematically in industrial policies. Unlike macroeconomic policies that affect the whole economy, industrial policies are sector specific. Industrial policies are directed at expanding industries with tradable goods by promoting certain sectors for import substitution and/or supporting certain export-oriented sectors. In the heterodox model, macroeconomic policy tenets should remain the same, trying to maintain a low and stable output gap and inflation.

Key issues in macroeconomic policy during the crisis

Macroeconomic policies are aimed at reducing systemic (or external) risk, or the overall fragility of the economy, primarily influenced by the volatility and loss in capital markets. When national economies fall into a recession, most policy makers are still quick to run budget deficits in hope of getting them back on track. Budget deficits are sometimes based on increased spending, sometimes on tax cuts, but mostly on both. A key tenet of this type of economic policy is to stimulate aggregate demand by signaling that better days are ahead.

In the developed world, there are two ways of approaching this method. *J.M. Keynes* [13] and the fiscalists argue that the only way to put an economy in recession back on track is by stimulating it *via* deficit-financed government stimulus spending, whether it is financed by money pumps ("quantitative easing") or borrowing. Keynesian fiscal policy is about expectations. In a "bad time", the government moves expectations in a favorable

direction by implementing expansionary fiscal policy. If the government had financed increased spending by increasing taxes, then consumption and investments might have fallen. If it had borrowed additional funds by issuing bonds, then other expenditure variable would have had to decline.

The problem with the Keynesian approach is that deficit spending may lead to an increase in prices rather than output. If actual demand exceeds potential supply, the economy begins to overheat. But, this is a difficult situation for "normal time". In normal time, deficit is expected to be inflationary. Another problem is that if economic agents start preparing for an increase in taxes, they will start saving new income derived from deficit spending, reducing the income multiplier to 1, resulting in a phenomenon known as "Ricardian equivalence".

According to the monetarist view, spending financed by newly created money is cyclically stimulative whether the spending is done by the government or by the private sector. However, spending may drive up interest rates and undercut private investments as well as consumption, resulting in so-called "crowding out".

It is not easy to separate these two views because fiscal stimulus is accompanied by monetary stimulus in many anti-crisis programs. The relevant evidence is provided by rare occasions, when fiscal and monetary policies go in different directions.

How do you measure the effectiveness of an anti-crisis elixir? First, a positive change in the output gap (as a difference between the actual level and trend level of national output) implies recovery, whereas a negative gap implies a double dip recession. Second, a negative change in the structural balance of the government implies a fiscal stimulus expansion and increased vulnerability of the economy (a double dip recession). A positive change implies recovery. By definition, general government structural balance is the difference between revenues and expenditures in a cyclically normal situation (the business cycle is midway between boom and bust).

Four years after the last crisis began, the global economy is still in confusion and has only come up with a partial solutions. The majority of relevant national economies, with the exception of Germany, China and Japan, have applied huge doses of fiscal stimuli and have taken contractionary monetary stances. But these efforts have not been placed into effect. In the meantime, economists continue to focus on whether fiscal austerity or more fiscal stimuli is the right way to contain the crisis and to turn the economy back into prosperity. Instead of replicating the Keynesian view, they should change the policy variable to money supply.

According to *M. Fridman*, monetary policy trumps fiscal policy [6]. Namely, when monetary and fiscal policies move in opposite directions (monetary restrictions, fiscal expansion and vice versa), the economy will follow monetary policy.

The last crisis confirms this theory. After the fiscal stimuli episode at the start of the crisis, monetary powers in many national economies have turned on expansionary monetary policy. Meanwhile, regulators contributed their share to the overall confusion. From the beginning, their wrongheaded attempt to ensure the safety of banks has created a global campaign to increase capital adequacy. The equity injection in the middle of recession provoked massive deleverage in banks. Consequently, the privately produced portion of money supply has contracted. Because the private money supply is much larger than that accounted for by the state, this policy has resulted in a restrictive monetary stance. This explains why there is a credit crunch when monetary powers are pouring out liquidity.

Money supply, rather than fiscal stimuli, is crucial for recovery. *S. Hanke* [6], after looking at empirical data from the last decade, confirmed that there is a positive correlation between money supply and growth. In economies such as those of Germany and China, where the gap between the trending rate of money growth and actual money supply is positive, growth is relatively strong. If the gap is negative, the total money supply is deficient and the economy is either in growth recession (the U.S., for example) or in a full-blown recession (such as Greece).

Developing economies and economies in transition, such as Serbia, that entered the economic crisis of 2008 with an output gap, high debt and large unfunded liabilities have had limited ability in using fiscal stimuli in their anti-crisis programs. These economies that in the past had run pro-cyclical fiscal policies driven by consumption

booms are now forced to cut their budget and increase taxes despite the recession by international financial institutions. These countries are also implementing inflation targeting as a key policy tool independently on the stage in the business cycle. Money supply is a key policy issue for these countries, as well.

In order to solve the issue of money supply, major changes need to be made in the monetary model. Serbia's economy needs a stable and competitive FX rate. The currency board is a monetary model which supports this tenet. Currency boards have existed in more than 70 countries and a number of them are still in operation today. Countries with this type of monetary model have experienced hard budget constraints, price stability and higher growth rates compared to countries with alternative monetary models (such as inflation targeting).

A fixed FX rate along with the reserve currency and a requirement made by the currency board that holds foreign reserves equal to 100% of the monetary base, will be able to implement monetary base volatility at its own discretion. Regardless of the metric used, the money supply in this model is still determined entirely by market forces. The demand of money users who bring reserve currency and swap it for local currency determines the amount of notes and coins that the currency board supplies. By contrast, in the inflation targeting model, the central bank is able to decrease or increase the money supply at its discretion. It can lend to commercial banks and create reserves for them even if its foreign reserves are decreasing. More reserves tend to enable commercial banks to make more credits, which they are able to do by creating deposits for borrowers. As a result, money supply increases. Decreasing money supply tends to have the opposite effect. In addition to changing the monetary base, a typical central bank can also influence the supply of credits by changing the obligatory reserves for commercial banks.

In a recession, the key question for monetary policy is how to boost money supply without increasing government debt and inflation. In order to augment money supply, *S. Hanke* [7] suggests financial instruments which employ debt market operations. At the core of these ideas are government transactions with non-banks. The government, not the central bank, conducts debt market operations. The process begins when the government borrows from commercial banks. In the beginning, the short-term government paper is transferred to banks. In exchange, the deposit balance of the government is credited. This new government deposit is not counted as a part of the money supply. The government then uses these bank deposits (which are not considered money) to purchase long-term government bonds from the non-bank private sector. These transactions are added to the non-bank private sector's bank deposits and directly to the money supply, because bank deposits in the name of private persons and entities are considered money. The quantity of money is directly increased by these debt market operations and an equivalent amount of long-term government debt is considerable reduced, almost eliminated. The government would borrow from private banks and purchase outstanding long-term government debt from the public, then cancel the debt that had been purchased. If the government were to borrow from the central bank, both base money and state money would increase.

When the central bank conducted debt market operations, the long-term bonds it purchased ended up on its balance sheet. The debt would not be canceled out in the same manner it would be if the debt market operations were done by the government. If the central bank were engaged in debt market operations, it would be left holdings of long-term government debt and be exposed to interest risk on those securities. It could incur large accounting losses if interest rates were to rise.

For a country like Serbia that is in an artificially created credit crunch by central bank, the question is: how to boost money supply without increasing government debt? Using monetary reserves for credit expansion is too risky when the systemic risk is substantially high. However, it could be a good strategy for expanding money supply based on an analyzed financial instrument.

A strategic audit of Serbia's economy: key issues

Serbia's crisis, like almost all other economic crises, has political roots. The dissolution of Yugoslavia in the last decade of the twentieth century consisted of many

Table 1: Key macroeconomic indicators, period: 2002 – Q2 2012

Indicators	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Q1, 2012	Q2, 2012
Real GDP growth rate	4,3	2,5	9,3	5,4	3,6	5,4	3,8	-3,5	1,0	1,6	-1,3	-0,6
Consumer prices inflation, in%	14,8	7,8	13,7	17,7	6,6	11,0	8,6	6,6	10,3	7,0	3,2	5,5
Unemployment rate	13,3	14,6	18,5	20,8	20,9	18,1	13,6	16,1	19,2	23	25,5	n.a.
Current account balance in % of GDP	-4,2	-7,8	-13,8	-8,8	-10,1	-17,7	-21,6	-7,2	-7,4	-9,5	-16,8	-10,0
Budget deficit/surplus, in %	-4,3	-2,6	-0,3	0,3	-1,9	-1,7	-1,7	-3,4	-3,7	-4,2	-7,0	-7,2
Public debt, in %	72,9	66,9	55,3	52,2	37,6	30,9	29,2	34,5	44,0	47,7	50,7	54,7
External debt, in %	58,7	55,9	49,8	60,1	60,9	60,2	64,6	77,7	84,9	77,5	77,2	79,0
RSD/EUR FX rate (period average)	60,66	65,13	72,70	83,00	84,10	79,96	81,44	93,95	103,04	101,95	108,11	113,73

Source: Selected data from the National Bank of Serbia database

contingent geopolitical events at critical junctures which led to the creation of political and economic extractive (or non-inclusive) institutions. Outcomes during these critical junctures were partly contingent, not historically determined. Such system is full of pathologies (concentrating economic power in the hands of party members, entry barriers, politically inspired employment, etc.), constantly creating nonlevel playing field. Naturally, the changes that happened became the background, institutional setting upon which the negative chain of events ultimately led to economic decline.

After almost a decade of political and economic isolation, Serbia restarted to transition in 2001. Unfortunately, it was the political discontinuity with institutional continuity. The mindset at the beginning of the crisis left a politically influenced predisposition toward stimulating consumption (or soft budget constraints) during the whole transitional period. As a consequence, the results are not encouraging. Table 1 shows trends in the last decade for key macroeconomic indicators that can help to put the country in context.

Figures are fully indicative and they portray the effectiveness of institutions and efficiency of policy tools during the analyzed period. Growth is positive (with exception of 2008 and 2012) but it is neither healthy nor sustainable.

Table 2: Vulnerability indicators, Q2 2012

	Indicators	Reference point
Operational performances		
Transitional output gap/*	30%	0%
Okun index (inflation + unemployment)/*	31%	<12%
Twin deficits /*		
▪ Current account	10,0%	<5%
▪ Budget	7,2%	<3%
Financial performances		
Indebtedness /*		
▪ Public debt/GDP	54,7%	<45%
▪ Foreign debt/GDP	79%	<90%
▪ Foreign debt/Export	208,5%	<220%
Credit rating		
▪ S&P	BB-/negative	investment rang > BB
▪ Fitch	BB-/negative	investment rang > BB
Competitiveness		
Export (goods)/GDP /*	29%	>50%
Currency depreciation /*		
▪ Nominal (Q2 2012/Q2 2011)	-12,3%	<-5%
▪ Real (Q2 2012/Q2 2011)	-10,8%	<-3%
Global competitiveness index	95(142)	65th (SEE average)
Corruption perception index	86(183)	59th (SEE average)
Ease of doing business	92(183)	60th (SEE average)
Economic freedom index	98(179)	62th (SEE average)

/* Authors' own calculations

Table 2 provides vulnerability indicators of Serbia's economy, divided into three segments: operational, financial, and competitive performances. For each indicator, the first column represents its value and the second column indicates its reference point. The whole picture provides a very disturbing wake-up call.

The previous two tables suggest that there are some important stressors in the system, making Serbia's economy impotent and out of tune. The first qualification is self-explanatory, but the second requires additional clarification. There are many structural imbalances in the system that influence controversial macroeconomic conditions (strong currency in a weak economy and an output gap with a tight monetary stance, for example). The main fractures are a noninclusive political system, ineffective privatization, an intact public sector, a bankcentric financial sector, and an unsustainable social safety net. In theory, optimal economic policies always deliver the best output (or a zero output gap). But, when the system is fractured, the economy cannot implement these policies because it is out of tune.

Even though the policy makers have focused exclusively and continuously on inflation control there is still a gap between achievements and expectations. The cumulative inflation rate (CPI base) was 174% for the period Dec. 2001-Nov. 2011. As shown in Table 1, in the period 2002-2011, the economy was burdened five times with a double digit rate of inflation (14.8% in 2002, 13.7% in 2004, 17.7% in 2005, 11.0% in 2007 and 10.3% in 2010).

Meanwhile, a rough consensus had emerged among Serbia's monetarists about the benefits of inflation targeting as a main policy tool. Under this policy, the National Bank of Serbia (or NBS) was expanding money supply whenever inflation threatened to fall below target and was reducing money supply whenever inflation threatened to rise above target. In order to achieve this tenet, monetarists focused more on the short-term interest rate than on money supply. Although reserve requirements have been abandoned as a monetary variable, the NBS has become skilled at controlling another monetary variable, a short-term interest rate through open market operations that involve buying and selling repo papers. Last year, this monetary policy was extended with euro denominated government bonds. By controlling short-term interest rates, the NBS was able to move money supply by pushing or pulling currency supply through open market operations. From a monetarist perspective, the main benefit that arose from this strategy was FX rate control. In Serbia, because import is greater than export, the FX rate is crucial for keeping inflation under control.

The effects that this policy would have on output were not taken into consideration. According to [3, p. 23], at the end of 2011 Serbia's transitional output gap was around 30%, and output gap benchmarked with average output in transitional countries amounts to around 45%. The implicit effects of this policy are high interest rates and, until recently, an appreciated FX rate. This deadly combination provoked a chain of negative consequences: current account deficit, budget deficit, and debt increase.

Loose macroeconomic policies and a sizable competitiveness gap caused a surge in credit-financed, import intensive domestic demand. When savings are low, growth relies on capital inflows to finance imports. Within the aforementioned period of time, the economy was constantly running current account deficit, except in 2002. The current account deficit substantially exceeded 5% of GDP for almost the entire period. The economy had also been running a budget deficit, except in 2005. Debt increase is significant. In Q2 2012, public debt is more than 50% of GDP and the foreign debt (public + private) is approaching a state of emergency (90% of GDP). Unfortunately, this policy led to the main transitional contradiction: consumer price stability, promoted as macroeconomic stability, was not followed by sustainable employment.

By borrowing capital from abroad and by using privatizations proceeds, as well as remittances, Serbia's economy has bridged the gap created by over-consumption and an under-stimulating domestic economy. However, this situation is not sustainable. When privatization proceeds and debt-fueled growth dominate the economy, recovery will bring increasing unemployment (jobless recovery). Output growth was slowly restored, but the jobs were not. In the period analyzed, the economy lost 14% of its jobs. In Q2 2012 unemployment reached 25.5%. According to [21], the employment rate in April 2012 was still very low, at 52.6%.

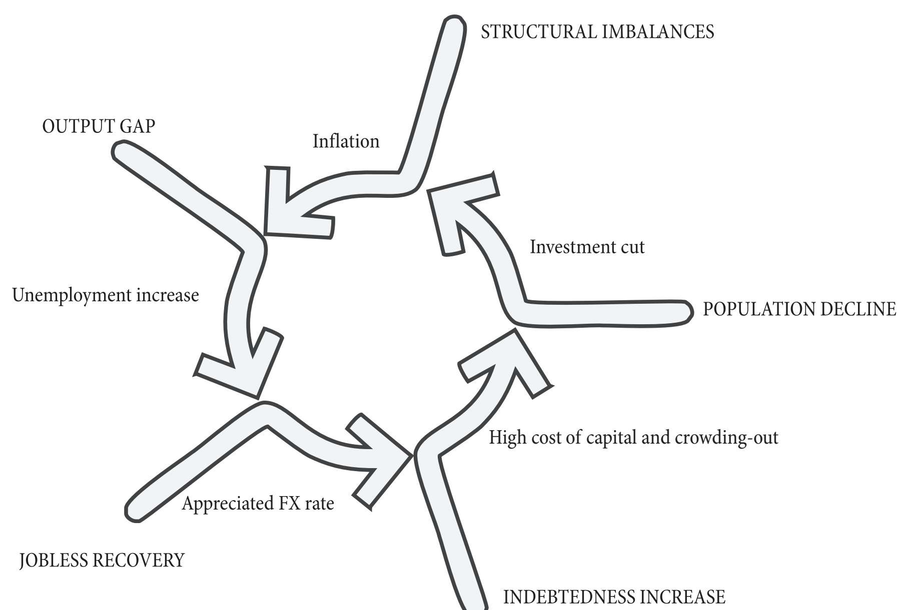
Sources of money supply are another hidden fracture in Serbia's economy. Usage of proceeds from privatization and associated money expansion were misconceptions. Privatization is a form of divestment, not an export. If proceeds from privatization are qualified as cash inflows, instead of fund outflows, they will trigger an increase in the monetary base. As a result, the money multiplier was too high during the whole analyzed period. In order to avoid artificial inflationary pressure, the NBS has been constantly increasing the attractiveness of short-term carry-trade capital inflows. The aforementioned policy provoked real currency appreciation, especially during periods of massive privatization. It could also be considered as a form of outrageous behavior against the real economy especially tradable sectors. This policy exemplifies policy failure that distorts competitiveness.

Another example of the same behavior is shown in the double-digit cost of capital which was totally out of trend during the economic crisis. Deficit spending drives up interest rates and undercuts investments due to the crowd out effect. When the government runs deficit, it obtains the difference by borrowing from the open market, competing with borrowers from the real economy and as result, drives up the cost of capital. The combination of tight monetary policy and deficit spending leads to cuts in investment. With slow savings, growth relies on capital inflows and privatization proceeds to finance imports. Due to external funding shortfall, the economy contracted in the fall of 2008. Results did not drop behind. Decline in the economy was followed by adverse population movements. Figure 2 portrays the vicious circle of major system fractures that generate negative feedback loops in Serbia's economy during the transition.

In the previous vicious circle, population risk had the largest impact on the country's vulnerability. Risk exposure in Serbia's economy is strongly influenced by population, in many aspects reflecting depopulation and population aging on one hand, brain-drain and human resources mismatch on the other hand. Unlike other major systemic risk components, population risk cannot be eliminated or mitigated upon policy maneuvering. Furthermore, once the decisions for improvement are made and their implementation has commenced, significant time is needed to start disclosing.

The prolonged sub-replacement fertility and negative population growth rates in Serbia, which have been occurring for decades, have caused a sharp decline in population volume. Life expectancy, however, is continuously increasing. Consequently, the age structure is changing from youthful to older. Figure 3 illustrates this point. The middle graph depicts the situation in 2011. The transitional age "pyramid" structure is making an apparent shift towards a "rocket" age structure.

Figure 2: The vicious circle of Serbia's transitional crisis



Another one of Serbia's structural problems is a deteriorating human resource base. Serbia has a two-dimensional job crisis: a persistent deficit in the number of jobs being created and insufficient percentage of high-quality jobs. Segments 15-24 and 25-34 year olds continue to have the highest level of unemployment. The ongoing brain drain is unavoidable due to the non-inclusive political system, which inspires politically dependent employment. Depopulation, along with the brain drain will continue to deteriorate human resources as a base for productive knowledge, a key lever of industrial policies effectuation.

This creates a very heavy financial burden. It is clear that the current "pay as you go" system will not last much longer into the future. In 2010, contributions to the pension fund accounted for 22% of the base. The pension fund's outlays amounted to 38.4% of the contribution base. Hence, the contributions from the employed people covered less than 60% of the fund's needs. The deficit is financed by the budget. These disturbing statistics are only getting worse with time. Currently, pension benefits are not correlated with the level of development and account for more than 14% of GDP, making Serbia comparable to some OECD countries, such as Italy and Austria.

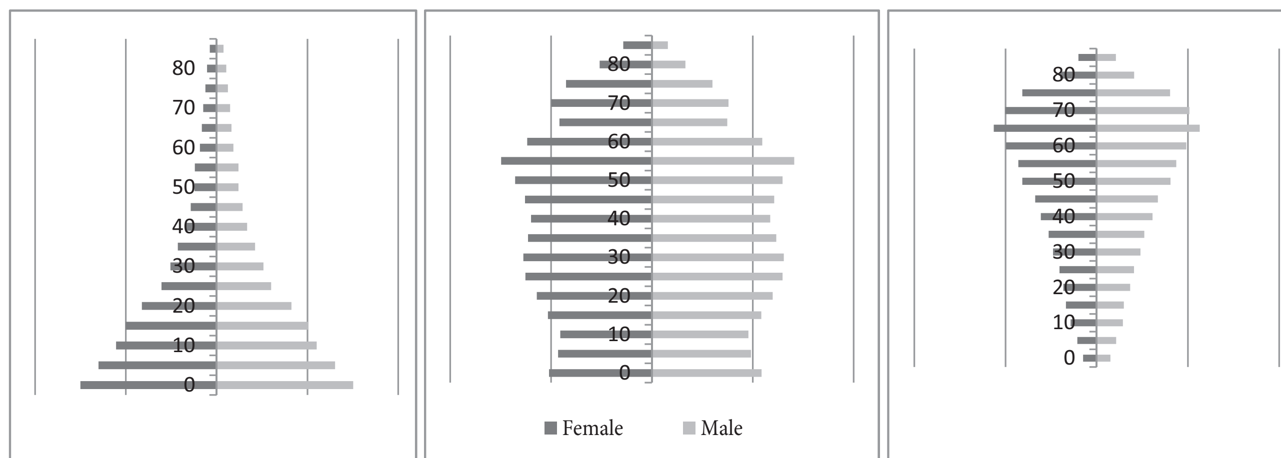
The high level of the pension outlay rate (pension outlay relative to the contribution base) is a consequence of two factors. The first one is the systemic rate of demographic dependency (the number of pensioners relative to the number of employees), which is extremely high (76%) and will not get better in the future. There are 1.3 employees per 1 pensioner. The second refers to the ratio of average pension to average gross salary (contribution base) which accounts to 48%.

Meanwhile, Serbia's policy makers (mostly monetarists) were applauded by politicians when they boosted economic expectation by assuring anxious voters with an illusion of easy credits and RSD as strong currency (in contradiction with the weak economy). The boosting of credits and consumption encourage populism and mask the core problem of high systemic risk due to an impotent and out of tune economy.

During the whole period of transition, the usefulness of fiscal policy was sharply limited by political constraints. Serbia's fiscalists did not implement a counter-cyclical fiscal stance. Even if implemented in "good time" (mainly during the period of intensive privatization), it could be extremely useful to economies with a limited number of fiscal stabilizers. As a result, the mission of fiscal policy did not achieve much more than imposing fiscal rules to achieve debt sustainability.

With structural imbalances and output gap, the resilience of the economy, in terms of shock absorption, does not exist. Consequently, economy's vulnerability is increasing. Moreover, due to the combination of the global economic crisis and the local transitional crisis, the negative effects of each crisis have been exacerbated. The negative feedback loops of the underlying forces in the vicious circles on Figure 1 and Figure 2 form a downward spiral, or "free fall", in terms of *J. Stiglitz* [22]. Some interactions of these two forces have created the new key stressors in the economy. For example, the

Figure 3: Population structure change in Serbia



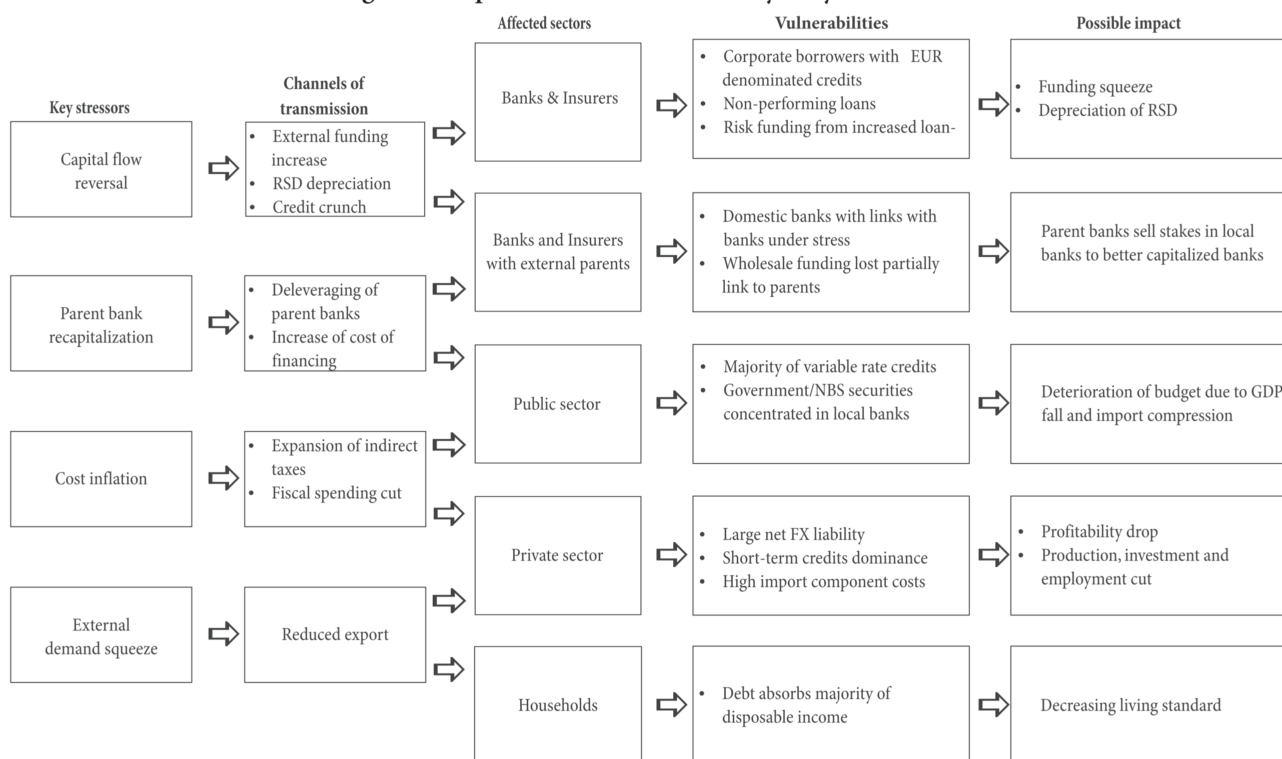
Source: Statistical Office of Republic of Serbia

interactions of the credit crunch from the global crisis and high indebtedness from the transitional crisis have led to a capital flow reversal. Newly created stressors have specific channels of transmission, affected sectors, their vulnerabilities, and possible impacts. Figure 4 provides an instant portrait of Serbia's economy exposure to systemic risk during combined crisis. Thus, the real challenge for economists and policy makers is to interrupt the above-mentioned vicious circles and the contagious spread of their stressors through new economic policy.

Does the anti-crisis program in Serbia make sense? The answer depends on another question: does Serbia's economy have development potential? Serbia does not have significant deposits of natural resources, a massive work force, nor an abundance of savings. Do all of these things mean that Serbia does not have development potential? *D. Acemoglu* and *J. Robinson* [1] confirmed that there is not a simple connection between geography (position, climate and natural resources) as well as culture and economic success. Also, they confirmed that poor countries are not poor because they have market failures or because economists and policy makers do not use "great moderation" correctly (so-called "ignorance hypothesis"), but because they have relatively low economic complexity. There are countries that are rich because they hold large deposits of natural resources. This, however, is not sustainable. High levels of national income do not guarantee sustainable development when there is a relatively low level of economic complexity. The gap between economic complexity and its level of income *per capita* is the key determinant for future growth. National economies tend to move towards an income level that is compatible with their overall level of embedded knowledge.

To answer the previous question, we can consult the Atlas of Economic Complexity [22], which measures the amount of productive knowledge (not natural resources, labor and capital) that each country holds as a prerequisite for economic development. The Atlas uses performance measures such as the Economic Complexity Index, which directly captures information regarding development potentials. This index has the ability to predict the growth rate much more than standard development indicators. The central contribution of this Atlas is the "Map", which provides a network using accumulated productive knowledge. The accumulation of productive knowledge depends on the diversity of economic activity of each country. Knowledge is the combination of explicit and tacit knowledge. Because it is difficult to transfer and imitate,

Figure 4: Exposure of Serbia's economy to systemic risk



tacit knowledge is what primarily constrains growth and development. Economic complexity is expressed as the composition of productive knowledge which reflects the structures that combine explicit and tacit knowledge.

According to the Economic Complexity Index at the start of the global economic crisis of 2008, Serbia placed 37th out of 128 countries. The compound average growth rate in GDP pc of 3.38% up to 2020 put Serbia at 17th place. Clearly, Serbia has a critical mass of productive knowledge and potential for reindustrialization and output growth. The question is how to use this potential.

The rationale for industrial policy in Serbia's energy sector

There is well-established evidence that shows that Serbia's transition has created the output gap and has caused the structure of the economy to change in a negative way. The country does not only have a problem with employment posed by privatization, but also with uncompetitiveness. Serbia no longer has a comparative advantage in many areas of manufacturing. The most important competitive disadvantages are present in the network technologies and infrastructure, which, due to investment shortages, limit the sectors' ability to quickly install more investments.

The fact that macroeconomic policies (almost exclusively monetary) did not manage to fix structural imbalances and other stressors forces policy makers to switch from orthodox framework to a heterodox one. With structural imbalances and without automatic stabilizers in economy in which radical reforms such as privatization and financial deregulation constantly enlarges the output gap, the orthodox macroeconomic policies were unable to fulfill their purpose.

In the modern economy, what matters is output expansion based on competitive advantage. The conventional comparative advantage can change to a competitive advantage, or a dynamic comparative advantage. Industrial policy provides a short cut to achieving this. Fifty years ago, Korea's comparative advantage was in rise, not electronics, automobiles or ships. In order to transform the comparative advantage into a competitive one, Korea's government decided to invest in human capital and technology by implementing specific industrial policies for some priority sectors. This experience opens two questions for us. What should be our competitive advantage? And, how do we get there?

Caught up in the panic of responding to the crisis, Serbia's strategists made mistakes. Before they devoted money to industrial policies, they should have asked themselves whether there was a sector that had the capacity to transform comparative advantage into competitive one. They also should have considered that priority sectors always needed restructuring (energy and transport, primarily). However, Serbia does not have many choices. The global market is shifting toward "commoditization" and toward high-end products. Massive production is not sustainable, but after deindustrializing during the transition, Serbia lost the core competencies needed to produce high value-added products.

The energy sector is a top priority. Energy is not only an economic, but a strategic and geopolitical issue, as well. Energy means stability. Electricity is not only a prerequisite for reindustrialization, but also a tradable good. Energy is an investment intensive sector. Expansion in this industry would energize many others (construction, electrical engineering, ICT, etc.), causing the investment multiplier to rise. This is a rare industry in Serbia, in which there is a good balance between demand (global and local) and natural resources and productive knowledge.

The global energy market is extremely volatile and domestic production is important for stability supply. Oil prices rose from $82 per barrel in November 2010 to more than $107 per barrel in July 2012. This was mainly due to social and political unrest that unfolded in Middle Eastern and African countries. In addition to this renewed volatility on the demand side, the global appetite for energy grows progressively. According to *D. Yergin* [24, p. 4], the question is whether the available resources will be sufficient to fuel the global economy, which in the next couple of decades is expected to rise from $65 trillion to $130 trillion. Most of these challenges are faced by the developing world due to long-term economic growth prospects. According to the Energy Information Administration (EIA) projections for the period 2008-2035 [10, p. 1], the global demand for energy grows by 53%, with fossil fuels accounting for over

one-half of the increase in total primary energy demand while the liquids share of global energy consumption will fall from 34% (2008) to 29% (2035).

Oil remains the dominant fuel in the primary energy mix, even though its share declines slightly due to the gradual switch towards other energy sources, in both industrial and power-generation sectors, as well as in transportation. The largest share of liquids consumption refers to transportation because due to the absence of significant advances in technology, liquids continue to provide much of the energy.

Growth in demand for natural gas far surpasses that for other fossil fuels because it is has far more favorable environmental and practical attributes. In the power sector, low capital costs and fuel efficiency also favor natural gas. World natural gas consumption will increase by 52% over this projected period [10, p. 3]. Growing capacity and lower production costs contribute to lower prices of natural gas and as a result, increase demand. The consumption of nuclear energy is not expected to change substantially in the coming future. The share of nuclear power will increase slightly from 6% in 2008 to 8% in 2035.

Renewable energy is the faster growing form of energy in the world. The use of modern renewable energy—including hydro, wind, solar, geothermal, biomass and marine energy—will almost triple over the course of the projected period. Its share in total primary energy demand will increase from 7% to 14% [10, p. 4].

The energy sector in Serbia plays an important role in the country's economy not only because energy as a "product" has become of vital importance to reindustrialization and the external liquidity position, but because it also represents the largest and most prospective industry in the public sector portfolio.

Primary energy supply in Serbia consists of imported high quality fuels and locally produced low quality lignite, with inherent extraction inefficiency, relatively large hydro facilities and wooden fuel.

Electricity represents 28% of the final energy consumption and is produced in large hydro facilities and thermal power plants. Electricity produced from hydro energy represents approximately 30% of total electricity production. Thermal plants account for almost 70% of the overall electricity production in Serbia. The net efficiency of thermal power plants is low and the installed capacities were depreciated long time ago. The net efficiency is around 30% lower than those of new generation power plants, while the average age of plants is more than 30 years.

Extremely low price levels of electricity impede the full cost recovery. Due to the direct or indirect regulation of energy prices, investments in existing energy sources in Serbia remain relatively unattractive. Energy prices in Serbia are far below cost-reflective level. This entry barrier impedes investments in alternative renewable energy sources, as well as the implementation of newer and more efficient technologies (adoption of stimulating feed-in tariffs is offset by determined threshold capacities). Energy consumption on the other hand, just like production and transportation, is all but efficient. Serbia is ranked among the top 20 countries in the world in terms of energy use per unit GDP. Also, besides being inefficient, the production of energy is highly pernicious from an environmental standpoint. According to [10, p. 103], in 2009 Serbia ranked among the 10th most carbon intensive economies in the world with 1,40kg CO_2 emitted per 1 USD (2000) of GDP.

Pricing based on full cost recovery is the prerequisite for expanding energy production as well as investments aimed at improving efficiency and decreasing carbon intensity. SOEs from the sector are supposed to be able to recover all costs and remove other less visible barriers so that new market players, especially those investing in renewable energy, can enter the market.

The potential for energy production from renewable sources in Serbia is substantial. Biomass is by far the largest renewable resource that Serbia possesses. The overall annual biomass potential in Serbia is approximately 28,000GWh. The main source of biomass in Serbia is agriculture (70%), whereas the rest comes from woody biomass. A study completed by the Serbian Ministry of Energy and Mining estimated that Serbia could replace 25% of its total energy produced with biomass facilities [5].

Wind potential is estimated to amount to 2,700 GWh. So far 11 wind turbines are installed with a total capacity of 25 MW. Another 330 MW are expected to be implemented and are awaiting installation.

Serbia is one of the richest European countries in terms of solar energy potential. Its annual solar radiation average is around 40% higher than the European average. The annual solar irradiation is around 1400 kWh/m^2. The lowest measured values of solar radiation in Serbia are comparable to the highest values in leading countries of solar utilization such as Germany or Austria.

Finally, although Serbia is producing 30% of its electricity in hydro-plants, it is effectively utilizing slightly more than 1/2 of its economically usable hydro-power potential. The total hydro-power potential is estimated at 25,000 GWh a year, out of which 17,000 GWh are classified as technically and economically usable potential. Only 10,300 GWh are utilized. The total hydroelectric capacity is 2,770 MW, coming from mostly large hydro plants (only 30MW of installed capacity refers to small, less than 10MW plants). According to EBRD [5], this capacity is expected to double (another 2,800 MW) and small plants are expected to take on a much more serious role.

In our previous article [3, pp. 28-31], we discussed key elements of industrial policy in the Serbian energy sector, such as full cost pricing, key investment projects, the financing model, feed-in tariffs and stimuli for new energy and efficiencies technologies (NE^{2}T). The previous analysis of global trends and local specifics in the energy sector confirms our recommendations.

Other priority sectors with comparative advantage that is transformable into competitive advantages are: telecommunications, agriculture, transport, and logistics. Each sector needs strategic analysis before policy definition.

The current crisis has shown that market failures can be complex and are not easily corrected by following simple rules of macroeconomic policy such as money supply and inflation targeting. Policy makers can develop a better understanding of how industrial policies perform well under the right incentives, when private rewards are aligned with social returns and how the government can help the two come together. Among the problems contributing to this view, risk management in SOEs is at the top of the list.

Intelligent risk management in state-owned enterprises

For a long time, the public sector was not held in high favor by economic theory. However, it is a relevant part of the national economy in terms of share in the national income, employment, and market capitalization. For example, in the majority of EU countries, the public sector accounts for or more than one half of the national income. Typical fields in this sector are natural monopolies and network technologies. In the developing world, the prevailing policy is that SOEs need to be anchored to economic development. In order to eliminate market failures in the last period, it has been determined consensually that the legal and regulatory framework for SOEs should ensure a level playing field in markets where private and public companies compete.

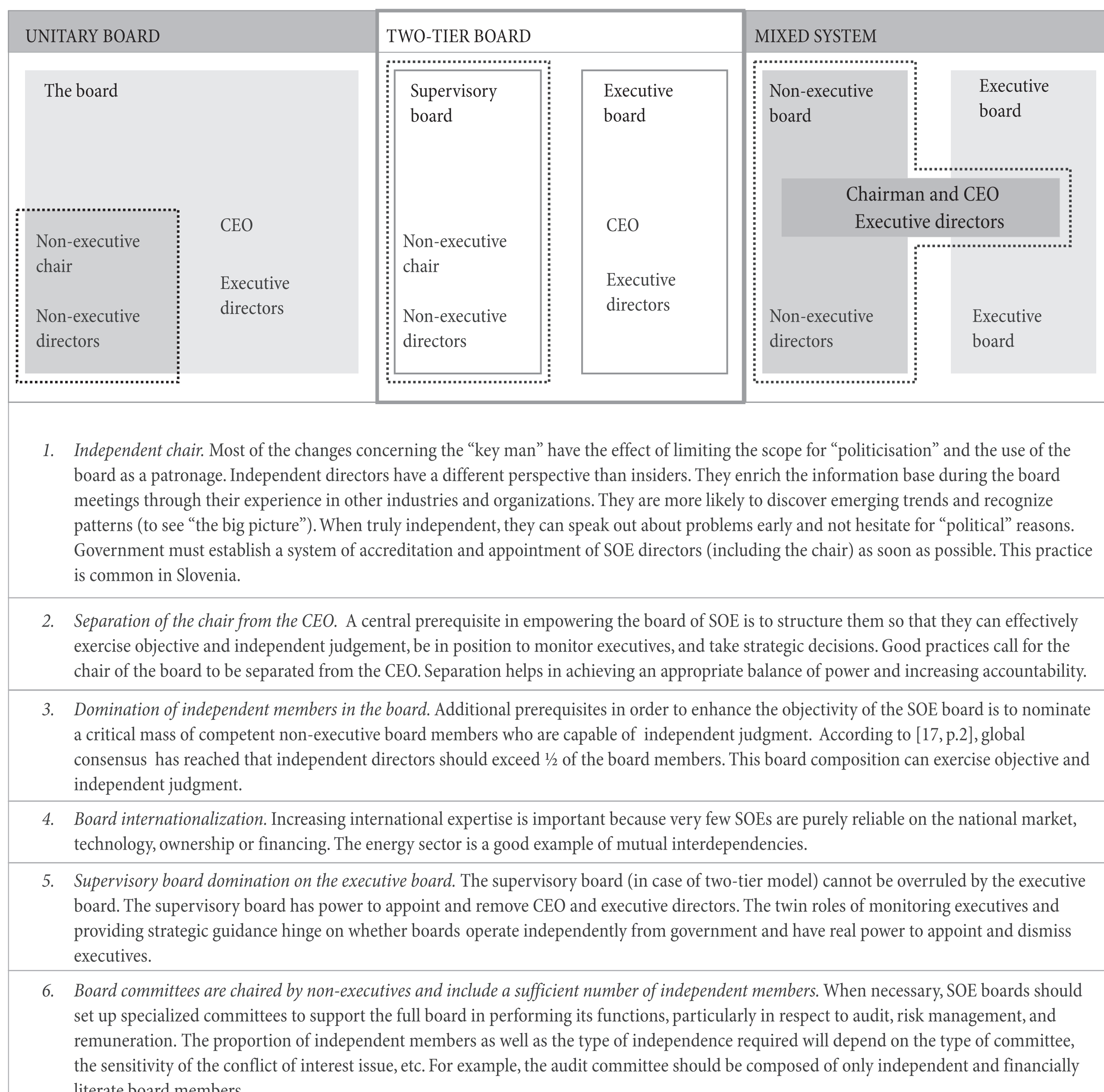
During the last global economic crisis, the role of SOEs has consisted of opposing forces. On one hand, some countries continued privatization programmes, not least when it came to infrastructure, energy, and communications sectors. On the other hand, the crisis forced the state to nationalize some financial institutions (primarily banks and insurers) and companies from the real economy, as well. This has had a number of implications. For example, privatization of natural monopolies in network technologies (energy and communications) sectors has induced the separation of operational and regulatory functions. The nationalization of some companies from the real economy has induced at least two such tendencies. The first tendency was to list new SOEs on the stock exchange in order to energize capital markets which are in retardation. Second, the tendency of government to rethink ownership practices due to the fiscal squeeze. In an anti-crisis program with effective leadership, no longer taken for granted, boards of SOEs are being forced into new investments, efficiency improvement, and expansion of tradable goods.

The best way for achieving the previous tenets in SOEs is the implementation of basic principles of corporate governance and their improvements [15], [16], and [17]. The mandates, the duties, and responsibilities of the SOE board do not differ much from national practices regarding private company boards. Namely, in SOEs, the board is

subject to similar fiduciary duties as in the private sector. The board has a clear mandate and ultimate responsibility for SOE performances (the business plan, investment plan, value created, etc.). However, board members may have reduced liability, particularly the ones nominated by the state. Sometimes ministers or other high-level government officials may serve on SOE boards (elected chairs). This practice is common in Israel. However, it is essential that SOEs have strong boards that can act in the interest of the company and effectively monitor executives without undue political interference. Board must be relatively small (in the EU average number of members in major companies is 11) but board members must have integrity and credibility.

The magnitude, the level of diversification and new role of SOEs in industrial policy suggest the two-tier model as the best board structure. This model consists of a supervisory board and executive board that each meet separately. Alternative models (such as the unitary board and mixed system) are applicable, but with some disadvantages. What is the optimal composition and working style of the SOE's board? These questions can be answered by examining Figure 5 and the following six principles of corporate governance.

Figure 5: Composition and functioning of the SOE's board



1. *Independent chair.* Most of the changes concerning the "key man" have the effect of limiting the scope for "politicisation" and the use of the board as a patronage. Independent directors have a different perspective than insiders. They enrich the information base during the board meetings through their experience in other industries and organizations. They are more likely to discover emerging trends and recognize patterns (to see "the big picture"). When truly independent, they can speak out about problems early and not hesitate for "political" reasons. Government must establish a system of accreditation and appointment of SOE directors (including the chair) as soon as possible. This practice is common in Slovenia.
2. *Separation of the chair from the CEO.* A central prerequisite in empowering the board of SOE is to structure them so that they can effectively exercise objective and independent judgement, be in position to monitor executives, and take strategic decisions. Good practices call for the chair of the board to be separated from the CEO. Separation helps in achieving an appropriate balance of power and increasing accountability.
3. *Domination of independent members in the board.* Additional prerequisites in order to enhance the objectivity of the SOE board is to nominate a critical mass of competent non-executive board members who are capable of independent judgment. According to [17, p.2], global consensus has reached that independent directors should exceed ½ of the board members. This board composition can exercise objective and independent judgment.
4. *Board internationalization.* Increasing international expertise is important because very few SOEs are purely reliable on the national market, technology, ownership or financing. The energy sector is a good example of mutual interdependencies.
5. *Supervisory board domination on the executive board.* The supervisory board (in case of two-tier model) cannot be overruled by the executive board. The supervisory board has power to appoint and remove CEO and executive directors. The twin roles of monitoring executives and providing strategic guidance hinge on whether boards operate independently from government and have real power to appoint and dismiss executives.
6. *Board committees are chaired by non-executives and include a sufficient number of independent members.* When necessary, SOE boards should set up specialized committees to support the full board in performing its functions, particularly in respect to audit, risk management, and remuneration. The proportion of independent members as well as the type of independence required will depend on the type of committee, the sensitivity of the conflict of interest issue, etc. For example, the audit committee should be composed of only independent and financially literate board members.

Key responsibilities of the supervisory board of the SOE are: strategic management and risk management. It is important for the board to first set strategic goals and associate risk appetite. Goals and risk appetite stem from industrial policy main vision. After that the board is in position to establish a compensation structure that meets the metrics based on its goals and tenets. Incentives must be aligned with risk management in order to avoid excessive risk taking, not compatible with the company's risk appetite.

Risk management is integral to strategy. Yet, managing risk is very different from managing strategy. Risk management is concentrated rather on the downside (threats and failures) than on the upside (opportunities and success). Mitigating risk involves dispersing resources and diversifying investments, just the opposite of the "to do" culture most strategists try to foster when defining and implementing strategy. Consequently, the board's responsibility for defining strategy (and risk appetite) needs to be extended to establishing and overseeing the enterprise-wide risk management system. This system must be compatible with strategy and risk appetite. One important lesson from the recent crisis has been that risk management failed because it focused on internal controls based on financial reporting, thus separating risk management from strategy and its implementation. Today it is considered good practice that risk management and financial control function are independent from business units. Also, it is considered good practice that "the chief risk officer", or equivalent, to be able to report directly to the board along the lines with internal control functions reporting to the audit committee or its equivalent. This is part of risk management.

A common denominator for key board responsibilities is risk. Doing business is all about taking calculated risks in order to match risk appetite with strategy. It should be fully understood that intelligent risk management is not an issue of eliminating risk taking, especially not during recession. The aim is to ensure that risks are understood, properly managed, monitored, and communicated.

Recently, there has been a surge in interest in what is now called "intelligent risk management". It is an approach by which company assess, control, avoid, exploit, and finance risks from all sources. This approach includes upside risk exploitation rather than just downside risk mitigation, helping board to bring risk exposure more in lines with risk appetite. It should be considered a good practice of corporate governance to involve board in this process. Some credit rating agencies, notably *Moody's* and *Standard & Poors*, have added risk management capabilities in their evaluation criteria.

The first step in building up intelligent risk management system within the SOE is to understand the distinctions among the types of risk that it faces. There are many categorizations of risks. According to *R. Kaplan* and *A. Mikes* [12], risks fall in one of three categories: preventable risks, strategy risk, and external risk.

Preventable risks are internal risk that are controllable and ought to be eliminated or avoided. Companies should seek to eliminate these risks since they get no strategic benefits from taking them on. This type of risks is best managed through prevention (or a rules-based compliance approach). But, risk mitigation is painful for business people to perform. Rather than mitigating risks, companies incubate risk through normalization of deviation, as they learn to tolerate apparently minor failures and threat early warning signals as false indicators. Board of the SOE must set key parameters for rules-based management system (e.g., risk appetite and figures like economic capital, value at risk, etc.). According to the Basel III/ Solvency II regulation, similar rules are required for the real economy as for financial sector. For example, SOEs should report all off-balance sheet assets and liabilities. Such reporting could cover risk management strategies and systems put in place to implement them. The SOEs in extracting or related industries (energy, for example), should disclose its reserves according to best practice. Public private partnership typical for energy sector (green energy, for example) should be adequately disclosed. Such ventures are often characterized by risk transfers that may consequently induce specific material risk.

Strategy risks are risks that the company voluntarily accepted in order to generate superior value from its strategy. In contrast to preventable risks, strategy risks are not inherently undesirable. Taking a significant risk many times (such as a research and development risk) is a key driver

in capturing potential value. Strong links exist between resource allocation and capital budgeting, and identified risks. Because many of the strategy risks are predictable, companies usually tend to label and departmentalize them along business function lines (financial risk, operational risk, human resource risk, IT risk, reputation risk, etc.). Such organizational silos dispersed responsibility for risk management. Also, this approach inhibits the analysis of interactions among different risks.

External (or systemic) risks are risks that arise from events outside the company and are beyond its influence or control. Major sources of these risks are macroeconomic instability, geopolitical, and environmental changes with long-term impact, and disasters (natural and political). Because companies cannot prevent such stressors from occurring, their management must focus on identification and, accordingly, mitigation of their impact. Some external stressors are apparent and imminent that managers can manage them as they do their strategy risks. For example, during the last global economic crisis, SOEs developed specific reactions to growing protectionism and capital flow reversal. There are some analytical tools that can do that. Stress-tests help companies to assess major changes in one or two risk drivers whose effects would be major and immediate. For example, how dramatically the price of commodities increases, large swings in interest rate or FX rate, or default of a major institution or even sovereign country would affect financial position of such company. Scenario planning is a tool designed for long-range analysis. Participants examine major political, economic, technological, social, regulatory and environmental underlying forces and select a number of drivers, typically four. For each of the selected drivers, participants forecast maximum and minimum anticipated values in the long run. Combining the extreme values each of the four risk drivers leads to 16 scenarios. Because about ½ of scenarios is implausible, the participant can then forecast the strategy for the remaining scenarios.

In the combined economic crisis key responsibilities of the board of SOEs as a key lever of industrial policy are: to explain all of the risks the company is exposed to, prioritizing resources to deal with these risks, and overseeing the system of implementation. SOEs need to encourage intelligent risk management as a part of the new role of the SOEs in industrial policy and restructuring challenge. Fortunately, this is another area in which intelligent risk management offers an advantage. Output expansion of tradable goods combined with the increase of efficiency is a way to reduce external (or systemic) risk. Otherwise, neglecting risk management will lead the SOEs in crisis and leave the national economy in crisis.

Nota bene

As the summer of 2012 rolls into autumn, we are conscious that Serbia does not have an anti-crisis program and that current economic policy cannot reach the recovery tenets. The country's rating is downgraded (BB-/negative). Despite the daily FX sale auction (a cumulative more than 1.4 billion euro since the beginning of 2012), RSD has depreciated somewhat faster than other comparable currencies (Q2 2012 / Q2 2011 = -10.8% in real term). Growth is negative (Q2 2012=-0.6% and Q1 2012=-1.3%), meaning that the economy is in technical recession. The productive capacity is being underutilized in a country in which there are huge unmet needs. The most serious underutilization is that of human resources.

Realizing that in the economic cycle every downturn comes to an end provides no comfort for policy makers. This theory does not work. We cannot wait until the global economic crisis ends because Serbia's economy is in freefall, a decline without the end in sight. Making no decision is the worst decision.

There are some major risks inherent to staying on the current course: risk to the country's fiscal position, risk to the country's external liquidity position, and sovereignty risk. All these risks are systemic by nature. Instead of static macromanagement concentrated on inflation control through monetary measures, Serbia desperately needs dynamic micromanagement concentrated on investments, both in public and private sectors and well-coordinated with macromanagement. Output expansion of tradable goods through industrial policies is a way to reduce systemic risk.

Intelligent policy makers match their approach to the nature of the threats they face. Serbia needs a new vision

for economic development not just because our old model has failed but also because we have learned with great pain that some theoretical fundaments from the old model were wrong. The economic changes happening now are structural, not cyclical and, therefore, truly transformative. This new order must be understood fully and accepted widely. In economic theory and policy, the prevailing doctrine is changing. Today every successful economy involves both government and markets on balanced way. Also, industrial policies do matter.

The new approach to fixing the economy must be not only sensible towards new economic developments, but also pragmatic and a realistic compromise with existing political forces. An absolute must is to stop bleeding, no matter what type. No more cash should go wasted, no more flight of young educated people to other countries, and so forth. In each crisis, the liquidity is what becomes the primary "make-it-or-break-it" factor. One of the solutions is creation of new financial instruments previously discussed.

The main limits for possible actions are long-term liabilities. But solutions come from the assets side. Significant assets are in public hands. Government can take a large role, from setting the rules and enforcing them to providing infrastructure, and conducting business activity in priority sectors (energy, telecommunication, infrastructure, agriculture, transport, and logistics).

The anti-crisis programme for Serbia has three components: stimulating output expansion through industrial policies, stable currency and competitive exchange rate as monetary automatic stabilizer, and hard budget constraints (both macro and micro) as fiscal automatic stabilizers. In this context risk management in SOEs is a critical microeconomic tool for efficiency improvement.

The nation's economic fate is not determined by geography or culture, but rather by the type of institutions and politics. Countries rise when they put in place the right pro-growth institutions and they fail, sometimes spectacularly like Yugoslavia did, when those institutions ossify or fail to adopt.

Traditionally economics has ignored politics, but understanding politics is crucial for explaining why Serbia's economy is impotent and out of tune. Economists have neglected politics by choosing solved political problems as its domain of interest. Good political systems launch and maintain a virtuous spiral while bad political systems remain in a vicious circle. Exit from the combined crisis still requires politics. But it also requires economics in terms of right advice from the right advisors. Integration of macroeconomics and business management on that path makes sense.

References

1. Acemoglu, D., Robinson, J.A. (2011), *Why Nations Fail: The Origin of Power, Prosperity, and Poverty*, New York, Crown Publishers.
2. Đuričin, D., Vuksanović, I. (2011), "From macroeconomic stability to industrial policies and back: The case of Serbia", *Ekonomika preduzeća*, Nov-Dec, 319-334.
3. Đuričin, D., Vuksanović, I. (2012), "Isn't output more important than inflation in impotent economy: Serbia's economic policy revision", *Ekonomika preduzeća*, Jan-Feb, 13-32.
4. EBRD. (2011), *Transition Report 2011*, available at http://www.ebrd.com/pages/research/publications/flagships/transition.shtml, accessed 19.06.2012.
5. EBRD. (2012), *Renewable Development Initiative,* available at http://www.ebrdrenewables.com/sites/renew/default.aspx, accessed 04.07.2012.
6. Hanke, Steve H. (2012), "Money, Where's the Money?", The Cato Institute, available at http://www.cato.org/publications/commentary/money-wheres-money, accessed 10.08.2012.
7. Hanke, Steve H. (2012), "'Wrong Way' Krugman Flies Again, and Again", The Cato Institute, available at http://www.cato.org/publications/commentary/wrong-way-krugman-flies-again-again-4, accessed 10.08.2012.
8. Hausmann, R., Hidalgo, C. et al. (2009), *The Atlas of Economic Complexity: Mapping Paths to Prosperity*, New Hemshire, Puritan Press.
9. Heindrick and Struggles. (2009), *Corporate Governance report 2009: Boards in Turbulent Times,* available at http://www.heidrick.com/PublicationsReports/PublicationsReports/CorpGovEurope2009.pdf, accessed 12.06.2012.
10. IEA. (2011), *International Energy Outlook 2011*, U.S. Energy Information Administration, Washington, DC.
11. Jones, L., Sakong, I. (1980), *Government, Business, and Entrepreneurship in Economic development: The Korean Case,* Cambridge, MA, Harvard University Press.
12. Kaplan, R., Mikes, A. (2012), "Managing risk: A new framework", *Harvard Business Review*, June 2012, 48-60.
13. Keynes, J. M. (1979), "The General Theory and After: A Supplement", in: Moggridge, D. E. (ed.): *The Collected Writings of John Maynard Keynes*, vol. XXIX, London, Macmillan.
14. National Bank of Serbia, available at http://www.nbs.rs, accessed 27.06.2012.
15. OECD. (2005), *Guidelines on Corporate Governance of State-Owned Enterprises*, Paris, OECD.

16. OECD. (2010), *Corporate Governance and Financial Crisis*, Paris, OECD.
17. OECD. (2011), *State-Owned Enterprise Governance Reform*, Paris, OECD.
18. Rajan, R. (2010), *Fault Lines*, New Jersey, Princeton University Press.
19. Rodrik, D. (2007), *The Real Exchange Rate and Economic Growth: Theory and Evidence.* John F. Kennedy School of Government, Harvard University.
20. Statistical Office of Republic of Serbia, available at http://webrzs.stat.gov.rs/WebSite/, accessed 22.06.2012.
21. Statistical office of the Republic of Serbia. (2012), *Labor Force Survey*, n. 181, April 2012, available at http://pod2.stat.gov.rs/ObjavljenePublikacije/G2012/pdfE/G20125550.pdf, accessed 22.06.2012.
22. Stiglitz, J. (2010), *Freefall: America, Free markets, and the Sinking of the World Economy*, New York, W. W. Norton & Company.
23. World Economic Forum. (2012), *The Global Competitiveness Report 2011- 2012*, available at http://www.weforum.org/issues/global-competitiveness, accessed 23.06.2012.
24. Yergin, D. (2011), *The Quest: Energy, Security, and the Remarking of the Modern World*, London, Penguin Press HC.

Dragan Đuričin

is a full professor at the Faculty of Economics, University of Belgrade. He teaches courses in Strategic Management and Project Management (graduate studies), Business Strategy and Strategic Finance (postgraduate studies), and Economics of Strategy (doctoral studies). He is the editor in chief of Ekonomika preduzeća. He has been working for Deloitte for almost two decades, and since 2007 he has held the position of President of Deloitte Adria. He was a visiting professor at the University of Venice as well as a professor of Fulbright Foundation. He was President of the Serbian Association of Economists for fifteen years. He wrote a dozen of books in the fields of strategic management, project management, and economic transition. He is/was a member of the board of directors in several organizations such as Metalac, Sintelon (Tarkett), Apatinska pivara (Molson Coors), Imlek (Danube foods), Hypo Alpe Adria Bank, Messer Tehnogas and Cardiovascular Institute of Dedinje.

Iva Vuksanović

is a teaching assistant at the Faculty of Economics, University of Belgrade. She received her master degree in Strategic Financial Management in 2009 from the Faculty of Economics, University of Belgrade. Currently, she is a doctoral student in the field of risk management in energy sector. She is the editorial coordinator of Ekonomika preduzeća. She also works as a research associate at Centre for Scientific Research of the Faculty of Economics (NICEF), and Foundation for the Advancement of Economics (FREN). Her other interests refer to corporate governance and compensation policy. She wrote numerous papers related to the previous topics.

ORIGINAL SCIENTIFIC PAPER
UDK: 339.972(4-672EU:497.5) ; 338.24.021.8(497.5) ; 339.137.2
Date of Receipt: August 27, 2012

Mladen Vedriš
University of Zagreb
Faculty of Law
Department of Economic Policy
Zagreb

CROATIA ON THE THRESHOLD OF THE EUROPEAN UNION: A CHALLENGE OR A PROBLEM COMPETITIVENESS OR HOW TO BE BETTER

Hrvatska pred ulaskom u Europsku uniju: izazov ili problem
Konkurentnost ili kako biti bolji

Abstract

For the last decade the Republic of Croatia has been preparing to enter and become a full member of the European Union (EU). The negotiations began in the context of political and social issues (the degree of democratization of society, respect for human freedoms and rights, etc.). Then in the framework of 35 negotiating chapters the focus shifted to economic factors. The freedom of market competition, the example of shipbuilding, stimulus and protection of agriculture production, trade relations and a preferential relationship compared to the neighboring countries outside the EU became the dominant questions in the continued process of negotiation and harmonization.

At the same time, Croatia first began to understand and then the media set out to treat more significantly and consider the question of our (national) competitiveness. In this context and at that time (the past decade) the National Competitiveness Council was established.

In the past decade the Council has played a crucial role in creating public awareness of why *competitiveness* is important in achieving the (ultimate) goal – creation of national prosperity as a permanently sustainable condition. This is a goal that can be achieved only through economic success, within national boundaries, within the EU, and increasingly within a stronger global economy. All of these questions, and the search for (correct) responses, are more strongly present in the conditions of the global economic crisis on one hand, and the impending accession (measured in months) of the Republic of Croatia to full membership in the EU. Following from the above, the research and analytical interest of the work is to see how one transition country can succeed on this path; what it must and must not do; what are the specific conditions and limits; and what are the requirements and limiting values of those successful countries to whom the Croatian economy must draw closer and which is must respect in the long term.

Key words: *transition, national and global competitiveness, EU negotiations, structural reforms, globalization, economic crisis, national prosperity*

Sažetak

Republika Hrvatska proteklo se desetljeće priprema za ulazak i punopravno članstvo u EU. Pregovori su otpočeti u kontekstu političkih i društvenih pitanja (stupanj demokratizacije društva, poštovanje ljudskih sloboda i prava,...), a zatim su u okviru ukupno 35 pregovaračkih poglavlja svoje težište premjestili na ekonomske odrednice. Sloboda tržišnog natjecanja, primjerice brodogradnja, poticanje i zaštita poljoprivredne proizvodnje,... trgovački odnosi i preferencijalne relacije u odnosu na države okruženja izvan EU, postala su dominantna pitanja daljnjeg procesa pregovaranja i usuglašavanja.

Paralelno, unutar Hrvatske otpočelo se najprije shvaćati, a zatim i (medijski) sve značajnije tretirati i razmatrati pitanje stupnja vlastite (nacionalne) konkuretnosti. U tom kontekstu i u tom vremenu (proteklo desetljeće) osnovano je Nacionalno vijeće za konkurentnost.

Vijeće je u proteklom desetljeću odigralo presudnu ulogu u stvaranju svijesti na nacionalnoj sceni zašto je *konkurentnost* važna u postizanju (konačnog) cilja – stvaranja blagostanja nacije, kao trajno održivo stanje. To je cilj kojeg je moguće ostvariti jedino ekonomskim uspjehom i to unutar vlastitih granica, unutar EU, te sve više i jače globalne ekonomije. Sva ova pitanja odnosno potraga za (pravim) odgovorima još su viša i jače izražena u uvjetima svjetske gospodarske krize na jednoj strani, te skorog ulaska (mjereno mjesecima) Republike Hrvatske u punopravno članstvo u EU. Shodno iskazanom, istraživački i analitički interes rada je vidjeti kako jedna tranzicijska država može na tom putu uspjeti; što mora učiniti i što ne smije učiniti; što su datosti i ograničenja. Koji su to zahtjevi i granične vrijednosti onih uspješnih kojima se nacionalna ekonomija mora približiti i koje mora trajno respektirati.

Ključne riječi: *tranzicija, nacionalna i globalna konkurentnost, EU pregovori, strukturne reforme, globalizacija, ekonomska kriza, blagostanje nacije*

Introduction

The level of competitiveness as an implicit and explicit problem, or a limitation, in the achievement of national development, appeared as a pertinent and important question in the context of the establishment of market economies in all of the countries of Central and Eastern Europe in parallel with the sudden and powerful process of democratization and the creation of a civil society suitable for a European milieu. The degree of success in achieving national results varied in individual groups of countries. The Czech Republic, Slovakia, Estonia, and more recently Poland, have made visible progress, measured by important comparable parameters: the growth of GDP, employment, and exports, and when measured directly, in an improvement in their positions in the rankings of the World Economic Forum from the moment that they were included in that list to the current period.

Until the year 2000 the Republic of Croatia was faced with a *delayed transition*. In the succeeding period (until 2008) it achieved continuous growth in its level of national competitiveness. But confronting the global economic crisis (2008-2012) was delayed. First came the realization of the depth of the crisis and the recognition that it was not just a problem of the US and/or Europe as developed parts of the world – it was also our immediate problem. Then came the creation of a consistent system, a conceptually and practically adequate instrument for operating in crisis circumstances, endogenously and exogenously. In regard to the already high degree of public and foreign debt in the period up to 2008, the possibilities for and the types of government intervention were limited to the areas of fiscal and budget policy. There was a stark contrast in the opportunities for action between the powerful and highly developed economies (the US, parts of Europe, and the Far East), as *trendsetters*, and the small and open economies that included the Republic of Croatia, as a *niche player*.

Such a position is not and cannot simultaneously be an excuse and justification for the absence of an adequate formulation of a domestic development policy, especially *industrial policy*, understood, considered, and implemented in its wider and more complex definition. At the same time, the absence of several possible and necessary measures to improve the quality of public services, beginning with public administration, education and health and the encouragement of innovation and research, and what is even more important, their application, was an area of obvious deficit that considerably reduced interest (attractiveness) among possible partners for new investment, domestic ones, and even more importantly, foreign ones.

In addition, it will be extremely interesting to verify these claims by analyzing data of the relevant institutions (WEF, IMD), and at the same time through the analysis that M. Porter (2009) conducted for the Republic of Croatia, as a possible *manual* for concrete action. In view of the downward trend of national competitiveness, especially in this period, and also the strengthened effects of the economic crisis, these analyses and suggestions carry additional weight and significance.

Competitiveness and the role of the state

Creation of institutions, creating development strategies and policies

The beginning of the transition period was characterized by a naive belief of governments and societies in this region that the establishment of a democratic system (political parties, regular elections) and the creation of the basic market prerequisites for business, such as partial price liberalization, the gradual removal of state and social ownership, the initial creation of private enterprise, and the beginning of foreign investments, by themselves were sufficient for creating a framework for successful economic development, and accordingly, for the long-term and stable growth of the quality of life as well as a stable and long-term growth of employment. This subject has been extremely well emphasized in the literature: *"Dramatic restructuring occurred in the area of income distribution and consumption. Although critics of the socialist system rightfully complained that a system of material privileges indeed existed, income distribution and consumption occurred primarily in a rather narrow framework. The last ten to fifteen years was enough to reach undeniable growth in the existing level of inequality... On one hand, the previously unknown level of suspect wealth became*

immediately clear, while on the other hand poverty, which earlier was much less obvious, became deeper and much more apparent. Many people with a sense of social justice who were not victims of the restructuring considered it appalling. The serious problems cited above are linked to questions of employment. Open unemployment was not known in the socialist economy; the degree of employment was very high and every worker could feel secure in his job. Indeed, just a reverse inequality prevailed. The socialist economy created chronic shortages, including a chronic shortage of labor – at least in the more industrialized countries of Central and Eastern Europe" [9, pp. 349-350].

A painful new realism was created by the fact that the desired and expected changes did not automatically occur; skepticism toward the political introduction of simple and spontaneous solutions appeared; and combinations of neoliberalism and populism were frequently present. But, at the same time, on the basis of these realistically painful experiences, a turnaround occurred with the understanding that the creation and use of high quality institutions in the longer term ensured attaining the living standard of advanced countries. *"Strategies for stimulating growth must be fulfilled over time by a cumulative process of building institutions to ensure that growth does not remain without any motive force and that the economy remains resistant to shocks. Furthermore, "...high quality institutions are those that demonstrate socially desirable behavior by economic agents..." The last two centuries of the economic history of wealthy countries today can be interpreted as a permanent process of learning how to make capitalism more productive with a greater offer of institutional content in a self-sustaining market economy: meritocracy in state administration, an independent judiciary, central banking, financial supervision, a stabilizing tax policy, the fight against monopolies and regulation, social insurance, and political democracy. Just as it was foolish to look at them as the prerequisites for the economic growth of poor countries, it would be equally foolish not to understand that such institutions with time become necessary to achieve full economic convergence"* [16, p. 55]. In other words, awareness of the necessity to respect the importance of institutions slowly but constantly acquires its place in achieving the prerequisites for economic growth with new strategies for growth and development.

And only after creating an awareness that economic growth and development does not happen by itself but is created systematically, complexly and exactingly with the passage of time or because of the desire and needs of the political elite and population is it possible to approach an identification of content, or in other words, a definition of the fundamental responsibilities of the state that is understood as the framework but also the navigator of essential changes that every country faces. The statements above take on additional importance in the context of the economic and social transitions that the countries of Central and Eastern Europe are facing. Such a transformation to a social-liberal state is now the new reality [14, p. 184].

1) *"Setting more precisely the limits of state action, by reducing its size; privatizing state-owned enterprises; granting autonomy and transferring to the non-profit sector the social and scientific services while keeping its financing within the state; outsourcing non-core or auxiliary activities.*
2) *Reducing the extent to which the state regulates the private sector, transforming the state into a promoter of the competitive capacity of the country instead of a protector of the national economy against international competition.*
3) *Increasing state governance, i.e. its capacity to make government decisions effective, by means of a fiscal adjustment that refunds financial capacity to the state, and of administrative reform aimed at a managerial public administration (instead of a bureaucratic one).*
4) *Increasing governability – i.e. the power to govern – through political institutions that ensure a better intermediation of interests and make governments more legitimate and democratic, thus improving representative democracy and opening spaces for social control or direct democracy."*

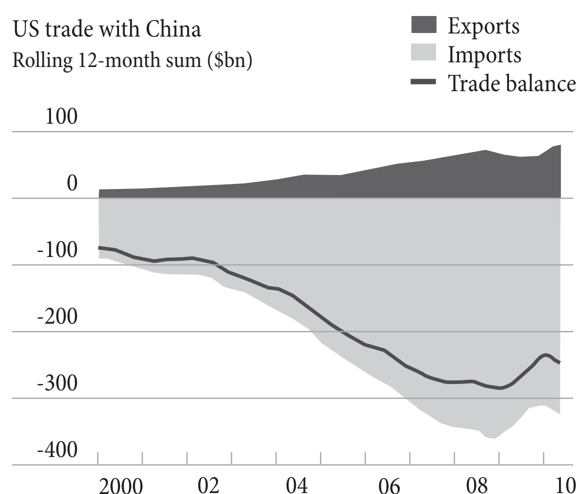
Such a definition of the role and responsibility of the state in shaping the overall development policy of a society and (implicitly/explicitly) creating a *catch-up* strategy to reach the level of developed countries provides another solution to the dilemmas present in the literature, which are even more urgent in the context of current political and social discussions: where are the limits, but where also is

the optimal content of state action; what are the differences between *a responsible and efficient state (strong state)* and a state that acts immediately in the social and economic sphere, whether by an enhanced policy of transfer or with an immediate management role (*big state*). The difference is important and clearly defined. *"The first essential distinction to be made when dealing with state structures and government policies is between a 'strong state' and 'big government'. The confusion between them is responsible for much of the noise that surrounds discussions on the matter. A 'strong state' means the possession of an executive power capable of coordinating and shaping the strategies of big business groups, a bureaucracy with an autonomous core, able to negotiate priorities in the nation's agenda and having the necessary respectability to be heard, and – last but not least – a sound financial capacity to support both those features. It differs sharply from 'big government' in the sense that strong states do not imply state-owned productive enterprises and welfare systems can be quite small"* [3, p. 41]. Such a redefined role of the state compared to the *welfare state* that has been present in Europe for more than three decades is primarily the expression not of a lack of desire to abandon a society that at one time and in one milieu was economically productive and also competitively sustainable but an inevitable turn to new paradigms created in new circumstances and with the appearance actors on the global stage who have initiated and developed an accelerated process of globalization based on scientific-research and on the mobility of capital and technology, especially from those developed countries toward emerging countries and markets.

The frameworks for recognizing the new situation and the new relationships have been defined in a text by T. Mickiewicz: *"It seems that a clear-cut difference that runs against the mainstream consensus in Western economics, dominant in the second half of last century, is that the savings rates matter. It is savings that are much higher in Asia. The consensus that still dominates the policy-making in the Western world of high-income economies, and was even amplified during the 2008-2009 crisis is that consumption spending, both public and private is good, and saving has negative macroeconomic implications as it withdraws funds from the circular flow. Over the last 60 years the impact of this idea on the design of economic policies, taxes, welfare provisions and pensions has been dominant. While consumption credit expanded real interest rates on savings were both low and the related gains were taxed significantly. So were capital gains and any gains from inheritance, making longer-term capital accumulation strategies of families counter-productive. Saving for pensions and for private health insurance have been discouraged and replaced by (apparently) uniform provision by the government. Thus, both motivation for savings disappeared and gains from saving were eliminated by taxes and by welfare provisions, which in many cases penalized those who save by making access to government services conditional on a lack of savings (including old age provisions and other benefits)"*[1] [12, p. 218].

The distortions in the global economy, and in individual parts of it, created by the use and maintenance of an economic and social model from one period that was based on the concept of a relationship of domination (a reduced number) of key protagonists (Europe and the US) has completely changed with the appearance and growth of the BRIC countries. What was possible and sustainable yesterday is no longer possible today. And it will no longer be possible to establish and permanently sustain it (see Figure 1).

Figure 1: EU trade with China



Source: Beattie, A. (2010), "Going Head to Head", *Financial Times*, London, October 8, 2010, p.9.

1 It is not just Western Europe but also the US, with more limited redistriburion, that continues to punish its savers and investors via its design of tax policies and welfare benefits. In turn, low domestic saving rates lead to reliance on inflow of funds from abroad, implying that the most developed economies are converging to the similar model of development as some emerging market and transition economies (outside Asia) and are become increasingly sensitive to international financial markets and to the behaviour of their main sponsors [12, p. 218].

There is no question that (in terms of trends, the entire decade) the EU is buying and importing more from China. A new global production base has been created whose power is growing – in range and quality (see Figure 2). All of this is apparent and confirmed by the much above average annual rates of growth in GDP. This growth is based on relations that were built step by step in the last three decades. It picked up pace in the 1990s with the acceleration of the globalization process. This was the same period in which the transition countries were particularly devoted to the construction of a new system, but especially in the political and social arenas.

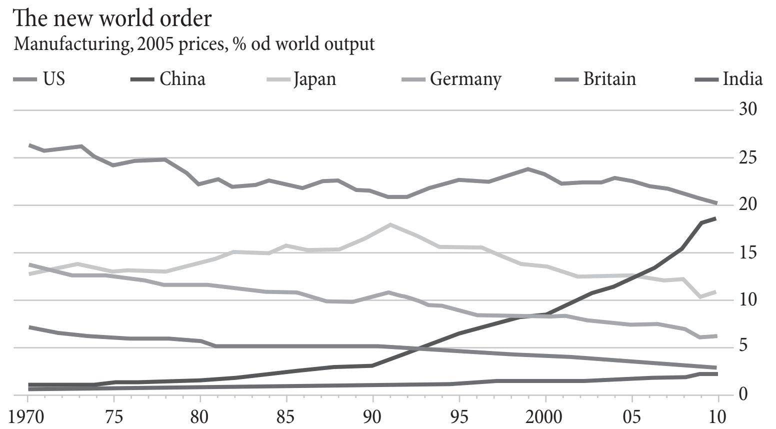
The shares of China and the US in global industrial production were practically equal in 2010, while the shares of other highly developed countries – Germany, Great Britain, and Japan – are continuously declining. India has also registered gradual relative growth since 2000. The establishment of new relationships in industrial production also means further redistribution in the services sector, especially those that are directly or territorially an integral part of industrial production. Furthermore, this means a new division and allocation of jobs and employment. The current high rate of employment in the EU and (partly) in the US means less tax revenues in national budgets with a simultaneous increase of financial obligations on the basis of social transfers.

Overall, this can be a basis for a decline in the level of national competitiveness. Compensating factors may be found in the increase of productivity based on the introduction of technological innovations and the creation of new products with higher added value.

And this is the exact transition that is occurring in the EU and the US; the battle for jobs, for one's purchasing power, is inseparable from a (lost) competitive capability that maintains and attracts investment. And this represents both sides of the coin: how to maintain existing industries and production and how to attract new investors and investments that stimulate the need to create newer and newer technologies – the IT sector, nanotechnology, biotechnology, pharmaceuticals, energy, water management as sources of energy, the production of food, and ultimately national security.

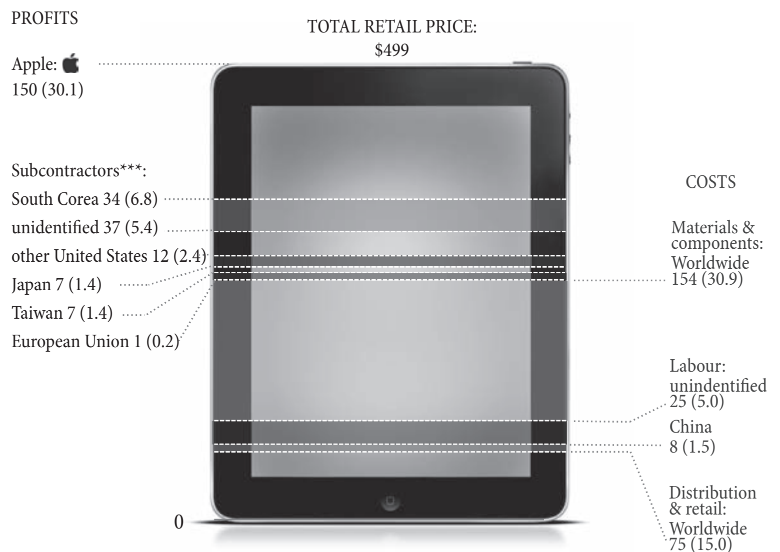
The concept of new technologies and new products is part of the phenomenon of *the third industrial revolution*, as the linkage of innovation and production, and it represents

Figure 2: The new economic order in the world



Source: The Economist. (2012), *Special Report: Manufacturing and innovation – Back to making stuff*, April 21, 2012, p. 5.

Figure 3: Slicing the Apple: Distribution of value for 16 GB Wi-FI PAD, 2010



Source: The Economist. (2012), "A third industrial revolution", *Special Report: Manufacturing and innovation –The boomerang effect*, April 21, 2012, p.7.

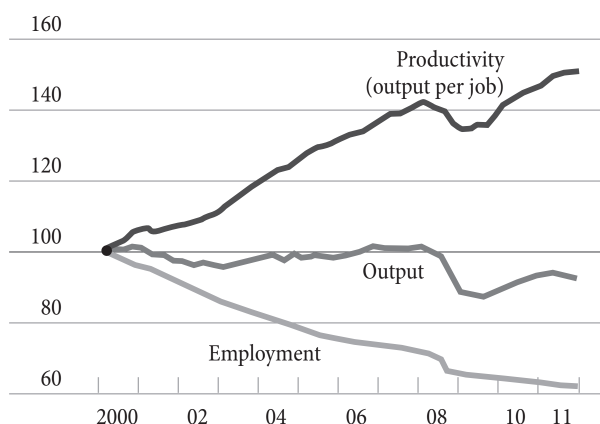
the essential framework for creating an *exit strategy* for the still economically dominant parts of the world. In this context, the example of the company Apple and an analysis of the relationship in the price and value of one of its products provide an excellent illustration (see Figure 3).

The overall material value of all the components of the product is financially roughly equal to the amount per unit that Apple achieves. The third greatest issue is costs of distribution and business. All remaining costs, such as the total labor of sub-contractors in other parts of the world are considerably lower, important and present. This example clearly demonstrates how innovation and research, and what is especially important, their application in the production of newer and newer products is essential for maintaining the leading role of global corporations and also the creation of new products, especially in the US, which is acting considerably faster compared to the same trends in the EU. At the same time, the US is facing a phenomenon that has been present since 2010, and that is *jobless recovery*. The global recession, caused by a decline in real estate and a crisis in the banking system that began in the US and continued in the EU, has created a new framework for events – overcoming the crisis and beginning an economic recovery with an increase in GDP has also been accompanied by strong growth in productivity but with high rates of unemployment. These trends are apparent in the Figure 4.

Figure 4: Long-term trends

Long-term trends are towards a smaller but more productive sector

Manufacturing indices, Q1 2000 = 100



Source: Marsh, P. (2012), "Industry: Nimble, niche and networked", *Financial Times*, London, June 13, 2012, p. 9

In the last decade in addition to stagnant industrial output there has been exceptional growth in the rate of productivity (over 50% overall), and as a consequence of that, a drastic fall in unemployment of almost 40%; the difference has been compensated through the use of new technologies.

National frameworks – Lessons in competitiveness from the world and the region

The events and trends described above, however they seemed, and even more desired (*not in my backyard),* have direct implications on the reality of events in our region. An objectivized picture of events is visible from structural data on national competitiveness that is monitored and analyzed in two globally relevant rankings, by the World Economic (WEF – Washington) and the International Institute for Management Development (IMD – Lausanne). The latest situation is as follows.

For the period 2011-2012 Croatia's overall ranking was 76th out of a total of 133 countries analyzed in the report, which is a significant decline compared to the period before the global crisis (57th place in 2007-2008.). Further analysis of the individual segments of competitiveness brings to light those areas in which Croatia's shortcomings are most evident. Observations about satisfactory results for individual averages – infrastructure (39th), macroeconomic environment (70th), health and elementary education (48th), higher education and training (56th), technical foundations (38th), and the size of the market as an objective category (72nd) – are followed by areas that are exceptionally important for economic growth and development where the gap to the stated averages is (relatively) more drastic: efficiency of markets and market mechanisms (114th), efficiency of the labor market (116th), development of the financial market (87th), innovation and sophisticated factors of development (82nd), innovativeness (76th), and the complexity and development of business structures (88th) [20, pp. 17-20]. Overall, Croatia's relative decline in the rankings compared to its earlier position can be structurally characterized by a greater lag exactly in those areas that are of particular

importance to the establishment of a dynamic model of economic growth and development.

To verify these results it is worth considering indicators of economic success by using for the same time period the analytical tool of the other research institution, IMD of Lausanne, which includes a narrower circle of countries in its rankings. The Republic of Croatia here is ranked 57th out of a total of 59 countries. Individual pillars of competitiveness were analyzed within four important areas: economic performance, government efficiency, business efficiency, and infrastructure. The weight of the indicators is presented in the Figure 5.

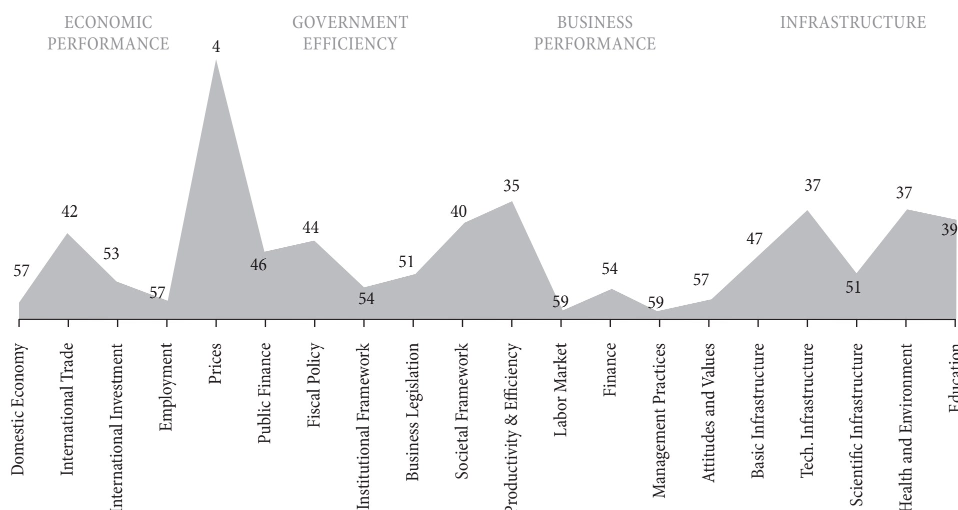
The above average rankings for health and the quality of the environment (37th), education (39th), technical infrastructure (37th), the extremely high ranking for price stability (4th) and productivity and efficiency (35th) were roughly the same. Price stability was ensured primarily by exchange rate policy (imports) and the level of productivity and efficiency by a rapid decline in the rate of employment because of the decline in industrial production and economic activity in general. On the other side of the scale is the degree of employment (57th), efficiency of the labor market (59th), management skills (59th), and the overall state of the national economy (57th).

The analyses of both rankings identify almost identical areas of deficit, outside the range (necessary) for restructuring, which nevertheless have influence as limiting factors for the establishment of a matrix model of economic growth and development. A logical consequence of those limitations and weaknesses is the absolute and relative position of the Republic of Croatia in the degree of its use (engagement) of the national labor pool (see Figure 6).

Croatia's position in the lower part of the table is considerably closer to that of Bulgaria and Albania than to the positions of the Czech Republic, Slovakia, Poland, or Slovenia. The analysis (M. Porter) was prepared for the period up to 2008; the sudden growth of unemployment in the period since 2009 has undoubtedly created additional problems in this situation and made it absolutely and relatively unsatisfactory.

In the literature and in practice attempts to find partial responses to resolve the specific real limitations that have emerged are well-known. For example, Acemoglu and Robinson emphasize an approach that attempts to create prosperity by the targeted removal of individually established bottlenecks. "*The second approach to engineering prosperity is much more in vogue nowadays. It recognizes that there are no easy fixes for lifting a nation from poverty to prosperity overnight or even in the course of a few decades. Instead, it claims, there are many 'micro-market failures' that can be redressed with good advice, and prosperity will result if policy makers take advantage of these opportunities – which, again, can be achieved with the help and vision of economists and others*" [1, p. 448]. The fact remains that such efforts and attempts can

Figure 5: The competitiveness landscape



Source: Institute for Management Development (IMD). (2012), *IMD World Competitiveness Yearbook 2012, Country Profile: Croatia*, Lausanne, IMD, available at http://www.imd.ch/wcy.

partially correct and/or mitigate the causes of the crisis, but they cannot permanently or essentially remove them.

Thus, in the case of Croatia, the stated objective indicators (disturbing because they are always present) prompted international monitoring to an open and indisputable warning. Beginning in the first half of 2011 (the pre-election period), and in coordination with other institutions (the World Bank, the EU Commission), strong pressure and demands for undertaking structural change were continuously present. Thus, the IMF stated:

"1. While the worst of the recession is over, Croatia is yet to see the signs of the sustained recovery.

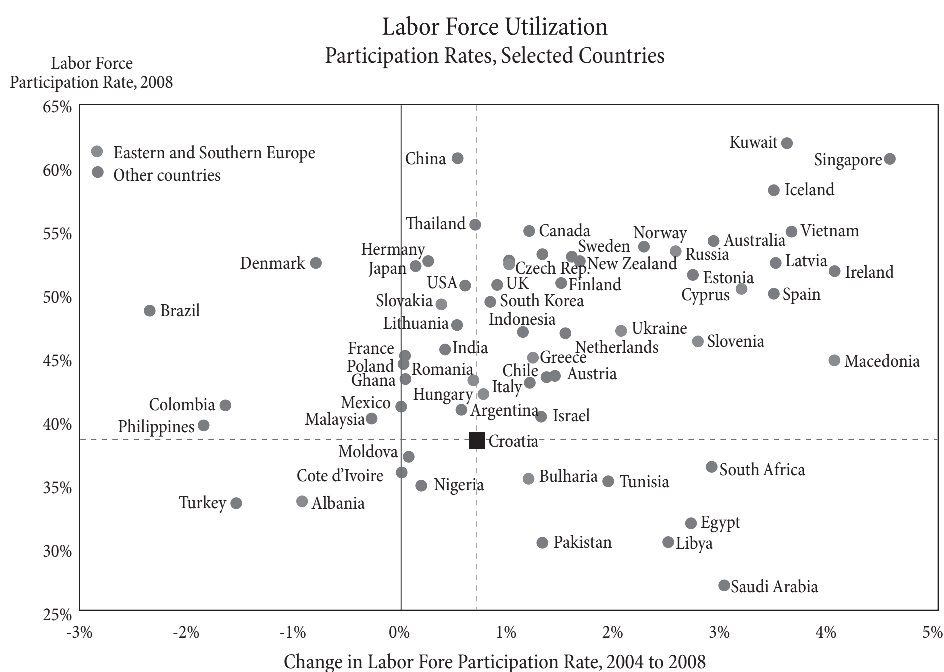
2. Long-standing challenges are weighing down Croatia's economic outlook. Medium-term growth prospects are weak due to deep-rooted structural rigidities and competitiveness problems. Meanwhile, vulnerabilities are high. Fiscal deficits and public debt have been rising. High external indebtedness is particularly worrisome given the narrow export base. Large balance sheet exposures to foreign currency risks reinforce the authorities' preference for a stable exchange rate. At the same time, limited policy space is compromising Croatia's ability to withstand shocks.

3. What needs to be done? Implementation of a consistent set of macroeconomic, structural, and financial sector policies is urgently needed to ensure sustained growth. To address competitiveness problems, priority needs to be given to structural policies and fiscal consolidation.

- *Structural reforms in the areas of labor markets, public administration, and costs of doing business are required to enable a more flexible wage-setting, improve the business environment, and enhance the private sector's role in the economy. Croatia's wage levels, which are high relative to both its income and productivity levels, need downward correction to facilitate an internal adjustment given the stable exchange rate regime.*
- *Fiscal policy should prevent a further rise in the deficit in 2011 by identifying additional spending cuts, and, in the medium term, reverse the rise in the public debt and create policy space for macroeconomic management by pursuing an expenditure-based consolidation" [4, p. 1].*

Furthermore and immediately within the next 60 days, a warning followed:

Figure 6: Labor force utilization



Croatia is caught in a trap where low productivity retards job growth, but unemployement retards needed

Source: Porter, M.E. (2009), *Competitiveness for the Third Millennium: Implications for Croatia*, Presentation from CEO Agenda Forum, Zagreb, 15 May, 2009, available at http://www.isc.hbs.edu/pdf/20090515_Croatia.pdf , accessed on 24.05.2009., p. 6.

"17. Orderly unwinding of vulnerabilities and a reversal of Croatia's brittle fundamentals requires a multi-faceted policy response. Given the stable exchange rate policy, a consistent set of structural, fiscal, monetary and prudential policies are needed for sustained growth and reduced vulnerabilities.

- *Reducing external indebtedness of the economy requires policies that enhance competitiveness and growth potential, and lower reliance on debt-financed and domestic absorption-driven growth. This, in turn, requires corrective wage and structural policies that would increase tradable sector's contribution to growth, enhance economy-wide productivity, and allow financing of external current account deficits through higher non-debt creating flows (FDI).*
- *Reducing public sector indebtedness requires reduction of public expenditures to achieve a cyclically-adjusted balanced budget in the medium term.*
- *Croatia should also continue to build up reserves to enhance its ability to absorb shocks. Large prudential foreign currency buffers should be maintained to safeguard the stability of the highly-euroized financial sector" [6, p. 10].*

The warning was based on a detailed examination of the segments of the structural weaknesses and limitations within the Croatian economy. Shortcomings emerged among other reasons as a consequence of administrative shortcomings (the overall capacity of the state). They were also determined by the fact that it was an election year, when it could be assumed that the focus of the government and the opposition would be directed at the political arena and voter preferences. The warning was almost identical in substance to the one stated in an EU Commission document (October 2011), a part of which speaks about fulfilling economic criteria for Croatia's full membership in the EU. *"Croatia's economy has recently shown signs of a mild expansion following three years of recession which has resulted in higher unemployment, public deficits, and debt. Although the current account deficit has fallen sharply, external debt has continued to increase and remains a key vulnerability of the economy. Monetary policy has maintained exchange rate and financial stability. Fiscal policy has, to some extent, contained the negative budgetary consequences of the recession. Further efforts are needed as regards structural reforms, including reforms of the labor market and improvements in the business environment*" [5, p. 1].

A continuation of this encouragement of changes, but also a caution that time was of the essence and not just a chronological framework for behavior and events was contained in a short-term warning:

..."(2) With unchanged policies, economic prospects in 2012 and the medium term period are weak. According to the projections of members of the Mission, with existing policies GDP would be reduced by about 1 percent in 2012, reflecting the continued weakness of domestic demand because of debt repayments by enterprises and the overindebtedness of households. The recovery of foreign demand will probably be delayed because the euroarea has gone into recession. This projection has not taken into account the recently announced public investment projects because at this time the timing of their start, the import component, and the effect on growth is not known. Above all, the resources to achieve them would primarily have to come from foreign sources to ensure adequate liquidity for the private sector. In the medium term period weak competitiveness will limit growth in the absence of structural reforms. (author's emphasis). The growth that rested on domestic demand and was stimulated by a large influx of capital in the years before the crisis is no longer a sustainable option because it is likely that foreign financing will remain subdued. A reorientation of the economy to foreign demand is required to return to the path of sustainable growth." (author's emphasis)

...10) Croatia's results related to exports and growth are limited by relatively high salaries and widespread rigidity. Participation of the labor force is low because of the generous system of social benefits. The labor market is one of the least competitive in the region, while salaries are high in comparison to revenues and productivity. Insufficient progress has been made in

the privatization and restructuring of enterprises, which limits the growth of productivity and the development of the private sector. Because of this, the public sector remains large, with numerous regulations and obligatory and burdensome costs for the private sector. These structural weaknesses have limited Croatian exports and their entry into EU markets; in the last decade they have been among the lowest in European countries with emerging markets.

11) *Implementation of the long-delayed structural reforms is necessary to improve competitiveness and to achieve sustainable growth in the medium term. First, internal devaluation by means of a reduction of prices and salaries to a competitive level is required in light of the stable foreign exchange regime that would be expensive to adapt because of the large net hard currency exposure of the economy. Second, priority must be given to structural reforms aimed at: (a) increasing the flexibility of the labor market by changing the labor law to create a more competitive environment for salaries and by reducing the cost of employment and dismissals, (b) increasing participation of the labor force by reforming the system of social protection, and (c) reducing the number of people employed in the public sector and increasing efficiency"* [7, pp. 1-4].

International standards and agreements conditioned by international monitoring (IMF, World Bank, EU) for the purpose of evaluating the current situation, but even more important, a clear definition on one hand of the cause and on the other hand of the formulated necessary actions for changes, contain in two important factors: structural reforms and raising the level of competitiveness are essential prerequisites for change. Identical requirements can be seen by studying assessments of the new circumstances by important partners in managing national economic policy – global rating agencies.[2] Thus, Standard & Poor's rating agency, stressed: *"Between 2002 and 2009 Croatia's real GDP growth averaged 4.8%, fueled by foreign-currency credit growth averaging 19% per year. This rapid growth encouraged a widening of Croatia's current account deficit to nearly 9% of GDP in 2008, and an increase in external liabilities. By 2010, the current account had narrowed substantially – back an estimated 1.6% of GDP – as credit conditions tightened and import demand fell back sharply in 2009 and 2010. Croatia's rigid monetary regime and high euroization rule out exchange rate depreciation as a natural channel to improve competitiveness and retain macroeconomic stability. (*author's emphasis) *As a consequence, the onus of macroeconomic adjustment rests on fiscal policies and greater wage flexibility, among others. There is a mismatch between high nominal wage levels and productivity in some sectors, particularly the public. Such mismatches are less evident in the private sector* [17, p. 2].

The fact is that the Republic of Croatia, and other transition countries in Central and Eastern Europe, are facing the cumulative consequences of the many years of, first, a lack of awareness of and then the absence of political necessary for economic and general reform as a response primarily to the endogenous and also the cumulative global crisis. With the assumption that this moment of transformation is a consequence of the inevitability that had arrived, then the increase of national competitiveness was clearly determined by the necessary structural reforms: implementation of internal devaluation (an alternative to depreciation of the exchange rate), which also means eases the expenditure side of the national, but also the local and regional budgets. The next area of restructuring is public enterprises, whose monopolistic position means the constant payment of additional expenditures, with a concomitant lower efficiency in providing their (monopolistic) services. It is also clear that reforms of the judiciary and all other aspects of security for the citizenry must also mean that there is a sense of security in the business sector that the resolution of disputes will not last so long that they seem endless and that outcome does not seem arbitrary. Resolving the situation in the land registries, as a further critical prerequisite for legal security, but also for economic efficiency (business transactions, credit collateral) is the next important qualitative factor for raising the level of competitiveness. All of this is necessary, but it is not enough because there must be an awareness that *"By itself,*

2 The estimate of the Croatian National Bank (HNB) is that if for any reason there is a drop in the credit rating and an increase of one percent in the interest rate it would be an additional financial burden on GDP of 700 million euros.

a strategy is useless without organizational structures that are capable of implementing it. This applies both to countries and to companies. It is really much easier to devise a well-founded strategy than to create an organization that can efficiently carry out a strategy in a timely fashion" [19, p. 10]. In this context, all of the sources of noncompetitiveness are simpler to understand and then to overcome by using a *best practice* list of requirements *"so that reforms occur and succeed,"* which aggregates the timing and scope of basic principles that create the general prerequisites for a continuing national program of reform and its success:

- *"Governments need to have an electoral mandate for reform.*
- *Effective communication by governments is important.*
- *Policy design should be underpinned by solid research and analysis.*
- *Successful structural reforms take considerable time to implement.*
- *Cohesion of the government is important.*
- *Government leadership is essential.*
- *The condition of the policy regime to be reformed matters.*
- *Successful reform requires persistence" [13, p. 27].*

It is important to add the fact that experience (Economic Policy Recovery, Going for Growth) based on research of several reforms carried out in OECD member states shows that a readiness for reforms and their start, frequently and within an electorate that is demanding changes, does not automatically mean unsatisfactory election results. It is more probable to assume that the electorate values the persuasiveness of the offered package of reforms and the degree of success in achieving it as the basis of their (future) electoral preferences.

Conclusion

Most of the countries of Central and Eastern Europe have faced development limitations in different phases of the transition process. This circle of countries did not possess the competitive advantages that according to classical theories ensure growth, especially when it is a question of resources (the amount of raw materials with a market value) or an exceptional transportation and/or geopolitical position: from transportation routes to military logistics, where one or the other provides payment of location rents.

Thus, there remains only the possibility of selecting a more difficult course: building one's own competitive advantages at the level of the national economy (see: Austria, Switzerland, the Netherlands, Singapore) and/or attracting global corporations that are again appearing and operating in a globally comparable stimulating economic environment. Choosing this path, increasing the degree of national competitiveness (Porter) is an individual choice and a conscious orientation of each country. It is followed by a demanding process of creating one's own model of development suitable to one's own needs, possibilities, and circumstances. But at the same time, it is also based on general principles: an active labor market, quality education and innovation; an orientation to foreign markets, a consistent legal system, and a consistently high quality of comprehensive public services.

Such a commitment ultimately requires the creation of a national awareness that this will be neither easy nor simple, neither short-term nor spectacular in the speed by which noticeable results will be achieved. It is also the only realistic way to: a) first, stimulate economic growth and b) create the conditions and general environment in which that growth will be sustainable in the long term – so that this model is resistant and adaptable to regional and global crises that are inherent to the globalization environment of today's times. Through the interaction of (selected) political elites and (majority) support from the electorate such achievement are possible. The achievements of the Scandinavian countries – the Nordic model – or of other countries like South Korea, Singapore, and Taiwan – the East Asian model – are a testament to this.

A development policy that links (competitive) interests of the business sector with public interests and ultimate social goals must be know, understood, and achieved. The state is not the same as an enterprise; it cannot be led and managed in the same way as a corporation – achieving immediate goals and thus building its competitiveness over its immediate competition. The state has to create a framework in which the business sector can be successful

and competitive because it will then also fulfill in the best possible way the expectations of its citizens (stakeholders) and satisfy their most vital needs: employment, a standard of living, and social and general security.

How to come up with suitable answers to the questions of how to create efficient institutions and political stability; how to keep public debt under control and to direct it at strengthening infrastructure; how to link (medium-term and long-term) growth to growth of GDP, and how to implement a policy of monetary flexibility that corresponds to the needs of economic growth while simultaneously stimulating the export sector (especially small and open economies) are questions for which finding synchronized answers means being able to achieve fundamental development goals of society, relying on stable and sustainable long-term economic growth that is nevertheless determined by an active competitive position compared to geographically close or more distant competitors. This task and this goal cannot be realized without the creation of a (general national) awareness that in addition to efficient and quality public services, an adequate and coordinated monetary and fiscal policy, and a flexible labor market it will be essential to develop and enhance the innovative potential of the economy, which means successful, reputable universities and research institutes, adequate sources of financing, ties to the business sector in the application of achieved research results or the application of those results achieved elsewhere in the world. For all of this it is necessary to have adequate technological and business support and infrastructure.

The responsibility of political elites to devise, coordinate, and achieve these processes and activities in partnership with the business community, trade unions, and the academic community is exceptional, while at the same time their role in general events is irreplaceable. The analysis and the findings of the work clearly show that growth and development did not spontaneously, or with the passage of time, appear anywhere. An intelligent role for a strong state (management) and not for a large state (dominant ownership) is the greatest divide that distinguishes that countries that act as subjects to events from those that survive as objects and dependent partners in events a narrower (regional) or broader (global) setting with (several) examples of successful ones serving as warning examples to other (current) ones (Greece) by showing that for a successful return to the phase of their own subjectivities and managing present, and even more importantly, future events the time and effort to achieve this are considerably greater and more complex compared to other countries and societies that began to achieve reforms by paying attention to the fact that timing is also an important (active), and in no way neutral, factor.

References

1. Acemoglu, D., Robinson, J.A. (2012), *Why Nations Fail – The Origins of Power, Prosperity and Poverty,* London, Profile Books Ltd.
2. Beattie, A. (2010), "Going Head to Head", *Financial Times*, London, October 8, 2010.
3. Burlumaqui, L. (2000), "Evolutionary economics and the economic role of the state", in Burlumaqui, L., Castro, A.C., Chang H.J. (eds), *Institutions and the Role of the State*, Cheltenham, Edward Elgar Publishing Limited, 27-52.
4. *Croatia: 2011 Article IV Concluding Statement*, IMF, Washington, May 16, 2011, available at http://www.imf.org/external/np/ms/2011/051611.htm, accessed 18.08.2012.
5. European Commission. (2011), *Key Findings of the 2011 Progress Report on Croatia,* press release, MEMO/11/688, Brussels, 12 October 2011, available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/688.
6. IMF. (2011), *Republic of Croatia: Selected Issues paper*, Country Report No 11/160, July 2011, Washington, IMF.
7. IMF. (2012), *Hrvatska – Posjet MMF-a,* Zaključna izjava, Zagreb, 3. veljače 2012., available at http://www.hnb.hr/mmf/clanak-iv/2012/h-posjet-mmf-zakljucna-izjava_veljaca-2012.pdf.
8. Institute for Management Development (IMD). (2012), *IMD World CompetitivenessYearbook 2012, Country Profile: Croatia*, Lausanne, IMD, available at http://www.imd.ch/wcy.
9. Kornai, J. (2006), "Velika transformacija srednjoistočne Europe: Uspjeh i razočaranje", *Revija za socijalnu politiku*, god. 13, br. 3-4, Zagreb, Pravni fakultet Sveučilišta u Zagrebu, 335-373.
10. Marsh, P. (2012), "Industry: Nimble, niche and networked", *Financial Times*, London, June 13, 2012.
11. McKinsey & company. (2010), *From Austerity to Prosperity: Seven Priorities for the Long Term*, London, McKinsey Global Institute.
12. Mickiewicz, T. (2010), *Economics of Institutional Change – Central and Eastern Europe Revisited*, Second Edition, New York, Palgrave Macmillan.
13. Organization for Economic Co-operation and Development. (2011), *Economic Policy Reforms 2011: Going for Growth*, Paris, OECD Publishing.

14. Pereira, L.C.B. (2000), "State reform in the 1990s: logic and control mechanisms", in Burlumaqui, L., Castro, A.C., Chang H.J. (eds), *Institutions and the Role of the State*, Cheltenham, Edward Elgar Publishing Limited, 175-218.
15. Porter, M.E. (2009), *Competitiveness for the Third Millennium: Implications for Croatia,* Presentation from CEO Agenda Forum, Zagreb, 15 May, 2009, available at http://www.isc.hbs.edu/pdf/20090515_Croatia.pdf.
16. Rodrik, D. (2007), *Industrijska politika za 21. stoljeće – globalizacija, institucije, gospodarski rast*, Zagreb, Hrvatska gospodarska komora.
17. Standard & Poor's. (2011), *Republic of Croatia,* RatingsDirect on the Global Credit Portal, London, September 15, 2011, 1-17.
18. The Economist. (2012), "A third industrial revolution", *Special Report: Manufacturing and innovation –The boomerang effect*, April 21, 2012.
19. Vietor, R.H.K. (2010), *Kako se zemlje natječu – Strategija, struktura i državno upravljanje u globalnoj ekonomiji*, Zagreb, Mate d.o.o.
20. World Economic Forum. (2012), *The Global Competitiveness Report 2011-2012*, Geneva, WEF, available at http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf , accessed on 03.08.2012.

Mladen Vedriš

received his BA, MSc, and PhD from the Faculty of Economics in Zagreb. Since 2005 he has been a Head of Department of Economic Policy at the Faculty of Law in Zagreb. He teaches course of Economic Policy and two undergraduate elective courses – International Economic Relations and Economic Success and Institutions. He is also a visiting professor for doctoral and post-graduate studies at the Faculties of Economics in Zagreb, Rijeka, and Osijek. In his professional life, he has held many leading positions in government institutions as well as in non-governmental organizations. In 1990, he was elected President of the Executive Council of City Assembly of Zagreb. He served as Minister without Portfolio in the Government of the Republic of Croatia (1993), Vice-President of the Government of the Republic of Croatia for Economic Affairs (1992-1993), President of the Croatian Chamber of Economy (1993-1995). In 1996 he founded the consulting and strategic planning firm Sonder. He is also one of the founders of the Croatian National Competitiveness Council. Dr. Vedriš is a member of the Advisory Council of the Croatian National Bank and a member of the Main Commission of the Croatian Society of Economists.

3D životno osiguranje

Nova dimenzija osiguranja

Obogatili smo svoju ponudu **do sada najfleksibilnijim proizvodom na tržištu osiguranja!**

Kombinacija dve najvažnije komponente životnog osiguranja vrši se **na način koji Vama najviše odgovara**. Period štednje počinje uplatom prve premije, a osiguranje života možete uključiti kada procenite da Vam je to potrebno.

Uz 3D životno osiguranje možete izabrati tri dopunska osiguranja od specifičnih rizika, a **svi klijenti su oslobođeni plaćanja poslednje godišnje premije**.

Posetite neko od naših 40 prodajnih mesta, i **izaberite svoje osiguranje**.

Call centar: 0800 200 800

www.wiener.co.rs

ORIGINAL SCIENTIFIC PAPER
UDK: 339.137.2 ; 338.22(497.11)
Date of Receipt: August 29, 2012

Dušan Vujović
Singidunum University
Faculty of Economics Finance and Administration
Belgrade

SERBIA: POLICIES TO ENHANCE COMPETITIVENESS[1]

Srbija: Politike za jačanje konkurentnosti

Abstract

The main purpose of the paper is to discuss an apparent erosion of competitiveness of the Serbian economy in the aftermath of the global crisis and to propose a set of policy interventions that would restore the pre-crisis level of competitiveness, as well as support the resumption of institutional and policy reforms needed to close the gap with new EU members and other candidate countries. Comprehensive measures of competitiveness (such as GCI produced by the World Economic Forum), empirical studies, and academic papers provide a wealth of information on key determinants of competitiveness, growth, and current account sustainability. GCI alone measures 111 indicators organized into 12 pillars and three blocks focusing on basic requirements, efficiency and innovation. Empirical studies identified dozens of factors that contribute to or explain import and export dynamics, and determine CA movements with large numbers of possible policy combinations (mixes) that could be associated with desirable growth outcomes. Clearly, not all factors are equally important or really binding. To identify the key binding constraints to competitiveness and sustainable growth of the Serbian economy the paper uses a diagnostic methodology advanced by *Rodrik and Hausmann* [9] and further developed by *Hausmann et al.* [1]. We confirm recent empirical findings and claims of Serbian businesses that the real effective exchange rate (REER) indeed represents an immediate binding constraint on competitiveness and growth which needs to be addressed as soon as possible. However, it should be stressed that finding and maintaining equilibrium REER is not a panacea that will cure all problems of tradable sector in Serbia. It is closely followed by high real cost of financing and inefficient financial intermediation, expensive and intrusive state (resulting in costly uncompetitive business environment), and inefficient management and labor force (manifested through high unit labor costs or low productivity). These constraints need to be addressed in short sequence to restart the engines of export led growth.

Key words: *competitiveness, real effective exchange rate, unit labor cost, growth diagnostics*

Sažetak

Glavni cilj rada je da se na osnovu analize erozije konkurentnosti srpske privede posle globalne krize predloži paket mera ekonomske politike koji bi vaspostavio konkurentnost na nivou koji je postojao pre izbijanja krize i podržao buduće institutcionalne reforme i mere ekonomskle politike neophodne za hvatanje koraka sa novim članicama EU i zemljama kandidatima. Kompleksne mere konkurentnosti (kao što je GIK – globalni indeks konkurentnosti Svetskog ekonomskog foruma), empirijske studije i akademski (teorijski) članci pružaju obilje informacija o ključnim determinantama konkurentnosti, pitanjima rasta i održivosti deficit tekućeg bilansa. Samo GIK meri 111 pojedinačnih indikatora organizovanioh u 12 stubova konkurentnosti i tri bloka fokusirana na bazične zahteve, efikasnost I inovacije. Empirijske studije su identifikovale desetke varijablli koje doprinose odnosno objašnjavaju dinamiku uvoza i izvoza ili opredeljuju kretanje tekućeg bilansa, sa velikim brojem mogućih kombinacija mera ekonomske politike koje bi mogle da daju željene ishode. Očigledno, svi ovi brpjni faktori nisu podjednako važni ni ograničavajući. Da bismo identifikovali glavna efektuivna ograničenja konkurentnosti i održivog rasta privrede Srbije u radu koristimo methodologiju dijagnostike rasta koju su predložili *Rodrik i Hausmann* [9] i dalje razvili *Hausmann et al.* [1]. Rad potvrđuje empririjske rezultate i tvrdnje privrednika da realni efektivni devizni kurs (REDK) stvarno predstavlja neposredno efektivno ograničenje koje pod hitno mora biti uklonjeno. Nalaženje i održavanje ravnotežnog deviznog kursa nije, međutim, univerzalni lek koji će rešiti sve probleme proizvodnje razmenljivih dobara. Odmah posle kursa redom slede tri oštra ogranuičenja: (i) visoki realni troškovi fiunansiranja i neefikasno finansijsko posredovanje, (ii) skupa i remetilačka država (koja podržava skupo i nekonkurentno poslovno okruženje), i (iii) ne-efikasno upravljanje i skupa radna snaga (koja se manifestuje kroz visoke jedinične troškove rada ili nisku produktivnost). Ova ograničenja moraju biti jedna za drugim brzo uklonjena da bi se pokrenuo izvozno orijentisani rast.

Ključne reči: *konkurentnost, realni efektivni devizni kurs, jedinični troškovi rada, dijagnostika rasta*

[1] This article was produced in the framework of the project 47028 "Enhancing Serbia's Competitiveness in the Process of EU Accession" supported by the Ministry of Education and Science of the Republic of Serbia for 2011-2014 period.

Introduction

Based on the latest numbers, Serbian economy is headed for trouble. Negative GDP growth rates were recorded in the first two quarters of 2012 (-1.3% and -0.6% respectively). During the first six months of 2012 exports of goods and services grew by only 1.5% despite a strong nominal and real depreciation of the dinar. With continued growth of imports (5.7%) and declining remittances (-15%), the current account deficit increased by more than 45% (to almost 1.9 billion Euros). More importantly, external financing has almost dried up and the NBS had to use about 2 billion Euros of its foreign exchange reserves to finance the current account deficit and a 100 million Euros capital outflow. Public and total external indebtedness were flat in Euro terms but increased as share of GDP due to depreciation of the dinar and negative growth rates. By the end of June fiscal deficit stood at 110 billion dinars (or 70% of the planned annual amount) and is likely to substantially exceed the number over which the IMF put the precautionary program on hold back in February. Finally, less than six months after obtaining the EU candidate status Serbia's credit rating was lowered to BB- with negative prospect. Instead of managing or even fending off an excessive interest of global investors in the next EU accession country, Serbia is facing an unhappy prospect of recession, fiscal and financial crisis.

Based on pre-election promises and post-election statements, the first policy choice of the new coalition government would be to blame the poor outcomes on the previous government and raise additional financing on the promises of future reforms on continued EU accession path. This approach may not gain sufficient traction in the EU, the financial markets, or the IMF. Instead, the IMF could offer additional balance-of-payments and possibly budget support financing conditioned on a tight fiscal and monetary program and the resumption of pending structural reforms, focusing in particular on key structural weaknesses (weak supply side, high wages relative to productivity, and large and inefficient government) that constantly gave rise to macroeconomic tensions in the past. This approach, in turn, is not likely to gain much political or social support in Serbia at this time due to implied fiscal restraint and the necessary downward adjustment in real incomes. This will lead to prolonged negotiations and reluctant acceptance of IMF terms on the short-term aggregate demand management side, and weak effort at implementing structural reforms across the board.

As in the past, the Fund and the World Bank will seek to strengthen the supply side through continued privatization, enterprise restructuring, and lowering the costs and risks of doing business. In reality, despite many advances in privatizations and improvements in the business environment, we failed to observe the emergence of a vibrant and competitive private tradable sector expanding into new products and technologies, thriving to expand and export. Shedding labor and asset stripping made the news much more than successful privatizations and efficient restructuring programs. Declining employment numbers (255,000 or almost 13% of all jobs lost since 2008), record levels of unemployment (25%), and constantly declining GDP share of all tradable sectors and especially manufacturing (down by 1/3 since 2000) confirm that impression.

Clearly, Serbia, like other transition and emerging economies, faces multiple structural problems, institutional and policy constraints on growth. Removing all of them is economically and politically costly, and close to impossible in the short run. Random partial removal of some constraints may be possible but it calls for an evaluation of the resulting second-best position as it may be inferior to the initial situation. Hence, a genuine policy challenge is to identify and remove only the most binding constraints. This is not easy. Rodrik and Hausmann offered a growth diagnostic framework to guide the process of „identifying and removing binding constraints" on growth. Although the framework is straightforward and the underlying model relatively simple, Rodrik warns potential users that it cannot be applied mechanically and requires an inquisitive, detective's mindset. One needs to use economic theory and evidence judiciously to look for a series of clues that will identify the most likely suspect (i.e. cause of growth problems). The decision tree appearance calls for more than just checking a series of boxes. There is an

element of craft in doing the diagnostics right, but it is a craft solidly based on economic science.

The critical question Serbia faces today is how to identify priority policy responses that would remove key obstacles to growth and secure better economic performance in the future, with minimal pain in the short run. Before systematically addressing this question on the basis of growth diagnostic methodology in section four of the paper, next section will review the evolution of Serbia's growth competitiveness since 2008 based on World Economic Forum methodology, and the third section will discuss the causes of recent adverse developments and the economic decline observed since the start of the global crisis in 2008.

Unmasking institutional failures behind eroding competitiveness

World Economic Forum defines *competitiveness* as *the set of institutions, policies, and factors that determine the level of productivity of a country.* On the static side, productivity determines country's ability to sustain its *level* of income; on the dynamic side, it is one of the central determinants of returns to investment, a key factor explaining an economy's *growth potential* [19, p. 4].

This comprehensive definition provides an excellent basis for the measurement of competitiveness and cross country comparisons (rankings) based on the Global Competitiveness Index (GCI). As detailed in Table 1 below, GCI is a comprehensive measure based on twelve pillars organized into three blocks corresponding to Rostov-like stages of development defined by the level of GDP per capita.

"Basic requirements" have a 60% weight in the factor-driven stage (GDP p/c <$2000), 40% in the efficiency-driven economies (GDP p/c from $3000-9000), and only 20% in innovation-driven stage (GDP p/c > $17000). The weight of "Efficiency enhancers" is 35% in factor-driven stage and 50% in the higher stages of development. Finally, the weight of "Innovation and sophistication factors" increases from only 5% in the factor-driven stage, to 10% in the efficiency-driven stage, and, finally, reaches 30% in the innovation-driven stage. Interim weights are used during transition from stages 1 and 2, and from stages 2 and 3. For details see WEF [19, p.10]. Throughout the 2008-2011 period Serbia was in the group of efficiency-driven economies and, thus had a 40% weight for "basic requirements", 50% for "efficiency enhancers", and 10% for "innovation and sophistication factors."

Serbia's overall RCI score changed only marginally during the past four years, from the highest score of 3.90 recorded in 2008 to the lowest score of 3.77 in 2009. The effects of these small changes of RCI scores on the ranking were amplified by the increased number of countries in that narrow score range (3.75-3.90). Hence, Serbia GCI rank fell from the 85-th position in 2008 to 96-th position in 2010, and inched back to 95-th position in 2011. Although the overall GCI score and, even more, the overall GCI rankings tend to attract most political and

Table 1: The structure of Global Competitiveness Index

Basic requirements	
Institutions (21 indicators) Infrastructure (9 indicators) Macro-environment (6 indicators) Health & primary education (10 indicators)	key for factor-driven economies
Efficiency enhancers	
Higher education and training (8 indicators) Goods market efficiency (15 indicators) Labor market efficiency (9 indicators) Financial market development (9 indicators) Technological readiness (6 indicators) Market size (2 indicators)	key for efficiency-driven economies
Innovation and sophistication factors	
Business sophistication (9 indicators) Innovation (7 indicators)	key for innovation-driven economies
TOTAL: 3 blocks, 12 pillars and 111 indicators	

Source: WEF, [19, p. 9].

media attention, they represent third order aggregation that can only be understood by looking at 12 individual pillars and 111 indicators on which they are based.

Although the block pillars grouped under *Basic requirements* retained the same ranking (88th) between 2008 and 2011 and recorded only marginally improved score (from 4.15 to 4.28), the simple average formula on which it is based masked out much of the variability of individual pillars. Adverse developments in the scores of "institutions" and instability of scores awarded to "macro" are largely compensated numerically by improvements in (soft) "infrastructure" and "health and primary education." In reality these trade-offs do not exist and this is one of weaknesses in the construction of GCI-style composite indexes.

Pillar 1 (Institutions) followed a declining trend in both score (from 3.40 to 3.15) and rank (from 108th to 121st position). This trend is even more worrisome when we look at the 21 indicators comprising this pillar. Serbia is moving in the wrong direction (lower score and rank) on some key institutions and now approaches the bottom of the world (see Table 2 below). It appears that some of the key institutions of public and private (corporate) governance have not been well developed. A decade after the start of reforms Serbia's institutions seriously lag behind comparator countries and continue to deteriorate towards the bottom of some 140 countries covered by the WEF's global competitiveness screening process.

Pillar 2 (Infrastructure) continuously increases average score (from 2.68 to 3.67) and shows improved ranking in all years but 2009. This progress is mainly owed to quality of electricity supply, fixed and mobile telephony. The quality of classical physical infrastructure is low and continues to deteriorate compared to most countries: roads rank 131, railroads 102, ports 133 and airports 132.

Pillar 3 (Macro environment) shows a great deal of instability both in score and rank. The score dropped from a high value of 4.72 (rank 84) achieved in 2008 to as low as 3.88 in 2009 (rank 111) and then gradually improved to 4.05 (rank 109) and a solid 4.48 (rank 91) in the last two years. This pillar is entirely dependent on hard data covering key aspects of macroeconomic performance. The main reason for deterioration in 2009 as well as for weaker performance in subsequent years is owed to exceptionally low level of national savings, high interest rate spreads, and continued inflationary pressures.

Pillar 4 (Health and primary education) shows very high score (between 5.71 and 5.95 out of 6.0) and the highest average rank among the 12 pillars. Despite a slide in rank (from 46th to 52nd position) and the fact that Serbs (rightly) may not be very happy with the quality of their health care and primary education, this is one area where Serbia performs at par with its capacity and development level. Obviously, there is a huge scope for improvement in health and primary education, but compared to other countries Serbia has a much better starting position in this dimension of competitiveness.

Pillars grouped under *Efficiency enhancers* recorded a mildly declining score (from 3.82 in 2008 to 3.73) which resulted in much more visible losses in the rankings (from 78th position in 2008 to 93rd position in 2010 and back to 90th position in 2011). Such large and unpredictable changes in rankings (where 0.02 lower score in 2010 produced a drop in ranking by 7 positions, and an equal 0.02 drop in

Table 2: Serbia: Selected indicators of the institutional pillar

Pillar	Indicator	Rank in 2011	Score in 2011	Change in rank
1	INSTITUIONS	121	3.15	-1
1	01 Property rights	126	3.1	-4
1	06 Judicial independence	128	2.4	-4
1	07 Favoritism in decisions of government officials	124	2.3	1
1	08 Wastefulness of government spending	130	2.2	-6
1	09 Burden of government regulation	134	2.3	-3
1	10 Efficiency of legal framework in settling disputes	137	2.5	-5
1	11 Efficiency of legal framework in challenging regulators	127	2.6	-2
1	17 Ethical behavior of firms	130	3.0	-10
1	19 Efficacy of corporate boards	136	3.7	-2
1	20 Protection of minority shareholders' interests	140	2.8	-3

Source: WEF, [18,19].

2011 resulted in improved ranking by 3 positions) ought to be interpreted very carefully since they are entirely caused by (sometimes haphazard) developments in other countries. If indeed we observe a stable growing trend in efficiency enhancers globally, then lagging behind can be treated as a weakness and a loss of competitiveness. If, however, the same minor decline produces a large ranking loss (-7) in one year and a modest ranking gain (+3) in the next year, then the main problem probably lies in the instability of country scores and the simplistic aggregation formula since these problems tend to fade away in the pillar-based analysis.

Pillar 5 (Higher education and training) has markedly lower scores (3.91 to 4.01) than "health and primary education" and its ranking follows a declining trend (from 70th place in 2008 to 81st place in 2011). With one notable exception (i.e. "internet access in schools" where Serbia has made good progress in recent years), this decline is observed in most indicators under this pillar. As summarized in Table 3 below, the main reasons for declining rankings are weak staff training programs in companies, and inability to keep pace with dynamic improvements other countries are introducing to improve the quality of the education system, improve the quality of management schools, provide research and training services to companies, and better prepare students in math and science.

Pillar 6 (Goods markets efficiency) demonstrated a disappointing performance both through declining scores (3.68 to 3.49) and substantially lower rankings (132nd position in 2011, 7 positions down from 2010 and 20 down from 2009 (see Table 4)). The main reasons for inefficient goods markets are low level of local competition, presence of monopolies, and ineffective anti-monopoly policy where Serbia ranks among the bottom 5-7 countries in the world. Combined with low level of buyer sophistication and weak customer orientation this gives a really pessimistic assessment of the market operation in Serbia. The impact of these indicators on the country's overall GCI score may be marginal, but their importance in the efficiency-driven stage of development driven by domestic and export demand must not be underestimated.

Pillar 7 (Labor market efficiency) sharply declined in scores (from 4.36 to 3.94) and fell from 66th position in 2008 to 112th position in 2011. Aside from achieving "greater flexibility in wage determination", all other indicators of labor market efficiency deteriorated over the past four years (see Table 5). "Cooperation between employers and labor" went from bad to worse and so did "reliance on professional management". Serbia has become the worst

Table 3: Serbia: Selected indicators of the higher education and training pillar

Pillar	Indicator	Rank in 2011	Score in 2011	Change in rank
5	HIGHER EDUCATION AND TRAINING	81	3.98	-7
5	03 Quality of the educational system	111	3.1	-25
5	04 Quality of math and science education	58	4.2	-10
5	05 Quality of management schools	114	3.5	-13
5	06 Internet access in schools	83	3.8	4
5	07 Availability of research and training services	113	3.2	-13
5	08 Extent of staff training	132	2.9	-2

Source: WEF, [18,19].

Table 4: Serbia: Selected indicators of the goods markets efficiency pillar

Pillar	Indicator	Rank in 2011	Score in 2011	Change in rank
6	GOODS MARKET EFFICIENCY	132	3.49	-7
6	01 Intensity of local competition	136	3.6	-5
6	02 Extent of market dominance	139	2.5	-1
6	03 Effectiveness of anti-monopoly policy	137	2.8	0
6	08 Agricultural policy costs	112	3.4	-9
6	11 Prevalence of foreign ownership	116	3.9	-9
6	12 Business impact of rules on FDI	125	3.5	-2
6	15 Degree of customer orientation	131	3.6	-12
6	16 Buyer sophistication	136	2.2	-5

Source: WEF, [18,19].

case of brain-drain (139th position) and share of women in the labor force continues to fall.

Pillar 8 (Financial market development) went through a slight but continuous decline both in scores (from 3.94 to 3.74) and in rankings (from 89th to 96th position). Despite an improvement in the availability of financial services (score of 4.0 and rank 103 in 2011 compared to 111th position in 2010), the financial sector pillar on average declined due to shallow local equity market, lower availability of venture capital, and weaker control of securities exchanges. In tandem with high interest rate spreads covered under the macro pillar, this completes a relatively bleak picture of the financial sector.

Pillar 9 (Technological readiness) showed a mild variability in scores (around 3.40) during 2008-2010 and a marginal increase (to 3.63) in 2011. Rankings followed a similar pattern ending with the 71st position in 2011. Individual indicators supporting this pillar suggest that the main constraints continue to be limited firm-level capacity for technology absorption (with a very weak 137th position) and poor availability of latest technologies (123rd position).

Pillar 10 (Market size) had a small variation in score (3.59 to 3.69) and rank (65 – 72) based on combined impact of domestic growth and relative export performance (foreign market size) enabled by both supply and demand factors (such as free-trade and custom union agreements that came into effect during the 2008-2011 period).

Pillar 11 (Business sophistication) declined persistently both in score (from 3.51 to 3.08) and in rank (from 100th to 130th position). Aside from improvements in quantity and quality of local supply, and greater "value chain breadth," all other aspects of business sophistication deteriorated over the past four years and some indicators approach the very bottom of the world rankings (as detailed in the Table 6).

Pillar 12 (Innovation) shows a similar declining trend in both score and rankings, albeit the lowest ranking recorded in 2011 stops at a more acceptable 97th position despite a large improvement in the relative number of utility patents granted (67th rank in 2011 compared to 77th rank in 2010). The main factors behind declining overall innovation performance are low and fast eroding "innovation capacity" (110th position in 2011 compared to 82nd position in 2010), very low "company spending on R&D" (130th position), and relatively weak R&D collaboration between universities and companies (81st position in 2011 compared to 71st in 2010). Improvements were recorded in the "government procurement of advanced tech products"

Table 5: Serbia: Selected indicators of the labor market efficiency pillar

Pillar	Indicator	Rank in 2011	Score in 2011	Change in rank
7	LABOR MARKET EFFICIENCY	112	3.94	-10
7	01 Cooperation in labor-employer relations	136	3.3	-1
7	03 Rigidity of employment index, 0–100 (worst)*	90	35.0	-4
7	04 Hiring and firing practices	89	3.6	-9
7	05 Redundancy costs, weeks of salary*	50	25.0	-3
7	06 Pay and productivity	103	3.4	-12
7	07 Reliance on professional management	133	3.3	-5
7	08 Brain drain	139	1.8	-3
7	09 Women in labor force, ratio to men*	69	7.8	-10

Source: WEF, [18,19].

Table 6: Serbia: Selected indicators of business sophistication pillar

Pillar	Indicator	Rank in 2011	Score in 2011	Change in rank
11	BUSINESS SOPHISTICATION	130	3.08	-5
11	03 State of cluster development	128	2.5	-6
11	04 Nature of competitive advantage	136	2.4	-3
11	06 Control of international distribution	126	3.3	-6
11	07 Production process sophistication	129	2.6	-4
11	08 Extent of marketing	128	2.8	-6
11	09 Willingness to delegate authority	136	2.6	-9
11	03 State of cluster development	128	2.5	-6

Source: WEF, [18,19].

and in the "availability of scientists," although the rankings remain modest.

Overall, this analysis reveals that Serbia's lingering GCI ranking around the 90th position hides a set of diverse and worrisome developments on the broad institutional and policy front. More than a decade after the late start of transition Serbia's key market institutions seriously lag behind comparator countries and in most cases continue to deteriorate towards the bottom of some 140 countries covered by the WEF's global screening process. Crippling weaknesses are found in general market institutions, low efficiency of goods and labor markets, and in the quality of the business sector (low capacity to absorb new technology, low level of business sophistication and insufficient innovative capacity).

Combined with increasingly unstable macroeconomic environment, underdeveloped and expensive financial intermediation and poor quality of key physical infrastructure, this completes the bleak institutional and policy picture left after the global financial crisis. Many of the troubled institutional reforms require strong political will as well as time and substantial implementation capacity. But time may be limited by adverse macroeconomic developments discussed in the next section. The option to postpone difficult reforms and sail over wrecked institutions and unrealistic political and social expectations on a financial tide fed by the capital inflows and workers remittances is no longer available.

Macroeconomic developments since 2008: the demise of consumption-driven growth

Serbia's true economic problems were largely subdued during the first five years of renewed transition. Partly this was due to a large dose of IMF-led policy assistance under the stand-by arrangement (June 2001-May 2002) and the extended arrangement (April 2002 – February 2006). Partly, this was enabled by substantial donor (grant) assistance, concessional and other financing.

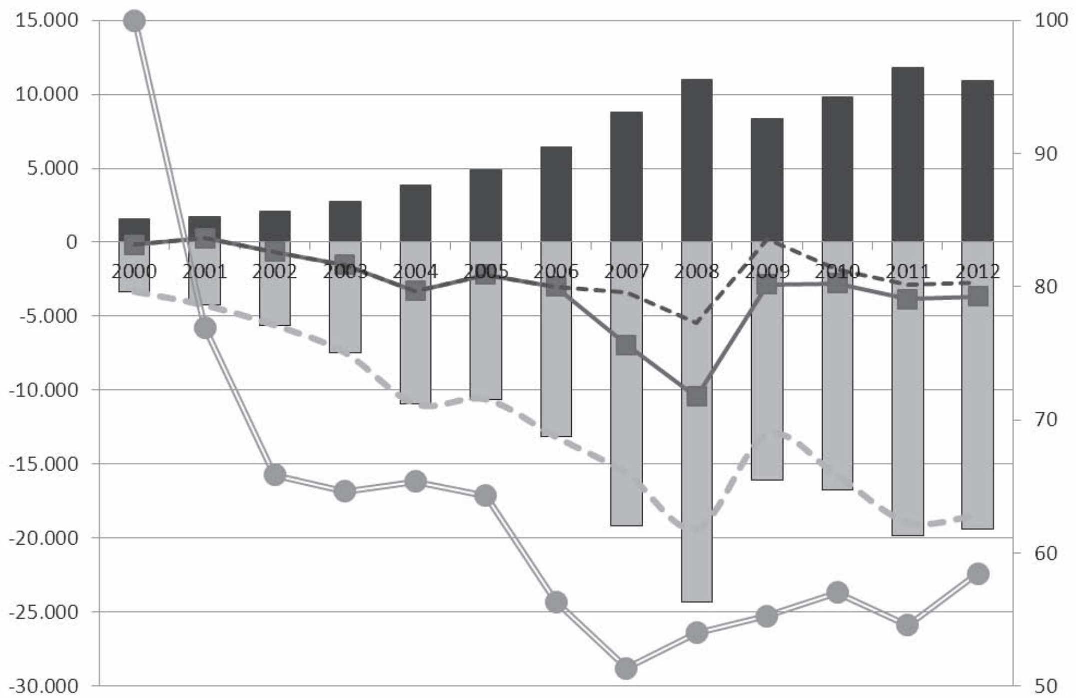
A true test of Serbia's ability to independently manage its monetary and fiscal policy, and continue to implement institutional reforms came in 2006. Government confidence was running high at the time based on fiscal surplus recorded in 2005, high foreign exchange reserves (9 months of imports), and large expected inflows of remittances and foreign capital. Faced with strong political and social pressures to increase pensions and public sector wages, and reverse the trend of rising unemployment (20.9%), the government relaxed both fiscal and monetary policy, and allowed a large real appreciation.

The resulting GDP growth was entirely led by domestic absorption, although the growth rates turned out to be less impressive than expected (3.6% in 2006, 5.4% in 2007 and 3.8% in 2008). Nevertheless, GDP growth and relaxed public sector hiring policies helped reduce unemployment (to 18.1% in 2007 and 13.6% in 2008) and allowed a large increase in wages: Average wages almost doubles in euro terms between 2005 (210 Euros) and 2008 (402 Euros). Expectedly, due to appreciation of the dinar, ample foreign financing, and sluggish supply response, this type of consumption-led growth produced large trade and current account deficits. As shown in Figure 1 below, current account deficit quickly increased from -10.1% of GDP in 2006 to -17.7% in 2007 and -21.6% in 2008.

The main contributor to such a huge increase in current account deficit was an unusually high growth of imports in 2007-2009 period. Official data sources (NBS and RSO) report almost US$11.6 billion of imports that have not been classified to this date. What could Serbia import for that much money that is not a consumer good, nor a capital or intermediate good, and it does not belong to any of the goods under standard trade classification? This hump in imports is clearly indicated in Figure 1: dotted line M' indicates the value of imports without the excessive increases, and line marked as CAB' indicates the lower level of current account deficit without the excessive increases in imports.

On the supply side this type of consumption-led growth produced a very uneven sector response. Nontradeable sectors (marked light gray in Figure 2) responded to consumer demand and contributed the brunt (over 95%) of increased value added, while the tradeable sectors contributed less than 5%. By mid-2008 it became clear that this pattern of consumption-based growth is not sustainable in the long run.

Figure 1: Serbian imports, exports, and current account balance



Source: NBS and RSO databases.

M = Imports of Goods in million USD (light grey -- lhs); E = Exports of Goods in million USD (dark grey -- lhs)

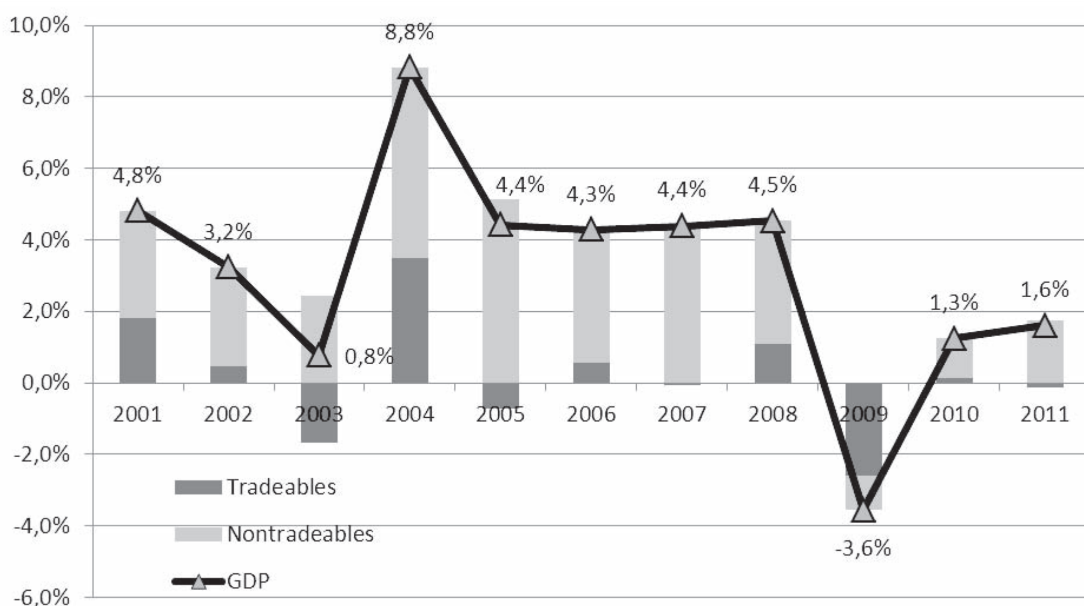
M'= Imports of Goods net of exceptional non-classified Imports (dashed line -- lhs)

CAB = Current Account Balance in million USD (full line w square markers -- based on M import values – lhs)

CAB' = Adjusted Current Account Balance in million USD (dotted line -- based on M' import values - lhs)

REER = Real Effective Exchange Rate index (2000=100, double line w circle markers -- rhs)

Figure 2: Serbia - Contributions of tradeable and nontradeable sectors to GDP growth



Source: RSO database.

Growth based on consumer demand and other elements of domestic absorption depended heavily on external and budget financing main and created demand for domestic nontradeable activities and imports. Tradeable sectors, weak, unreformed and inefficient, were largely left out as they were unable to compete with the influx of imports and mount a credible export expansion. With such an imbalance between tradeable and nontradeable sectors the Serbian economy would not able to deliver fast consumption-based growth and also maintain reasonable price stability, and sustainable fiscal and external balance in the long-run. In the presence of growing external downside risks (lower global demand and higher cost of financing) the sustainability issues grew even stronger.

Against that background Serbian authorities requested IMF assistance. Based on still optimistic growth outlook, very solid reserve position, low exposure to risky financial instruments, and projected strong capital inflow, the authorities opted for light precautionary arrangement (requested in September 2008 and eventually approved in January 2009). To caution authorities and increase their awareness about the true risks faced by the Serbian economy, the IMF team issued a special aide memoire on September 24, 2008 with a very candid assessment of an unsustainable external current account deficit caused by massive overspending. Although the large 2008 deficit of 21.4% of GDP has been fully covered by capital inflows, the resulting build-up of private debt raised serious concerns and increased exposure to external risks in worsening global financial conditions.

Going beyond immediate risks, the IMF team rightly identified three endemic weaknesses of the Serbian economy that continuously give rise to macroeconomic tensions, prevent the orderly completion of institutional reforms [3].

First is the chronically weak supply side caused by: (a) the late start of transition (both in terms of lagging behind key competitors among transition and emerging economies, and in properly understanding the scope of adjustment and restructuring needed after a decade of wars, sanctions and massive economic mismanagement), (b) ineffective privatization, both in terms of meager post-privatization production and export performance, and widespread cancellations of past privatizations and (c) a difficult investment climate as evidenced through Doing business, BEEPS and other assessments.

Second weakness comes from inefficient labor force – high wages relative to productivity, both in terms of initial level and recent upward adjustments beyond productivity growth. Surprisingly, high unemployment does not seem to drive down market wages. Rather, union pressures to adjust wages upwards are based on "cost of living" and "foreign exchange indexation" claims. This directly undermines the external cost competitiveness of Serbian firms, export led growth, and job creation but this is seldom recognized in domestic policy debates.

Third weakness is large and inefficient government sector tuned toward redistributing resources and spending instead of investing in the country's future. As a rule, fiscal position has amplified macroeconomic tensions through deficits, high wages, and inefficient spending. Except for 2005, when a small fiscal surplus was achieved, public finances have remained in deficit until today. Gradually deficits increased from about 2 percent of GDP (which seemed acceptable and was largely financed by privatization receipts) to 4 and 5 percent in recent years. Increased fiscal deficits coincided with a huge increase in private sector debt and widened Serbia's external deficits just before the global crisis.

With these weaknesses Serbian economy was not able to generate much supply response and vibrant export growth, and mobilize sufficient national (and especially) domestic savings. High unit-labor-cost and sluggish tradable sector response push Serbian economy onto a path where faster GDP growth, lower unemployment, and stable macro can be generated only by building up external debt and stability risks. Until 2008 capital inflows have smoothly bridged the rapidly widening gap between spending and income, containing excess demand pressures that would have otherwise fuelled inflation. With tighter remittances and more limited access to new capital flows after 2009 Serbian economy suffered from slower growth, inflation pressures and increasing unemployment culminating in the macroeconomic deterioration described at the beginning of this paper.

The apparent paradox is that the growing external deficits and fast build-up of private debt in 2007-2009

period did not finance a private investment boom, which could now pay off in an improved supply side and higher exports growth, but have rather served to finance high levels of consumption. This makes the need for prompt policy intervention quite urgent.

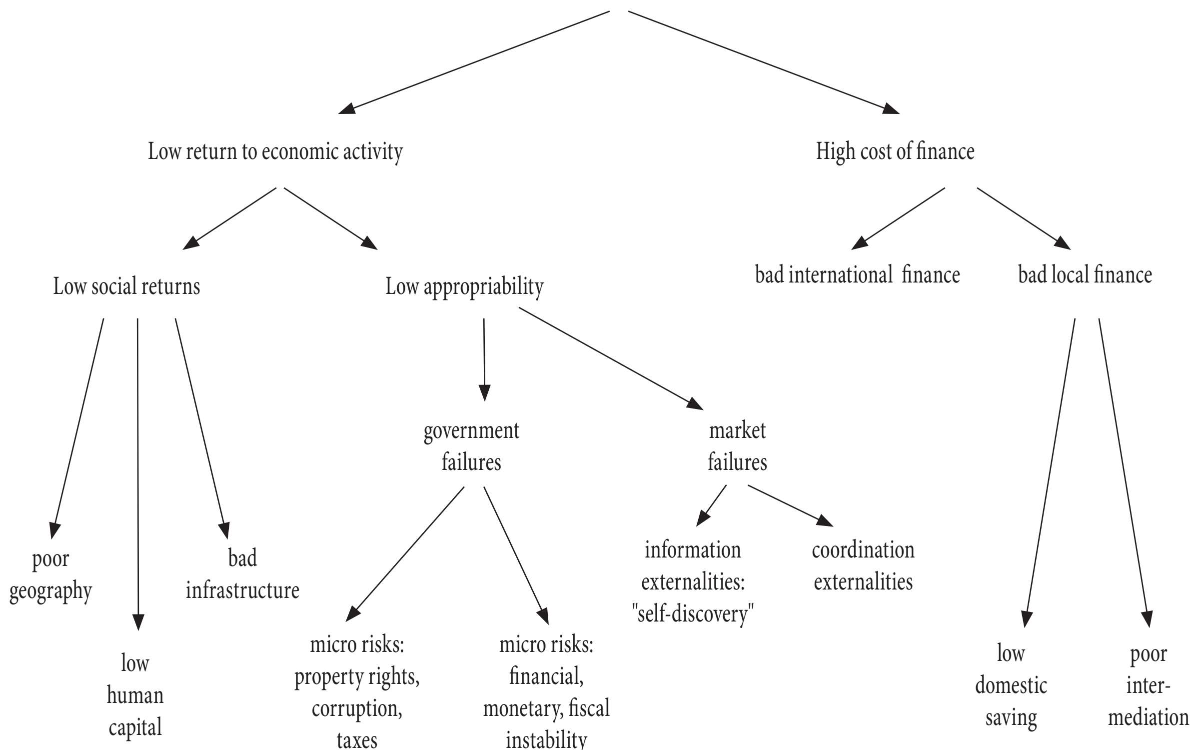
Growth diagnostics: enhancing competitiveness and overcoming binding constraints on growth

In the previous two sections of the paper we have identified and discussed a long list of institutional, policy and structural weaknesses of the Serbian economy. Many of these are contained in structural reform strategy of the previous government and are likely to be present in the evolving program of the new government. These will probably include: (i) deeper and faster EU integration process; (ii) better performance and restructuring of state and former socially owned enterprises; (iii) improved infrastructure; and (iv) pruning Serbia's regulatory jungle. Clearly, views on how to best strengthen the supply side may differ. IFIs (the IMF and the World Bank) are likely to recommend continued (albeit more efficient) privatization efforts, enterprise restructuring, and lowering the costs and risks of doing business. The new government may put more emphasis on enhancing supply response through restructuring of SOEs and active industrial policy.

As in the past the real challenge will be how to implement structural reforms in a difficult (and volatile) political and social environment, marred by vested (private sector) interests, and limited administrative capacities. Most importantly, it is crucial to avoid a situation in which limited resources and reform capacity are spread too thinly across many institutional, policy and structural issues identified thus far. The WEF definition of competitiveness should be expanded to mean the institutional ability of a country to constantly predict and overcome binding constraints on growth.

That is the essence of growth diagnostics methodology advanced by *Rodrik et al.* [9] and further developed by *Hausmann et al.* [1]. It seeks to answer an applied question: what is preventing a particular country, at a particular time from achieving higher sustained and shared growth? Countries usually face multiple structural problems, institutional and policy constraints on growth. Removing all of them is economically and politically costly, and close to impossible in the short run. Random partial

Figure 3: Diagnostic framework for growth and competitiveness



Source: [9, p. 27].

removal of some constraints may be possible but it calls for an evaluation of the resulting second-best position as it may be inferior to the initial situation. A genuine policy challenge is to identify and remove only the most binding constraints. Growth diagnostic framework is design to guide the process of „identifying and removing binding constraints" on growth.

Growth diagnostics follows a simple decision tree structure presented in Figure 3. In the first level it poses the key question reflecting the central growth problem in a given country such as: What is the cause of low level of private investment and entrepreneurship? In the case of Serbia we may add: in general or in tradeable sectors.

In the next level of the decision tree one can systematically pursue either a branch exploring possible causes of "Low returns to economic activity" or a branch focused on "High cost of finance". The rest of the tree is straightforward and serves as a framework to organize thinking about binding constraints on growth, rather than a checklist of issues (listed at the lowest level).

The logic of binding constraints can easily be explained with a simple graph.

Standard growth models assume that factors and/or determinants of growth are substitutes. This is consistent with the graphical presentation of the left barrel where a 1% improvement of, for example, infrastructure (or any other factor) will proportionately improve the growth rate (i.e. the amount of water in the barrel). By contrast, the growth diagnostic approach assumes that an improvement in a binding constraint will have a multiple effect on the growth rate. In this example, a 1% improvement in infrastructure will increase growth by 6% since the level of water will be increased across six factors.

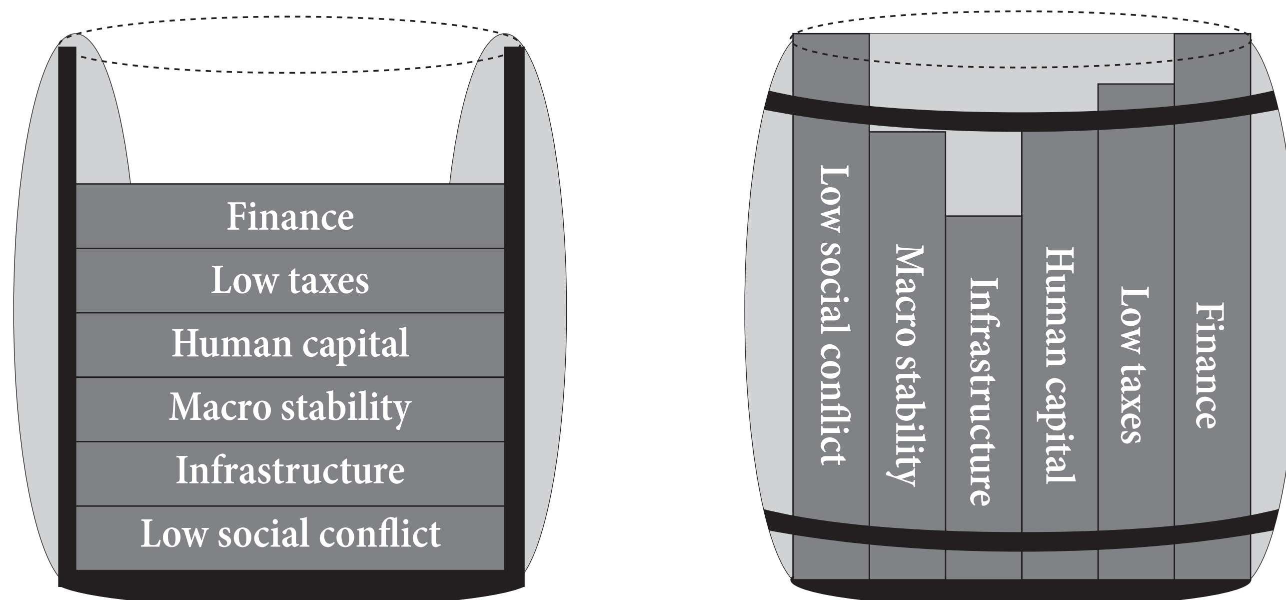
Although the underlying model is relatively simple [9, p. 8] and the decision tree straightforward, this framework cannot be applied mechanically and requires an inquisitive, detective's mind-set. One needs to use economic theory and evidence judiciously to look for a series of clues that will identify the most likely suspect (i.e. cause of growth problems). The decision tree appearance calls for more than just checking a series of boxes. There is an element of craft in doing the diagnostics right, but it is a craft solidly based on economic science.

Applied to Serbia, growth diagnostics framework yields the following potential insights.

First, since we observe diverse growth performance across sectors it appears improbable that any of the cross cutting institutional and policy issues (albeit important) are truly a binding constraint. Hence, it is not obvious that general "protection of property rights" could be the key binding constraint as suggested by the Jefferson Institute study [4, p. 8].

Second, lagging tradeable sectors and apparent dynamic of exports and imports suggests that real effective

Figure 4: Binding and non-bindings factors/constraints on growth



exchange rate (REER) may indeed be the first binding constraint on growth in Serbia. The importance of REER for trade and CA sustainability has been confirmed in recent empirical studies [7, 8, and 5]. This empirical conclusion may be gaining strength as external financing becomes more constrained and many consumers have already reached their credit limits, thereby limiting the basis for consumption-led growth.

Third, it is important to find and maintain the equilibrium REER, but this is not a panacea that will cure all problems of tradable sectors in Serbia. As confirmed by an OECD study of Argentina, Brazil, and Chile [6] and many empirical studies, REER has a strong impact on export performance of homogenous goods (commodities) and a moderate impact on differentiated goods where product design, marketing, R&D and innovations also play an important role.

Fourth, limited availability of credit, high real cost of financing and inefficient financial intermediation appear to be a severe constraint on growth, both in terms of securing basic liquidity and payments for goods and services, to finance investment. Serbia has the second lowest level of monetization (broad money to GDP, see Table 7) among a broad range of comparator countries and select EU economies.

Similar pattern emerges in the availability and cost of credit. Serbia has among the highest nominal spreads in the world (see Table 8 below).

This conclusion is strongly confirmed by the fact that Serbian enterprises rushed to obtain cross-border

Table 7: Broad money (as % of GDP)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
BIH	21.0	28.6	34.8	36.0	38.5	42.7	46.2	50.0	49.3	52.3	53.6	55.1
BGR	31.7	36.7	39.6	42.5	46.4	50.2	55.3	61.6	63.4	68.5	69.8	71.6
AUT	136.7	143.8	146.8	149.7	152.4	158.7	164.6	171.6	186.4	203.0	193.9	184.5
CHN	129.5	133.3	138.5	142.8	141.8	142.1	145.3	140.9	139.9	159.2	166.4	167.3
HRV	36.2	46.5	53.2	53.5	54.5	55.6	58.4	63.1	64.4	67.5	68.9	70.2
CZE	59.3	62.3	59.1	54.9	53.9	55.4	57.6	60.5	66.0	72.4	72.4	73.5
GRC	n.a.	n.a.	89.3	81.3	80.2	85.8	89.0	93.0	101.7	112.4	111.5	103.2
DEU	166.6	167.2	169.3	172.8	174.2	178.6	178.7	178.3	183.9	194.7	185.5	180.1
HUN	43.2	42.9	43.5	46.7	47.8	49.2	51.7	54.8	56.6	62.0	61.7	61.7
MKD	17.2	25.6	29.5	29.2	32.4	34.7	38.6	43.3	45.9	49.7	52.3	54.8
MNE	n.a.	n.a.	n.a.	11.1	12.1	17.4	30.3	49.9	54.8	51.3	47.7	46.4
RUS	17.6	20.8	23.1	25.8	27.1	28.9	32.2	36.6	37.0	45.6	47.5	48.2
ROM	27.7	24.3	25.0	25.2	27.4	30.8	30.1	31.3	32.0	37.0	38.2	38.2
SRB	11.7	12.5	16.3	19.4	20.6	23.2	27.9	33.8	35.6	40.5	42.9	43.3
SVN	41.1	46.3	50.0	50.4	50.6	52.0	51.8	56.6	62.2	72.4	79.7	82.0
UKR	15.7	18.9	24.6	30.0	32.0	36.2	41.8	45.6	48.1	54.9	50.1	48.7

Source: World Bank development data bank

Table 8: Serbia – Deposit and loan interest rates and spreads

	Deposit rates		Loan	Simple spread		Compounded	
	HHLDs	Comp	rates	HHLDs	Comp	HHLD	Comp
2000	5.69	6.31	77.90	72.21	71.59	68.3%	67.3%
2001	6.42	4.08	32.97	26.55	28.89	24.9%	27.8%
2002	3.83	2.62	19.30	15.47	16.68	14.9%	16.3%
2003	2.14	2.74	15.75	13.61	13.01	13.3%	12.7%
2004	2.03	3.60	14.45	12.42	10.85	12.2%	10.5%
2005	1.54	3.71	13.61	12.07	9.90	11.9%	9.5%
2006	1.90	5.06	15.88	13.98	10.82	13.7%	10.3%
2007	2.26	4.08	14.81	12.55	10.73	12.3%	10.3%
2008	2.39	7.32	17.56	15.17	10.24	14.8%	9.5%
2009	2.26	5.06	15.08	12.82	10.02	12.5%	9.5%
2010	3.23	5.55	13.61	10.38	8.06	10.1%	7.6%
2011e	2.68	6.44	16.65	13.97	10.21	13.6%	9.6%

Source: NBS database

loans as soon as that opportunity presented itself in 2006. This squarely puts the constraint on the supply side (high cost of financing driven by non-performing assets, high level of reserves, and high provisioning for other real or perceived risks). Likewise, many enterprises and households took loans under government provided subsidies on interest rates.

Fifth, expensive, large and intrusive state is increasingly becoming a binding constraint on growth. The most damaging aspect is the creation of a costly business environment and failure to consistently implement proper competition policies. As discussed under pillar 6, the state generally failed to prevent the creation of monopolies and promote competition. Additionally, the state disrupts the operation of the labor market by providing higher wages than the private sector and diverting young talent away from productive private sector employment, erodes financial discipline by not paying their bills on time, and often crowds out private sector.

Sixth, inefficient (and often unprofessional) corporate management and unproductive labor force (manifested through high unit labor costs or low productivity) have been a huge deterrent to FDI and business deals, as well as a cause of weak price competitiveness in many sectors. As illustrated by GCI indicators, this is partly due to the lack of proper company restructuring and access to modern technologies and work patterns. And partly depends on the lack of training, wrong attitudes and poor worker-manager relations. In reforming higher education and training it is important to first focus on removing barriers to higher productivity growth (i.e. improve staff training programs in companies, improve business schools, provide research and training services to companies).

These constraints need to be addressed as soon as possible and in short sequence to restart the engines of export led growth, obviously based on tradable sectors.

Conclusion

It took less than three years and a heavy external shock to show that consumption-led growth based on non-tradeables and imported consumer goods, rising unit-labor costs, real appreciation, twin deficits (trade and current account on the one side and fiscal on the other) and growing external indebtedness are not sustainable. Three structural weaknesses of the Serbian economy (weak supply side, unproductive labor, and inefficient state) combined with a huge unfinished institutional reform agenda, inefficient goods and factor markets, and suboptimal policies create an endless list on needed interventions to restore competitiveness and growth.

Starting from a premise that not all factors are equally important or really binding, this paper uses a diagnostic methodology advanced by *Rodrik and Hausmann* [9] and further developed by *Hausmann et. al.* [1] to identify the key binding constraints to competitiveness and sustainable growth of the Serbian economy. The paper finds that:

1. Protection of property rights and other key market institutions indeed represent a basis of a modern and efficient economy but do not constitute a really binding constraint since nontradeable sectors seem to grow despite obvious institutional flaws;
2. REER represents a real binding constraint as it strongly affects the tradeable sector which in turn now represents a bottleneck in moving the economy to a sustainable growth path with macro stability, sustainable fiscal and external balance.
3. Equilibrium REER is not a panacea that will cure all problems of tradable sectors in Serbia. As confirmed by other countries, REER strongly impacts homogenous goods (commodities) but works in tandem with product design, marketing, R&D and innovations in case of differentiated industrial goods.
4. Limited availability of credit, high real cost of financing and inefficient financial intermediation have become severe constraints on growth, both in terms of securing orderly payments and investment financing. Serbia has one of the lowest levels of monetization (broad money to GDP) and highest interest rate spreads which now severely limit operation and growth of the economy.
5. Expensive, large and intrusive state has become

a binding constraint on growth. It crates a costly business environment, fails to secure and promote competition policies, bids up wages and diverts young talent from productive private sector employment, erodes financial discipline, and crowds out private sector.

6. Inefficient corporate management and expensive labor force (manifested through high unit labor costs or low productivity) have been a huge deterrent to FDI and business deals, as well as a cause of weak price competitiveness in many sectors. Decisive action is needed to remove barriers to higher productivity growth (through staff training programs, better business schools, research and innovation for company needs).

These constraints need to be addressed as soon as possible and in short sequence to restart the engines of export led growth.

References

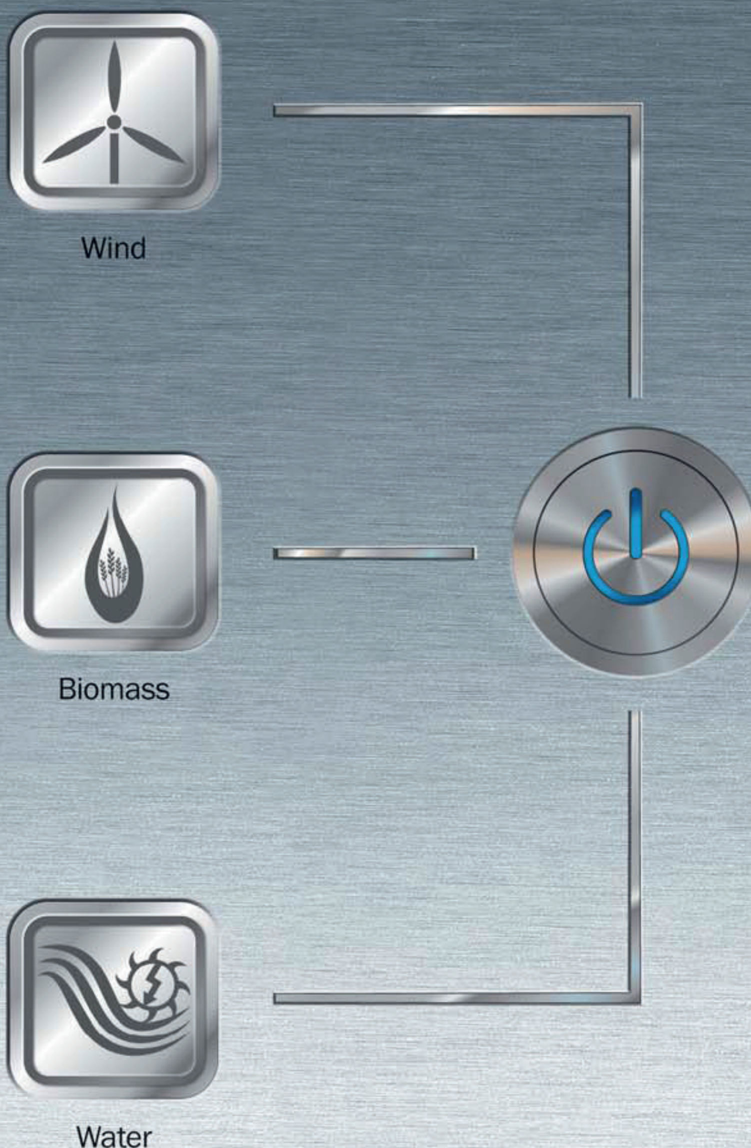
1. Hausmann, R., Klinger, B., Wagner, R. (2008), *Doing Growth Diagnostics in Practice: A 'Mindbook' Center for International Development*, Working Paper No. 177, Harvard University.
2. IMF. (2008), *Serbia – Fall 2008 IMF Staff Visit*, Aide Mémoire, September 24, 2008, Washington, IMF, http://www.imf.org/external/np/ms/2008/092408.htm.
3. IMF. (2011), *Republic of Serbia: Ex-Post Assessment of Longer-Term Program Engagement,* Washington, IMF, available at http://www.imf.org/external/pubs/ft/scr/2011/cr11213.pdf.
4. Jefferson Institute. (2006), *Konkurentnost privrede Srbije*, Belgrade, Jefferson Institute.
5. Nedeljković, M., Urosević, B., Zildžović, E. (2012), *Jackknife Model Averaging of the Current account Determinants*, Working Paper Series 23, Belgrade, NBS.
6. OECD. (2004*), Trade and Competitiveness in Argentina, Brazil and Chile: Not as Easy as A-B-C*, Paris, OECD.
7. Petrović, P., Gligorić, M. (2010), "Exchange rate and trade balance: J-curve effect", *Panoeconomicus*, 2010, No. 1, 23-41.
8. Petrović, P. (2011), "Privredni rast Srbije nakon krize: neto izvoz, konkurentnost i kontrola javne potrošnje", *Ekonomika preduzeća*, Vol. LIX, januar-februar, 21-33.
9. Rodrik, D., Hausmann, R., Velasco, A. (2005), *Growth Diagnostics*, Manuscript, Inter-American Development Bank.
10. Tasić, N., Zdravković, M. (2008), "Osetljivost srpskog izvoza I uvoza na promene deviznog kursa u dugom roku", Radni papiri br. 16/2008, Beograd, NBS.
11. Vujović, D. (2008), "Globalna finansijska kriza: poruke i pouke za kasne tranzicione privrede", *Ekonomika preduzeća*, godina LVI, januar-februar, 28-38.
12. Vujović, D. (2009), "Ekonomska politika u vreme krize: izazovi, ograničenja, paradoksi", *Ekonomika preduzeća*, godina LVII, januar-februar, 36-42.
13. Vujović, D. (2009), "Globalni kontekst krize i odgovori ekonomske politike", *Ekonomika preduzeća*, godina LVII, septembar-oktobar, 327-342.
14. Vujović, D. (2010), "New international financial architecture: Short-term fixes vs. Long-term reforms", *Ekonomika preduzeća*, Vol. LVIII, January-February, 29-36.
15. Vujović, D. (2011), "U potrazi za novim modelom razvoja: pouke globalne krize", *Ekonomika preduzeća*, Vol. LX, januar-februar, 45-53.
16. World Economic Forum. (2008), *Global Competitiveness Report 2008-2009,* Davos, WEF.
17. World Economic Forum. (2009), *Global Competitiveness Report 2009-2010,* Davos, WEF.
18. World Economic Forum. (2010), *Global Competitiveness Report 2010-2011,* Davos, WEF.
19. World Economic Forum. (2011), *Global Competitiveness Report 2011-2012,* Davos, WEF.

Dusan Vujović

is a professor at Faculty of Economics, Finance and Administration at the University Singidunum, Belgrade. He is an affiliate MOC faculty member of the Institute for Strategy and Competitiveness of the Harvard Business School, USA. He is a World Bank consultant in the areas of R&D for innovation, macroeconomic policy, and fiscal and governance reform. He is a research fellow at CASE Instute, Warsaw, and a USAID consultant on the issues of budget reform. Dr. Vujovic past career includes various positions at the World Bank, such as Country Manager for Ukraine, and Co-Director of the Joint Vienna Comprehensive program for government officials from the Former Soviet Union, Lead Economist in Central and Eastern Europe region and in the Independent Evaluation Group. He authored and co-authored a number of publications on macroeconomic policy, development, and institutional reform and transition issues.

www.erstegroup.com

www.erstebank.rs



Does your bank take every opportunity to build a secure and sustainable future?

Member of Erste Group

Erste Group is one of the leading financial groups in the competitive European market. We were among the first to recognize the importance and potential of projects that harness renewable energy sources and have financed their development and implementation with several million euros. Our experience and knowledge allows us to offer **unique and comprehensive solutions with an individual approach** to each and every client.

ORIGINAL SCIENTIFIC PAPER
UDK: 338.1(497.11) ; 336.1/.5(497.11)
Date of Receipt: August 23, 2012

Vladimir Vučković
Fiscal Council of the Republic of Serbia

Sanja Vučković
Megatrend University – Department of Business Studies, Belgrade

Dragana Aleksić
Macroeconomic Analysis and Trends

FINANCING FOR COMPETITIVENESS: SOME (MISSED) OPPORTUNITIES AND REGULATORY CONSTRAINTS

Finansiranjem do konkurentnosti: neke (propuštene) prilike i regulatorna ograničenja

Abstract

Given the challenges in the public finance and in the banking sector, the traditional funding sources will hardly be more available and affordable. This paper considers the alternative and less explored forms and institutional funding frameworks: development bank, debt to equity swap, factoring, negotiated financial restructuring, venture capital. Along with solving the major challenges in terms of stabilization and development, it is necessary to adjust the regulation in the given areas in order to enable more favorable finance for companies, thus encouraging economic growth.

Key words: *financing, development bank, debt to equity swap, factoring, negotiated financial restructuring, venture capital*

Sažetak

S obzirom na izazove u javnim finansijama i bankarskom sektoru, teško je da će tradicionalni izvori finansiranja biti dostupniji i povoljniji. U radu razmatramo alternativne i manje istražene oblike i institucionalne okvire finansiranja: development bank, debt to equity swap, factoring, sporazumno finansijsko restrukturiranje, venture capital. Uporedo sa rešavanjem krupnih stabilizacionih i razvojnih izazova, potrebno je da se prilagođavanjem regulative u navedenim oblastima omogući povoljnije finansiranje preduzeća i time podstakne privredni rast.

Ključne reči: *finansiranje, razvojna banka, konverzija potraživanja u kapital, faktoring, sporazumno finansijsko restrukturiranje, fondovi rizičnog kapitala*

Introduction

Funding sources – their structure and price – are the major constraint to economic development. Financing is always at the top of the list of business constraints (see, for example, [8, p. 45]). In the period 2009-2011 the Government of the Republic of Serbia implemented a series of measures to mitigate the negative effects of economic crisis. The main objectives of the said measures were related to discontinuation of the economic activity decline, maintaining of the number of employees, stimulating exports and instigating demand for durable consumer goods. The programs subsidizing part of the interest on loans to maintain liquidity, finance export operations and companies' investment activities, as well as household loans, were aimed at enhancing the capacity of the commercial banks' loan activity. Over the past three years, commercial banks granted over EUR 2.5 billion to private sector through subsidized loans, of which 85% were corporate loans to maintain liquidity and finance the purchase of working capital. In addition, through the business agenda of the RS Development Fund (by means of schemes of loans and guarantees) and the Serbia *Investment and Export Promotion Agency* (*SIEPA*) the policy makers sought to make to the corporate sector available additional financial resources for investment and export projects.

The measures of the Government of the Republic of Serbia had a positive effect on mitigating effects of crisis on economic activity. However, the problem of the

companies' low liquidity and low creditworthiness has not been solved. The data on the number of companies, the accounts of which were blocked in the process of enforced collection and the constant problem of a high level of non-performing loans (NPL), confirm the said assertion. In addition, banks' high aversion to risk affects realization of low growth rates of loan activities from month to month.

In the same period, the financial sector faced a series of problems, from increased losses due to rapid growth of loans risk, to lack of funding sources and the high price thereof. In order to avoid a complete crash, the banks focused on rebuilding financial assets and capital base. Serbia's banking sector has remained outside of these flows due to the strict regulatory business requirements, primarily related to capitalization of banks. However, faced with growing level of problem loans, i.e. the growth of loan risk but of other risks as well, and with the lack of cheap placement sources, commercial banks opted for the change in the business model towards tightening the conditions for the private sector financing. The aforementioned process in practice often reflected through more demanding requirements in terms of collateral for newly approved loans. Practically, reducing the banks' lending activities pro-cyclically affected deepening of the liquidity problem the corporate sector faced with.

In addition, the entry into force of the new regulatory framework – Basel III standard – does not contribute to finding solutions to the problem of the companies' access to cheap funding sources. The banks have to meet the requirements regarding the capital levels which practically means that, in the next few months, the banks' focus on the European financial market will not be on the side of the lending activity. Given that the banking systems in the SEE countries are majority owned by the parent companies of foreign banks, the corporate sector will still have limited access to funding sources.

The question arises as to whether something will change in the following period. Given the challenges in the public finance and in the banking sector, the traditional funding sources will hardly be more available and affordable. This paper considers the alternative and less explored forms and institutional funding frameworks: development bank, debt to equity swap, factoring, negotiated financial restructuring, venture capital. Along with solving the major challenges in terms of stabilization and development, it is necessary to adjust the regulation in the given areas in order to enable more favorable finance for companies, thus encouraging economic growth.

Public finance

The existence of fiscal space is a necessary prerequisite to implement the measures without risk to the sustainability of public finance, in order to stimulate aggregate demand thus accelerating economic growth or supporting yet uncertain exit from the crisis. If such space exists, it is desirable to consume a fraction of it in times of crisis. Unlike most countries that reduced their deficits, strengthened their fiscal position and increased fiscal space during 2011 and 2012, Serbia failed to do so. On the contrary, Serbia's fiscal adjustment went into the opposite, negative direction. Deficit increased from 2.6% of GDP in 2008 to about 6% of GDP in 2012. Due to deficit growth and increased volume of issuing guarantees (as well as due to the dinar depreciation, etc.), public debt increased from 29.2% of GDP in 2008 to over 55% of GDP in 2012. Such level of public debt in Serbia, which is relatively high for transitional countries, is hardly sustainable and, if taking into account the fact that the legally defined limit of 45% of GDP was exceeded, it is certain that the measures (short-term and long-term) for forcing the debt back into allowable and sustainable framework, will have to be taken without delay. In comparison with the EU countries Serbia is ranked among negative recorders in terms of fiscal adjustment. An average fiscal adjustment (deficit reduction) in the EU countries amounted to about 3% of GDP during 2011 and 2012 (in transitional countries 3.4% of GDP and in developed countries 2.7% of GDP, see [6, p. 61]). Fiscal adjustment in Serbia, in the same period, increased by about 1.5% of GDP (0.3% in 2011 and 1.2% in 2012), i.e. the conducted fiscal adjustment amounted to negative 1.5% of GDP. The negative balance of fiscal adjustment over the past two years was recorded by only two countries, members of the European Union – Denmark and Estonia. Denmark increased fiscal deficit by 3.2% of GDP, Estonia by 2.5% of GDP, while all the other EU countries reduced

their deficits. However, Estonia and Denmark differ from Serbia in terms of all other parameters. Estonia's public debt in 2012 will amount to only 5.7% of GDP and deficit will be 2.1% of GDP while Denmark will record public debt of 51.3% of GDP and deficit of 5.9% of GDP. Denmark is not comparable with Serbia due to the fact that the public debt sustainability limit in developed countries is at the higher level than in transitional countries.

Fiscal multiplier in Serbia is not at the level high enough to show the obvious positive influence of fiscal expansion on economic growth. Increase in public spending over the first six months of 2012, which resulted in a pronounced increase in GDP, speaks in favor of the said. Since the experiment of fiscal expansion proved to be unsuccessful, further increase in public spending (or tax reduction) would almost certainly have a negative influence on fiscal sustainability, with neutral effect on economic growth (see more about the said in [11, p. 18]).

The above data (a relatively high and growing level of public debt, high and growing deficit, i.e. complete absence of fiscal adjustment) suggest that the fiscal space in Serbia is completely used. Also, when taking into account that fiscal multiplier in Serbia is not high enough, it turns out that there is no justification for increased spending which, anyhow, would not result in GDP growth but which would only increase the deficit and cause the public debt growth far above the limits permitted by fiscal rules. The absence of any program of measures additionally increases the risk of the public debt crisis outbreak, while the mere announcement of the adoption of fiscal consolidation measures (when the use thereof is certain) would send a good signal and would result in a positive financial market feedback, i.e. with creditors who decide whether re(financing) of Serbia's public debt would continue and what would be the conditions thereof. Exceeded legal limit of public debt in Serbia, of 45% of GDP, is set between the optimal level and the public debt sustainability level, so the only conclusion based on the said would be that the fiscal space in Serbia is spent and that it is necessary to immediately start implementing the fiscal consolidation measures.

In the context of the previous conclusion, some proposals on extensive government borrowing should be considered in order to enable financing of development projects. In a more radical version of this idea, a radical shift in conducting monetary policy is even suggested instead of borrowing. This is about the requirement that the central bank would finance investments by purchasing bonds from the development bank (which would be owned by the state). The amount rumored is EUR 1 billion. The argument is that such emission would not seemed to be inflationary like when it goes for consumption since it creates the value to be used to redeem the debt. This should solve the problem of missing or costly loans and capital outflows in the balance of foreign direct investment. However, what guarantees the profitability of such investment and who eventually covers the debt? The government, i.e. the taxpayers. Second, if the investment is profitable it does not rule out income in the course of construction and expenses, including the personal income, i.e. the portion of funds which flow into consumption in the course of construction, are paid. Third, a great portion of such emission will turn to demand for funds from foreign exchange reserves. In other words, foreign currency will be sold for dinars from the emission, which will strengthen the pressure on the exchange rate and, thus, on inflation – precisely to the extent to which the inflationary pressure of emission is reduced by the dinar neutralization through the foreign exchange reserves sale. In other words, the overall emission for these loans (the central bank will not thus reverse the emission to support the banks' liquidity, but such investment emission is an inflation allowance) will spill over into inflation. In a very short term, inflation would push economic activity forward – and recessionary tendencies would subsequently follow.

Development Bank

The steps towards the establishment of the development bank have been made by the previous Serbian government and the Proposal of the Law on the Development Bank of Serbia (DBS) was adopted at the government session in December 2011. The form in which the Proposal of the Law will be delivered to the new Parliament is unknown, but the following notes should certainly be taken into account.

The advantages of establishing the DBS are numerous. In less developed countries like Serbia, development banks play a significant role in financing small and medium-sized enterprises and in corporate lending. In order to fulfill their mission, development banks adapt their services to specific needs of interested businesses entities, providing them with a diverse range of services and products that meet the corporate sector's needs. Given that, due to their specific objectives, development banks are not guided by the principle of profit maximization in their business operations, investors' risk is reduced. Also, the security that investors see in the Republic guarantees for the DBS obligations is an advantage, which, on the other hand, can burden public finance in Serbia. Since they will not collect deposits as the commercial banks do (which could otherwise jeopardize the stability of national financial system), development banks do not compete with commercial banks in their activities, but rather complement the banking sector. Corporate lending in crisis, where the money supply is low, debts are high and loans offered by commercial banks expensive, will be facilitated to some extent due to greater and easier availability of funds, and partly to favorable lending conditions. Neutral and non-discriminatory manner of the DBS operations and provision of services to all parties under equal conditions, can significantly affect the evident market failure in terms of financing the corporate sector, although financing of the economy by the commercial banks is generally of smaller volume and of lower intensity than the corporate sectors' necessities. It is possible to finance cheaper and to service the priority projects of development and export-oriented nature in an easier manner, as well as the projects of no interest to be financed by the commercial banks (for example, infrastructure projects which are expensive and the repayment terms are long). In this way, Serbia can reduce the need for taking loans from international financial institutions, particularly in the area of infrastructure development which is of particular importance if one takes into account the current level of indebtedness. The potential advantage of the development bank is that Serbia will also have access to different sources of funding by the EU (such as the European Regional Development Fund and European Agricultural Fund for Rural Development), whose importance, as a funding instrument, increasingly grows. If the development bank's operations prove effective, the future may bring an increase in the financial range of the development bank in the form of integrated resource management of development funding from abroad, public-private partnership with commercial banks and the DBS entrance to capital markets through emission of high-range securities and of other financial instruments.

On the other hand, the establishment of an additional financial institution in Serbia has its weaknesses [3, p. 44]. First of all, it will be necessary to spend some budget funds to make the Law applicable and to efficiently monitor the implementation thereof by the Ministry of Finance and the State Audit Institution, which will require additional human and financial resources. Significant funds are needed for instigating the operations of the DBS, as only the previously envisaged minimum amount of the founding capital required, which will be provided from the republic budget, is EUR 400 million. Also, certain period of time is needed for the formal establishment of the development bank, but also for the effective commencement of its operations (including internal audit operations within the DBS). Finally, given that, in case nothing substantially changes, it is already planned that three members of the supervisory board (consisting of seven prospective members) will be ministers, the room is left for political influence over the bank's operations. Thus, the question of the supervision efficiency arises since supervision over the development bank's operations, where the Minister of Finance is Chairman of the Supervisory Board, is conducted by the Ministry of Finance. Such a solution is even present nowadays in case of the Development Fund but it has often been the subject of numerous complaints about the Fund's operations. A quality system and a good practice of corporate governance over the development bank are essential to resist the pressures and increase economic and financial efficiency of such public financial institution. The system of indirect fund placements itself, adopted by the development bank, has disadvantages. First of all, the risk undertaken by the development bank is not negligible. In addition, the development bank has influence neither over the choice of the commercial bank by commercial entities nor over the total amount of borrowed funds.

Opportunities that arise before the establishment of the development bank could be crucial to justification of establishing such a financial institution under the conditions of diffuse effects of the global economic crisis. First of all, the development bank could affect the decrease in the Republic of Serbia and the corporate sector's borrowing from abroad. Next, the long-term financing of projects which are of no interest to commercial banks, primarily long-term business ventures with high positive effects, and systematic support to small and medium-sized enterprises and export promotion, could all together have positive effects on overall economic development of Serbia through increase in international competitiveness, reduction of regional disparities in terms of development and business internationalization of Serbian companies. One of the major opportunities is to increase the efficiency and rationality of budgetary spending, to consolidate the existing ways of financially encouraging the corporate sector, as well as of transparency and control in corporate lending, which would consequently decrease the level of corruption in development activities. Also, entrance of the state development bank to Serbian financial market can contribute to decreased interest rates on corporate loans in our banking sector because the interest rates offered by the development bank should not be burdened to the extent and in a manner in which the interest rates offered by commercial banks are burdened. However, as was stated by the representatives of the public sector, not just the interest rate is a key element of the development bank's operations because loan maturity and grace period should also be taken into account. Granting of guarantees (which have been modestly granted thus far through the public guarantee schemes) through the development bank, which can lead to interest rates decrease, should also be taken into account. In any case, interest rates will be defined by the development bank's arrangements with commercial banks, including the creation of individual banking products. The development bank is also a chance to depoliticize the procedures of granting loans to the corporate sector and the said reduction of corruption, since there will be no direct lending to entrepreneurs. But, on the other hand, one should not forget that the Proposal of the Law leaves room for the development fund to authorize direct funding to end users in the name and on behalf of the Republic of Serbia, with the consent of the bank's Supervisory Board. This retention of direct lending opportunities can have very beneficial effects on the development of micro, small and medium-sized enterprises and entrepreneurs, as well as on the development of underdeveloped areas provided that the effective supervision over the spending of these funds (including not only the office but also the field monitoring) is of key importance. If the development bank's operations are conducted professionally and if it is completely protected from possible political, lobbying and party interference and pressure (which could be verified, for example, by public choice of management, operations of the bank's management and overall transparency of bank's operations), the chances for the development bank to completely fulfill its mission and justify the purpose of its existence increase.

The development bank's operations will not fall under the official banking supervision. Indirect lending of funds for subsidies and loans does not guarantee depolitization and professionalism of the development bank's management. The development bank's operations can lead to displacement of the private capital if its business activities are to compete with commercial banks' operations. Given the nature of the public sector, the following question arises: what if, in practice, the development bank fails to represent an independent institution and its operations fail to be sufficiently transparent? In this sense, one of the threats lies in the development bank's possibility to frequently ask for additional funds from the Republic for capital increase without reliable indicators of the effects of previous investment. The performance of the development bank's activities exclusively through commercial banks can call into question the possibility of reducing the effective interest rate on corporate loans, if the commercial banks are to perceive the development bank as a guarantee fund (a similar situation, only in reverse, exists in relationship of the commercial banks and the Deposit Insurance Agency which guarantees the deposit payments). Such a solution may also affect the creation of the privileged position of some banks, therefore the privileged position of certain business entities while neglecting others.

Debt to equity swap

Given the situation in our economy and worldwide, debt to equity swap has its application both in commercial and in tax debts [2, p. 15]). Conversion of claims into capital stock (debt-to-equity swap) is a replacement of debtor's claims against the company into debtor's percentage share in the company's equity. In economic terms, it is transformation of borrowed capital into equity, in financial terms - a refinancing and in legal terms *datio in solutum*, implying thereby accounting changes as well. Swap is applied when a company finds itself in business and financial difficulties, with negative cash flows, without the ability to continue to pay its debts, but with promising prospects providing that operations would continue (bearing in mind its market share, product, brand, goodwill, etc.), to which the creditors convert their claims into the company share, thus restoring the company's liquidity and healthy cash flows and acquiring ownership and management rights in the company and the income thereof. Swap can also be performed by transforming the convertible bonds into the company's equity. Moreover, tax debt can also be converted. Through debt to equity swap the creditors try to manage risks by choosing safer and more cost-effective way when their analyses show that it is better for the company to continue its operations as a *going concern* rather than to wait for the outcome of bankruptcy proceedings. However, swap can also be carried out in bankruptcy, within reorganization. Different financial thresholds and indicators of financial ratios can be set as "trigger" of swap. Debts are extinguished through swap since the obligation is thus fulfilled. In this way, company's equity is increased, company's obligations are reduced in the amount converted into capital and reorganization of capital structure is made by reducing the percentage share in the capital of the existing company members (the so-called capital dilution), who often become minority members while the creditors are majority members of the company. Observed by effects, debt to equity swap is similar to venture capital for specific purposes.

In Serbia, the Company Law stipulates that one of the forms of increasing equity of a limited liability company is capital increase by conversion (swap) of company's debt into equity. The Law makes no distinction regarding the type of the debt - it is only important that the debt is convertible (it does not necessary have to be the original pecuniary claim, because the non-pecuniary claim against the company may also be denominated in cash, becoming thus pecuniary claim). The previous Company Law did not (explicitly) anticipate debt equity swap, so there were doubts and discussions on probabilities of its implementation. The new Law solves the dilemma. The limited liability company's equity increases according to the company's assembly decision, while the company's equity is considered increased as from the day the equity increase is registered. Given that the share in capital of one or more company members is reduced by swap, the Articles of Association may provide that the share in the company may be transferred to a person who is not a member of the company only in accordance with the company's prior approval. The Law stipulates that the limited liability company's equity may be increased, inter alia, by new shares, implying also debt to equity swap. However, as for the public limited liability company, equity increase can not be conducted by debt to equity swap.

The Law of Contracts and Torts stipulates that obligation shall be terminated should the creditor, by agreement with the debtor, accept something else instead of what was owed to him, that, in such a case the debtor shall be liable as a seller for substantive and legal defects in the object delivered instead of what was owed by him and that a creditor, instead of claiming on the ground of the debtor's liability for substantive and legal defects in the object, may request from the debtor – but not more than a guarantor – the fulfillment of the original claim and the corresponding damages.

Bankruptcy law provides that one of the measures for implementation of the reorganization plan is conversion of claims into debtor's equity. Implementation of this measure can not be done contrary to the provisions of the Law on Protection of Competition. It is necessary that the decision on this measure is adopted by the Competition Commission, acting with particular urgency and in summary proceedings. Implementation of measures envisaged by the reorganization plan, in particular changes in the capital structure of bankruptcy debtor, cannot be done

contrary to the laws governing the protection of socially-owned capital in companies operating with the majority of socially-owned capital or governing the protection of assets recorded as a social property in cooperatives, and the procedure provides for the Privatization Agency's prior approval of a reorganization plan.

The Law on Negotiated Financial Restructuring of Companies stipulates that the financial restructuring shall be terminated by the contract on financial restructuring, which specifically includes, inter alia, conversion of claims into equity. Within two working days after concluding the contract the debtor has to deliver the contract to the Business Register for registration note on the contract existence.

The Law on Tax Procedure and Tax Administration stipulates that the tax liability could be settled, inter alia, by conversion of claims based on taxes into permanent taxpayer's equity stake of the Republic, in a manner and under conditions prescribed by the Government. The day of tax liabilities settlement through conversion of the tax claims into permanent taxpayer's equity stake of the Republic shall be the day when the Government passed an act of conversion.

Reducing liabilities of the company, due to conducted debt to equity swap, improves its financial standing. It encourages the restoration, creation and strengthening of business partnerships, new investment in the company by the existing and new investors, extensive purchase of products by consumers and higher production, better business cooperation with suppliers, higher price of securities emitted by the company, the collection of new funding in the form of loans or in the capital markets, while providing creditors with income and the settlement of the original debt. To achieve the desired financial effects of the conversion, it is important for the creditor to have a clear strategy for managing and using newly acquired share in other company's equity.

On the other hand, if the conversion is carried out too often and/or towards unsuitable companies and/or inappropriately, there is a real danger that "a chronic patient will die due to aspirin therapy," and that banks will lose their status of credit institutions with sound money and securities convertible in the market into effective equity. For the creditor-companies conversion can often be a forced move, especially in conditions under which our economy currently operates featured by debtor-creditor chains, illiquidity and insolvency. This can lead to "mortification" of funds, especially if there is no clear strategy for managing and using of newly acquired share in other company's equity. One of the dangers arising from the debt to equity swap is the possibility of competition infringement (significant restriction, prevention or distortion of competition), especially in terms of concentration of market participants.

Factoring

International experience shows that factoring is one of the best ways to provide faster, safer and often an advance collection of receivables in the corporate sector. Generally, factoring is a financial instrument and the legal operations by which a factor (a company or a bank) finances business entities by discount purchase of due or future claims against a debtor, arising from the sales of goods or services in a domestic or foreign, i.e. international market, with the submission of invoice. The seller of receivables receives the money before the maturity date or upon the maturity of receivables, while receivables collection risk is transferred to the factor. Factoring is also defined by *the distinction between real and unreal factoring.* In case of real factoring, the factor purchases the client's claims at a discount before maturity or upon the maturity of claims, with factors' right of recourse towards the client (the seller of claims) or without this right. Unreal factoring implies that the client (transferor of claims) transfers the claims to the factor, at their maturity or before the due date for the purpose of collection, while factor undertakes the obligation to collect accounts receivable with the commission and with the collection of costs and, eventually, to guarantee to the client the collection thereof. In both cases, the factor may perform other services (e.g., payment transactions, accounting, market research, etc.).

The main purpose of this specific financial mechanism is to enable the entrepreneurs quickly provide funding. This is particularly important for micro, small and medium-sized enterprises that have a limited range of financial

sources. The typical factoring service includes examining of the customer-debtor solvency, taking the risk of charging 100% of the amount and financing (an advance) up to 80% of the invoice amount or assigned receivables, where 20% is fee deduction or discount interest (commission ranging from 0, 5% to 1.5-2%, even more than the invoice value, while interest is at the level of banks interest rates for short-term loans and it is valid from the moment the funds are used, until the enforced collection from a debtor-buyer). The risk taken by the factoring company or by the bank is associated with the customer-debtor. The risk that exists on a seller's- creditor's side consists of an inadequate delivery of the contracted goods, based on which the customer-debtor may refuse to pay either the whole amount or the portion thereof. In this case, another factoring feature becomes pronounced, significantly distinguishing it from the typical financial institution. The factor pays special attention to the type of goods and the manner of its delivery. To this end, the nature of the goods is essential, as well as is the contract with buyers, the history of operations, the mode of production, etc. The factor provides for the possibility of reclamation and the magnitude thereof thus determining the amount of an advance payment and the factoring type.

Although factoring procedures vary in Serbia, the following steps can be highlighted as their characteristics: 1) application for factoring, 2) determining the solvency of the customer-debtor, 3) the conclusion of contract on factoring, 4) informing the customer-debtor about the retrieved receivables 5) the presentation of commercial documents (invoices, shipping documents, JCI, etc.), 6) advance payments, 7) debt collection, 8) payment of commissions and interest.

Since the factoring contract is often concluded for an extended period, it demonstrates the effect of medium-term loans, as well as favorable effects on the company's balance sheets. Factoring is largely a sound substitute for loans, and commercial entities with solid claims can get their money through such arrangement without applying for additional loans with banks. The flow of money is constant, which is why factoring is especially interesting for companies in expansion, particularly to micro, small and medium-sized companies, and to those who survived the initial years of crisis (usually, the first three). When the company's saving, achieved by factoring, is calculated in the price of factoring service, the company's creditworthiness increases. The factor client obtains additional liquidity through the purchase of claims, accelerates circulation of money and shortens the cycle of working assets. This can also be achieved by taking short-term loans from banks. However, such loans are obtained under complex procedures, with high interest rates, with provision of collateral, with the possession of clean credit history and with the so-called credit limits on companies. Factoring contract allows the client to constantly sell, and its customers to buy on credit without credit procedures, credit costs and collaterals. As a rule, factoring implies the provision of services based on the assessment of the company's debtors, instead of the company itself, as well as a short application procedure and a quick inflow of cash. Factoring provides financing based on assets (receivables), as opposed to loans, when the liabilities of loan user increases. It is also competitive to short-term liquidity loans since it is intended for solving similar problems. It is used by companies that have entered into commercial contracts and longer cooperation with the customers-debtors, the companies that are in need of additional working capital but cannot or do not want to raise it in the usual way, i.e. by means of credit indebtedness.

In Serbia, the Law on Contracts and Torts regulates the assignment of claims under the contract (cession), stipulating that claims can be transferred by the contract, as well as the transfer of accessory rights with a claim, notification of debtor, multiple assignment, relationship between a recipient and a debtor, relationship between an assignor and an assignee presenting a document on debt, guaranteeing the existence of a claim, guaranteeing collectibility and special particular cases of the assignment of claims - assignment instead of fulfillment or for collection and assignment for the purpose of granting guarantees. These and the related provisions set general legal basis for factoring [1, p. 15]. The Law on Banks stipulates that the bank is allowed, in accordance with the law, to perform, inter alia, the activities on purchase, sales and collection of receivables (factoring, forfeiting, etc.); this solution is consistent with the fact that factoring is one of the

typical banking operations. The Law on Foreign Exchange Operations, as well as implementing by-laws, introduced the possibility to fund foreign trade operations through the purchase of receivables and debts by banks and other legal entities – residents. In this way, the legal framework is set for international factoring in the area of payments, collection and cash transfers between residents and non-residents. The Law on payment operations stipulates that legal entities and natural persons engaged in activities can settle mutual financial obligations by contracting the change of creditors or debtors in certain obligations (assignations, cession, collateral promise, debt assumption, debt assignment, etc.), by offset (compensation) and in some other ways, in accordance with the law.

In order to encourage and promote exports and develop economic relations of the Republic of Serbia with foreign countries, AOFI was founded under the Law on Export Credit and Insurance Agency. Activity of the Agency, which operates as a closed joint stock company wholly owned by the Republic of Serbia, is, inter alia, factoring. In addition to AOFI, according to data from the Companies Register, 17 factoring companies operate in Serbia, of which 16 in the form of a limited liability company (Ltd.), and one in the form of the foreign legal entity branch. According to the Belgrade Chamber of Commerce data, four banks have departments or sectors dealing with factoring Despite this fact, factoring activity is poorly represented in Serbia Thus, according to a research conducted in 2011 by the Serbian Association of Employers, only 1.8% of businesses in Serbia use factoring (of these, more than a half of small enterprises perform factoring operations through banks).

Although making a significant improvement, the provisions of the aforementioned regulations are not sufficient to achieve the analyzed benefits of factoring and, in our conditions, do not constitute the necessary legal framework for factoring operations in the Republic of Serbia which are, at present, mainly carried out in accordance with the rules of business practice without a special law as a source of regulation in this field. Adoption of a special law on factoring is not necessary for factoring to be operational. But, on the other hand, specific legislation is desirable, because it harmonizes the action in practice and sets precise rules for this particular type of contract (a contract *sui generis*). In addition, a publicly available register of factoring (which is established only by law) would ensure that transferred receivables and participants in this activity are transparent and open, thus providing a higher level of security. Legal status and regulation of trade aspects of factoring and of the factoring institutions contribute to a greater recognition of the financial instrument and remove the negative image (some perceive factoring as "racketeering"). Adoption of the law, which includes clearly regulated legal status, supervision over the operations and capital of factoring companies, is of particular importance to foreign trade and exports since foreign partners will also have greater confidence in the factoring company which would further result in its higher turnover. The law should regulate the supervision of factoring, which is by its nature a financial activity, while factoring companies are also entities in the financial sector. It should also be considered that, unlike the bank which applies the general banking regulations (structural and prudential regulation) when performing factoring operations, the factoring companies engage their own funds rather than accumulated funds from savings. Precise regulation and effective implementation of supervision prevent the abuse that can arise in this field.

Negotiated financial restructuring

The Law on Negotiated Financial Restructuring of Companies (as from May 2011) should make it possible to fill the gap in practice between the market mechanism and bankruptcy, as two models to solve the debtor-creditor relations [7, p. 38]. The first mechanism mentioned implies negotiated (out-of-court, non-bankruptcy proceedings) restructuring, i.e. the situation in which creditors and lenders are left to solve the problem themselves (case by case approach), while the bankruptcy proceedings is performed under the auspices of the court and ends up with bankruptcy or with reorganization of debtors. The Law creates the systemic conditions for a mixed approach: out-of-court proceedings with mediation of and incentives from the state in resolving debtor-creditor relations.

The Law provides for regulation of the companies' debts to banks and to other creditors before initiation of

the bankruptcy proceedings. This is a good solution since bankruptcy cannot be excluded or derogated as an option. Financial discipline will be stronger if the debtors believe that, in case it is initiated, the bankruptcy proceedings will be completed efficiently and in accordance with the law. This is the only mechanism that can financially motivate vulnerable companies to consider and accept alternative ways of dealing with illiquidity and insolvency.

Financial restructuring is defined as reordering of debtor-creditor relationship between the company in financial difficulties and the creditors. It is important to emphasize that financial difficulties can also imply threatening insolvency or big indebtedness, not just factual illiquidity, i.e. inability to meet the outstanding liabilities. In addition, the Law does not specify the meaning of threatening insolvency or big indebtedness. The question arises as to whether this opens the way for inclusion in the process of financial restructuring (including the enjoyment of the benefits based on the law) of the companies that should not be included therein. For example, banks cannot reach agreement on financial restructuring with invulnerable companies just to benefit from the privileges and allocate lower reserve requirements. Or, on the other hand, invulnerable company can initiate the agreement on negotiated financial restructuring in order to take advantage of the benefits based on the law and pay lower taxes.

It is important to emphasize that financial restructuring is voluntary and will be implemented by written consent of the creditors and debtors. Therefore, neither creditor nor debtor is required to agree to restructuring of obligations under the provisions of the Law, unless they are willing to do so. They can also reach the mutual agreement out of court, or the creditor can initiate bankruptcy proceedings if the legal requirements for debtor's bankruptcy are met. More creditors can participate in the restructuring process, whereby they agree on the method for negotiating with the debtor.

Not all debtors are guaranteed the possibility of concluding a negotiated financial restructuring. In addition to the present principle of free will – thus no creditor is under obligation - legal provisions also stipulate the principle of sustainability of the debtor's business activities, under which the financial restructuring is carried out if the recovery and the sustainable business activity of the company are possible. This part is left to the creditors' (arbitrary) estimate in which cases it is a possible recovery. We believe that this is a good decision. Otherwise, it would be necessary to determine the criteria for debtor's eligibility (for example, the outstanding amount, period of financial difficulties, etc.), which would prevent the participants in the process (primarily banks) to independently estimate who should be provided with an opportunity for financial restructuring in terms of this Law. The fact that should be taken into account, having in mind the principle of sustainability of the debtor's business activities, is to determine the benefits for participants in this process.

The process of negotiated financial restructuring envisages the mandatory participation of, first, institutional mediator and, second, at least two domestic or foreign banks on foreign creditor's side. Institutional mediator is the Serbian Chamber of Commerce (PKS), which provides assistance in establishing cooperation between debtors and creditors and support during negotiations. PKS' role is to assist in identifying the contract for negotiated financial restructuring and debt standstill agreement. PKS shall charge a fee for the amount of which prior approval is given by the Minister in charge of economy. Selection of the PKS as an institutional mediator is good, because this institution should be the liaison between debtor and creditor, and between enterprises and banks.

As for the participation of banks, the legislator has foreseen the mandatory participation of at least two domestic and foreign banks as creditors, and, as seen from the explanation that accompanies the Proposal of the Law, this provision is intended to prevent abuse and undue use of incentives derived from the Law. Given the fact that domestic companies are also indebted abroad, allowing non-resident banks to participate in restructuring is a good solution. But the provision, relating to at least two banks from the process of negotiated financial restructuring, which eliminates all companies that fail to meet this requirement, i.e. those who have no financial difficulties with the two banks, is at issue. There is no limit on foreign assets and creditors, in terms to predict

that the restructuring process can be entered into only if a certain percentage of total claims / debts are covered by the agreement on financial restructuring. Since there are no such or similar provisions, administrative barriers are lowered, the greater freedom is provided as well as greater number of potential customers included in the process of resolving debtor-creditor relations.

The Law on Negotiated Financial Restructuring of Companies cannot prescribe the *incentives* for creditors and debtors. The Law only indicates the possibility of introducing special incentives for financial restructuring. Tax incentives would include write-off tax relief and rescheduling of debt on the basis of public revenue (which implies amendments to the respective laws). Moreover, the NBS determines appropriate incentives by regulations within its jurisdiction, primarily the decrease in the banks' provisions on the basis of negotiated financial restructuring of companies.

Finally, the extent to which the Law will be attractive to creditors and debtors will depend on the incentives determined by the government and the NBS. Given the risk that insolvent (instead of illiquid) debtors could be drawn into the process, economic authorities have to precisely evaluate and differentiate the approach to the problem in order to direct the negotiated financial restructuring towards those who could benefit from the assistance as well as to avoid the maintenance of "zombie-companies" and the decrease in obligatory bank reserves with no effect on the real sector. Decrease should also be avoided in banks' provisions due to conclusion of contract under the provisions of this Law, for uncollectible receivables, i.e. for the companies with long-standing problems, doomed to bankruptcy.

The Law strives to allow the debtors to increase the level and efficiency of own operations, thus reducing the risk of fulfillment, i.e. credit risk. This is a clear and reliable logic in cases where illiquidity is a real problem and when there is a high probability of regeneration of the debtor's creditworthiness. This is evident as in the case if three short-term loans are rescheduled by a mid-term or a long-term loan. If the debtor is insolvent, this Law can be misused to further strengthen the privileged position of already favored entities that generate illiquidity

Venture capital

Small and medium-sized enterprises, particularly those dealing with innovative industries, are facing problems of capital raising. There are number of restrictions on financing these enterprises by traditional means, so it is necessary to find new and affordable sources of funding to meet the need for capital of those enterprises that, due to specific activity or actual life stage, have limited alternative sources.

Private sources of funding include financing of various life stages of small and medium-sized enterprises by individual investors or privately-owned companies, usually organized as partnerships or limited liability companies. These sources of funding are usually related to assets of the company founder, his family and friends who are willing to sponsor business ideas, capital, business angels and venture capital funds. The investment goes for the enterprises that are not listed on stock exchange or are unable to raise the funds by public emission of securities. Funding through private sources has a number of forms, both by mode and features of enterprises in need of capital.

Venture capital funds are usually organized as limited liability companies. They comprise the funds of individual investors, partnership firms, pension funds, insurance companies, endowments, foundations or corporations. The said entities invest in small and medium-sized enterprises that are often unrecognized, in the initial (start-up) phase, with great development potential but missing the funds for further growth and expansion. Such companies, as noted, do not have a wide range of financial sources given the initial stages of the life cycle, high level of risk, variables and uncertain cash flows. Bank lending would be too expensive and the capital market at this stage unattainable.

Venture capital is primarily interested in investing in new technologies able to generate high level of income in early stages of growth. The biggest challenge in the operations of these funds is their ability and opportunity to actually find such investments. Funds take on high risk, but expect a high level of return usually within few years (five to seven, up to ten years). The fund invests in a private enterprise with the aim of gaining control in the ownership

and management, bringing its experts, using its network of business contacts and implementing expertise. Their investment mission takes several years, usually up to a mature development stage when a company comes into position to obtain capital under more favorable terms as well as by other means. Thus, venture capital leaves the company when it becomes sufficiently developed and independent as regards greater business restructurings in the form of merger, acquisition or listing on the stock exchange (see more in [9, p. 71]).

Companies in the Republic of Serbia, as well as in other systems, can be financed by external borrowing, or capital increase (debt or equity). However, many companies in the Republic of Serbia (such as: companies in the process of establishment, the newly established companies, micro and small companies, many appropriate collaterals, companies in corporate and financial restructuring, companies in business hardship, etc.) are not able to meet strict conditions under which bank loans are granted, particularly in terms of claims on collaterals, or are not able to repay borrowed funds with high interest rates, given the small capital turnover, or the fact that they cannot collect their commercial receivables in due time or completely. On the other hand, banks are not particularly interested in placing their funds – loans into risky projects and ventures, even though their placements can also be secured with guarantees provided by the Development Fund of the Republic of Serbia, previously merged with the Guarantee Fund. At the same time, banks are limited by prudential regulations (general and special laws, by-laws of the National Bank of Serbia) in terms of interest rates on granted loans, required reserves, collaterals, risk management, exposure and other conditions and elements of such activities, and they are not able to support projects and activities which, due to the level of risk, can bear interest rates higher than allowable, but also higher required reserves and/or prescribe additional requirements and other elements necessary to be met. The Republic of Serbia law does not specifically regulate entrepreneurial venture capital. Therefore, in a legal sense, entrepreneurial venture capital is regulated by general legal rules, but not by special law. Such a situation makes it difficult for entrepreneurial venture funds to operate in Serbia thus contributing to legal, economic and financial insecurity, disorder and uncertainty.

The only explicit regulation of venture capital, according to legislation of the Republic of Serbia, (but only in terms of the relationship of this legal instrument and state aid) is specified by the subsidiary act - the Regulation on the rules for granting state aid adopted in accordance with the Law on State Aid Control. This Regulation provides a definition of venture capital (in terms of this paper – entrepreneurial venture capital) as follows: "Venture capital is a process of financing in the form of equity capital or similar to equity capital during different stages of establishment and early development of a business entity (initiation, establishment and development)". Thus, several provisions regulate the technical relationship between state aid and this capital, directly or indirectly, from financial, company, property, fiscal and commercial standpoint.

The Law on Investment Funds, which in a general way exempts private investment funds from property fund investment restrictions (in a more liberal way than investments of a closed-end and certainly open-end investment funds), provides a legal basis for operational activities of the entrepreneurial venture fund in the Republic of Serbia in the form of private investment fund. Observed from domestic and comparative legal perspective, i.e. legal ("external") and autonomous ("internal") regulatory standpoint, entrepreneurial venture funds are, as a rule, established and operational as private investment funds (private equity funds).

In a general legal context of venture capital in the Republic of Serbia, the role of the Innovation Activity Fund is very important in terms of an institutional form of public and mixed entrepreneurial capital in the Republic of Serbia, regulated by special law. Also, in this regard, Foreign Trade Law stipulates that foreign trade - trade of goods and services and economic activities of foreign persons in the Republic of Serbia and domestic persons in another country or customs territory includes direct investments and investing by foreign persons in the Republic of Serbia, i.e. domestic persons in another country or customs territory.

For the purpose of legal and actual recognition, therefore certainty as well, and for the reasons of promotion

and recognition of entrepreneurial venture funds and clearly defined criteria, the Law on Investment Funds shall stipulate the fund for entrepreneurial venture capital as a special economic category in line with the targeted investment goal (in the same way as it was applied to fund for property value growth, revenue fund, balanced fund, and fund for preservation of property values). This is particularly important for the purpose of prescribing incentives and measures for these funds by blanket and referral norms of other laws, which would rely on the definition and structure of entrepreneurial venture funds under the Law on investment funds. Also, this legal determination is important for participation of the said funds in different types of programmes, tenders and similar activities.

Methods of state, international and market support for development of entrepreneurial venture capital are diverse - from the establishment of a mixed public-private venture capital fund through public-private partnership, through public financing of private entrepreneurial venture funds, to granting guarantees to investors for investing in private venture capital funds. Namely, in partnership with the private sector or individually the state could establish the fund to invest in companies on ownership basis, but also a special fund with resources available to venture capital funds to apply for them. This could provide public support for the development of entrepreneurial venture capital as well as innovative micro, small and medium-sized companies with the potentials for growth and development. It would further encourage healthy competition among interested investors. Significant steps in this direction have been made through the Innovation Activity Fund, whose scope and business activities should be further developed and improved. Development Fund of the Republic of Serbia could adopt this form of financing in its portfolio and programmes, having in mind that there is a legal basis for such activity. As for the guarantees to investors when investing in private venture capital funds, foreign investors can use various legal means of investment protection (based on property and obligatory rights), available in the Serbian market ("market" guarantees), such as: bank guarantees, insurance against commercial risk, a mortgage or lien on movable assets and rights, guarantees, bills of exchange, various forms of changes in debtor or creditor obligations, etc.. In addition to these collaterals, special forms of investment guarantees are also applied – e.g. foreign investors (investors from countries "exporting capital") secure their investments abroad at the public funds of their own country. Observed from the international aspect, an institution of particular importance for securing foreign investment is the Multilateral Investment Guarantee Agency - MIGA, which could extend the scope of guarantees provided by the Republic of Serbia to venture capital.

Within incentive measures to promote venture capital, it is necessary to consider the possibility of relaxing regulatory requirements prescribed by the laws governing the equity market and investment funds, as well as by the related bylaws and regulations implementing these laws. This may particularly be considered through simplifying regulatory requirements for the primary (initial) public offering of shares and the capital market entrance for the companies in which the entrepreneurial venture capital had already been invested but is now flowing out of the company in a said way, as well as by reducing the regulatory and administrative burdens on entrepreneurial venture funds.

Conclusion

Given the challenges in the public finance and in the banking sector, the traditional funding sources will hardly be more available and affordable. In Serbia, the fiscal space that existed before the crisis was largely or completely used. Also, when taking into account that fiscal multiplier in Serbia is not high enough, it turns out that there is no justification for increased spending which, anyhow, would not result in GDP growth increase but which would only increase the deficit and cause the public debt growth far above the limits permitted by fiscal rules. This paper considers the alternative and less explored forms and institutional funding frameworks: development bank, debt to equity swap, factoring, negotiated financial restructuring, venture capital.

The advantages of establishing the DBS are numerous. In less developed countries like Serbia, development banks

play a significant role in financing small and medium-sized enterprises and in corporate lending. n order to fulfill their mission, development banks adapt their services to specific needs of interested businesses entities, providing them with a diverse range of services and products that meet the corporate sector's needs.. If the development bank's operations are conducted professionally and if it is completely protected from possible political, lobbying and party interference and pressure (which could be verified, for example, by public choice of management, operations of the bank's management and overall transparency of bank's operations), the chances for the development bank to completely fulfill its mission and justify the purpose of its existence increase.

Conversion of claims into capital stock (debt to equity swap) is a replacement of debtor's claims against the company into debtor's percentage share in the company's equity. In Serbia, the Company Law stipulates that one of the forms of increasing equity of a limited liability company is capital increase by conversion (swap) of company's debt into equity... On the other hand, if the conversion is carried out too often and/or towards unsuitable companies and/or inappropriately, there is a real danger that "a chronic patient will die due to aspirin therapy," and that banks will lose their status of credit institutions with sound money and securities convertible in the market into effective equity..

Factoring is a financial instrument and the legal operations by which a factor (a company or a bank) finances business entities by discount purchase of due or future claims against a debtor, arising from the sales of goods or services in a domestic or foreign, i.e. international market, with the submission of invoice. Adoption of a special law on factoring is not necessary for factoring to be operational. But on the other hand, specific legislation is desirable, because it harmonizes the action in practice and sets precise rules for this particular type of contract (a contract sui generis), and a publicly available register of factoring (which is established only by law) would ensure transparency of transferred receivables and participants in this activity, thus providing a higher level of security.

The Law on Negotiated Financial Restructuring of Companies (as from May 2011) should make it possible to fill the gap in practice between the market mechanism and bankruptcy, as two models to solve the debtor-creditor relations. The Law on Negotiated Financial Restructuring of Companies cannot prescribe the incentives for creditors and debtors. The Law only indicates the possibility of introducing special incentives for financial restructuring. Tax incentives would include write-off tax relief and rescheduling of debt on the basis of public revenue. However, with regulations within its jurisdiction the NBS could determine the appropriate incentives, primarily the decrease in the banks' provisions on the basis of negotiated financial restructuring of companies.

For the purpose of legal and actual recognition, and for promotion and affirmation of entrepreneurial venture funds, the Law on Investment Funds shall stipulate the fund for entrepreneurial venture capital as a special economic category in line with the targeted investment goal. This is particularly important for the purpose of prescribing incentives and measures for these funds by blanket and referral norms of other laws, which would rely on the definition and structure of entrepreneurial venture funds under the Law on investment funds.

References

1. Aleksić, D. (2011), "Factoring", *Macroeconomic Analyses and Trends*, 206, December, 15-18.
2. Aleksić, D. (2012), "Conversion of claims into capital stock (debt to equity swap)", *Macroeconomic Analyses and Trends*, 209, March, 15-18.
3. Aleksić, D. (2012), "Development bank of Serbia: A comparative review", *Macroeconomic Analyses and Trends,* 207, January, 44-46.
4. Bernoth, K., Colavecchio, R., Sass, M. (2010), *Drivers of Private Equity Investment in CEE and Western European Countries*, Berlin, DIW.
5. Fraser-Samson, G. (2007), *Private equity as an asset class*, Chichester, John Wiley and Sons.
6. International Monetary Fund. (2012), *Fiscal Monitor,* April, Washington, IMF.
7. Nikolić, I., Vučković, V., Živković, B. (2011), "State of illiquidity and the analysis of the Proposal of the Law on Negotiated financial restructuring of companies", *Macroeconomic Analyses and Trends*, 197, March, 38-42.
8. Serbian Chamber of Commerce. (2012), *Proposal for the new economic policy for the period 2012-2016*, June 2012, Belgrade, SCC.
9. Vučković, S., Stefanović, M. (2011), "Venture capital in Serbia: Constraints and Prospects", *Proceedings from 9th International Scientific Conference – Serbia facing the challenges of globalization and sustainable development*, Belgrade, Megatrend University.

10. United Nations Economic Commission for Europe. (2009), *Policy Options and Instruments for Financing Innovation,* New York and Geneva, UN.

11. Vučković, V., Pejić, M. (2012), "Serbia's fiscal space: savings or consumption", *Macroeconomic Analyses and Trends*, 211, May, 18-20.

Vladimir Vučković

graduated from the Faculty of Economics, University of Belgrade, received his master's degree and his PhD degree from the same faculty. He was awarded the title of a teaching assistant in 1998, and of an assistant professor in 2004 at the Faculty of Economics, University of Belgrade. He has been teaching at Faculty of International Economics, Megatrend University as an associate professor since 2008. While working on his master thesis, he was at Rhode Island University, USA. His scientific fields are macroeconomic policy in the open economy and finance. Vladimir Vuckovic is member of the Fiscal Council and presidency member of the Serbian Association of Economists. He is the editor of the journal Macroeconomic Analysis and Trends.

Sanja Vučković

graduated and received her MSc from the Faculty of Economics, University of Belgrade. She received her PhD form the Faculty for Business Studies, Megatrend University. After acquiring professional experience in the corporate and financial sectors, she has been employed at the Faculty for Business Studies as an assistant since 2008 and as an assistant professor since 2009. She lectures the group of subjects in the field of finance, financial markets and financial management. She has published papers covering these fields in scientific journals and in the proceedings from national and international conferences. She is the author of the textbook "Fundamentals of Finance".

Dragana Aleksić

graduated from the Faculty of Economics, University of Belgrade, major: Economic Analysis and Policy, and obtained her MSc degree in Public Policy from the School for Policy Studies, University of Bristol, UK. She has worked on different international projects funded by the WB, SIDA, EC and USAID as an economist, providing advisory services to the Government of Serbia mainly in the regulatory and public management reform area. She has been working at the Office for Regulatory Reform and Impact Analysis within the Government of Serbia as an economic consultant. Her major areas of interests are public and institutional economics, regulatory analysis, and public management reform. She started writing for journal Macroeconomic Analysis and Trends in December 2011, section: Institutions and Regulations.

ORIGINAL SCIENTIFIC PAPER
UDK: 339.92(4-12) ; 338:339.137.2(4-12)
Date of Receipt: August 14, 2012

Tihomir Domazet
Croatian Institute of Finance and Accounting
Zagreb, Croatia

REGIONAL COOPERATION STRIVING FOR COMPETITIVENESS AND FINANCE

Regionalnom suradnjom do konkurentnosti i financija

Abstract

SEE economies are faced with solving current crisis and establishing the economic system based on growth and sustainable development. A challenge for the economics has been to find metrics to gauge the extent to which society has become more dependent on knowledge production. Although there is wide recognition of the importance of knowledge and intangible capital in fostering economic growth and social change, devising useful measures of these assets has been difficult. The primary task of each SEE economy is to establish a new economic model within a new economic system, though there is a need to put theory into practice by moving sustainable development into mainstream economics where that knowledge creates relations across sectors and institutions.

Developing, sustaining, and managing knowledge will also require a significant investment in education and knowledge, which indeed constitutes a new economics and development paradigm that should prevail in the global society in the time ahead.

In order to achieve wealthier status by all the people of each SEE country, it is necessary to leave the current economic model and to establish a new one as a new economic paradigm. Economic growth as one part of the new economic model should account for at least 5% of GDP annually in the long term.

The precondition for achieving the above-mentioned is to increase competitiveness of products that should be realized through regional cooperation. How to finance regional cooperation is, however, the next more important issue.

Key words: *SEE countries, economic crisis, new economic model, knowledge economy, regional cooperation*

JEL Classification: E22, F01, G01

Sažetak

Ekonomije JIE-e suočavaju se s rješavanjem sadašnje krize te sa definiranjem novog ekonomskog sustava s održivim rastom i razvojem. Izazov za ekonomiju je pronaći matricu da se ocijeni u kojoj se mjeri društvo temelji na znanju. Iako postoji široka svijest o važnosti znanja i nematerijalnog kapitala u poticanju ekonomskog rasta i društvenih promjena, osmišljavanje odgovarajućih mjera je teško. Da bi se uspostavio novi ekonomski model u novom ekonomskom sustavu, što je prioritetni zadatak svake ekonomije JIE-e, treba prihvatiti teoriju primjenjivu u praksi za održivim razvojem u ovim ekonomijama gdje to znanje stvara odnose između različitih sektora i institucija.

Razvoj, održavanje i upravljanje znanjem također će zahtijevati znatna ulaganja u obrazovanje i znanje te je to doista nova ekonomska i razvojna paradigma, u novim globalnim uvjetima i za vrijeme koje dolazi.

Da bi se postigao bogatiji status svih ljudi i svake zemlje jugoistočne Europe potrebno je napustiti postojeći ekonomski model i utvrditi novi kao novu ekonomsku paradigmu. Ocjenjuje se da ekonomski rast mjeren BDP-om (n)ovim ekonomskim modelom treba biti najmanje 5% prosječno godišnje u razdoblju koje nije kratkoročno.

Preduvjet za postizanje navedenog je konkurentnost proizvoda koji bi trebao biti realiziran kroz regionalnu suradnju. Međutim, financiranje regionalne suradnje, odnosno konkurentnosti, sljedeći je važni korak koji treba riješiti.

Ključne riječi: *zemlje jugoistočne Europe, ekonomska, novi ekonomski model, ekonomija znanja, regionalna suradnja i regionalna konkurentnost*

JEL klasifikacija: E22, F01, G01

Introduction

The countries of South East Europe (SEE: 1. Albania, 2. Bosnia and Herzegovina, 3. Croatia, 4. Kosovo, 5. Macedonia, 6. Montenegro, 7. Serbia, 8. Bulgaria, 9. Greece, 10. Hungary, 11. Romania and 12. Slovenia), or their economies, have been hit hard by the global economic downturn, which started in 2008 [3, p. 3]. The debt crises (of Greece, but also the upcoming crises in Hungary, Croatia, Slovenia, and other countries) are aggravating the downturn. Taking all that into account, it is correct to argue that region of SEE is "most sharply affected by falling capital flows" [26, p. 126] and "worst hit by this economic crisis" [20, p. 17].

Following the political and economic analytical approach, however, the UN ECPD book [3, p. 1] was practically the first amongst a number of analysts that predicted the Greek crisis.

The crisis as a term, however, is used in an inappropriate way. When it comes to "global crisis", obviously, it is questionable whether it is possible to use term "global", because some countries from Far East (China and others) are not in crisis. From the beginning, European Union financial and economic crisis has been called "debt crisis", due to Greece's sovereign debt amounting approximately 150% of GDP. This is also inadequate, because Greece GDP represents less than 3% of EU GDP, but more important, debt of most EU countries is a consequence rather than a cause of the crisis. Local politicians very often diagnose SEE crisis as a consequence of the Global Recession, the name also given to the global crisis, but that is not the complete truth.

As it is previously mentioned, SEE countries have been hit hardest by the crisis through economic downturn and, in general, the definition of the causes of the crisis (the first item is not directly related to Greece) is as follows:

1. Transformation into capitalist system and private ownership in an inappropriate way, so-called "tycoons' privatisation" of former state assets or state enterprises;
2. Inadequate economic policy based on neoliberal economic thought;
3. Great Recession's spillovers;
4. Corruption; and
5. Insufficient knowledge within economic policy [2, p. 57].

It should be reminded that most of SEE countries were hit by the crisis in the 1980s. The crisis was over, as most people thought, and the new states were looking for democracy development and economic prosperity. Today, however, more and more people are convinced of the loss of one decade or two, mostly because economic prosperity has not been achieved as it was expected.

It seems that most SEE countries and their economies are at the new beginning. SEE economies are facing the issue of solving the current crisis and the challenge of establishing the economic system focused on growth and sustainable development. In order to achieve wealthier status by all the people of each SEE country, it is necessary to leave the current economic model and to establish a new one as the new economic paradigm. Economic growth as one part of the new economic model should account for at least 5% of GDP annually in long term. One of the preconditions to achieve some of the above-mentioned is to increase competitiveness of products that should be realized by regional cooperation.

SEE current status as a consequence of its own weakness and influences from abroad

There are a lot of people from different fields of interest including politics, economics, strategy, energy industry, transport, geoeconomics, etc. that have shown their willingness to boost economic and social progress of this region as well as states that share it.

Most of these experts, unfortunately, have not understood history, tradition, relations and other relevant and specific subjects related to SEE.

The traditional SEE, South East Europe, represented a potential geopolitical prize in the struggle for European supremacy. The traditional SEE or the Balkans involved head-on competition among three imperial rivals: the Ottoman Empire, the Austro-Hungarian Empire, and the Russian Empire. There were also three indirect participants who were concerned that their European interests would be adversely affected by the victory of a particular protagonist: Germany feared Russian power,

France opposed Austria-Hungary, and Great Britain preferred to see a weakening Ottoman Empire in control of the Dardanelles than the emergence of any one of the other major contestants in control of this region. In the course of the nineteenth century, these powers managed to contain Balkan conflicts without prejudice to anyone's vital interests, but they failed to do so in 1914, with disastrous consequences for all.

The importance of SEE in the world has been emphasized in many ways. For instance, one of the most prominent analysts in geopolitics, Harold Mackinder, stressed the geostrategic importance of the region. Hence, he popularized his "heartland concept" by the famous dictum:

Who rules East Europe commands the Heartland;
Who rules the Heartland commands the World-Island;
Who rules the World-Island commands the world.

Today, SEE is the least developed region which needs new complex paradigm, appropriate economic policies, and sustainable development.

This region represents one-seventh of the total European population, but it is producing only 6% of European GDP per capita – we should conclude that this region is the poorest in Europe – with widening discrepancy with Europe in the standard of living.

In 1913, the average person in this region had got 53% of European GDP per capita; sixty years later (1973), he/she had 48% of European standard, and in 2010 only 41%.

In these circumstances, where Western Europe economies are more and more lagging behind other developed economies, SEE economies are far below Western Europe and, consequently, the level of development of each SEE economy in the year 2011 is relatively lower than it was in the year 1989, compared to the level of Western Europe. After years of euro integration, economic transition, and similar measures taken by SEE countries, one has to conclude that the economic position of these states and SEE region as a whole is relatively lower than before the beginning of transition.

Economic position of Europe countries measured by GDP per capita related to USA shown in Table 2 suggests that SEE countries like Hungary and Croatia are at relatively lower level as a consequence of economic policy implemented in last two decades, at least.

In order to put more light on the current SEE economic position, Table 3 shows the difference between Gross

Table 1: The Balkans (South Eastern Europe), 1913-2010 and its role in Europe

Year	South Eastern Europe			% in Europe		
	Population (000)	GDP (mil.)	GDP/cap.	Population	Volume of GDP	GDP/cap.
		PPP US$ from 1990				
1913	42.730	69.223	1.620	12,5	6,7	53,2
1950	57.991	95.403	1.645	14,8	6,0	40,8
1973	71.467	338.693	4.739	15,2	7,3	47,8
2003	77.220	486.720	6.303	15,0	5,6	37,6
2010	75.865	578.947	7.631	14,6	6,0	41,3

Source: [24, p. 9]

Table 2: GDP per capita, some SEE countries compared to other European countries

Country	GDP per capita (US$ from 1990.)			Indices (US = 100)		
	1913	1973	2005	1913	1973	2005
Austria	3.465	11.235	22.135	65,4	67,3	71,6
France	3.485	13.114	21.554	65,7	78,6	69,7
Germany	3.648	11.986	20.521	68,8	71,9	66,4
Hungary	2.098	5.596	8.612	39,6	33,5	27,9
Italy	2.564	10.634	19.502	48,4	63,7	63,1
Slovakia	1.672	n.a.	10.345	31,5	n.a.	33,5
UK	4.921	12.025	22.709	92,8	n.a.	73,5
USA	5.301	16.689	30.911	100,0	100,0	100,0
Croatia	1.398	5.685	8.099	26,3	34,1	26,2

Source: [24, p. 9]

national income, GNI and GDP. This is a very significant relation that makes the difference between available amount in any country measured by GNI and produced amount measured by GDP. If GDP is larger than GNI, the difference, mostly related to the interest and dividends of non-residents, would outflow from original country. This is explained in System of National Accounts of UN: "Levels of GDP or, alternatively, gross national income (GNI) per head in different countries are also used by international organizations to determine eligibility for loans, aid or other funds, or to determine the terms or conditions on which such loans, aid or funds are made available. When the objective is to compare the volumes of goods or services produced or consumed per head, data in national currencies must be converted into a common currency by means of purchasing power parities and not exchange rates. It is well known that, in general, neither market nor fixed exchange rates reflect the relative internal purchasing powers of different currencies. When exchange rates are used to convert GDP, or other statistics, into a common currency, the prices at which goods and services in high-income countries are valued tend to be higher than in low-income countries, thus exaggerating the differences in real incomes between them. Exchange rate converted data must not, therefore, be interpreted as measures of the relative volumes of goods and services concerned. Levels of GDP, or GDP per head, in different countries are also used to determine, in whole or in part, the size of the contributions which the member countries of an international organization make to finance the operations of the organization" [19, p. 235].

Gross National Income accounts for these flows in and out of the country. For many countries, the flows tend to balance out, leaving difference between GDP and GNI.

The Table 3 suggests that while all the SEE economies produce a lot of income per inhabitant, GNI shows that less of it stays in the country, which means that GNI per capita is lower than GDP. GDP produced in the country flows out of that country; it means that the portions of GDP available for domestic residence are ranking from 44.9%, in Albania to 96.9% in Greece. The differences are related to interest, dividend etc. On the other hand, all old EU countries (except Luxembourg) have a rather larger GNI than GDP, in the sense that the differences are result of inflow related to the interest and dividends also from SEE countries. In addition, perhaps it may be concluded, although currently without precise data, that the differences between GNI and GDP before transition were not so huge, if they existed. Someone could also conclude that economic, trade, and other relationships

Table 3: Relations between GNI and GDP per capita 2010 of SEE countries

	GNI pc US$	GDP pc PPP US$	Index: GNI/GDP
A/ EU Candidates			
Albania	3960	8817	44,9
Bosnia and Herzegovina	4770	8590	55,5
Croatia	13870	19516	71,1
Kosovo	3290	-	-
Macedonia	4570	11159	41,0
Montenegro	6750	13016	51,9
Serbia	5630	11281	49,9
B/ EU Members			
Bulgaria	6270	13780	45,5
Greece	26940	27805	96,9
Hungary	12850	20029	64,2
Romania	7840	14287	54,9
Slovenia	23860	27063	88,2
C/ EU members main trade partners with SEE countries			
Germany	43110	37260	115,7
Italy	35150	31555	111,4
Austria	47060	40005	117,6
France	42390	33820	125,3

Source: World Bank (2012), Golden growth: Restoring the lustre of European economic model. Washington, World Bank.

between SEE countries and the EU, primarily those which run such activities, are in favour of EU members, in this circumstance Germany, Italy, Austria, and France.

The data from the above table suggest that SEE transition under Washington consensus and EU assistance failed.

There are politicians that see the causes of the current crisis in the global crisis, also known as the Great Recession. This paper does not search for the causes of the Great Recession, but today it should be clear that "Collapse of Bretton Woods" was a beginning of this crisis: the collapse of Bretton Woods in 1971 inaugurated a new stage, characterized by the development of globalised production and the domination of international financial market. On the other hand, EU crisis, mostly called the debt crisis, is primarily caused by non-functionality of the EU and, especially, running common currency without appropriate supportive basis. However, these crises do have impact on SEE economic and financial crisis.

What ought to be done in this remote corner of Europe, which itself is in troubles? Something fundamental is happening on the world scale, but this region cannot have considerable influence on those changes. The lesson is that, without any doubt, it should modernize by strengthening multilateralism and not by abandoning it. It must change its old concepts and constructing labels, not its multilateral commitments.

In this part of the old continent, we should find our own way out of the trap in which we are at the very moment. No longer can the old European, Japanese, or American models serve as the guide; it has to emerge now, in different conditions from those in the past successful models.

It is important to realize that the global economy has entered a new danger zone with little running room as some European countries are resisting difficult truths about the common responsibilities for a single currency.

The credibility on debt and budget deficits could restore confidence and with the focus on efficient, now forgotten project, could spur growth of these economies, boost productivity, and create new jobs: under these conditions SEE can start a new upturn, which will break the existing tendencies.

In summary, it can be concluded that SEE position depends on its own economic and political powers against influence from abroad.

The lesson from all previous crises is that the later you act, the more you will have to do and the more painful it will be.

Regional competitiveness

A well-functioning competition regime is an important component of any modern economy. By ensuring a level playing field for businesses, it helps promote investment and growth, as well as benefit consumers.

One of the key elements of future economic model of SEE economies should be a regional cooperation aimed at enhancing the competitiveness of local industries and products on the global markets.

It should be reminded that "…competitiveness is defined as the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability of (regions) to generate, while being exposed to external competition, relatively high income and employment levels'. In other words, for a region to be competitive, it is important to ensure both quality and quantity of jobs" [from European Union (1999), *The Sixth Periodic Report on the Region*].

It is also necessary to remind of the major schools of economic theory that carry implications – explicit or implicit – for "regional competitiveness" including:

A. Classical theory
B. Neoclassical theory
C. Keynesian economic theory
D. Development economics
E. New economic growth theory – Endogenous growth theory
F. New trade theory

Possible regional competitiveness should be considered from microeconomic and macroeconomic point of view.

At the *micro-economic* or firm level, there exists a reasonably clear and straightforward understanding of the notion of competitiveness based on the capacity of firms to compete, to grow, and to be profitable. At this level, competitiveness resides in the ability of firms to

consistently and profitably produce products that meet the requirements of an open market in terms of price, quality, etc. Any firm must meet these requirements if it is to remain in business, and the more competitive a firm relative to its rivals, the greater will be its ability to gain market share.

At the *macro-economic* level, the concept of competitiveness is much more poorly defined and more strongly contested. Sometimes a nation's or region's competitiveness is presented as a central goal of economic policy, arguments abound as to precisely what this means and whether it is even sensible to talk of competitiveness at a macro-economic level at all. It should be admitted that the concept of national competitiveness is essentially "meaningless". Hence, it is misleading and incorrect to make an analogy between a nation and a firm. In addition, whereas firms can be seen to compete for market share and one firm's success will be at the expense of another's, the success of one country or region creates rather than destroys opportunities for others, and trade between nations is well known not to be a "zero-sum game". Finally, the competitiveness has to be directly connected to productivity or, figuratively speaking, "you are what you do".

A regional component is essential to coping with the global trends in economics, especially in the region with low productivity such as SEE. In spite of their relevance to the understanding of competitiveness, different theories often lack a territorial dimension that is so crucial for understanding regional competitiveness. The obvious source for such theories is the field of economic geography, which may be taken to include three streams of literature: (1) economic geography proper, (2) regional economics, and (3) so-called "new economic geography" within economics.

The economic geography has drawn heavily on neighbouring disciplines. In discussing regional competitiveness, three basic conceptions of regional competitiveness are as follows:

1. *Regions as sites of export specialization;*
2. *Regions as source of increasing returns; and*
3. *Regions as hubs of knowledge.*

Following the above-mentioned, SEE as the *region has to become a site of export specialization.* While most economists consider the primary concept as the "production function", linking a firm's (or nation's) output to key factor endowments (labour, capital, and technology), the economic geographers see the geography of production in terms of a "location function" in which the location of economic activity is to be explained in terms of the geographical distribution of key "location endowments" (availability of natural resources, labour supplies, access to markets, and so on). In essence, regions "compete" with one another to attract economic activity on the basis of their comparative endowments of these "locational factors".

More important, SEE region has to establish and develop its export-orientated industries (tradable sector). This is in fact a range of *regional export-based and export-multiplier models*, many of which are regional extensions of the basic Keynesian income model.

Besides, SEE region has to be perceived *as source of increasing returns* as the concept of a revival of Kaldorian models of *cumulative regional competitiveness* points out.

In summary, regarding competition it is crucially important that SEE region's output growth is assumed to be a function of the demand for its exports, as in the previously mentioned model or Keynesian regional multiplier. The demand for the region's exports – its "competitiveness" – is assumed to be a function of the rate of increase in global demand and the rate of increase of the region's product prices relative to global prices. The latter in turn depend on the rate of wage growth minus the rate of productivity growth (i.e. the change in wages per unit produced), which itself will be higher the faster the growth of SEE region output (the so-called "Verdoorn effect"). The key element in this circular and cumulative process lies in the way in which increased output leads to increased productivity. More important, this approach has to apply on industry or concrete products.

Taking into account the current situation and the fact that foreign savings will not be available in the near future, in order to boost growth economies will have to rely on knowledge, which is very often called the knowledge-based economy. It means that SEE region has to create economic model that regards regions as hubs of knowledge and draws heavily on the notion of innovation, based on Schumpeterian and evolutionary economic insights. Innovation is seen as an interactive learning process that

requires interactions between a range of actors, such as contractors and subcontractors, users and customers, competitors, as well universities and other institutions of higher education, providers of consultancy and technical services, state authorities etc.

Given the fact that regional competition is also based on business strategy economics, we should emphasize the *cluster theory*. Perhaps the most influential representative of business strategy economics is the *cluster theory* of Michael Porter. This micro-economically based theory of national, state, and local competitiveness is put within the context of a global economy. According to Porter, to be competitive, firms must continually improve operational effectiveness in their activities while simultaneously pursuing distinctive rather than imitative strategic positions. His argument is that the existence of geographical clusters encourages both of these requirements for firm competitiveness, by encouraging the formation of regionally-based relational assets external to individuals firms but of major benefit to their competitive performance.

SEE region approach to global competition

Any change from the old to the new or any modification in the way a society behaves must have economic consequences, and also must be limited by economic considerations.

Obviously, we live in the world that is simultaneously shrinking and expanding, growing closer and farther apart. National borders are increasingly irrelevant. And yet globalism is by no means triumphant. The economic dimensions of globalization have attracted the most popular attention, much of which has been negative due to the frequency and variety of conflicts for which the process is blamed.

The World, the new one, which is currently in the phase of establishing, is expected to be bipolar and thus consisting of the US and China. The EU intends to be equal player to the ones mentioned previously, but before that it has to resolve the crisis and consolidate its own power.

The New World, an outcome of the transition from the post-WWII era to something New, brings about an evolution in many dimensions, but for SEE the most important is to take into consideration some quite new dimensions, for example:

1. The new economic *global* model directed towards resolving the excess debt (public and private), managing global capital flows, ending instability in currency valuations;
2. Rebalancing of geopolitical relations, possibly towards a multi-polar world, including China as a new great power;
3. Focus on a new energy regime and navigating through a peak oil to new sources;
4. Recognition of the New world in which 4th generational war becomes the dominant form of armed conflict (like insurgencies, piracy, failed states, terrorism etc.);
5. Demographics changes especially the age wave, meaning aging societies dying gracefully (or not), young societies growing to maturity, and the next fertility collapse following development of a male contraceptive.

In order to act on the new world table, the EU has recently called for the formation of a "banking union", a proposal which the ECB seems to broadly support. However, like the fiscal union which came before it, the banking union may fail to impress investors sufficiently to end the crisis.

The EU is facing the great challenges, perhaps more than any large part in the world, i.e. it nears the end of its great gamble, attempting economic before political unification. The dilemma of choice nears, to political unification or economic fragmentation. It seems that the political dysfunctionality is Europe's greatest challenge.

A banking union would need to have several different features, all of which are problematic. The key features are:

1. *Common capital requirements and supervision;*
2. *A common deposit guarantee system (DGS); and*
3. *Common funds to recapitalise banks.*

A banking union would be based broadly on four essential building blocks: (1) integrated financial framework, (2) integrated budgetary framework, (3) integrated economic policy framework, and (4) democratic legitimacy and accountability.

Although the existing problems have not gone away, most obviously, hard decisions still have to be made about whether to give more help to Greece, later Spain etc. Given that agreeing on a banking authority will take several months, the more fundamental constitutional changes needed to back a banking union and Eurobonds seem so remote. The outlook for the European and world economy is darkening. The recession will undermine normal politics and create conditions for markets to take fright.

The latest measures taken to solve EU crisis include establishing so-called banking union and promoting two-speed EU. The latter is an opportunity for SEE.

It seems that the EU took an important step in the right direction by agreeing a pathway towards a banking union, but that they did not do enough on crisis resolution. Still, there are a number of analysts that view this as a very large step – possible in the wrong direction. On the other hand, the Bundesbank stressed that the bank recapitalisation through a full banking union is not possible without a political union. As a consequence, some analysts assume that EU crisis will not be solved for the next two decades. It seems Germany is firmly opposed to a Eurobond and the ECB is not to monetize debt. Renown and most influential German economists believe that the banking union is good for Wall Street and The City of London, and bad for Germany.

One of the great obstacles to establishment of sustainable development is the neoliberal economic system promoted by economic leaders including the US and the EU. Someone stressed that this is the systemic crisis, following the systemic crisis before the Great Depression emerged. A systemic crisis occurred at the end of the 1920s, when an earlier liberal form of capitalism went into crisis following the stock market collapse of 1929. Another developed in the mid-1970s, as the regulated form of capitalism of the post-World War II decades stopped working effectively. In both cases, the crisis was followed by a thorough restructuring of capitalism. Today it appears that we are entering another systemic crisis, that dates to the late 1970s/early 1980s, and a number of people are looking to resolve crisis and save system at the same time.

We should emphasize the importance of the power shifts from West to East and the end of the post-WWII regime and, as a consequence, we are seeing another western industry ceding dominance to eastern competitors, one more step in a larger process.

There are some specific relations between competition and cooperation that SEE economies have to bear in mind, especially in the view of state intervention. The stronger the competition, the more likely it will become destructive. Such behaviour has been clearly identified with politicians, whose horizon does not go beyond the end of their mandate.

Market failures and some disruptive secondary effects of competition at the institutional level justify the state intervention to ensure that institutions act in a responsible manner. Increasing competition, however, calls for a development of specific cooperation strategies. The stronger competition poses a major threat to be overtaken or even to disappear if one cannot meet the challenge.

Nevertheless, given the above-mentioned specific relations between competition and cooperation, SEE business sector (i.e. regional enterprises) will have to enhance regional advantage that goes beyond infrastructure (mostly transport) and agriculture, at least in the following areas: energy, water and irrigation, tourism, pharmaceutical industry, construction. The project of opening up landlocked countries is more specific and needs support of other countries as well as of the EU.

Financing SEE development based on regional competitiveness

Financing SEE development based on regional competition is crucial, following resolving the crisis and establishing the regional cooperation.

The biggest lenders, including Italy's UniCredit, Austria's Raiffeisen and Erste Group, as well as Italy's Intesa Sanpaolo and France's Société Générale, say they are committed to the region. But UniCredit is shifting the focus of its strategy towards its most profitable markets, including Poland, Turkey, Russia, and Croatia. Pressure on banks' balance sheets is producing a credit "crunch" in certain countries, particularly in Hungary.

In the year 2011, foreign banks clashed with the government over its aggressive measures to reduce the

burden of outstanding mortgages, which forced them to take the currency losses.

Much tighter restrictions on foreign-currency loans have been imposed since the crises in Hungary and elsewhere have become part of broader changes in the business models of western financial institutions. Where many previously relied heavily on wholesale and parent bank funding of regional subsidiaries, now the focus is on funding through local deposits, and reducing excessively high loan-to-deposit ratios in these SEE countries.

SEE countries must start improving competitiveness and continue improving the investment climate. SEE business entities should not remain small and unproductive. Just the opposite, they must become increasingly able to attract foreign investors, capable of taking advantage of a pan-European market that will only get bigger and more competitive, and progressively competitive in the global markets, where they have to contend with enterprises from East Asia and North America.

SEE will have to operate within European labour market that will require a lot: increasing the competition for jobs, improving labour mobility within Europe, fixing how work and welfare interact, and rethinking immigration policies. These changes will not happen without share of regions like SEE.

Given the fact that the competitiveness equals productivity, to help redress growing productivity gaps in SEE countries, their governments will have to quickly improve the climate for doing business. The more dynamic countries in SEE will have to do all this as well as to invest in infrastructure.

Agriculture is one of the greatest challenges, thus, the opportunity for SEE. It should be noted that the opportunity that Europe might really be missing involves regional trade in agriculture. The European Union pays for its agricultural trade policies the roughly €50 billion a year the European Commission spends on agriculture and rural development. The first step in promoting competitiveness of agriculture could be the establishment of SEE agriculture bank that will help deliver regional products to large EU markets.

According to the theory, the capital in the different fields of production, because the supply and demand are not balanced, brings different amount of profit. This kind of capital movement is the competition. In such approach, SEE has to improve competitiveness of concrete industries and products, and any imbalance which will be accumulated as a result of the supply and demand relations will boost its own production and productivity, create new jobs and accumulation based on real productivity.

SEE has to consider implementing its own regional economic model, dealing with regional competition. It should accept that both the Anglo-Saxon model of *laissez-faire* and the European model of deficit-driven welfare states are failed. It seems the right balance today requires creating jobs partly through additional fiscal stimulus aimed at productive infrastructure investment, and possible agriculture development. It also requires more progressive taxation; more short-term fiscal stimulus with medium- and long-term fiscal discipline; lender-of-last-resort support by monetary authorities to prevent ruinous runs on banks. Real obstacle to this new model based on competitiveness is capacity of knowledge of SEE countries' key players.

As the pre-crisis growth model of relying heavily on domestic demand and massive capital inflows has proven to be unsustainable for SEE, the question arises whether:

- a new growth model may be needed for this region, or
- the existing model should be revised in a way that it will be less exposed to external shocks.

Whatever the form, there are basically three ways in which SEE growth model should be based:

(i) implementing S > I (Savings – Investment) model where national savings would be dominant in economic model;
(ii) structural reforms aimed at increasing productivity; and
(iii) adjustments in macroeconomic and financial policy.

Conclusion

Slowly people become aware that the post-WWII economic and geopolitical order dies a little every day. The transition might be long and difficult. We can only guess at what lies

beyond and continue to manage this transition in the most effective way. Yet we need not fear these things, as they're less dangerous than what we survived in the 20th century.

After the Thessalonica summit of the EU with the Western Balkans, regional cooperation has become one of the conditions of sustainable development.

Regional cooperation is institutionalized via the free trade agreement (CEFTA) and via the Regional Cooperation Council (RCC) based in Sarajevo, but it is expected the EU will to boost SEE cooperation, notwithstanding membership in the EU.

It should be noted that the particular national economy needs, for the sake of its own health at a particular point in history, to shift from local advantage to joint activities in a broad EU enlargement process and globalized economy. However, it would be wise to make distinction between various kinds of comparative advantage – specifically, to distinguish between rent-seeking activity, and activity that provides a genuine advantage for each economy and comparative advantage, which is provided through regional corporative cooperation.

SEE regional labour market integration is expected to increase due to complementarities in supply and demand, and the region as a whole is also faced with significant outward migration.

This region should look towards a sustained period in which the convergence processes, which characterized the decade prior to the current financial and economic crisis, will either not proceed or proceed at a much reduced pace. On the other hand, deleveraging processes, difficult moves to deal with the high debt positions of the private sector, the weak banking system and the feedback effects on sovereign debt will characterize many of the low-income economies in Europe, most of them in SEE. The driving force of foreign direct investment and the build-up of cross-border production networks will also show weaker momentum compared to the period before the crisis. Adjustment processes to deal with the pre-crisis neglect of building-up a viable tradable sector and sufficient and modernizing export capacities will have to gain priority, and the use of different sets of policy instruments (particularly in the areas of training, labour market, industrial and regional policies) will have to be strengthened.

SEE economies and their key players would soon or later learn that the regional competitiveness is one of the key elements of a new economic model to be implemented. Taking into account that the post-WWII economic model is over and that the new one should be based on new and higher requirements, the competitiveness of SEE enterprises and products on the global markets is crucial.

SEE competitiveness and cooperation have to be achieved by financing based on all stakeholders, primarily on financial institutions, but this model includes government measures too.

Let's remind to the most important: lack of knowledge combined with the political game of voters create a great fear among politicians about how to deal with a shift in societies and the region. All members of society must dare to climb up and watch the glorious view of the top, certainly by knowledge. It is possible to throw the backpack with all the old knowledge away, see the world through new eyes and formulate challenging visions. SEE and its countries have the capacity being in a growing global commitment to a sustainable economy and society, but they need to look more at the big picture than to go into details.

Economies and societies of SEE have to create good and sustainable living conditions for all, even though those people are dissimilar and live in different places on earth. If people feel good, not just in our neighbourhood, we also feel good.

References

1. Domazet, T. (2009), *Kriza, ekonomska politika i izlazna strategija*, Zagreb, Hrvatski institut za financije i računovodstvo i HAZU.
2. Domazet, T. (2010), *Facing the future of economic policy – Causes of the crisis from the political economy point of view*, Zagreb, Croatian institute of finance and accounting.
3. Domazet, T., Ostojić, N., Stipetić, V. (2009), *The Region of South East Europe, Recent economic development, Crisis - Exit strategy*, Brijuni, Croatia, ECPD.
4. Drašković, V. (2010), *Globalisation in the mirror of development, crises and media*, Podgorica, Montenegro.
5. Erixon, L. (2010), "'Third way' in economic policy: a reappraisal of the Rehn–Meidner model in the light of modern economics", in the book: *Neo-Liberal Economic Policy, Critical Essays*, Edited by Arestis, P., Sawyer, M., Cheltenham, UK, Edward Elgar.

6. Fabius Maximus, Blog. (2012), "Brad De Long asks Is American Democracy Broken?", available at http://fabiusmaximus.wordpress.com/2012/05/12/38684/.
7. *Financial Times*, London based newspaper, available at http://www.ft.com/home/uk.
8. Fox, J. (2009), *The Myth of the Rational Market, A history od risk, reward, and delusion on Wall Stree*t, Harper Collins Publishers Inc.
9. Fung, T. (2011), "Inclusive thought for the twenty-first century from Marti's America", *International Critical Thought*, Vol. 1, Issue 1, 29-34.
10. Horvat, B. (1983), *Political economy of socialism*, Zagreb, Globus.
11. Horvat, B. (1995), "The market transformation of state enterprises", *Magazine Ekonomija/Economic*, Zagreb, RIFIN.
12. IMF, different publications, available at http://www.imf.org/external/publications/index.htm.
13. INET, The institute for New Economic thinking, Cambridge, different papers and presentations, available at http://ineteconomics.org/.
14. Krugman, P., different columns in NYT, available at http://topics.nytimes.com/top/opinion/editorialsandoped/oped/columnists/paulkrugman/index.html
15. Laibman, D. (2011),"Incentive design, iterative planning and local knowledge in a maturing socialist economy", *International Critical Thought*, Vol. 1, Issue 1, 35-56.
16. North, D. (1994),"Economic Performance Through Time", *The American Economic Review*, American Economic Association, vol. 84(3), 359-68.
17. Salvadori, N. (2006), *The Theory of Economic Growth: a 'Classical' Perspective*, Italy, University of Pisa.
18. Sinn, H. W. (2012) "The European balance of payments crisis – an Introduction", in CESifo Forum ISSN 1615-245X, *A quarterly journal on European economic issues*, Volume 13, Special Issue January, Munich, Germany.
19. SNA, System of National Accounts, (1993), UN, available at http://unstats.un.org/unsd/nationalaccount/docs/1993sna.pdf .
20. Stiglitz, J. (2008), Speech, during his visit in Belgrade.
21. Stiglitz, J. (2009), *Freefall: America, Free Markets, and the Sinking of the World Economy*, New York, London, W. W. Northon & Company.
22. Stiglitz, J. (2010), *Conference speech, Presented at the Inaugural Conference at King's College*, INET, available at http://ineteconomics.org/video/conference-kings/agenda-reforming-economic-theory-joseph-stiglitz.
23. Stipetić, V. (2010), *Agriculture in South East Europe – Challenge for Future?,* Zagreb, Croatian institute of finance and accounting.
24. Stipetić, V. (2010), *South East Europe – Last developed region of Europe*, Milocer, Montenegro, ECPD.
25. Stipetić, V. (2012), *Two centuries development of Croatian economy (1820 – 2005)*, Zagreb, Croatian academy of sciences and arts.
26. World Bank. (2009), Doing Business Report, available at http://www.doingbusiness.org/reports/global-reports/doing-business-2009/.
27. Zdunić, S. (2001), "Tranzicijska kriza i politika izlaza - Ekonomsko politička prosudba", *Ekonomski pregled*, 9-10, Zagreb, Croatia.
28. Zeitler, F. (2012),"Ways out of the European sovereign debt crisis after the decision of the July 2011 Summit", European balance of payments crisis, in CESifo Forum ISSN 1615-245X, *A quarterly journal on European economic issues*, Volume 13, Special Issue, Munich, Germany.

Tihomir Domazet

is a professor of Economics at the UN European Centre for Peace and Development, visiting professor in a number of universities and President of Croatian Institute of Finance and Accounting. He earned his PhD in London, UK. Recently, he has announced a research on new economic model and new economic theory vision. He wrote more than 100 scientific contributions. His recent book, written in collaboration with other authors, "Facing the future of economic policy – Causes of the crisis from the political economy point of view" (2010) provides more insights on the Great Recession. He is also the author of modern laws and regulations in the fields of finance, accounting, auditing as well as of non-for-profit accounting and internal auditing. He was Deputy Minister of Finance (2000-2004). There are, inter alia, more affiliations: Ambassador for Peace (UN UPF); Vice President of UNCTAD - ISAR; Board Member of European Accounting Association, Brussels; cooperation with EU, World Bank, IMF, UNCTAD, OECD.

Život je pun neočekivanih promena.

Uz zaštitu AXA Osiguranja uvek ste spremni za nepredviđene događaje.

Prisutni u **57 zemalja** sa preko **101 milion klijenata.**

www.axa.rs

AXA OSIGURANJE

unapređujemo / standarde

ORIGINAL SCIENTIFIC PAPER
UDK: 338.1(497.11) ; 339.137.2 ; 338.45:669.2/.8(497.11) ; 338.45:621.2(497.11)
Date of Receipt: August 30, 2012

Ana S. Trbović
Singidunum University
Faculty of Economics
Finance and Administration, Belgrade

Goran Radosavljević
Singidunum University
Faculty of Economics
Finance and Administration, Belgrade

Jana Subotić
Singidunum University
Faculty of Economics
Finance and Administration, Belgrade

COMPETITIVENESS GAP IN SERBIA'S METALS AND ELECTRONICS INDUSTRY[1]

Konkurentski jaz metalske i elektronske industrije Srbije

Abstract

Despite marked fall in production since 1980, metals and electronics industry plays an important role in Serbia's economy, reflected in its share in employment, export, and gross domestic product. Export in the sector has a sound basis for future growth, where vicinity of EU markets coupled with favorable trade regime since 2000 creates a crucial competitive advantage. Serbian companies are present in the entire spectrum of the metals and electronics value chain from primary to semi-finished to final goods production, albeit mostly with low value added products at the moment. The major competitiveness drawback is that the companies in metals and electronics industry have limited access to finance, which results in insufficient investments in technology and innovation. There is also a skills gap, especially in operating new machinery, and infrastructure limitations with regard to rail and river transport, presenting key challenges to future development.

Key words: *metals, electronics, industry, Serbia, competitiveness, technology, skills gap*

Sažetak

I pored naglog pada proizvodnje nakon 1980. godine, metalska i elektronska industrija imaju značajnu ulogu u ekonomiji Srbije zbog svog udela u zaposlenosti, izvozu i bruto domaćem proizvodu. Izvoz ovih industrija ima dobru osnovu za dalji rast, a blizina tržišta EU i povoljni trgovinski režim uspostavljen nakon 2000. godine smatra se ključnom konkurentskom prednošću. Preduzeća iz Srbije su u širokom spektru prisutna u lancu vrednosti metalske i elektronske industrije kroz proizvodnju primarnih proizvoda, polu-proizvoda i finalnih proizvoda, iako većina proizvoda za sada ima nisku dodatnu vrednost. Najveći konkurentski nedostatak je taj što firme iz metalske i elektronske industrije imaju probleme sa finansiranjem što za ishod ima nedovoljno ulaganje u nove tehnologije i inovacije. I pored mnogih obrazovnih programa visokog i srednjeg stručnog školstva, postoji jaz u osposobljenosti radne snage. Nedovoljna kvalifikovanost radne snage posebno je izražena kod rukovanja novom tehnologijom. Upravo manjak ovih znanja kao i infrastrukturna ograničenja, pre svega kada su železnički i rečni saobraćaj u pitanju, predstavljaće najveće izazove u budućnosti.

Ključne reči: *metalska industrija, elektroindustrija, Srbija, konkurentnost, tehnologija, znanje*

Overview of the metals and electronics sector in Serbia

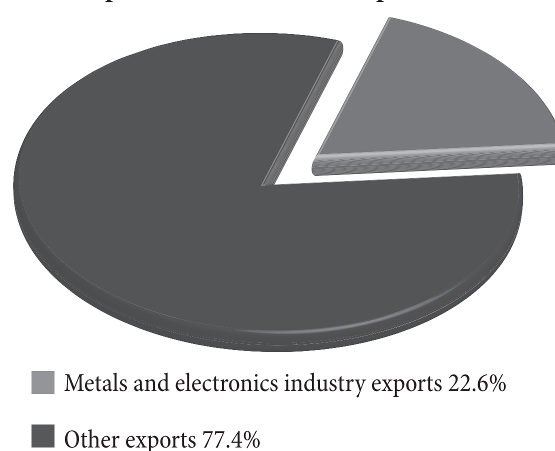
Following five decades of Communism, and a decade of violent conflict and sanctions that accompanied the break-up of former Yugoslavia, Serbia initiated a democratic transition process with the change of regime in 2000. Economic reintegration in world markets required comprehensive reforms, leading to European Union and World Trade Organization accession. At present, Serbia is an associate member and official candidate for membership

1 This article was produced in the framework of the project 47028 "Enhancing Serbia's Competitiveness in the Process of EU Accession" supported by the Ministry of Education and Science of the Republic of Serbia for 2011-2014 period.
Note on methodology: The authors of this article have reviewed secondary data and information collected from the public domain, primary and secondary market research, Government organizations and experts in-house sources. Information collected was used to formulate questionnaires for over 40 direct and focus group interviews with sector stakeholders, including manufacturers, associations/clusters, different organizations, government officials and other sector experts. The questionnaires were designed to provide both quantitative and qualitative information and to encourage practical, timely and market-based recommendations from respondents. Field interviews were conducted in several towns in Serbia, namely Belgrade, Novi Sad, Temerin, Loznica and Kragujevac (with additional phone and in person interviews with companies from throughout Serbia including Gornji Milanovac, Cacak, Pozega, etc). The interviewed companies were selected to allow for geographic, product and company size diversity. This article is a result of a larger study supported by the Swiss Import Promotion Program – SIPPO.

in the European Union (candidacy status awarded in March 2012), benefiting from customs-free trade to the EU for most products since November 2000 (which was solidified by Interim Trade Agreement, an integral part of the Stabilization and Association Agreement signed with the EU as of February 2010), as well as financial and technical assistance from the EU (about 190 million Euros annually). Serbia is also finalizing its WTO negotiations, and it has already (re)joined other relevant institutions such as the UN, Council of Europe, Partnership for Peace, and entered in free trade agreements with CEFTA, EFTA and bilaterally with Russia, Turkey, and other countries. The current government follows the path of economic and social reform centered on transition to free market economy and establishment of EU market standards. Serbia is considered an upper-middle income economy according to the World Bank, with a GDP for 2010 estimated at 39.1 billion USD (5,366 USD GDP per capita) [19]. The total economic growth has declined as a result of the World Economic Crisis, but exports continue to grow at a high rate. The key economic problem is the rising unemployment, surpassing 25% in 2012. According to the World Economic Forum, Serbia ranks as 95 of 142 surveyed countries [22], with respective scores of the Development of institutions 121, Infrastructure 84, Higher education and training 81, Goods market efficiency 132, Labor market efficiency 112, Financial market development 96, Technological readiness 71, Innovation and sophistication factors (10.0%) 118, Business sophistication 130 and Innovation 97. In 2012, increasing public debt is a rising concern, with the government faced with intense pressure to undertake difficult and generally unpopular reforms, including pension reform and public sector restructuring to maintain stability and improve competitiveness. If these reforms are not undertaken, Serbia's growth will stagnate, with risk of future financial insolvency.

Serbian metal processing and electronics industry numbered 5,018 companies in 2009[2] and employed 112,983 people in 2010, exhibiting a steady decrease in employment over the last decade until 2010 when statistics showed a slight increase compared to the previous year. When including weapons manufacturing, which is not analyzed here, total employment in metals and electronics sector in Serbia is 116,000, which is 11.7% of total employment, amounting to 5.9 percent of Serbia's Gross Domestic Product (GDP), with revenue of 5.3 billion dollars in 2011 and exports amounting to 2.7 billion dollars in 2011, which is 22.6% of total Serbian exports (see Figure 1 and Table 1).

Figure 1: Share of metals and electronics industry exports in total Serbian exports, 2011



There is a similar, somewhat larger share of 26% of the industry in the total imports of Serbia.

An analysis of Serbia's export markets identifies Europe as the highly dominant export destination, especially Austria, Italy and Slovenia in the European Union, but also neighboring Bosnia and Herzegovina and Montenegro – and the Russian Federation. Russia is the farthest market, other than Egypt and Israel that are a less significant export destination in terms of current export value. The export focus on the closest EU members and the region indicates market vicinity as a crucial competitive advantage of Serbia, especially considering high transport costs associated with most of the export products.

Table 1: Metals and electronics in Serbia –Trade figures, 2008-2011

Unit: USD million	2008	2009	2010	2011
Imports	7551	5178	4762	5223
Exports	2693	2217	2228	2662
Trade deficit	4858	2961	2534	2661

Source: Serbian Chamber of Commerce – Association of Metal and Electronics Industry, based on data from Statistical Office of the Republic of Serbia, Statistical Yearbook, 2011 [16].

2 Note: The SIEPA database contains 206 companies listed in the areas of Metal and Machinery Industry. The actual number of functioning companies is therefore somewhere between 200 and 2000 in this subsector and this would be more indicative of the actual sector activity, especially when considering a high share of micro and small enterprises in the sector.

There is a trade deficit in the sector, albeit reduced in the 2008-2011 period as imports are decreasing and exports overall increasing, recovering from crisis-induced fall in 2009 and 2010; export increase is especially apparent in manufacture of electrical equipment for motors and vehicles and electrical household appliances. On the global level, Serbian exports of metal and electronic products represent a fraction of world exports, notably less than one percent of world exports. On a regional level, Croatia is the most successful exporter overall, with Serbia following, and taking the regional lead in copper exports. The countries in the region are well integrated and frequently appear in top twenty suppliers or export destinations for products in the sector. The World Bank considers trade with the EU to be "a key driver of SEE6 (Western Balkans) export performance and overall economic growth." The EU accounts for 58.2 percent of total exports (2010) with the lion's share directed to Italy and Germany. Intra-regional trade accounts for about 22 percent of exports of SEE6 economies and is especially important for Serbia and Montenegro [20, p. 7].

As Table 2 demonstrates, micro and small companies dominate metals and electronics sector in Serbia. This has been a steady trend over the last decade, indicating that there are barriers to development of the initial entrepreneurial activity in the sector but that the small and medium size enterprises' (SMEs) activity provides a platform for growth should constraints – principally in the form of access to finance and technology gap – be overcome.

In the European Union, SMEs also play a significant role in metalworking and metal articles (MMA) industries. "SMEs represent nearly the whole of the MMA sector, 80 per cent of which have less than 10 employees per firm. In terms of output and value added, SMEs in the MMA sector play a much more significant role than they do in the in the EU manufacturing sector as a whole. This stresses the importance of SMEs in the MMA sector and emphasizes the need to understand their business models and competitive environment, since their competitiveness has a major impact on the sector as a whole [3, p. 106]."

The metals and electronics sector in Serbia had reached its peak in the 1980s, and practically collapsed in the 1990s as a result of the violent break-up of the former Yugoslavia and international sanctions that cut off the trade lines and reduced domestic purchasing power. The employment in the sector was however artificially maintained, with most people earning extremely low salaries or not earning any salaries but remaining officially employed. As a result of this unrealistic policy in the 1990s, industry's imminent fold became associated with the privatization process that was initiated upon regime change in the early 2000s and not with the loss of markets and competitiveness that started with the political and market changes in Europe and then Yugoslavia in the 1990s: "Privatization of the metal sector had a very modest achievement both for the state and for economic development. Even more modest results were recorded in recovery of problematic big companies in metal sector [1, p. 4]." Even experts in the sector claim privatization concept to be the root

Table 2: Number of companies in Serbia – 2009 (latest, 2011 data)

	Total	Micro	Small	Medium	Large
Total	82355	70340	9202	2289	524
Manufacturing	17145	13167	2745	989	244
Manufacturing – Metals and Electronics	5018	3778	844	306	90
Manufacturing of basic metals	271	178	49	33	11
Manufacture of fabricated metal products, except machinery and equipment	1963	1492	343	105	23
Manufacture of machinery and equipment n.e.c	805	591	146	55	13
Manufacture of motor vehicles, trailers and semi-trailers	255	164	38	30	23
Manufacture of other transport equipment	107	68	20	16	3
Subtotal – Metals	3401	2493	596	239	73
Manufacture of electrical equipment	481	347	89	29	16
Manufacture of computer, electronic and optical equipment	1136	938	159	38	1
Subtotal – Electronics	1617	1285	248	67	17

Note: Micro = up to 10 employees; Small = up to 50 employees; Medium = up to 250 employees; Large = more than 250 employees

Source: Statistical Office of the Republic of Serbia, Statistical Yearbook, 2011, p.190. This data does not include the weapons manufacturing subsector [18].

of the problem and not the end of what had become an unsustainable economic policy:

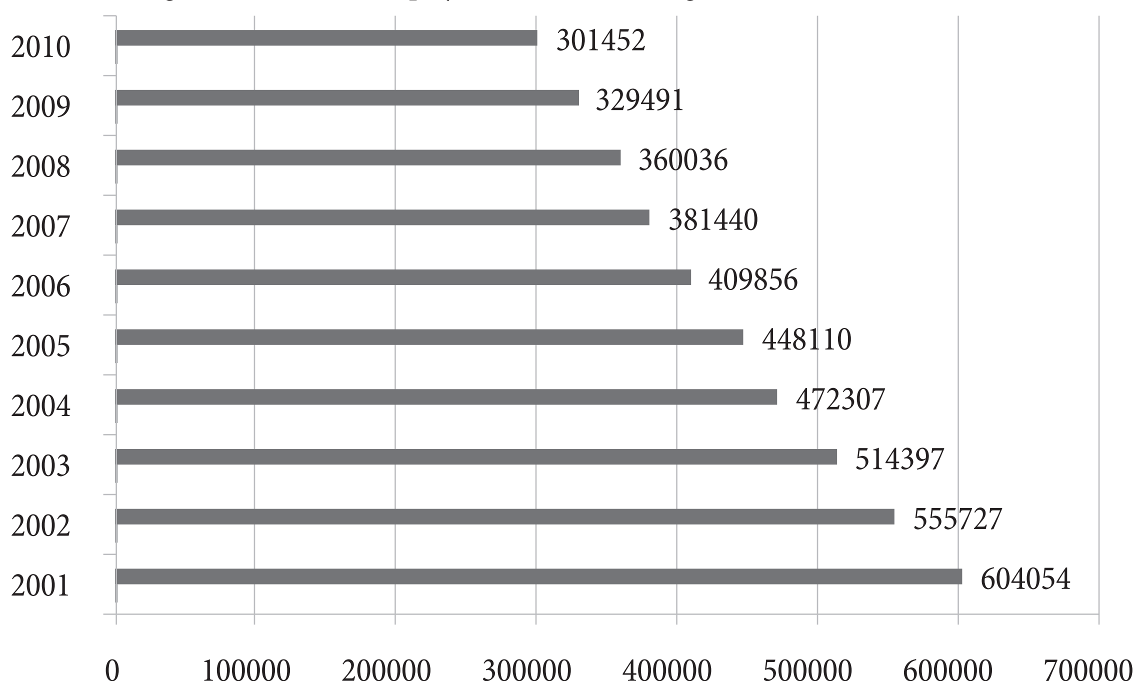
"Yet, the biggest blow was the privatization concept applied in Serbia in the last decade. The high unemployment is concentrated in specific regions where large state-owned factories once were the sole employers. Due to inadequate privatization processes, most of these companies have decreased productivity and employment, while the new-born SMEs still don't have the capacity and international competitiveness to compensate for the unemployment created [21]."

While it is certainly true that in many cases the new owners ceased production of facilities that had a higher value as real estate property, most of the large metals and electronics facilities simply were not attractive to investors who had the capital to invest in technology and skills update and the management to reach ever competitive markets of today. Those Brownfield investments that were attractive are success stories of transition, with majority of privatizations going to smaller domestic investors who did not manage to revamp production – and some of the large companies still remaining in government hands in a protracted restructuring process. As noted above, the booming SME sector and increased foreign investor interest are reversing the negative trends, though still far below the total employment and production values of the 1980s, as shown in Figure 2.

One should underscore that the difficulty in reaching this scale lies in increased global competition and end of a political economy era that guaranteed markets to Serbian companies in the Communist part of Europe or Nonaligned countries. The situation has been further aggravated as a result of the global financial crisis. Moreover, additional layoffs are expected in Serbia's metals and electronics industry with many state-owned companies still awaiting restructuring, while retaining unproductive employees and creating losses that are burdening Serbia's economy. These will only in part be counterbalanced by new foreign investments. It is necessary to underline that searching for the solution to overcoming effects of global financial and economic crisis and a new role of the metals sector should be based on the proper interpretation of the two phenomena – transition and reindustrialization [1, p. 7].

In December 2011, the World Bank published Serbia Country Economic Memorandum [19], including an overview of the metals sector that focused on the steel and automotive industry, which summarizes the current state of metals sector development: "As in many other countries, metals sector led the economic recovery as commodity prices soared in response to buoyant demand

Figure 2: Number of employees in manufacturing sector in Serbia, 2001-2010



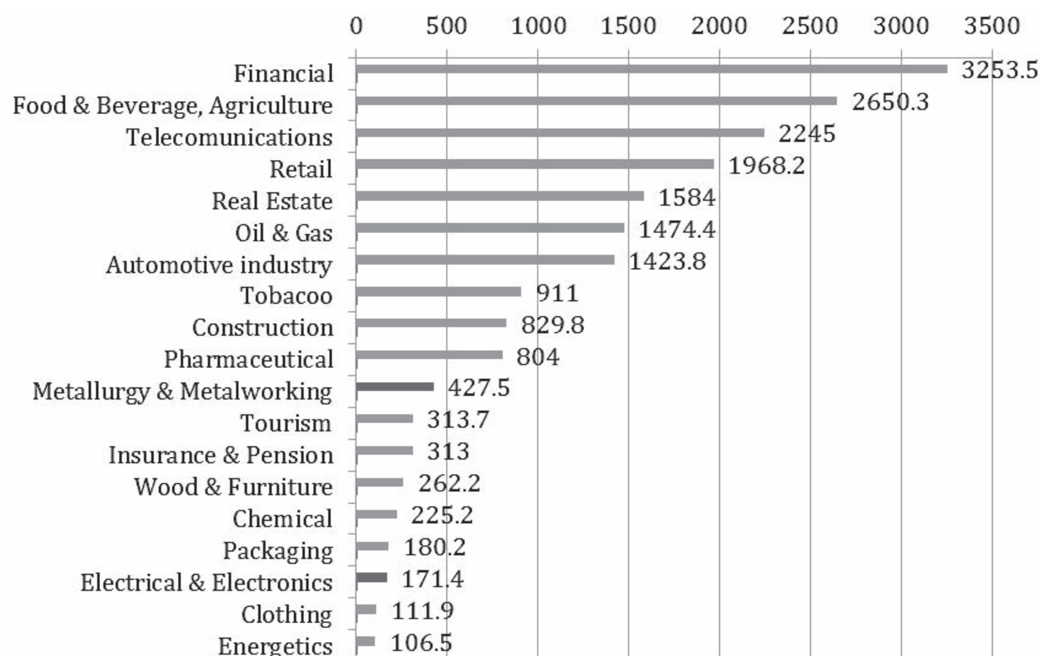
Source: Statistical Office of the Republic of Serbia, Database, Employment and earnings, 2012 [9].

from emerging markets. According to Serbia Investment and Export Promotion Agency – SIEPA, 16 total metal manufacturing revenues were €1.5 billion in 2010, a significant rebound from €1 billion in 2009 and almost back to the 2008 level of €1.6 billion. Brownfield foreign direct investment (FDI) in the metals industry following the privatizations in the early 2000s helped the industry to retain its position as Serbia's major exporter. However, the industry has attracted relatively little FDI. At just under €400 million the sector ranks 11th in FDI since 2005. In Serbia, food and beverages, financial services, and telecommunications have attracted the lion's share of FDI. However, industries which have significant metal components, including electrical and electronics, automotive, and construction, rank higher in terms of investments and the trend is positive for these subsectors." The latter is validated by a review of foreign investment to Serbia undertaken by SIEPA (see Figure 3).

In the most recent period, there is increasing foreign investor interest in the metals and electronics sector in Serbia, which could be explained by Serbia's progress in EU accession process (official candidacy status granted in March 2012, rendering the process irreversible and enhancing commitment on both sides), entry of Fiat and some other investors who attract affiliate companies, and amplified cost-competitiveness reasoning by investors with products where vicinity to EU market is crucial. In the report "Serbia market analysis" it is written that: "As regards foreign investment and industrial cooperation, the following considerations apply: investing in Serbian metal/mechanical industry means acquiring some very important economical benefits such as low labor costs (especially medium skilled labor) and low transport costs due to the geographic proximity. Investing in Serbian production will not only allow a company to access a fast growing local market with a strong and growing request for machineries but will also provide them a further access to the various other markets holding preferential trade agreements with Serbia. As regards industrial collaborations, a lot of opportunities are available especially in the field of sub-contracting agreements. High credit cost, obsolete machineries and lack of western-style management and sales skills, are some of the main reasons why local companies tend to welcome subcontracting agreements [17, p. 7]."

Foreign investors who came to Serbia are already making an impact. Most notably, this is FIAT in the automotive industry but also many other European companies that are almost exclusively export-oriented. It is important to note that "to increase the attractiveness for foreign investors of the sectors policy makers should act

Figure 3: Foreign investments to Serbia by sector, EUR million, 2001-2011



Source: Serbia Investment and Export Promotion Agency – SIEPA, (2012), "Electronics Profile Serbia" [15].

on the following in the area of automotive components: develop regional suppliers by developing collaborative capabilities through linkage programs and addressing information gaps [10, p. 20]."

On the other hand, US Steel, which was the most significant investor in metals production, decided to sell the company back to the government in early 2012 and focus on its other worldwide operations in light of decreasing global demand for steel. This case alone can seriously offset the primary steel production because of the dominant market share of this company and make a highly negative impact on export value if the government does not identify another investor or manages the company relatively efficiently on its own. The case also demonstrates uncertainty linked to global investments in the metal sector.

Analysis of labor productivity – costs, education and skills

Serbian wages in metals and electronics industry have been rising since 2001 but remain cost-competitive in the European framework. Depending on the segment of the industry wages have been about 10% lower than the average wage in Serbia (about 390 Euros) in the categories Manufacture of fabricated metal products, except machinery and equipment and Manufacture of electrical equipment, but substantially higher in other segments of the industry, with almost 60% higher than average wages in Manufacture of machinery and equipment n.e.c. category (see Table 3).

As highlighted by SIEPA's recent research that focused on the electronics segment of the industry, "Serbia's electronics experts and labor are available at most competitive prices in the SEE region. Net salary costs vary from 200€-250€ for new/inexperienced employee and 300€ per month for qualified and experienced personnel, highly qualified/managerial wages range from 500€ -700€ per month [15]."

Serbia's labor productivity, however, is still relatively low compared to the immediate region and Central and Eastern European EU members (see Table 4).

Table 4: Productivity and Unit labor cost comparison

	Worker productivity*(€)	Unit labour costs
Country	Average 2007-09	Average 2007-09
Czech Republic	23,548	0.37
Hungary	20,812	0.42
Poland	18,527	0.36
Romania	12,544	0.38
Serbia	12,837	0.54

Source: Eurostat, Agency for Business Registries, * Value added/worker [5].

Serbia has had a strong university base in mechanical, electrical and other engineering education programs that are a vital ingredient in producing higher value added products in the metals and electronics industry. In addition, there is a network of 317 vocational high schools, many of which specialize in electrical, electronic, mechanical and metallurgical production. However, these educational programs need to be better aligned to the market needs, especially to the use of new technology.

Importantly, since Serbia's reintegration in the European and international community following change of regime in October 2000, Serbian universities have been engaged in a number of curricula development programs, for instance in the framework of the TEMPUS EU Program for university cooperation in Europe. Over 25 projects have been implemented in Serbia with help of other European universities and that aim to advance engineering knowledge and skills. The universities have also benefited from additional EU and international projects, and they have also been undertaking reforms in line with the European-wide Bologna education reform process (for more, see TEMPUS Serbia, http://www.tempus.ac.rs).

Table 3: Average salaries and wages in Serbia – February 2012

	Gross	Net
Manufacturing	45706 (**416** Euros)	33181 (302 Euros)
Manufacturing of basic metals	51539 (**469** Euros)	37022 (337 Euros)
Manufacture of fabricated metal products, except machinery and equipment	39706 (**361** Euros)	28828 (262 Euros)
Manufacture of machinery and equipment n.e.c	68068 (**620** Euros)	49289 (449 Euros)
Manufacture of electrical equipment	39545 (**360** Euros)	28942 (263 Euros)
Manufacture of computer, electronic and optical equipment	53275 (**485** Euros)	38337 (350 Euros)

Source: Statistical Office of the Republic of Serbia, Average salaries and wages by 2010 sections [8].

Furthermore, the vocational high schools have also taken active part in the curriculum reform process, often with help of the EU or other donor projects, with German aid agency GIZ acting as one of the leading bilateral donors in this area.

Most recently, the Polytechnic School Kragujevac (www.politehnicka.kg.edu.rs) has received an EU grant leading to the establishment of the "ATC Serbia-Automotive Training Centre for Central Serbia", with the following partners: UNIBO – Alma Mater Studiorum University of Bologna, Italy; Faculty of Mechanical Engineering of Kragujevac, Serbia; Faculty of Mechanical Engineering of Kraljevo, Serbia; Technical Faculty in Cacak, Serbia; IAL Friuli Venezia Giulia, Italy; and Chamber of Commerce and Industry of Kragujevac, Serbia.

A grant of an even larger scale (€750,000) has been made by the European Union to establish "Technology Transfer and Innovation Centre for Advanced Welding Technologies, Material Science and Application of Engineering Software" at the Gosa Institute in Smederevska Palanka, Serbia, with an aim to reach the following objectives (for more, see http://www.w-tech.rs.):

- Significantly improved and modernized research, laboratory and training facilities as baseline of delivery a new lab services, quality assurance testing and technical trainings, at the location in Smederevska Palanka;
- Established training programs and tools for facilitation of technology transfer and innovation to metal manufacturing and engineering industries in targeted regions;
- Increased awareness for continuous innovation and technology development and life-long learning in the metal manufacturing and engineering industry of Braničevo and Podunavlje, Central Serbia and South Banat;
- Human resources and competences of min 20 companies, in adopting advanced technologies improved.

The EU has also been instrumental in the establishment of the Vojvodina Metal Cluster and it will continue to play an important role in the development of competitiveness of small and medium enterprises in Serbia.

There are also examples of companies taking initiative to advance education and skills. For instance, the Italian Fiat automobile company has opened the Staff Training Academy in Kragujevac, Serbia (where the plant is located) where current and future workers are trained for work according to the latest technological standards on highly sophisticated machines and automobile production equipment. The company signed the Protocol on cooperation with Kragujevac-based Polytechnic School whose students will attend practical classes in the automobile factory, and the Faculty of Mechanical Engineering in Kragujevac. In addition to Fiat, there are other emerging examples of companies cooperating with the education sector to improve education and skills and allow the educational institutions to better respond to market needs, thus also decreasing the company costs for training new workers. One such example is Messer Technogas, which has set up a welding centre for students at the University of Belgrade Faculty for Mechanical Engineering, then expanding cooperation to five Serbian technical universities.

However, despite these efforts there is still an apparent skills gap, particularly in knowledge of operating computer numerical control – CNC machines, as reported by the majority of companies surveyed in this study, which implies that these machines should be purchased and study programs revised. While several interviewed companies participate in trainings in local technical high schools, a more systemic effort needs to be made to resolve the issue. At university level, companies find the greatest gap to be in quality management (with focus on quality control) related to new technologies used in production. It is important to emphasize that "improving human capital by further reforms in the education system remains another priority for growth with positive spillovers to sustaining demand during the crisis. The model simulations showed that relative weakness in human capital explains much of the slower growth performance compared to fast-growing countries. Extending education coverage would also help sustain demand and reduce unemployment among the young during the crisis [11, p. 117]."

Structure of production – steel, copper, aluminum, auto-parts and electronics subsectors

Serbian companies are present in the entire spectrum of the metals and electronics value chain – from primary to semi-finished to final goods production. While large companies dominate primary production, there is increasing SME activity in the semi-finished and final production. Existence of primary production is certainly rendering companies further in the value chain more competitive, with many reporting to be sourcing the majority of their materials locally, though some import materials entirely and this could be either for cost reasons or lack of awareness of potential local suppliers. For the future development of metals industry in Serbia it is important to know that "On an international basis, significant consolidation of the metal industry has been observed in recent years, much of which has occurred through mergers and acquisitions [13]."

The metals industry in particular is dominated by the production of a single steel company (Smederevo Steel mill, previously called US Steel Serbia, has accounted for 50 percent of sector revenues) and the ten largest companies account for over 77 percent of total metal sector revenue [19]. The increasing dismal fate of the Smederevo steel mill will negatively impact 2012 export data, since we already know that while 59 countries reporting to World Steel Association data claimed a decrease of rude steel production amounting to 7.9% year-on-year in January 2012 (3.2% if not including China), Serbia noted 47% decrease in production [23]. Nonetheless, the FIAT investment is expected to bring a substantial increase in export of vehicles, as well as of auto-parts produced by FIAT suppliers who have started relocating or placing part of their production in Serbia.

While the figures in terms of turnover in the steel value chain are large, the majority of the industry is relatively low value added since raw materials are imported, processed, and then exported still in a relatively simple form. Even U.S. Steel was both the largest importer and exporter in the sector. The disappearance of US Steel and entrance of Fiat will have a significant impact on sector export values in 2012. Higher value-added products made from iron and steel, including rods, angles, plates, cast items, tubes, pipes and hollow profiles, household articles, and radiators, had an export value of $254 million in 2010 according to the Serbian Steel Association. Other than US Steel, now Steel Mill Smederevo, producers of semi-finished steel products in Serbia are much smaller and produce niche products with higher value-added. Another interesting example is that of Alfa Plam that produces stoves and furnaces, employing 800 people in South Serbia and exporting 60% of its production by selling to wholesalers. The stoves can be fuelled by pellets, hence stimulating clean, renewable energy use (biomass), which is in line with the product greening demands by consumers in the European Union. However, the focus of steel production overall remains on the lower value added part of the value chain [19]. Copper is extracted in Serbia from the RTB Bor mine, which is still in public hands, after unsuccessful privatization attempts and in need of investment and environmental management. Authors *Monthel et al*. emphasize that "copper is the main metallic ore mineral mined in Serbia [7, p. 31]." There is also copper ore production by RTB Bor and other small copper foundries. Primary copper production (flat rolled copper products and tubes) is performed by Majdanpek Factory and Copper Rolling Mill Sevojno (Valjaonica Bakra Sevojno). Intermediate copper production (wire rod, billets, cakes or ingots or semi-finished products, copper sheets) is made by Majdanpek Factory, Cable Factory Jagodina, Cable Factory Zajecar, Fabrika obojenih metala (FOM), Novkabel, Elkok, Komak-M, Metalurg, Vunil, Kepo, Gro-AS, Alka, etc [19]. For example, in 2009 copper ore production increased by about 15% [2]. Copper is an important input in electrical engineering and has uses in renewable energy industry, for example in solar panel production, which could be further explored as a business opportunity by the leading firms in this subsector.

The key industry player in the aluminum subsector is Impol Seval, an aluminum rolling mill in Sevojno, near Uzice employing 660 employees with an annual turnover of €100 million and 95% exports to EU, Russia and the intermediate region. The second lead firm is Nissal Nis producing rods, wires, tubes and profiles as intermediate aluminum products. The third leading firm is US-owned Ball Packaging, which produces cans but does not source raw material from Serbia. They supply the local beverage industry and export 85% to the Southeast Europe region.

Serbian automotive industry has been revamped with the entry of one of globally significant OEM players, Fiat. Fiat has brought in Tier-1 suppliers (about 15 expected) and invited other auto-suppliers to relocate to Serbia. Several have followed Fiat thus far while local Serbian SMEs are attempting to comply with Fiat standards. Many of the new auto-suppliers are presented in the electronics industry regional concentration mapping presented below. The World Bank discusses in detail Tier 1, Tier 2 and Tier 3 supplier base in Serbia and potential newcomers [19] and this will not be reviewed in greater detail in this study [10].

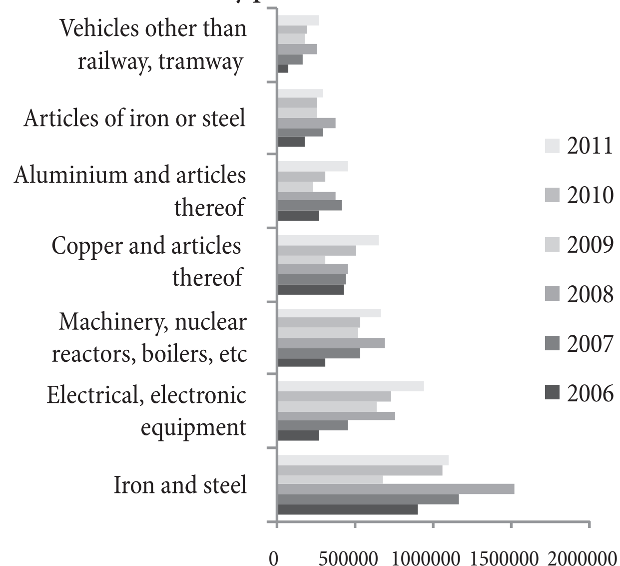
Regional concentration of metal manufacturing and lighting and electrical equipment clusters was undertaken by the European Union-funded project Support to Enterprise Competitiveness and Export Promotion (SECEP) in Serbia, concluding that the metal manufacturing industry is located throughout Serbia, with heavier concentration in Central Serbia (around Kragujevac), Nis, Pozega, Belgrade and parts of Vojvodina province [12]. The lighting and electrical equipment manufacturing industry is more geographically concentrated, especially around university centers in Belgrade, Nis and Novi Sad [12]. Serbian Investment and Export Promotion Agency – SIEPA has mapped the electronics cluster, focusing on foreign investments in the sector that have a significant positive impact on Serbia's exports. The map demonstrates the importance of Corridor X highway where the vast majority of these companies are located with some exceptions such as Gorenje's investment in Valjevo where it received substantial financial investments or Brownfield investments that were originally located elsewhere in Serbia [15].

While steel industry subsector is facing the challenge of reduced global demand, copper and aluminum subsectors have potential for further growth. However these products tend to be low value added products such as primary metal products (e.g. plates, sheets) or products with limited engineering process, such as cables. The overlap of metals and electronics appears to have most potential such as electronic parts made of copper, with increased activity in automotive subsector but also some unexplored potential in renewable energy (e.g. solar panels production).

Electronics industry is experiencing intensive development, as summarized by SIEPA's most recent publication on the sector: "The growing Serbian electronics industry is a thriving, export-oriented sector that only figures to grow with the recent influx of foreign direct investment. Relative to 2008 and 2009, exports from the industry in 2010 grew by 15% and 44%, respectively. The 2009 economic crisis gap was surpassed swiftly in 2010 and, with new export-oriented projects such as first Panasonic factory in Serbia, exports are expected to flourish further. Between 15 and 20 electronics companies export more than €1 million per year. Many – such as Eaton Electric, ATB Sever, Gorenje, and Yura Corporation – are foreign-owned. On the other hand domestic brands are led by Fabrika Akumulatora Sombor, produce the globally-recognized "Black Horse" car starter batteries. One of the advantages of Serbia is the local production of high quality copper in mines of the Bor region. This enables highly-developed production of wires and cables. Leaders in the field are Polish-owned TF Kable and Serbian companies Kablovi Jagodina and Novkabel. Recognizing this potential, Korean company Shinwon constructed their brand new wire factory in City of Nis in 2011 [15]. "

While iron and steel have traditionally had the highest export values (with a notable decrease in 2009 due to global crisis), electrical and electronic equipment has demonstrated the most significant increase in value from 2006 to 2011, demonstrating a shift in the sector structure, as shown in Figure 4.

Figure 4: Serbian export of metals and electronics industry products, 2006-2011



Source: ITC [6].

If we compare the structure of exports within the metals and electronics industry, electrical and electronic equipment is gaining an increasing share in total Serbian exports, while iron and steel have a reduced share, while the total value of exports is growing. This is expected to continue in the future, both as a result of improved competitiveness in electronics and reduced global demand for steel (see Figures 5a and 5b).

One of the reasons for low export value in international context is that among the top ten Serbian export products, four that were from metals and electronics industry all constituted metal production, reiterating the relatively low value added presented in the Table 5.

Access to finance

Larger companies in the metals and electronics industry have significant liabilities and continue to be at high risk in terms of reaching the required level of competitiveness. Smaller companies are increasingly finding niche markets

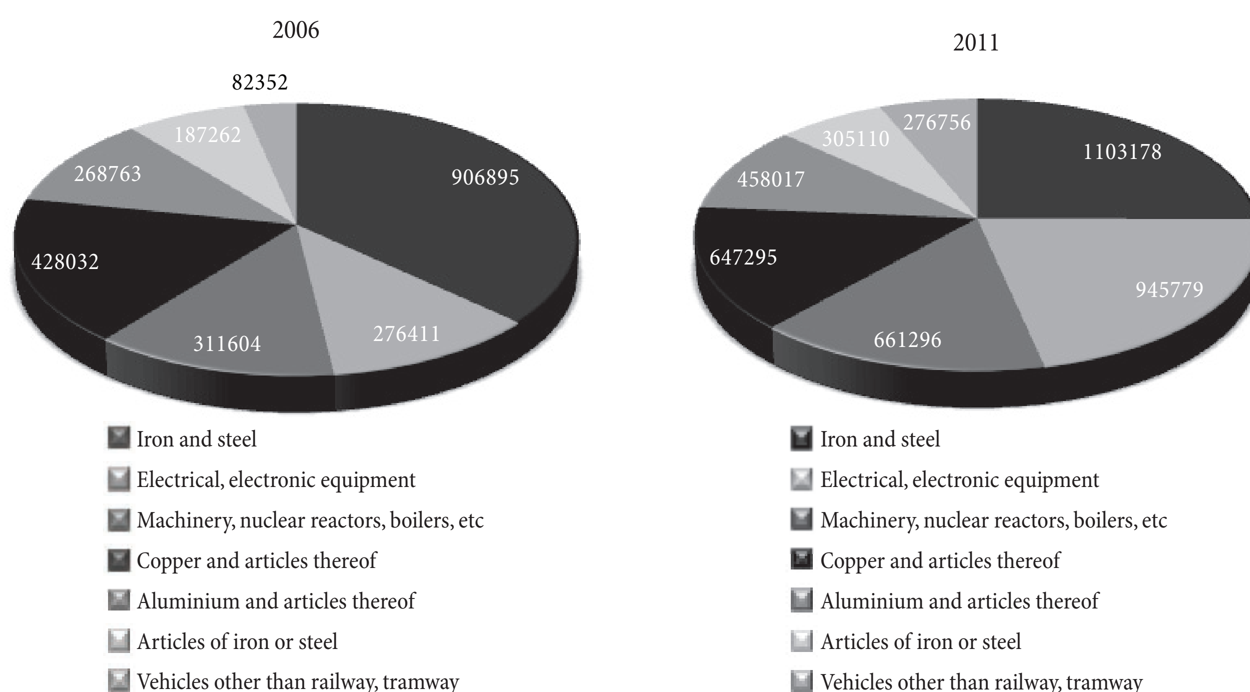
Table 5: Serbia's top export products 2004-2008 (SITC 3-digit code)

Rank	SITC Code	Title	Value (average) US$
1	673	Flat-rolled products of iron or non-alloy steel, not clad, plated or coated	684,670
2	682	Copper	315,495
3	625	Rubber tires, tire flaps, and inner tubes for wheels of all kinds	204,682
4	058	Fruit, preserved, and fruit preparations (excluding fruit juices)	194,482
5	684	Aluminium	176,527
6	893	Plastic articles, n.e.s.	167,649
7	061	Sugars, molasses, and honey	162,253
8	851	Shoes	159,942
9	674	Flat-rolled iron or non-alloy steel, clad, plated, or coated	151,832
10	571	Ethylene polymers in primary forms	134,902

Note: n.e.s. stands for Not Elsewhere Specified

Source:[19].

Figure 5a and 5b: Structure of Serbian metals and electronics industry exports in 2006 and in 2011

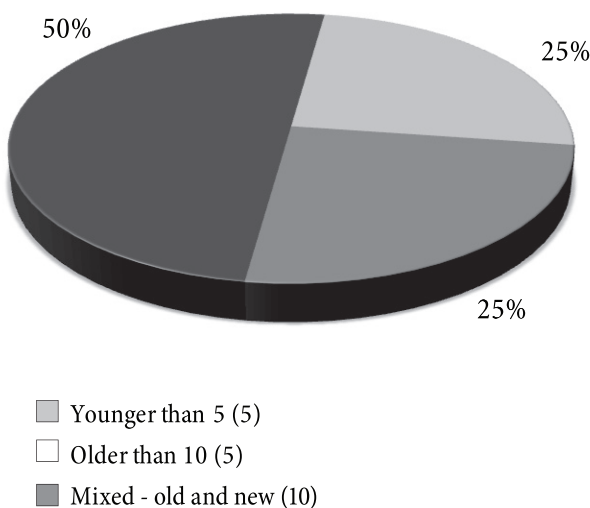


Source: ITC, Trade map- trade competitiveness map, www. trademap.org [6].

and present the biggest growth potential but need investments in technology to accelerate growth. However, access to finance is the principle limitation of small and medium enterprises, most notably because high collaterals are required and the banking system is not very open to project finance based on projected business plans. This conclusion is based on interviews with companies in the sector and it is also confirmed by World Bank findings:

"While credit to the private sector in Serbia is generally low (40 percent of GDP compared to the OECD average of 160 percent, Croatia's 65 percent, and Bulgaria and Hungary's 80 percent), large companies in the metals industry do not appear to have a problem accessing capital. Nine of the 11 top companies have long-term loans ranging from 10 percent to 48 percent of their total assets. However, SMEs may have more difficulty obtaining credit. According to the Global Competitiveness Report, Serbia ranks 99th out of 139 in terms of affordability of financial services and 91st in terms of ease of access to loans. One apparent problem is that loans require nearly full collateralization, generally of real property. Moveable property, even commodities like metal, cannot typically be used as collateral. Companies in the industry are also wary about supply chain financing [19, p. 81]."

Figure 6: Age of machinery in Serbian metal and electronics companies



Source: Analysis based on survey conducted for the purpose of SIPPO study of the metals and electronics industry in Serbia, April 2012

Production technology is linked to both skills, as discussed above, and ability to finance new equipment. Foreign investors play an important role in upgrade of technology while domestic small and medium enterprises report continued investment in machinery (about 8-20% of total annual revenue). The following graph, based on interviews with 25 companies in the sector, reveals the age of machinery to be between 5 and 10 years old for most companies; nonetheless, since most of the interviewed companies are exporters data for other companies is expected to be poorer (see Figure 6).

Unfortunately this investment is accompanied by relatively low investment in research and development of 1-2% of total revenue for most interviewed companies, with higher investment in innovation reported by electronics companies (7-10%). All the interviewed companies without exception consider technology to be very important. Interviewed companies demonstrate a high degree of flexibility in producing small series within a short time period, which is an important competitive advantage.

The most significant cost input in metal processing are raw materials that can reach over 60% of total cost, as reported by interviewed companies, while labor costs becomes a factor only in more sophisticated mechanical engineering products (labor cost share increases from as low as 5-7 to 20-30%) and this is where Serbia could explore competitive advantages based on experience in the sector and a certain level of skills that is at substantially lower cost compared to Western Europe or other developed countries that compete in this subsector.

Serbian small and medium size companies complain to be paying higher than world prices for imported raw materials, which could be explained in part by smaller quantities imported and poor railway and river infrastructure but could be further explored as an issue. In addition, the weak quality infrastructure system, still not harmonized with EU requirements, allows for unfair competition of products with lower quality that continue to be imported exploiting the system loopholes. At the same time, Serbian SMEs have to send their products for final testing to laboratories in the European Union in order to export to this market, which increases costs of product development.

Transport infrastructure is limited since most companies cannot rely on the limited river transport

or poor railway service and therefore use transport by trucks, which is a more expensive means of delivery for mostly heavy products where transport costs have a high impact on cost competitiveness. For those companies that are obliged to use rail transport, such as rolling mills for example, limited number of locomotives and inability to reliably track wagons create additional problems in ability to deliver in agreed deadlines. Importance of access to highways is demonstrated by new investors locating almost exclusively close to the Corridor X highway. Finally, for those who need to be in vicinity to cargo airports Belgrade and Nis are two primary locations. The Government of Serbia is currently investing in infrastructure improvements to Corridor X highway, ring road around Belgrade and bridges in Belgrade where there is most traffic. Railway restructuring and improvements are also planned, in part with support from European Bank for Reconstruction and Development.

Interviewed companies report sufficient supply of energy and admit prices to be inexpensive. Nevertheless, as of January 2013 an independent regulatory agency will regulate electricity prices and it is expected that they will increase and that the Government will be under pressure to implement a more targeted social policy to assist those citizens who cannot afford market electricity pricing rather than subsidize the price across the spectrum. Finally, one should note that in order to obtain energy, many companies in Serbia, including those in metals and electronics industry, have been forced to invest in electricity stations and other local energy infrastructure that then became government property. Generally, Serbia is energy dependent on Russia as most countries in Europe, though with highly developed own source of hydro-energy.

These factors combined lead to an unfavorable value added structure in Serbian manufacturing sector, as shown in Table 6.

To summarize, there is a technology gap (principally in machinery) which, combined with accompanying skills gap, is preventing improved competitiveness of Serbian companies in metals and electronics industry. Access to finance, however is the greatest limitation, with most finance institutions implementing only finance based on certain collateral (real estate) rather than project finance. This problem is preventing further investment in technology and innovation. Poor railway infrastructure and limited use of river Danube are also constraining factors. Highways remain the key transport route and they are of relatively good quality, hence garnering most foreign investment around key highway corridors (namely Corridor X).

Conclusion

Ernst & Young survey has identified Southeast Europe, including Serbia, to be the most attractive manufacturing destination in Europe.[3] The main competitive export advantages of the Serbian metals and electronics companies are as follows:

- Ability to connect engineering with production for higher value products and provide low cost highly skilled labour input;
- Short period from order to delivery;
- Capability to produce small orders;
- Efficient transport and logistics linkages;

3 Eight countries in Southeast Europe were included in the 2008 Ernst & Young Southeast Europe Attractiveness Survey, and these are Romania, Bulgaria, Greece, Turkey, Croatia, Bosnia and Herzegovina, Cyprus, and Serbia.

Table 6: Value added structure, 2009

	Value added at factor costs		Personnel costs		Gross operating surplus
	mill. RSD	%	mill. RSD	%	Mill. RSD
Total manufacturing	1280553	100	680695	100	599858
Manufacturing of basic metals	2983	0,2	13486	2,0	-10503
Manufacturing of fabricated metal products, except machinery and equipment	29992	2,3	21544	3,2	8448
Manufacture of electrical equipment	12677	1,0	9635	1,4	3042
Manufacture of machinery and equipment n.e.c	14115	1,1	12331	1,8	1784
Manufacture of computer, electronic and optical equipment	13184	1,0	6870	1,0	6315

Source: Statistical Office of the Republic of Serbia, Statistical Yearbook, 2011 [18, p. 187].

- Favorable trade regime and long industry tradition.

These advantages, also termed opportunities, should be countered against constraints, notably:

- Access to finance;
- Skills gap in engineering and computer-controlled operation of machinery;
- Low level of product development;
- Low level of certification;
- High level of customs and trade regulations red-tape;
- Infrastructure limitations with regard to rail and river transport;
- Relatively low level of supply chain integration.

Larger companies in the metals and electronics industry have significant liabilities and continue to be at high risk in terms of reaching the required level of competitiveness. Smaller companies are increasingly finding niche markets and present the principal growth potential but need investments in technology to accelerate growth. However, access to finance is the principle limitation of small and medium enterprises, most notably because high collaterals are required and the banking system is not very open to project finance. The outstanding structural challenge relates to privatization of remaining state enterprises and domination of one large company in the steel industry which was re-nationalized (purchased back from the investor) in 2012 as a result of increasing global competition in steel industry derived from reduced demand.

Serbia's small and medium size producers throughout the economy, this industry included, further complain about increasing government charges (local charges such as a charge for publicly posting company name or a charge for urban city land have risen manifold in a move by local governments to fill the budget gaps; employment contributions continue to be high, impeding further employment and rendering costs relatively high compared to most neighboring countries), complicated customs procedures (significant amount of paperwork, difficulty in re-exporting procedures). Most small and medium size companies have not received any assistance but some exporters have benefited from trade fair subsidies and other marketing and technical assistance by the Serbian Investment and Export Promotion Agency (SIEPA), Serbian Export Credit and Insurance Agency (AOFI), and rare donor projects that are assisting the private sector, as well as employment subsidies that the Government of Serbia introduced to counter rising unemployment and attract additional private investment. Generally, company managers, especially those in small and medium size sector, state to have insufficient support and increasing burden from the government. In terms of assistance, they are seeking good agents and direct contacts with buyers and distributors rather than general attendance in trade fairs without such prepared meetings. Certification is another important constraint because it often requires investment in technology and because it is product-specific and requires a higher level of awareness and knowledge of standards. Nonetheless, it should be noted that general company ISO certification is often sufficient for exports for many products. Some products like auto-components for example have more demanding certification requirements.

A look at the requirements for automotive component suppliers gives a good answer as to the opportunities in the overall metals and electronics industry. These are: quality control; on-time delivery; cost reduction; order lead time; synchronization of production; product design, forecasting and planning; flexibility in product configuration and distribution; just-in-time delivery of complete modules; inventory reduction; coordination of supply chain activities, and material-resource planning [10, p. 112]. These requirements can be met with increased investment in technology, innovation and skills, which can be facilitated with improved access to finance and (re)training buttressed by systemic education reform. Improved infrastructure (completion of Corridor X and railways renovation in particular) and a more integrated supply chain, with increased cooperation in the sector, can also be viewed as catalysts for metals and electronics industry development. A review of Serbian imports of products in the industry demonstrates an overlap that should be further explored to determine reasons for importing the same type of product that is exported and to examine the potential for import substitution, but also noting that the importing markets are generally at higher level of technological development, including USA, Japan

and Korea – and increasingly cost competitive China, none of which appear on the list of Serbia's export destinations.

While employment in metals and electronics industry has been shrinking over the last decade in Serbia, a large concentration of small companies demonstrates new sources of growth of production and exports, usually based on management experience in former large state enterprises and competitive pricing with ability to promptly deliver small orders of engineered metal or electronic components. There are also emerging strong subsectors in production of cables, medical devices and stoves and furnaces. Finally, the foreign investment inflow to Serbia is becoming more significant in the past two years, particularly in automotive and electronic industry, creating another premise for bridging the competitiveness gap.

References

1. Adzic, S. (2010), "Situation of the metal sector in Serbia in transition and privatization processes, the world economic crisis impact", *Round table: Metal workers of Serbia in conditions of transition and world economic crisis, Development strategy of the metal sector,* Belgrade, March 2010.
2. Brininstool, M. (2009), "The Mineral Industry of Serbia", *U.S. Geological Survey Year Book 2009*, USGS – United States Geological Survey, Reston, Virginia.
3. ECORYS SCS Group. (2009), "Competitiveness of the EU Metalworking and Metal Articles Industries", in *FWC Sector Competitiveness Studies,* Final report, Rotterdam, Ecorys.
4. European Commission, DG for Enterprise and Industry. (2010), *Spotlight on Europe's "Invisible" Sector, the Metalworking and Metal Articles Industry,* Luxembourg, European Commission.
5. Eurostat, Agency for Business Registries, * Value added/worker.
6. ITC, *Trade Map - Trade Competitiveness Map*, Geneva, available at http://www.trademap.org/, accessed 20.06.2012.
7. Monthel, J., Vadala, P., Leistel, J.M., Cottard, F. (2002), *Mineral deposits and mining districts of Serbia, Compilation map and GIS databases*, Republic of Serbia, Ministry of Mining and Energy, Geoinstitute, Belgrade.
8. National Bureau for Statistics. (2010), Average salaries and wages by 2010 sections.
9. National Bureau for Statistics. (2012), Database, Employment and earnings.
10. OECD. (2009), "Competitiveness and private sector development, Sector specific sources of competitiveness in the Western Balkans", *Recommendation for a regional investment strategy*, Paris, OECD.
11. OECD. (2009), "Pedal to the metal: Structural reforms to boost long-term growth and spur recovery from the crisis", *Economic Survey of Mexico 2009*, Paris, OECD, 99-127.
12. Quantitative Clustering: Mapping of Statistical Clusters. (2010), EU SECEP Project, Belgrade, 59-60.
13. Sasson, A. (2011), "Knowledge-based metals & materials", *Research report 7/2011*, BI Norwegian Business School, Department of Strategy and Logistics.
14. Serbia Investment and Export Promotion Agency – SIEPA. (2011), *Investor's profile Serbia*, Belgrade, SIEPA.
15. Serbia Investment and Export Promotion Agency – SIEPA. (2012), *Electronics Profile Serbia*: *Powering Growth*, Belgrade, SIEPA.
16. Serbian Chamber of Commerce. (2011), Association of Metal and Electronics Industry, based on data from Statistical Office of the Republic of Serbia, Statistical Yearbook.
17. Serbian Market Analysis: Wood, Metal, Agro-food Processing, Textile and Footwear. (2009), Facility for SMEs and Capacity Building Project, EU ERDF ANNP Interreg/CARDS/PHARE.
18. Statistical Office of the Republic of Serbia. (2011), *Statistical Yearbook of the Republic of Serbia*, Belgrade.
19. The World Bank Poverty Reduction and Economic Management Unit Europe and Central Asia Region. (2011), Report No. 65845-YF: "Republic of Serbia Country Economic Memorandum; the Road to Prosperity: Productivity and Exports".
20. The World Bank. (2011), *Southeast Europe, Regular Economic Report*, Focus notes: "Skills, Not Just Diplomas, R&D and Innovation".
21. Vojvodina Metal Cluster, Interview, April 2012.
22. World Economic Forum. (2011), *Serbia Global Competitiveness Rankings*, Geneva, Switzerland, WEF.
23. World Steel Production Report, March, 2012.

Ana S. Trbović

is Director, Centre for European Integration and Public Administration and Associate Professor at the Faculty of Economics, Finance and Administration-FEFA, Singidunum University. She teaches and writes on European Integration, Negotiations, Public Administration Management and Strategic Management. From 2002 to 2006, Dr Trbovich served as Assistant Minister of International Economic Relations, coordinating Serbia's EU accession process and foreign investment policies. She holds a PhD (Fletcher School of Law and Diplomacy), two Masters Degrees (Master of Art in Law and Diplomacy, Fletcher School; Master in Public Administration, Kennedy School of Government, Harvard) and BA (Tufts University, triple-major in Economics, International Relations and French Literature). Specialized in EU policies at Institut d'Etudes Politiques, France. Dr Trbovich is also Partner at EuroBalkan Advisors (EBA) and manages projects and consults for the private sector and international organizations including OECD, World Bank and USAID. She is the author of "A Legal Geography of Yugoslavia's Disintegration" (Oxford University Press, 2008), "Public Administration and European Integration of Serbia" (FEFA and Institute for Textbooks, 2010) and articles in the field of Economics, European Integration and Public Sector Management.

Goran Radosavljević

Born in Svilajnac in 1977. Graduated in Economics at the University of Belgrade, and received MSc in Mathematical economy and Econometrics from the School for Advanced Studies in the Social Sciences (Ecole des hautes études en sciences sociales) in Paris. Since 2009 he works as Teaching Assistant at the Faculty of Economics, Finance and Administration (FEFA) on the topics of Public finances and Economy of the welfare state. From 2002 to 2007 he was employed as Teaching Assistant at the University of Belgrade for courses on Price Theory and Theory of Production. From June 2011 to July 2012 he served as State Secretary in the Ministry of Finance. Prior to that, from June 2007 to May 2011 he was employed as Economic advisor to the Deputy Prime Minister. From 2004 to 2007 he worked as a researcher at the Centre for Advanced Economic Studies in Belgrade. He also worked as external consultant for the World Bank, UNDP and USAID. He is fluent in English and French.

Jana Subotić

(b. 1988) works as a Teaching Assistant at the Faculty of Economics, Finance and Administration - FEFA in Belgrade for the courses Basics of Management and Business Negotiations. She obtained her Bachelor degree in Finance and Banking at the Faculty of economics, finance and administration and her Masters degree at the same faculty in the field of Management. She studied at the Moscow International Academy of Business and Management for one year. She was engaged in FEFA research projects in the fields of competitiveness and European integration. She participated in domestic and international conferences as coauthor of research papers. Currently she is enrolled in the first year of PhD studies at Singidunum University in Belgrade, Serbia.

Part of the ProCredit Group

ProCredit Bank

Bezbrižno.

Provereni nemački model poslovanja.
100% nemački kapital.

INFO centar: 0 700 700 000
011 20 57 000

www.procreditbank.rs

155. ГОДИНА ТРАДИЦИЈЕ , САРАДЊЕ И ПОВЕРЕЊА

ПРИВРЕДНА КОМОРА БЕОГРАДА

Привредна комора Београда је интересна, пословно-стручна организација привредних субјеката на територији Београда.

Чланови Привредне коморе Београда су правна и физичка лица која обављају регистровану привредну делатност на територији Београда. Привредна комора Београда је асоцијација 55 000 привредних субјеката, 78 000 предузетника и 60 000 пољопривредних газдинстава.

ПРИВРЕДНА КОМОРА БЕОГРАДА

ПОМАЖЕ, ИНФОРМИШЕ И ЗАСТУПА ИНТЕРЕСЕ ПРИВРЕДЕ БЕОГРАДА

ИСКОРИСТИТЕ СВОЈА ПРАВА И ПОГОДНОСТИ, ОЛАКШАЈТЕ И УНАПРЕДИТЕ ПОСЛОВАЊЕ

- заједничко представљање на сајмовима и изложбама
- директно повезивање са институцијама ЕУ - Брисел
- заступање интереса привреде у дефинисању привредних прописа
- повезивање са пословним партнерима
- израда пројектне документације
- израда бизнис плана
- услуге по Вашем захтеву
- оглашавање

НОВА УСЛУГА ПРИВРЕДНЕ КОМОРЕ БЕОГРАДА

ПРИВРЕДНИ МЕДИЈА ЦЕНТАР

место сусрета медија и привреде

Служба за промоције, односе с јавношћу и информисање тел: 2641 578

Chamber Trust Seal

Печат пословног поверења - пасош за Ваш бизнис

У сарадњи са Привредном комором Париза, Привредна комора Београда обезбедила је за привредне субјекте и предузетнике са територије Србије изузетно повољне услове за добијање печата пословног поверења установљеног у светској коморској мрежи.

План едукације

за 2012. годину

treningkom@kombeg.org.rs

Велика, модерно опремљена сала за одржавање презентација, конференција за штампу, трибина, семинара и округлих столова, намењена је привредницима Београда и Србије, као и међународним сусретима од интереса за привреду Србије. Реч је о новом технички најсавременије опремљеном простору у најужем центру Београда-Кнеза Милоша 12, у којем би требало да се одвија комуникација и размена најновијих пословних информација из земље и региона.

www.kombeg.org.rs

Служба за односе с чланицама
тел: 2641 355/ 116

11000 Београд, Кнеза Милоша 12
телефон: 381 11 2641 355
факс: 381 11 3618 003

Za vaše pozitivne početke

Novi počeci nas uvek plaše, čak i kada znamo da su pozitivni,

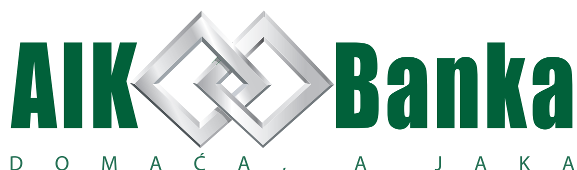
da nas vode u bolje sutra.

Uz podršku onih koji nas razumeju prilagođavanje je lako.

I vaš početak u novoj banci lak je i pozitivan kada je sve osmišljeno po vašoj meri.

AIK Pozitiv paket tekući račun kreiran je tako da olakša vaše nove početke:

- **Besplatno otvaranje i održavanje računa, zauvek**
- **Dobar kredit za refinansiranje dugovanja u drugim bankama**
- **MasterCard kreditna kartica, bez naknade za izdavanje i mesečne članarine**
- **VISA Electron i Dina debitne kartice, bez naknade za izdavanje i mesečne članarine**



AIK POZITIV

www.aikbanka.rs

Hrvatsko društvo ekonomista je posvećeno promociji i razvoju ekonomske struke i znanosti s ciljem razvoja hrvatskoga gospodarstva uključivanjem akademskih, poslovnih, političkih i drugih predstavnika društva u oblikovanje ekonomskih politika za gospodarski održivi rast i ekonomsku uspješnost Hrvatske u širem okruženju.

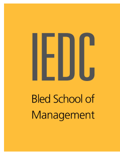
Hrvatsko društvo ekonomista

Heinzelova 4a, Zagreb 10000
tel. 01/46 00 888, fax. 01/46 00 888
e-mail: hde@hde.hr

Tradicionalno organiziramo savjetovanja o ekonomskoj politici Hrvatske

EKONOMSKA POLITIKA HRVATSKE U 2013.

14. - 16. XI. 2012., Opatija



ПРИВРЕДНА КОМОРА СРБИЈЕ
CHAMBER OF COMMERCE AND INDUSTRY OF SERBIA

PRIVREDNIK
SRPSKI POSLOVNI KLUB

THE 2012 SEE MANAGEMENT FORUM

How to Improve Competitiveness of SEE: Context, Strategy, Economic Policies and the Role of Business Leaders