UDC 65 YU ISSN 0353-433 X

YEAR LX JANUARY - FEBRUARY 2012

Ekonomika preduzeća

Савез економиста Србије

УКДС


Više od 30% bruto društvenog proizvoda Srbije stvaraju firme koje koriste SAP.
SAP
The Best-Run Businesses Run SAP™

jeep.rs
NEVER ADAPT.
Grand Cherokee
Compass
Wrangler
fotografije modela su ilustrativne prirode
Predstavljamo novu Jeep® liniju.
Grand Cherokee, Compass, Wrangler.
Mi se ne prilagođavamo konvencijama i zato živimo do maksimuma.
Jeep je registrovana robna marka kompanije Chrysler Group LLC.
Jeep®

Ernst & Young Beograd

Tel: +381 11 2095 800
E-mail: ey.office@yu.ey.com
Web: ey.com/rs

Визионари, пионири и авантуристи храбро освајају нове територије. То чине и добро информисани пословни лидери.

Постоје људи који виде опасности и људи који виде прилике. Наш *Growing Beyond* програм истражује како најуспешније пословне организације користе прилике да се прошире на нова тржишта, чак и у најсуровијим условима. Сазнајте више на ey.com/growingbeyond.

Кључ | Развој

ERNST & YOUNG
Quality In Everything We Do

UDC 65 YU ISSN 0353-443X

EP Ekonomika preduzeća

Journal of the Serbian Association of Economists and Serbian Association of Corporate Directors
Founded in 1947 in Belgrade
Year LX January-February
No. 1-2 Page 001-126
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

Printing office:
"Kuća štampe" 011 307.5.307
stampanje.com
Printed in 600 copies
The journal is published four times a year
Annual subscription RSD 4000 (VAT excluded)
Overseas subscription RSD 8000 (VAT excluded)

Simplifying transition by assuming that every economy was more or less the same, neo-liberal economic policy framework based on the Washington Consensus was abstraction that was too distanced from reality. In this edition of *Ekonomika preduzeća* we took a different path creating what we call "new policy framework" for economies in late transition. New framework provides a set of logical relations that are indeed fundamental. Industrial policies are at the center.

All papers have the same tone of constructive criticism, alarming that in the light of the upcoming double dip crisis status quo in economic policies conduction lead Serbia in uncertain direction.

In the introductory paper **Lj. Madžar** worryingly points to the critical state in which Serbia's economy found itself and laments over opportunities left forever behind. More roundly than anyone in this edition, but in line with his invaluably vast experience in macroeconomic theory as well as state administration, he questions the hope that the easy and timely way out of this situation exists at all. He elucidates that rather unsuccessful and weak economic development in Serbia over the last twenty years due to poor political capacity predetermined its chances for recovery.

D. Đuričin and **I. Vuksanović** in their paper prove how vastly Serbian macroeconomic framework and related economic policies are out of tune with the basic dicta of macroeconomic theory and suggested solutions. They imply that continuation of such approach along with world double dip crisis approaching on the horizon lead to vicious circle with no painless exit. They suggest that it is the latest time for switch from macroeconomic stability mantra toward industrial policies and intelligent investments.

In his paper **M. Labus** cautions that further conduction of expansionary fiscal policy and restrictive monetary policy with its poor records have to be challenged in the face of double dip recession. No option grants miraculous results and sure sustainable growth but alternatives must be taken into consideration. The author suggests testing of New-Keynesian model of coordination of fiscal consolidation along with monetary expansion.

Expansionary fiscal policy is once again subject of the paper written by **V. Vučković**. He analyzes how public finance burdens the economy and affects macroeconomic framework in which businesses operate. He shows that the impact is by far unfavorable and that in the absence of radical reforms in future situation is only going to aggravate.

J. Anastasijević and **V. Čupić** take on wider perspective and analyze the impact of financial integration in so called emerging Europe on future growth policies in Serbia. Also, in the light of upcoming recession, they identify numerous hazards stemming from expected lower availability of foreign financing and the impact of financial integration on macroeconomic stability.

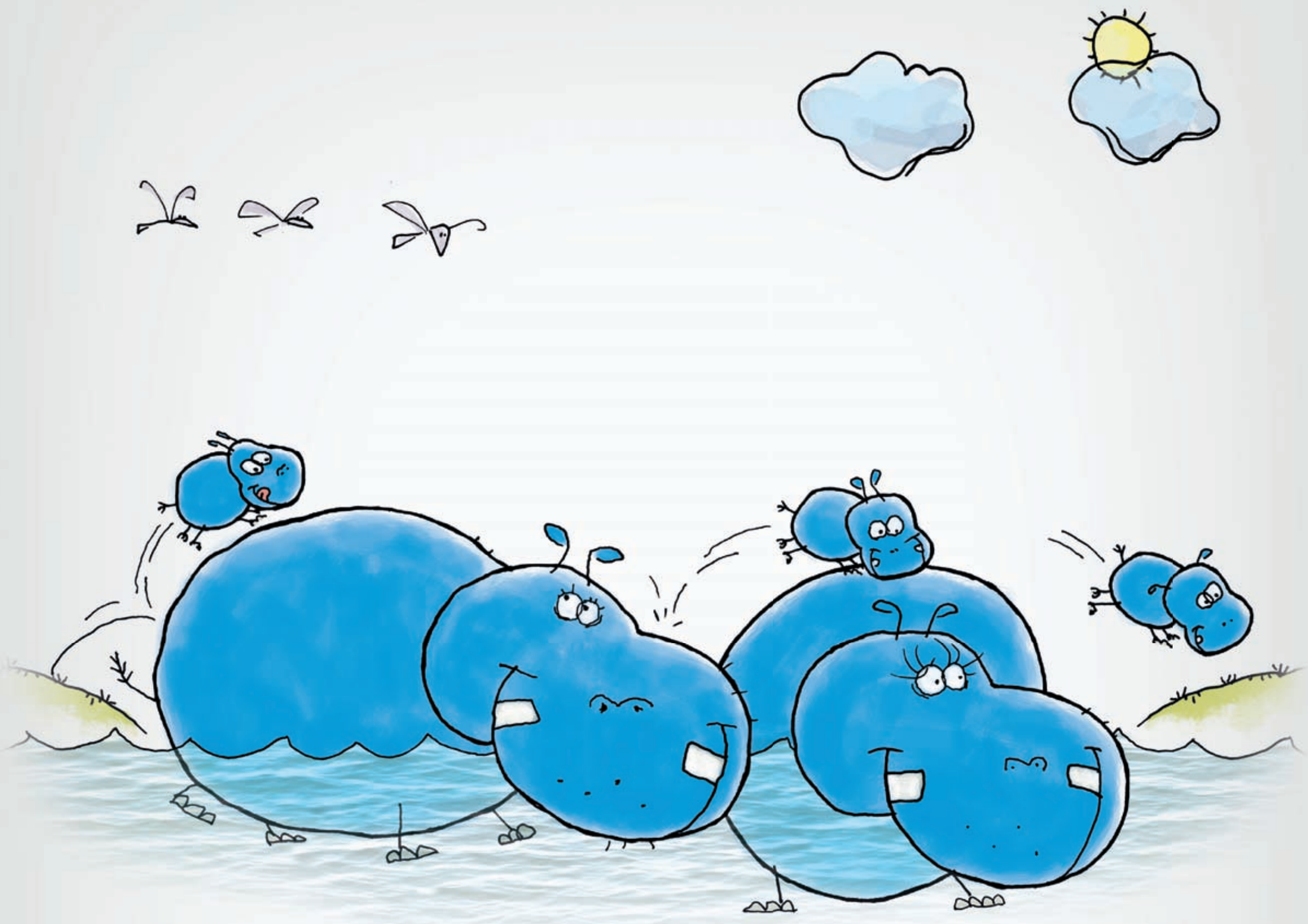
D. Vujović in his paper gives an overview of possible approaches towards industrial policies and their new role in economic development after crisis. By balancing between possibilities of market and government failure he attempts to provide an insight into how effective industrial policy framework should be created.

E. Jakopin and **J. Bajec** shed the light on necessary structural reforms in manufacturing sector as a main prerequisite for further economic growth. Structural transformations are aimed at solving the problem of low value added character of export. Accordingly, they point at three layers of change: change in macroeconomic policy, development of dynamic entrepreneurship and regional industrial policies.

In his paper **N. Popović** argues about top industrial priorities in the coming period. He stresses the importance of sectors like petrochemicals, agriculture, automotive, textile industry, and building materials industry. Also, he points to the necessary gradual progress from low-value added, labor intensive product towards higher value added technology and knowledge based ones.

Z. Njegovan explains the importance of well-conceptualized industrial policy in agriculture for sustainable economic growth in Serbia. He provides numerous example of great usage of how industrial policies can be implemented successfully, which should serve as a clear paradigm Serbia should follow.

Tourism is another area of importance for future sustainable development. **G. Petković** and **R. Pindžo** analyze the progress of this sector in a global framework henceforth and the necessity of recognition of its role in economic growth by policy makers.



ORIGINAL SCIENTIFIC WORK
UDK: 338.124.4(497.11) ; 338.22(497.11)
Date of Receipt: February 5, 2012

Ljubomir Madžar
Alfa University
Institute of Strategic Studies
and Growth "Petar Karić"

IN SEARCH FOR THE WAYS OUT OF NOWHERE: THE CRITICAL STATE OF THE SERBIAN ECONOMY AND THE ALTERNATIVES BEFORE US*

U potrazi za putevima izlaska iz nigdine: kritičko stanje privrede u Srbiji i raspoložive alternative

Abstract

The dire state of the Serbian economy is a diagnostic finding which no one questions. Conspicuous signs of faltering in the process of growth, unprecedented unemployment volume and rate, persistent and disturbingly large deficits in the balance of current transactions, equally large and unsustainable fiscal deficits, and the highest rate of inflation in the region ranking also among the highest in all of Europe – clearly indicate that the economy is facing grave difficulties without reliable means or coherent strategies of overcoming them. A number of determinants of such a dramatic constellation is identified and discussed in the paper. Significant extraordinary inflows stemming from privatization, increase in foreign indebtedness, external donations and even remittances from abroad have almost exclusively been channeled into current consumption, raising it to irreversibly high levels and thus eliminating savings and undercutting the economy's growth potential. Foreign direct investment has largely crowded out domestic undertakings. The strategy of privatization was directed towards retaining the unsustainable economic tissue inherited from the socialist past. That amounted to preventing the needed radical reallocation of resources by imposing on the buyers in the process of privatization the obligation to preserve more jobs than it was economically warranted. Huge and heavily bureaucratized government, with accompanying unbearable fiscal burden, drastically reduced the profitability of businesses and forced many of them to exit. The financially exhausted economy faces grave difficulties in meeting its financial obligations, the arrears are mounting, and the system as a whole seems to be heading towards a breakdown. Like in the Greek tragedy, there are alternatives but none of them leads to a satisfactory resolution of the crisis. Drastic steps will have to be taken, but political determination and strength appear to be so far lacking to venture them.

Key words: *growth deceleration, unemployment, inflation, fiscal deficit and public debt, foreign indebtedness, political opportunism in economic policies, privatization strategies, erosion of the financial discipline, arrears, currency appreciation.*

Sažetak

Šokantno stanje privrede u Srbiji predmet je i suština dijagnostičkog nalaza koji niko ne dovodi u pitanje. Upadljivi znaci malaksavanja razvojnog procesa, neviđen obim i stopa nezaposlenosti, trajni deficiti u bilansu tekućih transakcija, jednako veliki i neodrživi fiskalni deficiti i najviša stopa inflacije u regionu koja istovremeno spada i među najviše u celoj Evropi – sve to jasno pokazuje da se privreda suočava sa golemim teškoćama, bez pouzdanih sredstava ili koherentnih strategija za njihovo prevazilaženje. U radu je identifikovan i pretresen jedan broj determinanti ovog dramatičnog sklopa okolnosti. Značajni vanredni prilivi koji potiču od privatizacije, porasta spoljne zaduženosti, spoljnih donacija i čak doznaka iz inostranstva bili su skoro u celosti skretani u tekuću potrošnju, dižući je na nepovratno visoke nivoe i tako eliminišući domaću štednju uz podsecanje razvojnog potencijala privrede. Strane direktne investicije su u osnovi istisle domaća ulaganja. Strategija privatizacije bila je usmerena ka zadržavanju neodrživog privrednog tkiva nasleđenog iz socijalističke prošlosti. To se svelo na onemogućavanje radikalne realokacije resursa tako što su kupcima u procesu privatizacije nametane obaveze da sačuvaju više radnih mesta nego što je bilo ekonomski opravdano. Ogromna i silno birokratizovana država, sa pratećim neizdrživim fiskalnim teretom, drastično je oborila rentabilnost poslovanja i prisilila mnoge privredne subjekte na gašenje. Finansijski iscrpena privreda suočava se sa golemim teškoćama u podmirivanju svojih finansijskih obaveza, brzo narastaju neizmirene obaveze i sistem kao celina kao da se kreće ka opštem slomu. Kao u grčkoj tragediji, postoje alternative ali nijedna od njih ne vodi ka zadovoljavajućem razrešavanju krize. Moraće da se posegne za drastičnim koracima, ali zasada izgleda da nema političke rešenosti i snage za njihovo rizično preduzimanje.

Ključne reči: *usporavanje rasta, nezaposlenost, inflacija, fiskalni deficit i javni dug, spoljna zaduženost, politički oportunizam u ekonomskoj politici, strategija privatizacije, potkopavanje finansijske discipline, kašnjenja u plaćanju, aprecijacija valute.*

* As usual, the facilities and the logistic assistance of the Institute were of decisive significance in the preparation of this work.

Introductory remarks

There isn't much to be discussed regarding the diagnostic statement of the state of the Serbian economy. The conspicuously revealed unfavorable traits of the macroeconomic situation of this country fit consistently into an overall picture which leaves no room for serious doubts and even less for hopes of easy and timely way out. It is safe to state that a strong and unequivocal professional consensus has been formed in connection with key impediments and functional distortions faced and borne by the economy of Serbia. The authoritative *White Book*, the yearly report of the *Foreign Investors Council* [5, p. 12] sets it out succinctly and in exemplarily precise terms. Quite frequently Serbia had the highest inflation in Europe and in all years following 2000. The rate of inflation was among the highest in Europe and literally the highest in the region. The unemployment rate also ranks among the highest and thus far has widely surpassed the critical threshold of 20%. The *White Book* also points to truly critical fiscal situation, emphasizing the markedly shrinking fiscal revenues, the implied budgetary deficit and the unpleasantly high public debt. The Dinar is appreciated, hurting the most vital exports sector of the economy and, moreover, its unpredictable twists and turns in repeated, but inconsistent attempts to depreciate unavoidably discourage exports and thus slow further the efforts to include the economy into the international division of labor. Contrary to expectations, the combination of an expansionary fiscal policy and a restrictive monetary policy doesn't seem to have produced the desired and long sought results.

Other sources point to somewhat different, but closely related to the just enumerated weaknesses of the economy. Arsić [1, p. 5] brings up the fact that investment in Serbia depends heavily – as it has in all of the past decade been – on the foreign direct investment (FDI), making the entire economic development dependent on a process which is practically beyond control of the policy making authorities, and thus largely determined by exogenous factors and random fluctuations. Renewed appreciation of the Dinar undercuts again the feeble tendencies of revival of exports, leading to serious and practically insurmountable foreign exchange shortages. The main fiscal bases seem to be continuously shrinking, leading again to impermissible deficits and bringing foreign debt to the dangerous upper limit prescribed by the law. The credit rating is poor and likely to deteriorate further, which is unwelcome news in view of the declining value of the credits advanced to the economy; this not only reduces the capacity of the economy to utilize available investment opportunities but also hampers the current operations of the economy and its normal functioning on a daily basis.

Due to visibly declining fiscal revenues the budgetary deficit is growing by the hour, the dangerous upper limit of public indebtedness, prescribed by the law, is practically reached, and the failure to intervene more energetically on the expenditure side of the budget aggravates the fiscal crisis and narrows down the set of options available to the policy makers. These developments generate grave tensions in the entire public finance and make it more and more difficult to close the gaps in the vital components of the orderly social survival. That seems to be the principal reason for ever more frequent mentioning of the debtor's crisis, with some professionals viewing it as an unavoidable predicament, compare [1, p. 6]. A very detailed and meeting high professional standards analysis by the Fiscal Council of the Republic of Serbia [6, pp: 5-10] uncovers the far-reaching hazards in the entire area of public finance, in particular the declining tendency of the rate of growth of the GDP implying (1) insufficient expansion of the fiscal bases, and even the contraction of some of them, (2) unrealistic assessment of the aggregate of fiscal revenues for 2011 leading to possible breaks in orderly financing of essential social needs, (3) the wide variety of fiscal positions at local and other sub-republican levels, with some of them heading towards serious jeopardy, and (4) equally hazardous financial situation of social funds, including in particular the Retirement and Disability Insurance Fund and the Health Insurance Fund. Having to consistently rely on the massive budgetary injections, these funds are very likely to run up against serious difficulties once the budget as a whole finds itself in a not easily surmountable financial impasse. There are serious reasons, dealing with the resource constraints and the growing difficulties of further expansion of public indebtedness, because of which the projected growth of the GDP at the rate of 1.5%

is not likely to materialize, but there is also a technical, arithmetic reason which makes this goal hard to implement: the economy entered the current year (2012) at a very slow pace of development, meaning that there remains a worrying lot to be made up during the rest of the year in order to reach the projected 1.5% of yearly growth. The latter seems to be an achievement with exceedingly low likelihood to be materialized [2, pp: 57-9]. Even the EBRD [4, pp: 152-3], despite the unavoidable adherence to the polished diplomatic language, draws attention to the towering structural failures and functional difficulties of the Serbian economy: inflation is high above "that of / Serbia's/ regional peers" and the pensions commitments are far from "a more sustainable footing". Government's loan subsidies program is also singled out as a questionable policy intervention and the efforts of the National Bank of Serbia (from now on NBS) to promote the credit activities in domestic currency are mentioned, clearly so far without possibilities to pass a definite judgment on the expected results of this policy.

It is apposite to add that there are much more vocal and undoubtedly more alarming voices warning about the perils facing the Serbian economy. Kovačević [7, pp: 3-27] calls attention to the drastic foreign trade imbalances, including in particular the long series of deficits in the balance of current transactions, the steady and excessive appreciation of the Dinar, abrupt and ill-advised liberalization of the foreign trade flows, particularly liberalization of imports, and the failure to protect the economy in other ways, as major determinants of the spectacular collapse of economic activity. *Scorched land* is the metaphor by means of which he expresses his appraisal of the consequences of an unprecedented upsurge of imports, a source of the insuperable competitive pressure which in his view even much stronger economies could not endure. Very indicative of his gloomy assessment of the current situation of the economy and, perhaps even more foreboding its growth prospects, is his newest paper presented at the latest conference of the Serbian Scientific Society of Economists [8]. The title of the paper – *Serbia Heading towards Economic and Financial Collapse* – conveys the thrust of his analysis of the forbidding economic future of this country.

There are analyses which have centered on the opportunities and constraints of Serbian economic growth in an uninterrupted and consistent way over a protracted series of years. Carefully identified through them are important features of the growth of this economy which make it unsustainable in a somewhat longer time perspective. Such are leading papers presented at the consecutive yearly meetings of the Serbian Scientific Society of Economists by S. Stamenković and his associates, a particularly representative contribution is [10, pp: 15-27]. The especially commendable property of these papers is their centering on the long run tendencies of economic development and identifying growth determinants of limited duration thus harboring the seeds of future overall declines and making the growth unsustainable along trajectories initiated in the recent past. More specifically, they investigated the underinvestment in the economy of Serbia, documenting precisely that investment had been at the level of less than half of the depreciation charges over an entire decade. They further found out that investment picked up following the big social and political turnaround in October 2000, but turned out to have been financed exclusively by external inflows, with domestic savings staying fixed at the level approximating zero. A still further finding was that deep structural discrepancies marked Serbian economic growth, with sector of tradeables dwindling to extremely low shares, with nontradeables sector determining the growth thrust. They demonstrated such structure to be unsustainable even in the foreseeable future, not to speak about the long run in the proper sense of the word.

The growth potential determining features of the Serbian economy

Stating that Serbian economic development has been rather unsuccessful in its entirety would certainly be a safe, easy to prove proposition. It has left much to be desired not only in the course of the last decade of the past century, but also during the recent decade, coinciding with the rule of the "democratic" governments. Several facts can be advanced to corroborate this claim. To begin with, the economy has not yet reached the level of the GDP of 1989, the last "normal" year, the one on the eve of the transition towards full-fledged market economy and multy-party parliamentary democracy. Transition really produced a deep decline of the economy as a whole, considerably deeper than in the majority of other transition countries (hereinafter TC) and deeper than in the countries in the relevant region of the Central and South-East Europe. Then economic sanctions hit the country and covered about half of the last decade of the twentieth century, culminating with the unauthorized, illegal bombing in 1999. The qualifiers *illegal* and *unauthorized* are important in this context only as indications that the country was to some extent taken by surprise, not having been able to undertake necessary precautionary measures. There is a finding in the theory of economic catastrophes that the sudden and abrupt falls of activity tend to be followed by rather quick, almost as "abrupt" as the falls themselves, recoveries. That did *not* happen in Serbia. Quite to the contrary the economy lingered at deplorably low levels for years. The potential for rapid recovery has not been utilized by the Serbian economy, which could be taken as its first weakness and the first piece of evidence of the poor performance of its development policy.

A second major issue, amounting again to the poor result of the development policy, is the fact that, starting with 2000 and up to these very days, development has been financed by external means. No development strategy and the accompanying set of policies could be deemed successful if practically the entire set of development related ventures has been financed by the external means. With zero domestic savings the economy cannot be expected to develop in a sustained way, as external sources out of which this development is being financed are precarious and uncertain. Some of them face high likelihood to dwindle to the insignificant levels, while others are sure to come to an end in the foreseeable future. Thus, privatization proceeds are obviously certain to disappear, resource inflows on account of foreign indebtedness are bound to be drastically reduced because the rapid increase, and even relatively high level, of foreign and other public (and private!) debt undermines the credibility of the debtor and discourages the creditors to advance further loans. With the lack of trust on the part of the creditors, the willingness of the investors to come in with the FDI tends to be reduced and doomed close to disappearing. Foreign donations have practically vanished anyway, and indeed quickly, following three years of the "democratic liberation".

Summarizing, the abundant inflows of supplementary resources from abroad have not been properly utilized to accelerate the development of the Serbian economy; the bulk of such resources has been channeled into current absorption to generate political support and to vie to the utmost for the inclination of the electoral body. One has to emphasize that such a destructive dealing with the means which could have been used for speeding up the economic development has been forced upon the political parties, including those in power, by equally destructive political competition: the votes have been entrusted to those who promised and eventually delivered quick, better to say *immediate* improvements without regard to incomparably higher costs and losses in a somewhat more distant future. Incumbent authorities could simply not, in the face of competition by other parties, afford the luxury of pursuing the constructive strategic goals, based on sound economic criteria. Had they done so, other parties, undoubtedly worse in all important respects, would prevail and the results would be even worse. Politically speaking, Serbia has been in the position to choose among several evils for at least two decades, probably even more. Destructive development strategy, implying wasteful squandering of resources potentially available for feeding into development process, was politically determined. As such, it represented an objective tendency beyond control of government or any other authority. As the system cannot be changed overnight, such tendencies are a given fact of life with which Serbia will have to live for a long time to come. Responsibilities of the governing teams cannot be entirely negated, but it is far from having been the decisive factor in these processes. The teams have changed, displacing each other rather frequently, but the tendencies have persisted uninterruptedly.

Summarizing by going through a different set of issues, if we define the *genuine rate of growth* as the one that is determined by investments, driven and financed by domestic savings, then such GRG has in the course of the last decade been approximately equal to zero. The officially recorded and so frequently hailed rate of growth is *not* an indication of the success of the development policy but, quite to the contrary, a miserable performance which offers nothing to be praised or commended. The proper way to proceed in these matters would have been not to crowd out domestic savings by privatization proceeds and externally received resources, but to promote domestic savings and favor corresponding investments *as if these external resources had not been flowing in*. Those externally acquired means should have been reserved exclusively for *additional investments*, thus raising the rate of growth far above the GRG and legitimizing the underlying policy as (just!) reasonably successful as the rate of growth would simply reflect the normal or standard saving effort and investment activity. One cannot go over these issues without noting that one component of the development policy should be pointed out as its particularly regrettable feature: namely, major infrastructural projects have, as it seems, without any exception been financed by public foreign credits, while (in relative terms) huge resources from privatization and other means augmenting operations have been diverted to current consumption!

One fundamental weakness of Serbian development strategy stems from a deep and fatal misunderstanding regarding privatization policies and directions to be properly pursued by and through them. The basic, regrettably ignored fact was that the bulk of the economic tissue, inherited from our socialist past and foreordained to be privatized, was of such a poor quality and inappropriate design that it had no chance to be incorporated into a properly shaped market economy. The basic fact that economic tissue inherited from the socialist past cannot fit into the market economy is not peculiar to Serbia and has general validity. It was relatively early, and rather thoroughly, researched in most TC [13, pp: 5-26], and the rest of the study *passim* with carefully analyzed evidence from Czech Republic, Hungary and Poland) and the key finding was that most that had been inherited from the socialist past simply had to be scrapped. Most enlightening is the experience of E. Germany, where the entire body of the capacities located in that country proved unusable and had to be liquidated at considerable cost [12, pp: 39-51, particularly 45-51]. The key word in the Sinns' analysis is *Zusammenbruch* meaning the *breakdown* or *collapse*. The underlying, truly deep logic of privatization implies that it is not the state which is capable of determining the right direction and form of committing resources. It bears repetition: had the state been able to husband resources in a commendable way, the privatization would not have been necessary! Conversely, if the state is deemed to be the right agent for determining the socially optimal use and allocation of resources, not only would not it have been necessary to launch privatization, but the state should have initiated major nationalization drives to put resources under control of the entity best equipped to husband them to the benefit of the society. But the privatization *had been* launched and a broad social consensus about the state not being an efficient and able investor, producer, entrepreneur, innovator...had been irreversibly reached. In particular, the consensus implied and even explicitly revealed that private sector entrepreneurs and commercial companies are undoubtedly superior in committing resources to the requisite uses, in allocating them over alternative options, and in husbanding them properly wherever they happen to be deployed. That quite clearly should have implied that, whatever basic economic and business issues happen to be raised, *the state cannot know better*, and that any decisions imposed by the government upon entrepreneurs and businessmen would simply be ill-founded and wrong-headed.

The impact of some policy misfirings and their academic endorsements

It should be apparent that from this it follows immediately that the privatization strategy and the programs through which it was operationalized *had a serious, irreparable flaw*. The flaw consisted in obligatory investment programs having been imposed and incorporated as contractual obligations on the part of the subjects who participated in these transactions in the capacity of the buyers. The government acted through its agencies and authorized bodies as a *subject who knows better*. Again, if that were true, why is privatization resorted to and how in the world could it (at all!) be justified. Another inadvisable component of these programs were so called *social programs* – the imposed obligation of the buyers in the process of privatization to keep a certain number of employees, i.e. to preserve the jobs and to extend the operation of the company more or less along the lines prevailing in the past. As any major reorientation of the activity of the firm presupposes the retraining and the redeployment of the staff, preserving the jobs predetermines to a large extent the continuation along the old production programs and circumscribes severely the ability of the firm to readjust in accordance with the ever changing volume and structure of the market demand. Investment programs were thus counterproductive and counter indicated: the entity which knows less or even *doesn't know* imposes business decisions upon those who know. Moreover, there is a world of difference in motivation: those who have invested their own money in buying the firm are certainly incomparably more motivated than the state bureaucrats to find the most profitable ways of using and exploiting the corresponding resources. Those who have studied just a little more carefully one of the many introductory textbooks in Economics know quite well and understand clearly that the profitability at the level of business units coincides, under a broad set of assumptions, with social welfare, including *common good* and *public interest*. As for social programs, space should not be wasted discussing them: it is *not and has never been up to businesses to undertake the tasks of social policy*. The dividing line is here completely clear: social policy belongs to the government, and the management and profit pursuits are the province of the business. Even the government has, after a while, understood this elementary truth: the social programs were cancelled and ceased to be parts of the privatization transactions.

The familiar problems began to crop up in large numbers: having purchased the firms, new owners found out that they cannot be made profitable in the inherited lines of business. They also quickly found out that the overemployment, drastically excessive inherited labor force, was not consistent with the needs to conduct business in a profitable way, from the sound businesslike point of view, it was simply unbearable. The jobs started to be liquidated in large numbers. No one is that naive as to not be able to see enormous social, political, emotional, and all kinds of other problems, but very few are able to understand that shedding excessive jobs is a price of the true consolidation of the firm, of its promising business future and of its future ability to generate new jobs, probably more and of a higher quality than in the moment of privatization. It is also a price to be paid for setting the firm(s), and by implication of the economy as a whole on a stable and sustainable path of dynamic development. It also came to be typical for the new owners to change the production programs of the firms in far-reaching ways, not infrequently transferring them into entirely different lines of economic activity. That produced massive outcries, particularly the left-wing intellectuals always willing and in the mood to assist the endangered and deprived *at the expense of somebody else's money*, usually the government's funds and thus ultimately by burdening the taxpayers. It was not understood, as it is so frequently the case with those who worry about the *fate of the man* that the inherited firms are by and large "properly coded", that the resources invested in them are poorly placed and that one can reasonably speak about a sort of *negative synergy*: the effects of the collection of the (poorly) combined resources are *less* than the sum of the effects of single resources deployed in individual options. It is only natural to break such negative synergy and find for the resources found in the firm far more profitable engagements. This is what the new owners largely did, but what caused tremendous upheavals in many circles. This is only natural because the social costs in terms of job and momentary income losses are indeed high, as well as the costs in terms of human sacrifices and frustrations. But the long run effects of these radical ventures are clearly beneficial and the underlying trade-off is undoubtedly favorable. Moreover, postponing such painful operations can, and in all likelihood will, increase future losses, sufferings, and human sacrifices; the generalized social cost is, as a rule, incomparably higher than the benefits generated by the short run alleviations of the painful adjustments which will have to be performed some time anyway. It goes without saying that the laws have to be honored in the meantime; it is not up to the businessmen or to any individuals to choose what laws to respect and, quite clearly, the only right way of overcoming these absurdities is to change the laws. Until they are replaced by more sensible regulation, various costs and economic losses will have to be endured. But, that is the logic of the rule of law: *Dura lex, sed lex*.

To clarify the issue thoroughly, the government's intervening into the described business decisions is not a result of just sheer ignorance and misunderstanding. Ruling authority keeps steadily an eye on coming elections and the opportunistic behavior directed towards the preservation of jobs pays handsomely in terms of votes expected to be reaped once this day of reckoning eventually comes. The objective function of the state bureaucracy and its principal, the political elite, is vastly different from the magnitude of profits, which is what business is believed to be maximizing. In other words the two strata are after different things and it is only natural that they behave differently and that conflict generating tensions predictably develop between them. It is also true – and this is a more subtle argument which unfortunately cannot be developed here to needed detail – that changing the point of view in assessing the consequences of privatization also results in a change of the objective function. From the point of view of the system as a whole – and that stance naturally pertains to the politicians – the effects of any action, including the privatization, are much broader: even the wages and salaries of those who keep their jobs in the described way are a part of the net effects! Businessmen maximize profits and the politicians and the bodies through which they act maximize a much wider magnitude, including wages of those who succeed in keeping their jobs and would otherwise go unemployed. There is then the well known difference in the horizon of the decision making: those who have done their basic economics know that the horizon of the business people is theoretically infinite; the horizon of the politicians and the public servants is badly truncated and doesn't extend much beyond coming elections. Three weighty reasons have been adduced for large differences of the objective functions of businesses and the government machinery: small wonder that they pull in vastly different directions and develop conflicts, most of the time not easily observed.

The elementary fact that capacities inherited from the past had not been able to survive in the competitive market environment, not to speak about their successful future development, has never been properly understood not only by the public at large, but also by the circles considering themselves as professional. Equally is misunderstood the fact that the only people capable of realistically estimating the growth and survival prospects of the enterprises handed over from the demised self-managed economy are the newly emerging owners and entrepreneurs, and certainly *not* the government and its bureaucracy. A third important misunderstood element of this complicated game was the ingredient of motivation: again, the only set of actors with right motivation to find the optimal solutions for the ex-socialist firms were those who invested money in acquiring them and thus risked their own means; not only are they motivated to find the best option for the firm's utilization or disposal, but also to learn and to invest time and resources in a purposeful search for such optimal solutions. Still other poorly understood matter is that the government and the associated authorities have completely different objectives in attempting to influence the destiny of the firms following their privatization. These objectives are an upshot and manifestation of the political arithmetic rather than economic calculus.

The enumerated arguments are an understandable and predictable reason for economists opposing the urge and direction with which the politicians endeavor to divert the extant resources to the uses convenient from their point of view; political expedience is *not* identical with social rationality and the economists by the nature of their vocation could justifiably opt only for the latter. In particular, they should not insist on preserving the inherited firms as going concerns if, because of the above elaborated negative synergy, the *economically* optimal way to proceed is to dismantle them and their evidently misallocated resources deploy in other, potentially profitable options. The least the economists should satisfy as a professional imperative is *not to support the politicians in their misuse of resources and not to endorse the strategy of using them as a means of reaching the political goals.*

Deplorably, economic profession has not in its entirety lived up to the above mentioned professional standards. A number of economists have ardently supported politicians in their views as to how the resources could be used and subscribed to their ideas of how to manage the privatized firms. These economists have advocated the allocation patterns which are out of line with requirements of economic efficiency and contrary to basic principles of rational resource use laid out in elementary economics textbooks. There are disturbingly numerous examples of such goings against the dicta of the profession, but a recent one [3] is more than representative as it comes from the well known economists acting in the capacity of the editors of a collection of professional papers, with one of them (Cerović) highly placed as president of the scientific association of the economists. To cut a somewhat longer story short, the above mentioned editors took the stance coinciding with the politically inspired endeavors to preserve the jobs at any price, thus trading the incomparably larger benefits in a somewhat longer time perspective for the ephemeral short run effects, perhaps favorable if judged through criteria of prospective electoral harvest, but surely unsatisfactory in the truly important dimension of economic efficiency. The editors of the collection ignored all above adduced statements of the contradiction between the political expediency and economic rationality: difference in the effects to be included into (alternative) decision-making criteria, differences in the time horizons of decision-making, the fact that it is only the private entrepreneurs who are able and correctly motivated to assess the survival potential of the firms and the basic, unbridgeable difference in ultimate objectives between the political bodies and organizations, on the one, and the part of the public truly interested in economic advancement, on the other hand. Despite the fact that interests and power, and not theories and knowledge, play a decisive role in the political life, and thus in development and current economic policies, economic expertise is not without significance and certain, even though marginal, influence. If true to its vocation and loyal to established scientific principles, economics profession can at least exercise a healthy pressure on the politics to come closer to the criteria of promoting genuine social welfare. A significant part of the profession does *not* stand up to this undeniable calling. This is a fact of life which can only be deplored. It turns out that an insufficiently developed economics science and profession are just a part of a much larger nexus of low level of development of the economy and the society at large.

Supplementary determinants of the Serbian economic downturn

The present state of the economy of Serbia can be seen as a very complex and highly intertwined nexus of numerous forces at work which are impossible reliably to enumerate, not to speak about precisely determining their contribution and relative weight. What one can hope the most within the constraints of a paper of limited length is just to single out some of them and to outline in broad terms their likely impact. The present economic adversity of Serbia is too wide, too varied and too deep to be squeezed into the precincts of a single paper. The important fact is that all of the forces contributing to the present precarious situation are significantly interconnected and that, along with their isolated contributions, one should bear in mind the effects of their interaction and, not infrequently, of their destructive synergy. The damage produced by the collection of broadly differentiated interacting factors is certainly bigger than hypothetical sum of contributions of individualized factors had they been in the position to act in isolation. Particularly interdependent are external and internal stability: the rate of inflation can be tempered by allowing increases in external deficits and, contrariwise, serious efforts to establish external equilibriums generate pressures on internal front, working towards augmenting the rate of inflation.

The first really pressing problem has already been adumbrated in the first section and consists in the absence of domestic savings and practically all investments having ultimately been financed by external sources. The inflow of such resources, defined as the sum of the FDI, the donations from abroad and increase of foreign indebtedness has been variously estimated as approximately ranging between 12 and 15 billion euros. Such abundant inflow has provided a unique opportunity to raise the rate of growth far above what is naturally affordable by the economy and what could be deemed as sustainable in the long run. That would have raised the economy on a permanently higher growth trajectory, so that, once these temporary sources of finance are dried up, the economy would continue growing at GRG, the one sustainable on the basis of own resources. Being applied to significantly raised *levels* of the GDP, that standard rate would permanently generate substantially greater *absolute increases* in GDP. Exploiting the unrepeatable inflows of external resources would have enabled the economy to generate higher GDP (increases) on a permanent basis. That singular chance went unexploited. Current consumption was raised to a much higher than appropriate and unsustainable level instead. Once used to the relatively high consumption which had been increased in the described way, the consumers are extremely reluctant to adjust it downwards and to return to the consumption levels and patterns consistent with the available production potential. One could speak about the aggregate consumption hysteresis consisting of the impossibility of its return to natural levels conformable to the universally acknowledged low levels of the GDP.

The authorities have been selling the social capital and channeled it into consumption. This amounted to unduly combining the stocks and flows, and creating havoc in the functioning of the economy. Consuming capital means eating into the economic substance of the society and is harmful enough by and in itself. However, there is more to it. As a significant part of the privatized assets had been sold for foreign exchange, privatization (and growing foreign indebtedness, too) meant an additional strong inflow of foreign exchange completely independent of the current functioning of the economy. Such extraordinary increase of the foreign exchange supply meant equally unnatural appreciation of the Dinar, with an overwhelming avalanche of imports and heavy competitive pressure on most sectors of the domestic economy. Exporting sectors became unprofitable because of the appreciated currency and the rest of the economy lost sales and profitability under the pressure of the swollen imports. Hence the so-called scenario of the scorched land. There is a subtlety here that needs to be clarified. The receipts from privatization, largely denominated in foreign exchange, the government sells to the NBS. This operation results in an increase of the quantity of the dinars, and thus augmented monetary mass should lead to depreciation of the domestic currency. However, the government proceeds to spend so acquired extraordinary means. The aggregate demand rises and the rate inflation increases. As the *real exchange rate* depends positively on the nominal rate and negatively on the level of domestic prices, with nominal rate being more or less fixed, the ultimate result is yet appreciation. The scorched land scenario comes fully to the fore.

With consumption tending to remain at temporarily and unjustifiably heightened levels, the affordable GDP doesn't give the necessary savings; on the other hand, with ceased or drastically reduced external inflows, the possibilities to finance domestic investments are also drastically reduced. The country appears to be doomed in the sense of not being able to reach the investment volume needed for normal growth. Prolonged stagnation seems to be an apt shorthand expression for the rather bleak economic future of this country. The authorities came up with a so-called *new economic model* which a number of economists found bizarre [9]: the growth was not pertinently speeded up when significant supplementary resources were available, and now when they are on the road to be dried up, the government announces revival of growth in unexplained miraculous ways. All relevant evidence points to a rather unexciting economic future of the country, with likely prolonged stagnation and with possible painful episodes of protracted declines.

Another grave difficulty of the Serbian economy is the oversized burden of the public consumption. It fluctuates between 40% and 44% of the GDP which is too much of a load for such a feeble and underdeveloped economy. It is instructive to plunge a little more into the distant past and consult the historic records of now developed countries. The startling finding is that they had incomparably lower share of public expenditures in the GDP when they were at the present Serbian development level. Thus, for example, the USA had that share at some 10% at the beginning of the 19th century – for times less than that of Serbia today. Generally speaking, developed countries had much lower public consumption shares at the development levels comparable to that of Serbia today. The burden of public consumption is much too high in Serbia, with visible signs of its unsustainability not only in the medium run (the long run should not be even thought of in this context) but even in the current situation before our very eyes [6, pp: 6-8]. There are clear signs of the excessive and socially harmful behavior of the government regarding the intensity and the form of spending the public money: rapid growth and perplexing number of various agencies with dubious social contribution, oversized and overpopulated public service, bulky and counter indicated collection of ministries, overlarge parliament and, above all, glaring discrepancy in wage levels between the public and the private sector. The government takes and consumes *too much* and the relations between the state and the rest of the society have taken the form of an exploitative *class relation*.

Excessive burden of public consumption means high taxes and, for some time, rapid increase of public debt, which has to be serviced and ultimately takes again the form of increased and heavy taxes imposing ever higher burden on the economy. With an economy which is exceedingly weak on other grounds (institutional vacua and mismatches, low competitiveness, enormous pressure on the part of the huge imports, the fragile and largely unsustainable economic tissue taken as a legacy of the socialist past...), this load of public expenditure and accompanying taxation is simply stifling the economy. It is important to realize that the burden of taxation falls significantly on the economy no matter what aggregate is taken as the taxation base. Tax incidence theory teaches that the economy carries a good deal of the burden even if taxes are imposed on seemingly innocent base as personal consumption. Irrespective of the base, taxes produce the changes in prices which generally impact heavily on business profitability even if businesses are not the formally designated taxpayers. Taxes increase the prices paid by the consumers and reduce the prices borne by the producers, the distribution of the impact depending on the respective elasticities of demand, vs. supply: the lower the relevant elasticity, the higher the share to be borne by the group to which the elasticity applies. Thus, in the case of inelastic supplies, the burden will largely fall on the producers even if the consumption is nominally chosen as the tax base. For a thorough discussion see Stiglitz [11, pp: 491-509], and then for the case of a monopolistic market structure see [11, pp: 510-516]. Therefore, the resultant weakened financial strength of the economy makes it unable to pay regularly the obligations to the business partners and dangerously growing arrears mean breakdown of the system and destruction of the valuable market mechanisms. Add to this that the government itself is one of the major illegitimate debtors to the economy – recent estimates run up to more than a billion of euros of the unpaid dues to the business firms – and there follows the conclusion that it is not only the case that the government becomes more and more unable to meet its obligations *because of the lack of revenues*, but also that such financial weakness leads to the erosion of the very foundations of the market economy.

The high taxation burden is an extremely unwelcome legacy of the past: many items on the expenditure side of the budget are the result of the irresponsible huge awarding of a broad multitude of various rights and privileges, many of them coming from the socialist times. This is another sad example of temporal interdependencies of the growth performance and welfare indicators. Since many budgetary obligations are fixed by laws, they are difficult to revise. The generally low level of income is also a binding constraint in any eventual attempt to save on budgetary expenditure by cutting components which construe the sources of income for large masses of the impoverished recipients. The radical reform will have to be undertaken, but the present authorities are unwilling to undertake such a politically risky venture. However, the more it is delayed, the graver and the more difficult to resolve the problem grows. If the authorities fail to resolve it in an organized, planned way, it will be surely resolved by the merciless balance relations and by life itself. But, this latter way of reconciling consumption with the available means is obviously going to be much more painful.

Conclusion

Few professionals would disagree with the statement that Serbia is in an utmost critical economic situation. Eventual disagreements can only appear when it comes down to identifying the causes of such development. Whatever the causes, the hazards of facing a range of serious imbalances and the lack of savings to fuel the growth process remains as a disturbing feature of the current and prospective economic realities of Serbia. The problems loom large and the ways and means for facing them are not on the horizon. Worse than that, the government does not seem to have an even approximate strategy of overcoming the mounting hazards. It has indulged into heavy borrowing, including raising credits by the commercial banks, in order to pay for current expenditures. That looks like a recipe for disaster. To put a lethal stamp on all of that, the government does not seem to be overly preoccupied with this dramatic scenario. Elections are coming and that evidently absorbs the most of its energy and creativity. There are alternatives as they always exist, but, like in the Greek tragedy, none of them leads to a satisfactory resolution. So far no actor can be discerned with sufficient determination and power to undertake the socially painful and politically risky steps. Who will clean the Augean stables among those who eventually survive this socio-economic thriller?

References

1. Arsić, M. (2011), "Uvodnik", *Kvartalni monitor*, No. 25-26, April-September, 5-6.
2. Brčerević, D. (2011), "Osvrt na kretanje privredne aktivnosti u 2012. godini", *Kvartalni monitor*, No. 25-26, April-September, 57-59.
3. Cerović, B., Uvalić M. (2011), "Predgovor", eds., *Kontroverze ekonomskog razvoja u tranziciji*, collection of papers from the scientific conference of the Serbian Scientific Society of Economists and the Faculty of Economics, Belgrade, held under the same title, Beograd, Ekonomski fakultet, 1-5.
4. EBRD (2011), *Crisis and Transition – The People's Perspective*, The Transition Report of the European Bank for Reconstruction and Development.
5. Foreign Investors Council (2011), *Proposals for Improvement of the Business Environment in Serbia* – White Book, Belgrade, edited by M. Crnobrnja and Foreign Investors Council.
6. Fiskalni savet Republike Srbije (2011), *Ocene Izveštaja o fiskalnoj strategiji i predloga Zakona o budžetu za 2012. godinu*, Beograd, Fiskalni savet Republike Srbije.
7. Kovačević, M. (2011a), "Geneza i uzroci teških problema u sferi ekonomsko-finansijskih odnosa Srbije sa inostranstvom", paper submitted to the conference of the Serbian Scientific Society of Economists and the Faculty of Economics, Belgrade, held in Kragujevac on September 15, published in the collection of papers under the same title, Beograd, Ekonomski fakultet u Beogradu, 3-48.
8. ______ (2011b), "Srbija pred privrednim i finansijskim kolapsom", a paper presented to the conference *Privreda Srbije u drugom talasu krize – Izgledi za 2012.* of the Serbian Scientific Society of Economists and the Faculty of Economics, Belgrade, held in Belgrade on December 17, to be published in the collection of papers under the same title, in print.
9. Madžar, Lj. (2010), "Pustolovine pomerenog rasta – Stari i novi model", a paper presented to the conference of the Serbian Scientific Society of Economists and the Faculty of Economics, Belgrade, held in Belgrade, May 8, published in the collection of papers under the same title,eds. Arandarenko, M., Praščević, A., Cvejić, S., Beograd, Ekonomski fakultet, 9-70.
10. Stamenković, S. *et al.* (2009), "Ekonomska politika Srbije u 2010: Ka novom modelu ravnoteže", introductory paper presented to the conference of the Serbian Scientific Society of Economists and Faculty of Economics, Belgrade, held in Belgrade on September 26, published in the collection of papers under the same title, Beograd, Ekonomski fakultet u Beogradu, 15-67.
11. Stiglic, Dž. E. (2004/1999/), *Ekonomija javnog sektora*, (prevele Mira i Vera Gligorijević), Beograd, Ekonomski fakultet.
12. Sinn, G., Sinn, H. W. (1993/1991/), *Kaltstart – Volkswirtschaftliche Aspekte der deutschen Vereinigung*, Tuebingen, Deutscher Taschenbuch Verlag.
13. Winiecki, J. *et al.* (2001), *An Inquiry Into the Composition of the Private Sector in Selected Post-Communist Economies*, Warsaw, Earhart Foundation Sponsored Research Project.

Ljubomir Madžar

Graduated at the Faculty of Economics, University of Belgrade in 1961, became MA in 1964 at Williams College Mass., USA, and PhD at the Faculty of Economics, University of Belgrade in 1968. His basic orientation refers to the field of economic growth, institutional aspects of development and the problems of governance, macroeconomics and stabilization, etc. He has published ten books and over 400 articles in professional journals. He dealt with the privatization and formation of permanent institutions based on market economy. He was member of the Council of Economic Advisers in the Government of A. Marković, the Chief Editor of „Economic Thought" 1987-11, and a member of the Government of M. Panić 1992-93. He was full professor at the Faculty of Economics University of Belgrade since 1982, then rector and professor of the University „Braca Karic"-today „Alpha University", where he is still engaged.

ORIGINAL SCIENTIFIC WORK
UDK: 338.22(497.11) ; 338.124.4(497.11)
Date of Receipt: February 7, 2012

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

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

ISN'T OUTPUT MORE IMPORTANT THAN INFLATION IN IMPOTENT ECONOMY: SERBIA'S ECONOMIC POLICIES REVISION*

Zar nije autput važniji od inflacije u nemoćnoj privredi: revizija postojećih ekonomskih politika u Srbiji

Abstract

Current economic crisis in Serbia was triggered primarily by pre-transitional structural instabilities and stressors influenced by uncompleted transition, both geopolitical and economic. The fact that macroeconomic policies (monetary and fiscal, primarily) did not manage to fix these problems forces economic practitioners to question the orthodox framework for conducting economic policies. With structural instabilities and in the absence of automatic stabilizers orthodox macroeconomic policies lose their purpose. The previous point is important for Serbia as an economy in transition in which radical reforms such as privatization and financial deregulation provoked output gap.

A shift in perspective is particularly important for Serbia that entered the 2008 global economic crisis with impotent economy, low competitiveness, and high system risk. In macroeconomics the prevailing orthodoxy asserted that there was no incompatibility between keeping inflation low and stable, and seeking for maximum growth (or minimal output gap). From this point, the misconception of macroeconomic orthodoxy becomes obvious to anyone. The majority of previous macroeconomic models broke down because the modelers largely ignored their microeconomic implications, or how firms and banks would react to imposed policies and regulation that attempted to exploit past correlations in the data base in order to eliminate market failures. The modeling that took fixing of the problem for granted resulted in breakdown of fixing. Most importantly, with this kind of modeling, no economy in deep recession has ever made turnaround.

Today, besides domestic transitional recession, Serbia's economy is exposed to global double dip crisis. This "combined crisis" will end upon reaching two conditions. First, when bubbles in all kinds of assets are deflated. In the period before the global economic crisis, debt-fueled bubbles were the trigger for irrational exuberance and, consequently, overestimation of the value of equity based on mark-to-market accounting. The bubbles deflation, or eventually bubbles burst, leads to convergence of the real and market value of different kinds of assets. Second, crisis ends, also, when asset prices, debt levels, and factors' income get back into the balance. When the new balance is met, economic expectations will rise, new investment cycle will start, and economy will leave the crisis. Until then, new economic policies must correct all structural instabilities and create the fundaments for recovery.

Policy makers in Serbia must react to the main transitional contradiction that achieved price stability is not followed with sustainable employment. The first step in this reaction is to understand the complexity of the crisis and to identify its seeds. In our latest article [3], we intended to identify the seeds of the Serbia's economic crisis and to figure out the feasible solutions predominantly from microeconomic perspective. In this article we shift the focus to macroeconomic perspective. Again, industrial policies are at the core of feasible solution.

This is what this paper attempts to explain. It proceeds in five parts. The first and second part review common macroeconomic "M" as a bottom line in macroeconomic analysis and economic policy modeling, respectively. The third and fourth part analyze Serbia's macroeconomic "M" and related economic policies, respectively. The fifth part identifies industrial policies as a main tool for elimination of structural imbalances and competitiveness gap. Also, in this part we propose the roadmap for exit from the crisis.

Key words: *Serbia, macroeconomic "M", structural instabilities, twin output gaps, twin deficits, system risk, industrial policies, real economy, automatic stabilizers, currency board.*

Sažetak

Ekonomska kriza u kojoj se Srbija trenutno nalazi je posledica, pre svega, predtranzicionih strukturnih neravnoteža, kao i stres faktora uslovljenih nedovršenom tranzicijom, ekonomskom i geopolitičkom. Činjenica da makroekonomske politike (monetarna i fiskalna, pre svega) nisu uspele da reše prethodne probleme navodi ekonomiste da preisiptuju ortodoksni model vođenja ekonomskih politika. U prisustvu strukturnih ne-

* This paper is dedicated to the project financed by the Ministry of education and science titled "Strategic and tactical measures to overcome real sector competitiveness crisis in Serbia"(n. 179050, period 2011-2014)

ravnoteža i u odsustvu automatskih stabilizatora ortodoksne makroekonomske politike gube svoju svrhu. Prethodno je naročito važno za Srbiju, kao zemlju u tranziciji u kojoj su redikalne reforme kao što su privatizacija i finansijska deregulacija prouzrokovale visok autput gep.

Promena pristupa je veoma značajna za Srbiju koja je u globalnu ekonomsku krizu 2008. godine ušla sa nemoćnom privredom, niskom konkurentnošću i visokim sistemskim rizikom. U makroekonomskoj teoriji, preovlađujuće mišljenje je bilo da ne postoji konflikt između održavanja niske i stabilne inflacije i traganja za maksimalnim mogućim rastom (najmanjim mogućim autput gepom). Iz ove perspektive, zablude ortodoksne makroekonomske teorije postaju očigledne. Većina takvih makroekonomskih modela je propala u praksi pošto su modelari u velikoj meri ignorisali njihove mikroekonomske implikacije, tj. kako će preduzeća i banke reagovati na usvojene politike i regulaciju koji su nastojali da iskoriste identifikovane korelacije u istorijskim podacima u želji da eliminišu imperfektnosti tržišta. Modeli koji su rešavanje pratećih problema uzimali zdravo za gotovo rezultirali su u neuspelim rešenjima. Štaviše, sa ovakvom vrstom modela nijedna ekonomija u dubokoj recesiji nije doživela zaokret.

Pored domaće tranzicione recesije, danas je srpska ekonomija izložena i gobalnoj ekonomskoj krizi sa duplim dnom. "Kombinovana kriza" će se završiti kada se ispune dva uslova. Prvo, kada budu ispumpani baloni iz svih oblika aktive. U periodu koji je prethodio globalnoj ekonomskoj krizi, dugom napumpani baloni doveli su do iracionalnih očekivanja i, posledično, precenjenih vrednosti kapitala na bazi vrednovanja po fer tržišnoj vrednosti. Ispumpavanje balona, ili eventualno njihovo pucanje, vodi približavanju stvarne i tržišne vrednosti različitih oblika aktive. Drugo, kriza će se završiti kada se uspostavi ravnoteža između cena različitih oblika aktive, nivoa duga i faktorskih prinosa. Kada se dostigne nova ravnoteža, ekonomska očekivanja će ponovo porasti, novi investicioni ciklus će početi i ekonomija će izaći iz krize. Do tada, nove ekonomske politike moraju ispraviti sve strukturne neravnoteže i stvoriti fundamente za oporavak.

Nosioci ekonomskih politika u Srbiji moraju reagovati na osnovnu tranzicionu kontradikciju, da dostignuta cenovna stabilnost nije bila praćena održivom zaposlenošću. Prvi korak u pogledu te reakcje je razumevanje složenosti krize i identifikovanje njenih osnovnih uzroka. U svom poslednjem radu [3] pokušali smo da identifikujemo uzročnike ekonomske krize u Srbiji i osmislimo izvodljiva rešenja, dominantno iz mikroekonomske perspektive. U ovom radu fokus će biti pomeren na makroekonomsku perspektivu. Ponovo, industrijske politike predstavljaju glavni deo ponuđenog rešenja.

Opisanom problemu posvećen je naš članak. Članak se sastoji iz pet delova. Prvi i drugi deo analiziraju uobičajeno makroekonomsko "M" i pravila kreiranja ekonomskih politika, respektivno. Treći i četvrti deo analiziraju neuobičajeno makroekonomsko "M" u Srbiji i povezane ekonomske politike, respektivno. Peti deo identifikuje industrijske politike kao ključni alat za eliminisanje strukturnih neravnoteža i jaza u konkurentnosti. Takođe, u ovom delu predlaže se putanja izlaska iz krize.

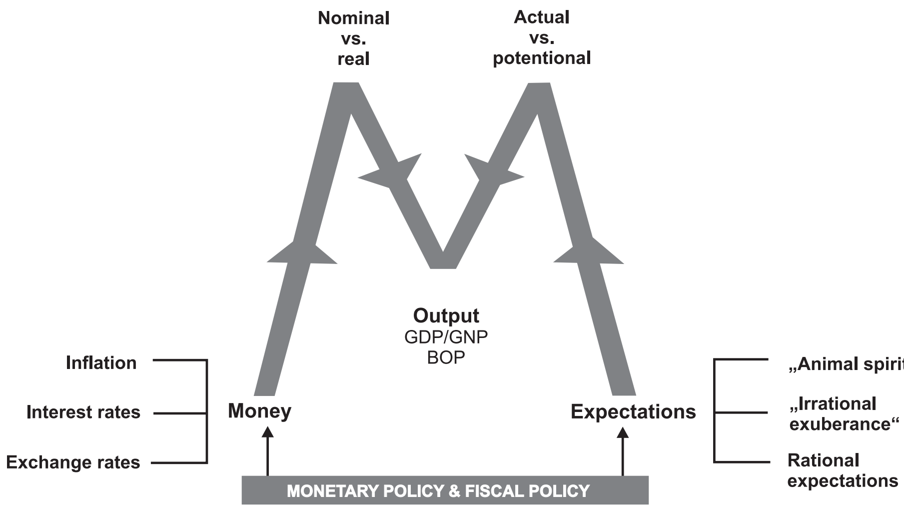
Ključne reči: *Srbija, makroekonomsko "M", strukturne neravnoteže, blizanci autput gepovi, blizanci deficiti, sistemski rizik, industrijske politike, realni sektor, automatski stabilizatori, monetarni odbor.*

Usual "M": putting the pieces together in macroeconomics

This part of the article offers a brief overview of core macroeconomic concepts, why they matter and how they interact. According to *D. Moss* [7, p.134], to help keep things in perspective, it is worth to remember key macroeconomics concepts: (1) output, (2) money, and (3) expectations. In Figure 1 the relations among the key concepts are represented graphically through the macro "M".

1. Output. Evidently, output lies at the center of macroeconomics. It determines the health of national economy and its potentials as well. Large and growing output, not large and growing wealth (in terms of financial assets and savings), is what makes national economy prosperous and vibrant. Also, the amount of output a national economy produces is its ultimate budget constraint.

Figure 1: The macro "M"



Basic measure of the output is gross domestic product, or GDP. There are three distinct approaches for determining the GDP which focus on expenditure, income and value added. In most national statistics expenditure method dominates although two other methods ultimately should produce the same result. Under the expenditure method GDP is defined as market value of all final goods and services produced within a country's borders over a given year. Expenditure like welfare payment, capital gains/losses and the sale of used goods are excluded from calculation. Under this method, expenditures typically divide into: consumption by households, investment, government expenditure, exports, and imports. Thus,

GDP = Consumption (C) + Investment (I)
+ Government expenditure (G) + Net export (EX – IM)

In principle, the GDP excludes deductions for depreciation. If depreciation is large, even substantial levels of gross investments may not be sufficient to support sustainable growth. It is the reason why macroeconomics pays attention to net domestic product or NDP (=GDP - Depreciation). Namely, NDP measures the amount of output that can be consumed, leaving capital stock intact.

Another relevant measure of output is gross national product, or GNP. By contrast to GDP, which measures the output produced within country's borders, GNP measures output produced by country's residents, regardless of where they produce it. As a consequence, GDP excludes net income payments from abroad while GNP includes them. Also, in GDP net export is defined differently than in GNP. Sometimes GNP may be considerably lower that GDP if substantial factors returns are paid to foreign capital and/or nonresident labor. If national economy received sizable foreign investments they are reducing its GNP through paying substantial remittances abroad. To compare both measures, we can say that GDP is more useful as short-term policy variable because it appears more closely correlated with industrial output, productivity, fixed investment and employment than GNP. Meanwhile, GNP, through deep insight into the sources and uses of income, is more informative performance measure for analysing development strategy.

GDP accounting provides clues about underlying sources of economic growth and its sustainability as well. Investment constitutes the bridge between current and future output. Also, GDP accounting provides information how investment is funded. By definition, GDP equals to gross income. Namely,

Gross income= Consumption (C) + Savings (S)
+ Taxes (T) – Transfer Payments (Tr)

Sources of investment could be identified by simple manipulation of previous equations. Namely,

$$I = S + (T - G - Tr) + (IM - EX)$$

where the government surplus (T – G –Tr) reflects government savings and net imports (IM – EX) reflects foreign borrowing.

What last equation tells us is that if national economy wishes to increase its level of investment, it must either reduce its household consumption (or increase savings), reduce government expenditures, increase its foreign borrowing, or do some combination of the three. Large foreign borrowing, also, means that domestic expenditures (C + I + G) exceed domestic output. Hence, large foreign borrowing means that the growth is not sustainable. The national economy is living beyond its means if it is using the additional output to increase consumption instead of investment. The investment fall relative to consumption leads to unsustainable growth.

One of the most important decisions that macroeconomics has to make is what to do with produced output. First option is to consume all. Alternative view is to save something from current output and invest for future output expansion. Investment is cost of staying in the global market place. Investment could be financed through domestic savings (which implies reduced consumption today) or through borrowing from abroad (which implies reduced consumption tomorrow).

In principle, investment adds to national economy's capital stock instead to consumption. Rich nations had a good record of investments in the past in terms that capital derived from previous outputs has access to more output in the future. Increased output is prerequisite for sustainable development.

A national economy may consume more that it produces through importing more output than it exports and by borrowing from foreign economic agent to finance the difference, but only temporary. Balance of payments, or BOP, provides a view into cross-border transactions. All items in BOP are flows that occurred over the year. BOP includes two main parts: the current account, and the capital and financial accounts. The current account reflects the difference between a country's savings and its investment. Main line items in the current account are balance of trade in goods and services, net income and net unilateral transfers. Financial transactions (foreign direct investment, or FDI, portfolio investment, and change in official reserves), and capital transactions are recorded on the financial and capital account. FDI involves the cross-border purchase of an equity stake in a company, a stake large enough (greater than 10%) to give the shareholder influence in management. By contrast, portfolio investment involves cross-border purchase of securities but not in sufficient concentration to allow influence on management. Portfolio investment is sometimes referred to as a *hot money* since portfolio investors could often liquidate their holdings and quickly escape a national economy. Changes in official reserves reflect changes in the state's stockpile of monetary gold and foreign currency. Capital account is very small almost negligible item (for example, forgiveness of debt). Deficits in the current account are necessarily accompanied by capital inflows on the financial and capital account, whereas surpluses on the current account are accompanied by capital outflows on the financial and capital account. External liquidity problem arrives when balance is not achieved. Macroeconomics views a current account deficit of more than 5% of GDP as a red flag for policy makers.

According to [8, p.70], in case of developing economies there is positive correlation between savings and growth in sense that the more a country finances its investment through its own savings, the faster it grows. As a consequence, fast and sustainable growth in developing economies seemed to avoid foreign financing. Interestingly, for developed economies positive correlation between savings and growth does not exist.

2. Money. In macroeconomics money is second pivotal concept. Although money plays a vital role in facilitating trade, it also influences other important economic variables, primarily, interest rate, foreign exchange rate (FX rate), and inflation (aggregate price level or inflation deflator). All three of those variables constitute price of money. For example, an increase in money supply is expected to drive down interest rate, causes FX rate to depreciate, and increases inflation rate.

Interest rate can be treated as a price of holding money (or as the cost of capital). The previous trade-off is known as time value of money. When interest rate rises, money obviously becomes more expensive, and thus opportunity costs of buying something today goes up. By slowing current consumption and investment, rising interest rate tends to slow the growth of output. Conversely, falling interest rate by stimulating consumption and investment tends to accelerate the growth of output.

Deeper understanding of interest rate requires remembering the *Taylor rule* [10, p. 68] which sees prime rate as a function of inflation rate and output gap or gap between the output which economy is capable to produce in the absence of any kind of rigidities and what it actually produces.

An FX rate is the price of one currency in terms of another. When national economy's FX rate depreciates, foreign economic agents will find it cheaper to buy this economy's currency, which may lead them to buy more of the products as well. Depreciating FX rate, also, means that the foreign currencies appear more expensive to the national economy's economic agents, thus reducing overall purchasing power. A current account balance is important determinant that can influence FX rate. If national economy has enormous appetite for import, the current account balance would presumably deteriorate and, consequently, its currency depreciates. However, there is another driver of current account deficit. If foreigners for the same reasons (for example, privatization) developed an extraordinary appetite for investment in national economy, deteriorated current account due to net import could not influence real currency depreciation and, conversely, currency would most likely appreciate.

Inflation (or aggregate price level) is a little bit complicated measure since it is not the price of any one staff in particular. Moreover, in market economy the prices of goods and services are changing regularly. However, there are times when one can detect the strong trends across all prices in terms of inflation or deflation. When aggregate price level rises the value of money falls, and conversely the value of money rises.

Relationships between money and other macroeconomic variables are complex due to double causality. Interaction between interest rates and inflation colorfully explains the previous point. Namely, increase in the money supply drives down interest rates, but also drives up inflation which may in turn push interest rates (primarily longer term rates) higher. To understand why, it is necessary to understand that in macroeconomics nominal and real measures are not equal. The ultimate effect of large increase in money supply on nominal interest rates is ambiguous because of conflicting trends, one pushing down and the other pushing up. In fact, real interest rates falls, short term interest rates are very likely to fall but may rise later on if inflation kicks in. And longer term interest rates fall (or stay the same) depending mainly what is going on with inflation expectations.

In theory, economic agents are always able to distinguish real from nominal. If wages rose exactly the same percentage as price deflator, purchasing power would not increase. But economic agents usually suffer from *money illusion* in terms of *I. Fisher* [5, pp: 377-97]. For example, employees, rent seekers, and pensioners worry more about the nominal income than about real purchasing power. When prices rise, they demand sufficient income increase to prevent the inflation from reducing their purchasing power. However, in case of deflation they regularly oppose to any suggestion of nominal income reductions.

The distinction between nominal and real can be applied to FX rate as well. Even if a national economy's nominal FX rate is depreciating, its real FX rate will depreciate less if inflation is rising faster than in peer economies. More precisely, if inflation rate differential exceeds the nominal rate of depreciation of the FX rate, than the real FX rate will appreciate.

3. Expectations. In macroeconomics expectations are also a powerful force. They drive economic reality, especially in short run. If expectations are fundamentally out of reality, they will ultimately be dashed. Expectations strongly influence key macroeconomic variables including interest rates and FX rate. For example, if bond holders sell bonds in an effort to limit capital loss because they expect the interest rates to rise, actually they will drive longer term interest rates upward. Or, if economic agents expect increase of inflationary pressures, preemptively demanding wage increase due to money illusion, consequently, price increase will exacerbate current inflation and drive down the real FX rate.

If for some reason people had got into their minds that the economy is on trouble route they would decide to save more than consume. Seeing drop in consumption, companies reduce output and investment, leading to layoffs, income reduction, and, finally, exacerbate demand squeeze. Self fulfilling expectations *J.M. Keynes* [6, p. 27] refers as *animal spirit*. Driven by nothing more objective than animal spirit, economy easily could fall into *fear from fear* and, consequently, a downward spiral. In the case of downward spiral actual output falls bellow potential one because majority of resources are thrown out of function.

Conversely, if economic agents become overly optimistic due to *irrational exuberance* they push demand far beyond the optimal capacity of economy. Consequently, actual output raises above potential and inflation increases. If this occurs, the economy is in "overheat" mode, and it is usually floating from bubble to bubble. Another dangerous problem can be *rational expectations*. It could be supposed that economic agents are perfectly rational. For example, they anticipate that budget deficits require tax increase to service accumulated government debt.

Negative expectations in real economy in terms of pessimism about forecast of future demand could have destructive consequences for economy as a whole. For example, if in preparation for anticipated "bad times" companies from real economy postpone investment projects and downsize business asset and labor they actually cause squeeze of aggregate demand. At this point, other economic agents respond to the reduction of demand by cutting back further demand (for final and investment goods), setting off downward spiral. When previous occurs, actual output falls below potential one because significant share of resources are thrown out of function, unemployment level rises, and factors' incomes fall. Negative expectations could be treated as most important nominal rigidity. They are primary cause of *output gap*, distance from the level of output that would prevail in the absence of system rigidities.

Expectations can drive economy not only in negative direction, but in positive one as well. Policy makers should be able to manage expectations in terms to help cultivate these. Namely, the positive expectations may help bring economy back up to its potential.

Economic policies

The purpose of economic policies is to help national economy grow on sustainable path, to avoid market failures that have systemic consequences, to capitalize new technological opportunities, and to transform external and internal handicaps into advantages through organizational change. Because, in general, markets are not self-correcting, in each national economy *visible hand* of government's economic policies plays the role of corrector of *invisible hand* of the market.

Economic policies could be roughly divided into macroeconomic, or broad, policies (monetary and fiscal), industrial policies, and supporting policies (financial policy, population policy, regional policy, competition policy, competitiveness policy, etc.). Approach toward economic policies is different in developed and developing world. Long time in developed economies there was great ignorance toward industrial policies. Inversely, in developing economies macroeconomic policies are not concerned as wheels of prosperity but as the "oil" which lubricates the acceleration of the growth of output and renders the motion of tradable sectors, as principal wheels of prosperity, more smoothly and easily. In these economies government, government and regulatory bodies through industrial policies intervened extensively to create tradable sectors. The export led managed growth strategy in terms of *R. Rajan* [8, pp: 47-8] enabled extraordinary growth in some developing economies and fast reach of the ranks of the developed ones.

Core macroeconomic policies are monetary and fiscal. Government delegates monetary policy to the central bank as an independent institution. For those in power, to cede control over monetary policy to an independent central bank is not easy. The central bank has a mandate to promote a healthy economy in terms of maintaining at least stable prices and sustainable employment. Also, it has been entrusted to ensure stability of the financial system. But, the question is what is going on with these tenets in times of recession or major economic shocks?

Long time macroeconomists believed that the main tenets of the central bank's healthy economy mandate were incompatible, especially trade-off between inflation and growth. Intuitively, high employment might require high inflation (*Philips curve* effect). Relation between inflation and employment is, usually, broke down by rational expectations. The core idea of this concept was that economic agents understood the intentions of the central bank to relax monetary policy, so they would not cooperate by being fooled. They understood that in context of expansionary policy additional income they earned worth less. Employment would be determined not only by inflation but by the factors deeply encored in microeconomic perspective of the problem like general business climate, prevailing strategy of industry leader, internal capacity for positive reaction on external stimuli, incentives to innovate, etc. Actually, it was the reason for shifting the focus from macroeconomic to microeconomic or business perspective.

New approach eliminates the incompatibility between inflation control and sustainable employment. In this view ideal policy for central bank's healthy mandate is to keep the economy perpetually at its potential growth rate. If inflation is under control, the economy could benefit from more stimuli. A rise in inflation indicates that the economy is exceeding the speed limit. Of course, because monetary policy operates with time lag, it must predict what its measures will do over one to two year horizon in order to keep inflation near to the target. Concerns about financial stability make less technically rigorous the process of choosing monetary tenets that was left to *prudential measures* (capital adequacy, for example).

Monetary policy has three basic tools: interest rate, reserve requirements, and open market operations. A central bank has power to lend money to commercial banks at any interest rate. Namely, the central bank issues new money and gives it to commercial banks and, by doing this, it increases money supply. The central bank has power to expand and contract the money supply. In reality, rather than money supply, the main policy instrument is short term interest rates. By lowering interest rates the central bank can increase money supply. Conversely, by raising interest rates the central bank can contract money supply.

Another tool in conducting monetary policy is the reserve requirement on commercial bank's deposits. The reserve requirement determines what proportion of deposits commercial banks do not lend out. In principle, the central bank is not only institution that creates the money. Commercial banks play a significant role in money creation *via* checking accounts as an important form of money. Standard definition of money supply known as M1 consists of not only currency amount but also checking accounts as money since checks are means of payment that can easily be converted in currency. Cash on checking accounts is in circulation because commercial banks quickly lend out most of currency under deposits. Actually, lending capacity is restricted by legal reserve requirements.

Due to *money multiplier* the initial increase in monetary base (currency that central bank issues for commercial banks) will spawn even larger increase in M1 (currency + currency deposits). The money multiplier explains how much money will be created in economy based on additional deposits. The money multiplier equals one over the proportion of leakage from deposits (or proportion of not lent out). Monetarists favored rule of thumb placing M1 supply on controlled upward growth path of 3 - 5 % every year to stabilize price level and ensure sustainable growth of output of 4% per year[1]. A higher reserve requirement on deposits will diminish money multiplier and thus reduce money supply. By contrast, a lower reserve requirement will raise the money multiplier and, in turn, expand money supply. Enough money to stabilize interest rate at low levels also encourages growth without inflation.

The third basic tool of monetary policy is open market transactions. For example, when the central bank wishes to increase money supply, it buys government bonds or other financial assets from private issuers, injecting the cash into economy. When the central bank wants to contract money supply, it sells financial assets (for example, repo papers) and, by doing this, it withdraws cash from the economy. In many countries, open market operations represent the prevailing method for setting prime (or policy) rate, interest rates commercial banks charge one another for overnight credits.

In theory, the central bank can use monetary tools in the pursuit of many different tenets. First, it seeks to keep inflation low and stable. Second, it desires to maintain economic growth at the highest sustainable rate (low and stable output gap). Third, it hopes to keep unemployment to an absolute minimum. Fourth, it aims to keep the FX rate stable. Fifth, it intends to maintain interest rates at the level that does not discourage investment.

However, there are often trade-offs between monetary policy tenets. For example, if central bank raises interest rates to reduce inflationary pressures, it may slow down growth rate and raise unemployment as well. Trade-off, also, suggests an inverse relationship between inflation and unemployment, previously mentioned Philips curve effect. But inflationary expectations could move Philips curve over time. By stimulating inflation through expansive monetary policy, policy makers might be able to push unemployment only temporarily below its natural rate because economic agents would soon adopt the higher expected inflation. Under these circumstances, unemployment would return to its natural rate but this time with higher inflation. The stagflation (zero or crawling growth + inflation) proved that unemployment and inflation could rise together.

Before the 2008 global economic crisis in developed world there was wide consensus that inflation control is the primary tenet in conducting monetary policy. The prevailing tool for achieving this tenet was *inflation targeting.* This requires that central bank raises interest rate (or slows money growth) when inflation begins to rise above target level and that it lowers interest rates (or accelerates money growth) when inflation threatens to fall below the target. From the very beginning target level was set up on 2%. Sometimes target was greater, and sometimes it requires flexibility, in terms of introduction of tolerance band.

1 Basic identity of monetarists is MxV=PxQ where M is the money supply, V is velocity of money, P is price deflator and Q is quantity of output. Assuming that V is stable, monetarists concluded that the best way to ensure very low inflation and sustainable growth of output is to put the money supply on a steady upward path, at rate of increase equal to the rate that economic agents expected real output would grow (4% per year).

In principle, output gap is a key factor that influences applicability of inflation targeting. When output gap is small and stable, but economy is in overheating mode, inflation targeting has proved effective. In case of recession any monetary policy could be rendered more or less impotent. Also, in case of deflation monetary policy is rendered virtually useless to turn things around.

If monetary targeting is implemented two lingering questions stay without answers. First question is related to costs of this policy in case when inflation is combined with stagnating output. The previous question brings us to new dilemma: if inflationary pressures continually rise due to significant output gap, would central bankers be willing to induce high unemployment in order to keep high interest rate? Second question is related to central bank's reaction in case of major economic shocks, like the 2008 global bank and government "run". The question is whether the monetary policy in the period of recession and major economic shocks has to hold the orthodox anti-inflation line or to falter to the heterodox line.[2]

Although inflation control is regarded as the responsibility of central bank, sometimes inflation becomes so high that policy makers outside from central bank feel responsible to take some measures to break downward inflationary spiral. One example of this approach is imposition of wages and price control by the government in case of threat of hyperinflation.

Fiscal policy is the second macroeconomic policy. Fiscal policy rests on government spending, taxation, and budget discipline. Expectations are central for fiscal policy. Keynesian fiscal policy is all about expectations. In the period of economic contraction when significant output gap exist the government could stimulate output to grow through deficit spending. Namely, Keynesian economists reasoned that if an economy was faltering because of pessimistic expectations about future, the government must signal better times ahead and thus begin to get things moving again by spending more than it received in taxes and, by doing this, running budget deficit. In this approach large deficit would create new demand for goods and services and would lead economic agents to revise their expectations upward. Policy makers cool expectations during period of overheating by running budget surpluses, and thus reducing aggregate demand.

Income would increase by more than the original increase in government spending thanks to *income multiplier*. In a "bad time" the government coordinates expectations in favorable directions through expansionary fiscal policy. Increase in government spending does not cause any other component of output to fall. Had the government financed increased spending through tax increase, consumption and investment might have fallen in the face of higher tax rates. If government borrowed additional funds by issuing bonds, then other expenditure variables would have to decline.

The problem of previous strategy is that deficit spending may lead to increase in prices rather than output. If actual demand exceeds potential supply, the economy is in overheating mode. But this situation is typical for "normal time". Namely, during normal time deficit spending is expected to be inflationary. The next problem of deficit financing is connected to the fact that if economic agents wish to prepare for tax increase, then they must increase saving from new income derived from deficit spending and, by doing this, reduce income multiplier up to 1 (*Ricardian equivalence*). Deficit spending may drive up interest rates and undercut private investment as well as consumption, a phenomenon known as *crowding out*. In principle, when the government runs a budget deficit, it obtains the difference by borrowing on the open market. In doing this, the government is competing with private borrowers and this competition will drive up cost of capital.

Economies that entered the 2008 economic crisis with output gap, high indebtedness and large unfunded liabilities have had limited ability to use fiscal policy in their anti-crisis programs. Also, transitional economies that run highly pro-cyclical fiscal policies driven by consumption booms are now forced to cut budget and increase taxes despite recession.

In macroeconomics output is key performance measure. The question what makes output go up and down is crucial. Macroeconomists often point to three sources of output growth: labor increase, capital increase, and increase of the efficiency with which labor and capital are used (or total

2 See source [3]

factor productivity). Although total factor productivity is the most important concept for competitiveness, usually macroeconomists have reduced productivity to *labor productivity* (output per employee's hour or output per employee). Investment in physical capital increases productivity and income because it makes everyone more productive. Developing countries usually do not have the organizational capital to deploy large quantities of physical capital efficiently. National economies with high level of productivity enjoy higher wages and standard of living. When wages are rising faster than its labor productivity, unit labor costs are rising. Conversely, unit labor costs are falling. Economies whose unit labor cost measured in a common currency are rising faster than those of their trade partners are losing competitiveness.

Considering the question what policy tools make output increase in macroeconomics, there are two different views. For supply-siders the best method to achieve this is tax relief. Tax reduction provides incentive to work longer (labor increase), to save and invest more of the profit (capital increase), and devote more attention to innovation and organizational restructuring (efficiency increase or total factor productivity increase). In this view the primary role of government is to create the institutional settings for competition, risk taking, and innovation. There is one problem with this school because no developed economy has ever grown rapidly from poverty to richness. As a consequence, other economists have argued almost exactly the opposite to supply-siders that active government is the best way to boost potential output. In this concept, government-led industrial policies can be the best way to increase total factor productivity. In this strategy industrial policies lead, broad policies follow. The type of government support afforded to industry labeled as development priority is critical difference between late developers and mature national economies.

Much more interest among macroeconomists deserves a question what makes output decline. According the Keynesian economics, key issue is expectations. In the case of downward spiral, actual output could collapse although the economy's potential output remains large. Such collapse could not have occurred if *Great Moderation* that *B. Barnanke*[3] referred to had functioned efficiently in sense that the fluctuations of output and inflation had come down steadily. If market operates efficiently prices are perfectly flexible and adjusted promptly in order to re-equilibrate demand and supply. In that case, sudden changes in expectations would never go to waste or unemployment of resources.

But reality sometimes proves market failure. Prices do not always adjust as quickly as they should. Consequently, expectation downturn can drive economy into recession where labor and capital are left unemployed and productivity fallen. When national economies fall into recession, moreover, most policy makers are still quick to run budget deficits in the hope of getting things back on truck. Sometimes these deficits are based on increased spending, sometimes on tax cuts, and sometimes on combination of the previous two. Either way, a key goal is to stimulate aggregate demand by signaling that better days are ahead. In times of recession the broad policies are important, but so are industrial policies.

According to [7, p.65], in thinking about macroeconomic relations highlighted in previous discussion one important thing to underline is that favorable expression among macroeconomists is *ceteris paribus* or with all other things constant. This, at least, is the theory. In reality, other factors hardly ever remain constant. As a consequence, macroeconomics rules are not precise descriptions of reality but primarily baselines we could use to understand departure from the rule and, most important, to make deeper insight in reality. For example, why FX movements are so difficult to predict is that the currency is a subject to number of pressures at the same time.

Ignoring previous limits, in making economic forecasts the reasonable lead indicators are as follow. First, in short term interest rates increases associated with appreciation of currency or interest rates decreases associated with depreciation of currency. Second, in medium term high inflation associated with depreciation and low inflation associated with appreciation. Third, in longer term current account deficits associated with depreciation and surpluses with appreciation.

3 According to frequently cited 2004 speech of U.S. Federal Reserve chairman to Eastern Economic Association

For many macroeconomists[4] who where hostile to the basic rules of macroeconomics, the 2008 crisis was a proof that they had been right. Although the 2008 global economic crisis was not triggered primarily by economic policies, it forces economists to question the orthodox policy framework. Deregulation in financial markets and developments like securitization were the fault lines. They had increased the risk and incentives for economic agents to take on more complex forms of risk. Actually, risk was not taken, it was transferred. Paradoxically, the regulators helped make those risks look more attractive than they should have been and stopped the financial market from exercising discipline.

In each national economy crisis will end when all kinds of asset bubbles are deflated and the new equilibrium between the factor prices and their returns is met. Until then, new economic policies must respect following tenets: elimination of structural instabilities and creation of the new fundaments for recovery and sustainable growth through intelligent investments.

Unusual "M" in Serbia's macroeconomics

Table 1 shows the prevailing trends in key macroeconomic performance indicators for the last ten years in Serbia. Figures are fully indicative and they portray the effectiveness of policy rules during the analyzed period. Also, figures undoubtedly show the divergence from most macroeconomic principles and relationships highlighted in the previous part of the article.

During the last ten years Serbia's policy makers have experimented with several policy tools. Most of these tools, however, were ultimately discredited by inflationary pressures, output gap, and unemployment.

The central bank's healthy mandate was reduced exclusively on inflation control. In that regard National Bank of Serbia, or NBS, behaved myopic, indeed politically. Contrary to the fact that the output gap was significant, NBS's healthy economy mandate suggested keeping interest rate high. Controversy of this policy is evident because it actually cuts stimuli for under-heated real economy. Moreover, inflationary expectations are constantly above official targets. After ten years it is in danger of doing the same again.

In the last ten years, a rough consensus had emerged among Serbia's policy makers about the benefits of inflation targeting. In principle, the NBS was expanding money supply whenever inflation threatened to fall below the target and reducing money growth whenever inflation threatened to rise above it. In order to conduct the monetary policy, the NBS adopted not fully explicit model of inflation targeting. Over the last period, strategists of monetary policy focused more on the short term interest rate than on money supply itself in order to achieve monetary tenet.

Although reserve requirements have long since been abandoned as an important monetary tool, the NBS has become extremely skilled at controlling one very specific short term interest rate through open market operations

4 For example, J. Stiglitz, K. Rogoff, N. Roubini, W. White, R. Shiller, and R. Rajan etc.

Table 1: Key macroeconomic performance indicators (period: 2002-11)

Indicators	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Real GDP growth rate	4.3	2.5	9.3	5.4	3.6	5.4	3.8	-3.5	1.0	0.8
Consumer prices inflation, in%	14.8	7.8	13.7	17.7	6.6	11.0	8.6	6.6	10.3	7.0
Exports (in EUR million)	3,125	3,847	4,475	5,330	6,949	8,686	10,157	8,478	10,070	11,463
- growth rate	16.0	23.1	16.3	19.1	30.4	25.0	16.9	-16.5	18.8	13.8
Imports (in EUR million)	-6,387	-7,206	-9,543	-9,613	-11,971	-16,016	-18,843	-13,577	-14,838	-16,815
- growth rate	27.2	12.8	32.4	0.7	24.5	33.8	17.7	-28.0	9.3	13.3
Current account balance (in EUR million)	-671	-1,347	-2,620	-1,778	-2,356	-5,053	-7,054	-2,084	-2,082	-899
- in % of GDP	-4.2	-7.8	-13.8	-8.8	-10.1	-17.7	-21.6	-7.2	-7.2	-10.1
Unemployment rate	13.3	14.6	18.5	20.8	20.9	18.1	13.6	16.1	19.2	23.7
Budget deficit/surplus, in %	-4.3	-2.6	-0.3	0.3	-1.9	-1.7	-1.7	-3.3	-3.6	-4.5
Public debt, in %	71.9	63.7	50.9	50.6	40.1	31.8	26.9	34.1	41.9	44.6
External debt, in %	58.7	55.9	49.8	60.1	60.9	60.2	64.6	77.9	82.1	74.5
RSD/EUR FX rate (period average)	60.66	65.13	72.70	83.00	84.10	79.96	81.44	93.95	103.04	102.09

Source: National Bank of Serbia

which involved buying and selling repo papers. Last year this policy was extended to euro denominated government securities. By controlling short term interest rates the NBS, actually, was in position to move money supply simply by pushing or pulling currency supply through open market operations. Main benefit of this strategy was FX rate control. To remember, FX rate is crucial for keeping inflation under control because through the whole period import was greater than export.

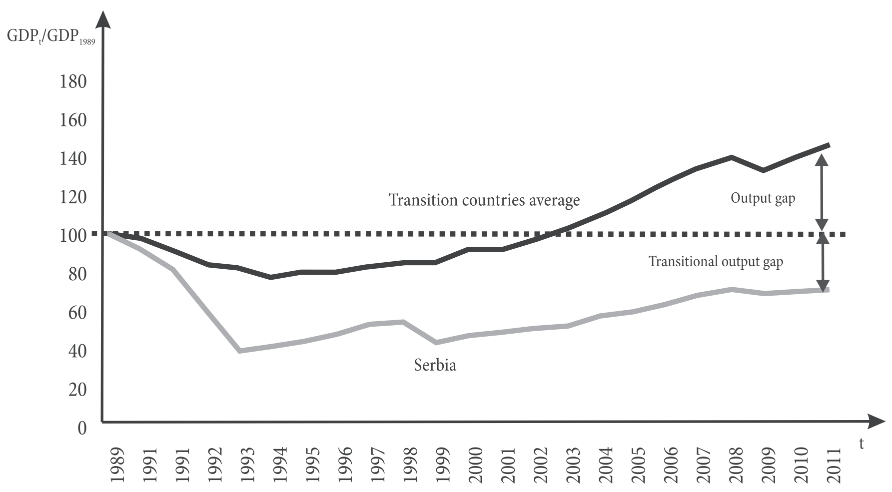
Output was off the radar of monetary policy and, consequently, this strategy provoked production collapse. Implicit costs of this strategy are increase of financial costs of maintaining low and stable inflation, higher interest rates, appreciated FX rate, as well as greater indebtedness. Unfortunately, this strategy led to the main transitional contradiction, price stability advertised as macroeconomic stability was not followed with low and stable output gap and sustainable employment.

1. Output in Serbia. The level of output in Serbia has been primarily affected by unique adverse forces under which transition occurred. The beginning of the transition in Serbia coincided with the break-up of Yugoslavia and destructive movements that postponed economic reforms. These forces were additionally amplified by economic sanctions imposed in the early stage of transition (in 1992). Consequently, before political changes in 2000, the transition evolved in a vacuum, in the face of excommunication and no access to foreign funds. As a consequence, Serbia's economy experienced a dramatic drop of the output followed with hyperinflation. The biggest drop in output occurred in 1993, when the GDP was at a staggering 40% of its pre-transitional 1989 level, followed by a massive hyperinflation (313×10^6 % annually, the second highest hyperinflation recorded in monetary history).

Economic performances during the 1990s were so deteriorated that the reforms after political changes in 2000 could not have satisfactory impact. Despite accelerated privatization, regulatory reforms, and frenetic reindustrialization efforts, Serbia has never reached its pre-transitional GDP level. This is in stark contradiction to the vast majority of transitional countries. Transitional countries have managed to reach pre-transitional GDP levels and close transitional output gap 8-13 years after the start of transition in 1990. The reason for this is *transitional recession*, which is first stage in transition typical for radical reforms. As a consequence, typical transitional output curve is a *J*-shaped curve [3, p. 44]. But in case of Serbia, the transitional output curve is a perverse triple J-shaped curve,[5] which never reaches its pre-transitional level. At the end of 2011, Serbia's transitional output gap was around 30%. If we use the average output of transitional countries as a reference point, we can see that approximation for the output gap in Serbia amounts to around 45%. In short, Serbia has dramatic twin output gaps (see Figure 2).

5 The third successive drop caused by global economic crisis in 2008 started when it reached just 73% of the pre-transitional GDP

Figure 2: Twin output gaps (1989 =100)



Partially modified according to EBRD: Transition Report, 2011

Today Serbia's economy is not only impotent, but also out of tune. As a consequence, in the entire period of 2002-2011 economy was constantly running current account deficit. Another consequence of structural instabilities is budget deficit. With the exception of 2005, the economy has been constantly running budget deficit. As a consequence, *twin deficits* have longer term effects on macroeconomic stability. Namely, continuous twin deficits explain that the country lives beyond its means, increasing its consumption to an unsustainable level.

For country with deficits the question is whether it is using the produced output well. In Serbia twin deficits are not the consequence of overinvestment but the matter of overconsumption of current output. Thus, by borrowing capital from abroad and by using privatization proceeds Serbia's economy has bridged the gap between over-consuming and an under-stimulating domestic economy. But this situation is not sustainable. By doing so, current generation constantly transfers the debt burden to the future generations.

Crucial problem for Serbia's economy is its impotency. At least two facts support previous point. First, there is a difference between GDP and GNP. Even though it is not controversial, however, the problem exists if the net effect of conflicting trends considering inflows and outflows is negative (GDP>GNP). This could be a new stressor for the economy having in mind that the level of remittances from abroad is significant (EUR 3-5 billion per year). The main components of outflow are profit repatriation, capital hedge, and nonresident labor remittances. Second, analysis of NDP (=GDP-Depreciation) indicates that the potentials for output increase are small because depreciation is unsustainably low. Keeping in mind that NDP is amount of output that has been consumed leaving current capital stock intact, we can come to a conclusion that consumption and government expenditure strongly dominate in formation of GDP because Serbia's economy has not received sizable investments.

A large foreign borrowing means that domestic expenditures (C+I+G) exceed domestic output. Also, when government saving is negative and net import is positive foreign borrowing is almost exclusive source of financing new investments.

Current account deficit substantially exceeds reference point of 5% of GDP for the almost whole period. The only exception of the rule was 2002. The current account deficit was extremely high in 2008, approaching almost 22% of the GDP. It is another proof that national economy lives beyond its means, using additional output to increase consumption instead of investment.

When privatization proceeds and debt-fuelled growth predominate in economy, the recovery is increasingly jobless. Output growth was slowly restored, but the jobs did not. In the period 2002-2011 output almost doubled (from 16 to 31 billion of EUR), but the economy lost almost 14% of jobs.

Deeper analysis of the capital and financial account segment of the BOP shows significant presence of hot money (or portfolio investments) over the whole period. Investment in government and central bank assets dominates against corporate securities. This fact colorfully explains the qualification that in Serbia's economy brokerage mentality dominates industrial one. In contrast, in prosperous countries like Asian Tigers industrial mentality dominates brokerage one. For instance, according to [8, p.75], investment as fraction of GDP for the mentioned group of countries skyrocketed from an already high level of 29% in 1998 to an extraordinary high 42% in 2006.

2. Money in Serbia. Money, as the second important concept of macroeconomics, is also a hidden fracture in Serbia's economy. The usage of proceeds from privatization and associated money expansion were the central misconceptions in monetary policy. Privatization is a form of divestment, not an export. If proceeds from privatization are qualified as cash inflows, instead of stock outflow, they trigger increase in monetary base and they spawn even larger increase in M1. As a consequence, in the whole period the money multiplier was too high. This policy provokes real appreciation of FX rate especially in the periods of massive privatization. It could be qualified as a form of outrageous behavior against real economy because it demonstrates policy failure that distorts competitiveness.

Financial system in Serbia is bank-centric. Credit conditions are very restrictive. Due to high systemic risk, foreign banks try to improve the security of their claims by shortening maturity of their credits and by requiring payment in foreign currency (predominantly in euro). Naturally, the reasonable match for short term deposits is short term credits. As a consequence, banks released credits primarily in brokerage businesses (investment banking, real estate, shopping malls, etc.) and, eventually, in businesses supporting previous one's (construction of commercial real estate, for example). On the one side, investment banking winners from the period of intensive privatization and construction of commercial real estate were coming from small segment of "hot money" investors. On the other side, borrowing from abroad with implicit government guarantees was essentially the way for brokerage part of private sector to socialize the risk of system wide default. Because excessive investments were financed with short term debt (including additional currency risk in case of foreign currency mismatch), the system risk was born by the state and, hence, by domestic taxpayers (current and future). Last but not least, credits are extremely expensive. During the year 2011 total average interest rate is slightly falling from 10.77 % to 9.86 %. Nevertheless, double digit cost of capital for real economy is too high and totally out of trend.

3. Expectations in Serbia. There are many structural fractures that create system rigidities. The main rigidities are intact public sector, monetary model, ignorance of industrial policies, underdeveloped safety net, etc. When system rigidities exist the economy cannot use its potentials. To reiterate, optimal economic policies are constantly delivering the best output (zero output gap).

Differences between potential and actual as well as nominal and real output are significant. These differences create deadly interactions between twin output gaps and twin deficits. These interactions influence dramatic increase of system risk and expectations about that. Animal spirit and inflationary expectations dominate in the mindset. Irrational exuberance also came into the play especially in the period of rapid privatization (2003-2006). The consequences of this behavior were distortions of financial asset prices from fundamentals that had led to bubbles (banks, real estate, construction, etc.) and rise of moral hazard in financial sector as well. Debt-fueled financing led to adverse composition of output (dominance of services against real economy) and deepened structural imbalances (increased level of nonperforming loans).

In the meantime, many of the roles played by key policy makers in the play of boosting economic expectations were followed by applause from politicians assuaging anxious voters with an illusion of easy credits and RSD as strong currency (behind the strong economy). Boosting consumption and credits are familiar bedfellows that encourage populism and mask the problems caused by impotent and out of tune economy.

Macroeconomic policies in Serbia and their results

The main tenet of Serbia's macroeconomic policies over the last decade was inflation, not output. Flexible inflation targeting or returning inflation to stable target over some corridor was the main policy choice in monetary part of macroeconomic policies. In spite of exclusive focus on inflation control, there is a gap between achievements and expectations. Cumulative inflation rate for the period Dec 2001-Nov 2011 is 174 %. In the period 2002-2011 economy was burdened five times with 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). Moreover, in the whole period annual inflation was much greater than 2%, which is the theoretical reference point for inflation targeting.

Due to severe structural imbalances and their influence on macroeconomic stability, the architects of monetary policy were forced to make two adjustments in setting the inflation targets. The first adjustment refers to high level of targeted inflation (>2%), and the second refers to inflation tolerance band (±2%). However, inflation targeting as a monetary tool for inflation control was not constantly efficient as we can see in Figure 3. In the last two years inflation was below the target in the period 3Q 2009 - 2Q 2010, but in the period 3Q 2010 -4Q 2011 it was above, sometimes significantly above (3Q 2011) target and target band.

Did the NBS make some mistakes? The answer is yes, not only because this policy was ineffective in terms of low and stable inflation but also because it was counter-productive in terms of volatile and high output gap. Namely, growing money supply fueled by privatization proceeds influenced a pressure on prices. In order to stabilize aggregate price level the NBS usually contracted money supply. This intention was mediated through simultaneous increase of reserve requirements and high interest rates. However, the gap between the NBS intents and outcomes was very wide. Higher reserve requirements diminished money multiplier, and thus supply of money, and high level of interest rates led further to investment contraction. Anemic output growth was not enough to balance the aggregate demand and, consequently, was followed by inflation and unemployment (stagflation).

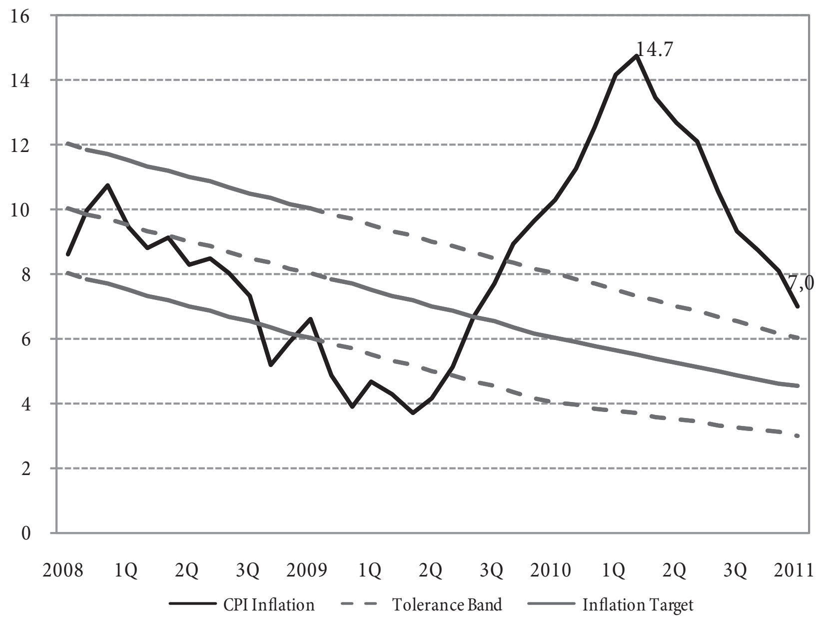
Related issue is a potential conundrum emerged as consequence of double digit interest rates effect on the output gap. Again, in absence of other instruments for cooling the economy, the NBS would have to face a controversial choice, having to accept higher output gap in exchange for relatively low inflation.

Maybe, even better question is whether the NBS fully controlled the core policy variables. In the segment of interest rates, the monetary policy was hostage of portfolio investors and their expectations. In Serbia's case, open market operations represent prevailing method for setting prime rate. Namely, the NBS was constantly selling financial assets (repo papers) and by doing so, it was withdrawing liquidity from the economy. At the end of the day, hot money investors left the country with extraordinary capital gain, which pushed other investors yield curve up. It is another contradiction in Serbia's economic policies, in impotent economy crowding out dominates crowding in.

Contractual character of monetary policy is further amplified by increasing interest rates due to budget deficits. It is legitimate that when central bank expects the budget deficit to be inflationary, it may try to counteract it by tightening monetary policy. Such reaction of central bank would reduce the expected effect of deficit spending. But implementation of such policy in Serbia ignores significant structural imbalances (twin output gaps and twin deficits). So by keeping the interest rates high the NBS actually generates high unemployment. Moreover, by doing this the NBS continually misses the opportunity to use the interest rates cuts to energize activity in sectors that are interest sensitive. The drama of the previous conclusion stems from the fact that these sectors are actually the ones in which Serbia has comparative advantage and huge potential for output expansion (energy, agriculture, food processing, infrastructure, logistics, etc.).

Inefficient monetary policy has deepened long standing structural fractures. As a result of this policy, the gap between intents and outcomes remains deep, maybe even deeper. Continuous inflationary pressures tend to depreciate local currency. But, real FX rate is constantly

Figure 3: Inflation, targets and tolerance bands per year (period: 2008-11)



Source: National Bank of Serbia

appreciated because inflation differential exceeds the nominal rate of depreciation of the FX rate. The previous point could be depicted by the influence of privatization of *BK Telekom* by *Telenor* on M1 and FX rate. Concretely, in 2006 when privatization occurred, M1 aggregate rose for 38%, while FX appreciated substantially. Dashed line on the Figure 4 indicates that in the whole period of analysis, with exception of 2009, real FX rate was appreciated (depreciation was, actually, negative).[6]

Positive impact of FX rate depreciation in 2009 was reflected on current account deficit. Namely, it decreased to 5.5% of GDP. Obviously, this episode explained the old policy rule, when FX rate is competitive it is effective barrier to import and stimulus for export.

Previous analysis raises the fundamental question. Is inflation targeting with partially fluctuated FX rate the right policy in situation when structural imbalances are continually increasing the inflationary pressures? Dramatic character of the answer is amplified by the fact that this kind of monetary policy is extremely costly way for inflation control. Thanks to this policy, Serbia's economy has spent the entire privatization proceeds and remittances from abroad. In spite of massive privatization and significant remittances, the gross currency reserves dropped to slightly over one-third of GDP.

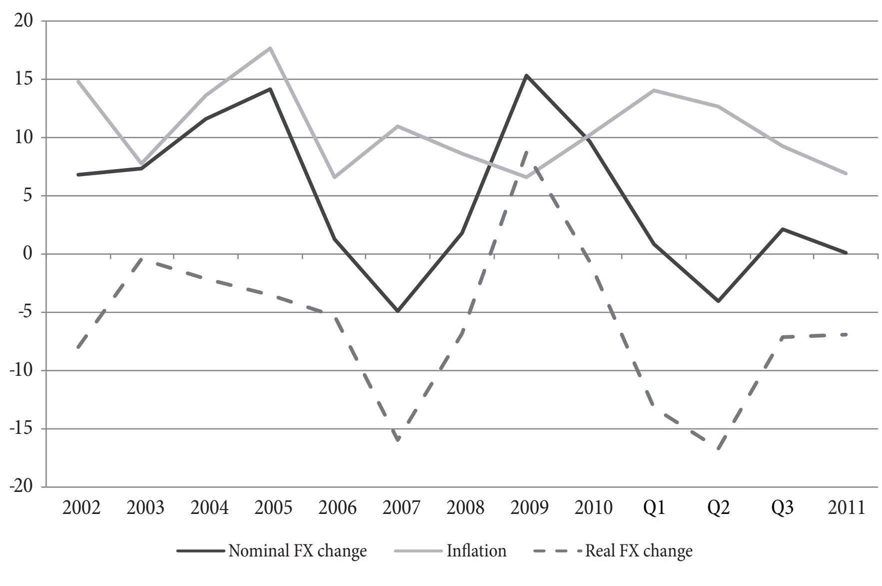
6 The calculations are based on NBS data on average year FX rate and annual inflation in the period 2002-2011 displayed in Table 1. The conclusions serve only as an approximation of the trends since there has been a change in inflation calculation methodology since 2007

Fiscal policy played secondary role in the whole period with political constraints sharply limiting its usefulness. Also, architects of Serbia's fiscal policies ignored that counter-cyclical fiscal stance was extremely desirable for economies with limited number of fiscal stabilizers. As a consequence, the mission of fiscal policy didn't get much further than imposing fiscal rules to achieve debt sustainability.

The government was constantly running budget deficit. Deficit spending, predominantly in consumption, leads to price increase instead of output increase. Because the actual output is bellow the potential one, economy is in under-heating mode. This is another contradiction. The economy with structural imbalances is threated as if it was in overheating mode. In theory, policy makers must cool down expectations by running budget surpluses. Contrary to the standard policy prescription, in 2011 the government borrowed additional funds by issuing bonds to finance budget deficit.

Many developing countries learned from the debt crises that it was very risky to expand domestic spending rapidly through foreign debt financing, especially when expansion was through consumption. The situation in Serbia could not be qualified as alarming, but increased vulnerability of the economy calls for additional caution. The figures about debt level tell that, currently, the situation seems to be held under control with all the debt categories kept close to, but not above limits. Concretely, in 2011,

Figure 4: Inflation and FX rate (period: 2002-11)



external debt relative to GDP decreased to 73.6% (80% is referent point for high indebtedness), where external public debt accounts for around 27% of GDP, and the rest represent private debt. The total public debt at the end of 2011 was slightly above 44% of GDP (45% is referent point).

Deficit spending drives up interest rates and undercuts investments and consumption due to crowding out. More precisely, when government runs deficit, it obtains the difference by borrowing on the open market, competing with borrowers from real economy and therefore, drives up cost of capital.

Combination of tight monetary policy and deficit spending leads to investment slow down and unemployment increase. Results did not drop behind. In 2011 unemployment rate reached 23.7%.

Constant inflationary pressures due to structural instabilities along with relatively high level of indebtedness provoke constant aggravation of systemic risk of the country. It refers to increased fragility of the system due to interconnectedness of its elements, without capacity to amortize eventual collapse of the system caused by failure of certain important players or sectors. Consequently, illusionary macroeconomic stability is kept artificially as a life of patient in coma.

Serbia is highly exposed to the stressors that captured global economy in 2008. Financial deregulation and securitization which marked the period before the crisis allowed risk not to be taken, but continually transferred. Portfolio investments that entered Serbia in the period before the crisis spilled out of country after the 2008 global economic crisis, worsening capital and financial structure and widening the output gap.

Macroeconomic policies are aimed at reducing system risk or fragility of the economy. In Serbia their outrageous influence on the real economy is demonstrated especially through high cost of capital and really appreciated FX rate. Also, ineffective and expensive state sector only deepens the old fractures of the economic system. It could be also threatened as a form of outrageous behavior toward the private sector. Now the whole economy is on the brink of collapse. No one so far has a single valid explanation for current economic crisis. Moreover, nobody has single silver built to prevent its negative consequences. The previous analysis confirms that there are some fault lines. First of all, Serbia's crisis, similarly to almost all economic crises, had political roots. Dissolution of Yugoslavia and confused strategy of geopolitical repositioning were the main causes of political predisposition toward stimulating consumption (or "soft budget" constraints both on macro and micro level). The second set of fault lines emanates from impotency of the economy, as a consequence of inertia of deep structural instabilities. The final set of fault lines develops as the consequence of wrong economic policies during economic transition focused exclusively on inflation control and use of privatization proceeds and remittances for that purpose.

New economic policy framework

In combined crisis revision of the current framework for conducting economic policies is imperative. Radical reforms in an impotent economy with really appreciated currency, high interest rates, unfunded internal government liabilities, and high external debt cannot be framed on orthodox economic policy platform. Continuation of neoliberal orthodoxy with budget cuts and flexible labor market lead to further increase of output gap with serious difficulties not only to reach inflationary targets but also to preserve minimal level of social cohesion.

In structuring reforms, especially, given the existence of enormous structural imbalances, strategy which settles for *status quo* brings the greatest risk for all. Cost of doing nothing is far greater than the situation we have recently experienced because existing fractures of the system will only deepen. The new framework of economic policies requires new set of priorities: real economy (instead of services), investments (instead of consumption), export (instead of import), and savings (instead of credits). Investment driven mindset is at the core of change. Prosperous economies continually matched investments in tradable sectors with its comparative advantages (in early stages of development) or competitive advantages (in mature stage) through industrial policies.

Besides inflation (low and stable) as an ultimate tenet of macroeconomic policies, policy makers, faced with combined economic crisis, will have to consider additional tenets including output gap (low and stable), composition of output (dominance of real economy over services), behavior of asset prices (including the currency), and leverage of different economic agents (fair and equitable position of real economy). Accordingly, combination of industrial policies and new automatic stabilizers in monetary and fiscal policy are promising routes for policy framework improvements.

Focus on industrial policies will likely avoid deadly interaction of perpetual inflationary pressures and large and volatile output gap on liquidity position of the country, internally and externally as well. In implementation of industrial policies, savings and domestic investments are crucial because sizable foreign investments, in principle, reduce output growth through paying substantial remittances abroad[7].

When thinking about external funding, it is important to make distinction between support to counter-cyclical macroeconomic policies and longer term development financing, though increases in the later can have counter-cyclical effects. In case of Serbia, the WB and the EBRD could stay crucial debt providers concerning development lending while the IMF has already played a more important role in macroeconomic management. New source of funding could be the capital provided by newcomers from the currency reserve rich countries (China, Russia, Norway, etc.) in the areas in which Serbia has unambiguous comparative advantages. Concretely, the preferable arrangements are joint ventures (up to one half of the equity of state-owned enterprise for equity partner) for efficiency improvement and capacity expansion in energy sector, private-public-partnerships in renewable energy, agriculture, food processing etc., and building-operating-transferring arrangements in infrastructure, transportation, logistics, and tourism. These channels of financing are extremely important in order to relax high debt burden that would crowd out developmental efforts towards output expansion.

Which model of industrial policies is feasible for Serbia? Fast growing developing world promoted the model of *managed capitalism* in terms of *R. Rajan* [8, pp: 53-67]. Positive experiences undoubtedly shape the typical path followed in the search for growth. What is clear is that the best practice characterizes intensive government support in the first stage of development of infant industries, and steady and continuous focus on export. Since private sectors in these countries were relatively uncompetitive, few choices remained. They could choose active government role through founding of state-owned enterprises, or they could choose the role of enabler to build and expand hard and soft infrastructure and regulatory environment. Sometimes, governments had to play the role of protector *via* different protectionism measures from foreign competitors allowing domestic businesses to prosper.

Still many of the countries practicing mentioned policy, impatient for growth, fell into the trap of vicious circle that caused their economic strength to vastly downgrade. Namely, even after they managed to increase output and export of higher value-added products, they were still technologically inferior and dependent on import of technology and know-how. By exporting competitive (thus cheaper) commodities and goods and importing expensive technology, the rising gap in current account had to be bridged by foreign borrowings. This model proved unsustainable because it generates deficits in both part of BOP, current account and financial account. The solution to the previous trap was to decrease borrowing and return back to roots-sources of comparative advantage (position rent, abundance of cheap resources, etc.).

The successful strategy for advancement assumes moving from the least sophisticated technology (easy-to-make, labor intensive goods) to the frontiers of technolog1y, slowly and gradually, using low labor cost to stay competitive until technology and human capital improve.

Given the aforementioned, the new comprehensive economic policies framework in Serbia has to be based on three pillars. The primary pillar refers to industrial policies. Focus must be shifted from services toward real economy, both in private and state sector. Industrial policies are sector based and dedicated toward priority sectors (energy, telecommunication, agriculture, food processing, infrastructure, logistics, tourism, etc). The second pillar represents macroeconomic policies (monetary and fiscal). Competitiveness and regional policy as supporting policies

7 For more details see Đuričin, D., Vuksanović, I. (2011) "From macroeconomic stability to industrial policy and back: The case of Serbia", *Ekonomika preduzeća*, Special edition, November-December, pp: 319-334.

follow as a third pillar. Development strategy acts as conceptual base for all previously mentioned policies (see Figure 5)

Industrial policies are in the center of new approach. Industrial policies are directed towards expansion of output in tradable sectors by promoting import substitution and/or supporting export. For example, in energy sector, the most important measures refer to pricing, feed-in tariffs, investment, financing models, and stimuli for new energy and efficiency technologies, or NE^2T.

Global demand for energy is rising every year, so the expansion in the energy sector could play both export and anti import role. In the previous period there have been some built in de-stabilizers like government administrated pricing in energy sector (dramatically below the market level). With EUR 57 per MWh compared to the average EUR 190 per MWh in EU27, investing in energy in Serbia is not attractive.[8] Competitive pricing would attract investments in the existing capacities based on fossil fuels, as well as in the renewable energy. Effort must be made to introduce new counter-cyclical stimuli like investments in NE2T. The potential magnitude of these investments as well as their multiplier is extremely high.[9]

Competitive industry requires dynamic financial system constantly promoting discipline but without excessive risk and outrageous behavior against it and explicit and efficient fiscal system. That might be hard to achieve, but it would be worthwhile.

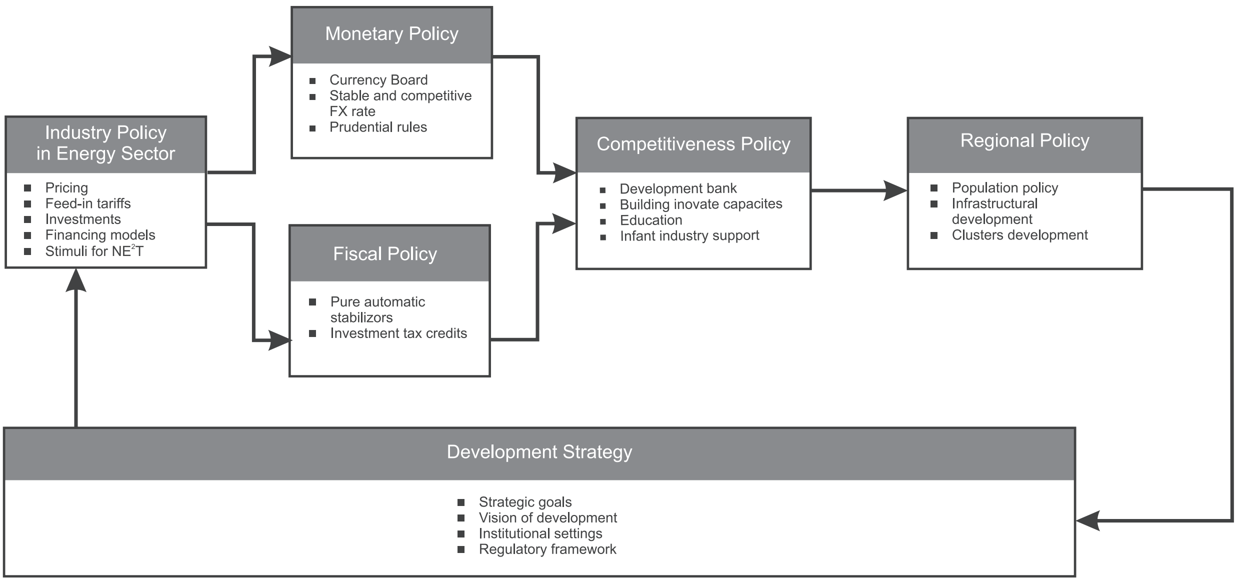
New monetary model is in the center of macroeconomic policies. In new policy framework it could be the model of currency board. Currency board with automatic adjustments ensures stable and competitive FX rate. Stable and competitive FX rate plays the role of automatic stabilizer. It encourages export and discourages import. This model has capacity to solve deadly interaction between structural imbalances. Implementation of currency board means not only the choice of FX rate that is stable and competitive, but also a balanced budget and capacity to manage FX rate determinants. Competitive FX rate is a barrier to import and stimulus for export. This is contrary to current monetary model of inflation targeting where really appreciated currency is a stimulus for import and barrier for export. Also, stable FX rate is a prerequisite for investments. Stable and competitive FX rate is a prerequisite for keeping the output gap low and stable. Last but not least, if Serbia chooses the monetary model of a currency board system, it will adopt the monetary policy of the euro zone.

The limited ability to borrow in outside market imposes constraints to Serbia's ability to pursue counter-cyclical fiscal policies. In reality, Serbia was forced to pursue pro-cyclical fiscal policies because of tax revenues

8 European Commission Eurostat, available at http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Energy_price_statistics

9 According to EBRD, the potential of wind is at the level that provides catering full yearly needs of 400 thousands households. The yearly solar irradiation in Serbia is 40% higher than the European average, although costs of installing capacities for solar energy are substantial. Hydro potential has also not been fully used yet. Available at available at http://www.ebrdrenewables.com/sites/renew/default.aspx

Figure 5: New economic policy framework



decline in recession and it cannot find adequate financing for existing and extended government expenditures.

Still, the last global crisis shows that the space for improvement of discretionary measures (or automatic stabilizers) in fiscal policy, also, exists. There is a difference between pure automatic stabilizers and other automatic stabilizers. Pure automatic stabilizers are those that imply pro-cyclical decrease in transfers or increase in taxes. In contrast, other group of stabilizers refers to the rules that allow some transfers to vary based on pre-specified triggers connected to the stage of economic cycle (boom or bust). Pure automatic stabilizers come from the combination of rigid government expenditures with elasticity in revenues with respect to output, and they range from social insurance programs to progressive income taxes. Unconventional group of automatic stabilizers is more promising in times of crisis. They can be applied to tax or expenditure items with significant multipliers. Concretely, on the tax side, we can think of tax measures affecting the businesses such as cyclical investment tax credit. On the expenditure side there are temporary transfers targeted to liquidity constrained businesses. Issuance of these sorts of taxes and transfers would be triggered by crossing of the threshold connected to leading macro indicators (GDP, for example).

Conclusion

At the beginning of 2012, Serbia's economy was affected by falling export demand accompanied by reversals of capital flows, both in financial and real sector. The initial impact of the 2008 crisis has been felt in real economy but now it is returning back to the financial sector.

System risk is considerably high due to uncompleted economic transition which was not able to diminish destructive consequences of pre-transitional structural instabilities. In addition, a "stuck in the middle" position *vis-à-vis* key geopolitical players erodes confidence in country and provides crucial cause of foreign capital restraint, particularly in real economy. When capital is scarce resource it is possible that the risk-adjusted rate of return might be even negative despite the fact that the nominal rate of return is high._If we add to discrepancy between nominal interest rate and real one other discrepancies like discrepancies in rate of return and FX rate we can see that Serbia's economy is not only impotent but, also, out of tune.

Reforms and their results over the last decade have exposed economy to a greater risk through reducing the impact of automatic stabilizers. Economic system has become more unstable as a consequence of weakening both private and public economic stabilizers. From business perspective the monetary model of inflation targeting with floating FX rate has actually created built in de-stabilizer. Government administrated pricing in energy sector is, also, built in automatic de-stabilizer. The lack of other automatic stabilizers is the consequence of embryonic nature of fiscal system and undeveloped social safety net. Although Serbia has greater exposure to external risks, it has even weaker capacity to undertake counter-cyclical economic policies.

During transition the output (and the real economy) was off the radar of economic policies. Moreover, there are many manifestations of outrageous behavior against real economy. Appreciated real FX rate and high interest rates constantly provoke crowding out effect. Despite sacrificing output, inflation control was not fully achievable. In recession inflation targeting is not in capacity to keep the economy perpetually at its potential growth rate. Also, relatively high inflation indicates that the economy is prematurely exceeding the speed limit in spite of its output gap. In the last period to break down inflation downward spiral the government has imposed wages and pensions control as well as price control through frozen retail margins. It means that inflation becomes so high that policy makers outside the NBS feel responsible to take some measures.

Monetary measures that constantly lead to artificial overheating and expensive cooling are not favorable for investments. With crowding out economic policies framework require revision.

Conundrum is visible. On the one side, the economy cannot unboundedly consume more that it produces. From the other side, money spent in order to offset shrinking of the output Serbia must divert towards investment because the economy does not have fiscal flexibility to adequately respond with orthodox Keynesian tools (credit expansion, stimuli release, and social protection strengthening).

As a consequence, reversibility of reforms and reform's achievements come to the surface. New economic policies need to be sensitive to the reversibility problem. Industrial policies can trigger expectations in positive direction and help bring the economy back to its potentials.

The new policy framework has to be conceptually wider taking care not only of inflation but, moreover, of output. The high priority tenet of new economic policies must be to keep the output gap stable and low by using industrial policies. As soon as the equilibrium between supply and demand is achieved, new macroeconomic policies come into the play.

To conclude, industrial policies are an adequate policy choice for solving the main transitional contradiction that inflation control is not sufficient for stable and low output gap and sustainable employment. In order to eliminate reversibility, new economic policies framework based on industrial policies requires the shift in focus from inflation towards output. For Serbia this is the latest time to move from price stability toward dynamic management, both in private and public sector.

References

1. Blanchard, O. J. (1987), *The New Palgrave: A Dictionary of Economics*, v. 3, pp. 634-36
2. Chang, H.J. (2002), *Kicking Away the Ladder: Development Strategy in Historical Perspective,* Anthem Press, New York
3. Đuričin, D., Vuksanović, I. (2011), "From macroeconomic stability to industrial policies and back: The case of Serbia", *Ekonomika preduzeća,* Nov-Dec, pp. 319-334
4. Đuričin, D. (2008), "Srbija: tranzicija i posle", in *Tranzicija i posle u regionu nekadašnje Jugoslavije*, Đuričin, D. and Vukotić V. eds., Miločerski ekonomski forum 2008, Miločer, pp: 23-60
5. Heijdra, B. J. (2003), *Foundation of Modern Macroeconomics*, Oxford University Press, Oxford
6. 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, Macmillan, London
7. Moss, D. (2007), *A Concise Guide to Macroeconomics*, Harvard Business School Press, Boston, Masachusetts
8. Rajan, R (2010), *Fault Lines*, Princeton University Press, New Jersey
9. Stiglitz, J., Sen, A., Fituossi, J. (2010), *Mismeasuring Our Lives: Why GDP Doesn't Add Up*, New Press, New York
10. Tobin, J. (1998), *Monetary Policy: Recent Theory and Practice,* in *Current Issues in Monetary Economics*, Cowles Foundation, Yale University Press, London

Web sites:

11. EBRD: Transition Report, available at http://www.ebrd.com/pages/research/publications/flagships/transition.shtml
12. EBRD, available at http://www.ebrdrenewables.com/sites/renew/default.aspx
13. National Bank of Serbia, available at http://www.nbs.rs
14. Statistical office of Republic of Serbia, available at http://webrzs.stat.gov.rs/WebSite/
15. World Economic Forum, available at http://www.weforum.org/issues/global-competitiveness

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 editor in chief of Ekonomika preduzeća. He was working for Deloitte for almost two decades, and since 2007 he holds position of the President of Deloitte Adria. He was a visiting professor in the University of Venice as well as professor of Fulbright Foundation. He was the President of Serbian Economists Association 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 (StarBev), Imlek (Danube Foods), Hypo Alpe Adria Bank, and Cardiovascular Institute of Dedinje.

Iva Vuksanović

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

ORIGINAL SCIENTIFIC WORK
UDK: 338.27:519.87(497.11)"2012" ; 338.124.2(497.11)
Date of Receipt: January 30, 2012

Miroljub Labus
University of Belgrade
Faculty of Law
Belox Advisory Services

DOUBLE-DIP RECESSION AND POLICY OPTIONS

Ekonomske politike u novoj recesiji

Abstract

It is reasonable to expect the Serbian economy to decline up to -1% in 2012. A double-dip recession is inevitable. Lessons from the previous recession in 2009 suggest that an expansionary fiscal policy has clear limits, and that any misalignment of economic policies might be highly costly. This time, in addition to a recession and lack of policy coordination, the Serbian economy is exposed to the political risk associated with new elections. All of these risks deserve proper attention.

In this paper, we provide a growth forecast for 2012 and discuss three potential policy response options. Coordination between fiscal consolidation and monetary expansion is the preferred solution. However, no one should take this for granted, and even if it is adopted by the Serbian policy makers, the problem of unsustainable long-term growth will remain.

The model developed in this paper is a New-Keynesian model, modified to tackle the issue of fiscal consolidation. We expect that the inflation targeting policy framework will prevail in 2012, despite its poor record, and that this provides a good reason for using DSGE models to simulate policy options.

Key words: *recession, inflation targeting, counter-cyclical policy, New-Keynesian DSGE models, growth forecast*
JEL classification: E47, E58

Sažetak

Razumno je očekivati da će rast srpske privrede u 2012.g. biti negativan, sa stopom pada GDP-a do -1%. U tom smislu pojava nove recesije je neumitna. Lekcije iz prethodne recesije iz 2009.g. sugerišu da ekspanzivna fiskalna politika ima svoje granice i da je njena neuskladjenost s drugim politikama višestruko štetna. Ovog puta srpskoj ekonomiji ne samo da preti recesija i nesukladjenost ekonomskih politika, nego postoji i dodatan politički rizik vezan za predstojeće izbore. Svi ovi rizici zaslužuju da im se posveti dužna pažnja.

Mi smo u ovom radu dali prognozu rasta privrede Srbije za 2012.g. i razmatrali smo tri moguće varijante ekonomskih politika. Usaglašena monetarna i fiskalna politika su najbolje rešenje. Medjutim, ono samo po sebi nije zagarantovano, a čak i da se usvoji od strane vladajućih institucija, ostaje problem neodrživosti dugoročnog rasta (što zahteva posebna rešenja).

Model korišćen u ovom radu predstavlja jednu varijantu Novo-Kejnzijanskih modela koji je modifikovan da bi uključio uticaj fiskalne politike. Mi očekujemo da ciljana inflacija ostaje model monetarne politike u 2012.g., iako nije pružila dobre rezultate, i to opravdava upotrebu dinamičko-stohastičkog modela opšte ravnoteže (DSGE) radi simulacije efekata ekonomskih politika u 2012.g.

Ključne reči: *recesija, ciljana inflacija, anti-recesiona politika, Novo-Kejnzijanski DSGE model, prognoze rasta*

Introduction

It is 2012, and the Serbian economy is facing its second period of recession in four years. It is reasonable to expect the Serbian economy to decline by up to -1% in 2012. The initial recovery from the 2009 recession was due to an expansionary fiscal policy. This time, however, the ability to use a similar policy is significantly constrained. Fiscal deficits and public debts have in the meantime accumulated up to the limits set by the fiscal rules and the tolerance of the IMF. On the other hand, monetary policy has been controversial to the business and academic community all the time since the onset of 2009 recession. National Bank of Serbia's (NBS) monetary policy rules indicate that monetary measures would enable in practice both a recovery from the recession and the fight against inflation. However, the effects of this policy were not proved in the literature [7]. Therefore, the question arises as to how fiscal and monetary policies will react to a fresh fall in output, as well as whether those economic policies will be coordinated or independently pursued, and whether they will in practice be pro-cyclical or counter-cyclical.

Two types of risk could materialize this year. There is a downside risk derived from the high probability that the real economy will enter into the second stage of a recession within the same business cycle. On top of that, the upcoming parliamentary election creates political uncertainty over the future course of fiscal policy. Expansionary fiscal policy is often deployed close to election dates, but this time, if it is combined with high levels of public debt, this could generate gloomy long-term outcomes.

In this paper we provide a baseline growth forecast for 2012. In order to obtain this, we have employed a standard monetarist DSGE model. The rationale behind this is that NBS, as the monetary authority, will continue to rely on similar models when deciding how to conduct monetary policy in 2012. We expect that inflation targeting will prevail in 2012 as the monetary policy framework, and that justifies the use of New-Keynesian general equilibrium models for simulation purposes. Our main finding is that prevailing monetary policy, in combination with a passive fiscal policy and the macroeconomic conditions at hand in the Eurozone, will cause a recession in 2012. The economy might move out of recession in 2013, but some downside risk is still present.

Internally, the risk is associated with a dilemma as to what kind of fiscal and monetary policies will be adopted in response to the challenges of the recession. We have considered three policy options. The first option is based on the assumption that fiscal revenue collection will be the main priority of the Government. There will be no expenditure cuts, and the fiscal deficit will improve thanks to higher taxes and public borrowing. Monetary policy will be neutral, which together will have severe macroeconomic effects. Better results are obtained in the second scenario, which envisaged some expenditure cuts, modest public borrowing, and appropriate expansions in fiscal spending. These improvements are, however, only transitory. The third scenario is a combination of consolidated fiscal policy and expansionary monetary measures. This option has the best record, but the problem of long-term sustainability is still present. In the Serbian economy the same imperative for restructuring was present in 2009 and amplified in 2012 - but this situation cannot be resolved with fiscal and monetary policy measures alone.

The paper is organized as follows. We will briefly present the DSGE model in the first part, then explain the baseline growth scenario for 2012 in the second part, and discuss three policy scenarios in the third part. Finally, we will provide some policy recommendations.

The model

Our model follows the recommendations of a standard New-Keynesian model [1], [3], [4] and [12] adjusted for the fundamentals of the Serbian economy [6], and extended to embrace a money demand function [7] and fiscal deficits. It has a total of 41 equations, where the first seven represent the model's key block. The only novelty is that we added equation (7), which represents a money demand function, expressed in terms of money, output and inflation growth rates. The quantity of money represents money demand corresponding to the steady state, and will not at all influence the calculation of the equilibrium solution. The quantity of money will provide the model with information on the amount of money consistently demanded by rational economic agents, and will be used as an indicator of the monetary policy stance commonly used in business.

We redefined NBS's monetary policy reaction function, i.e., the monetary rule used by the monetary authority to set the repo interest rate (policy rate). NBS's model takes into account interest rate inertia (i_{t-1}), the inflation neutral interest rate ($i^n_t = r_t^{trend} + \pi^e_{t+1}$), and deviation of forecast from target inflation ($\pi^e_{t+4} - \pi^{target}_{t+4}$). Contrary to our model, the NBS model does not consider an output gap, which actually means that the parameter C_3 is assumed to be C_3=0 in equation (1). We take C_3>0, and pay attention to the influence of the output gap on the policy rate. We skip writing here definition equations, and equations determining trends and gaps in key variables.

$$(1) \qquad i_t = C_1 \cdot i_{t-1} + (1 - C_1) \cdot \left(r_t^{trend} + \pi_{t+1}^e + C_2 \cdot \left(\pi_{t+4}^e - \pi_{t+4}^{target}\right) + C_3 \cdot y_t^{gap}\right) + \varepsilon_t^i$$

$$(2) \qquad y_t^{gap} = A_1 \cdot y_{t-1}^{gap} - A_2 \cdot r_t^{gap} + A_3 \cdot z_t^{gap} + A_4 \cdot y_t^{*gap} - A_5 \cdot q_t^{gap} + \varepsilon_t^y$$

$$(3) \qquad \pi_t = B_1 \cdot \pi_{t-1} + (1 - B_1) \cdot \pi_{t+1}^e + B_2 \cdot [B_3 \cdot y_t^{gap} + (1 - B_3) \cdot z_t^{gap} + \varepsilon_t^\pi$$

$$(4) \qquad i_t = \Delta s_{t+1}^e + i_t^* + u_t + \varepsilon_t^s$$

$$(5) \qquad z_t = s_t + p_t^* - p_t$$

$$(6) \qquad r_t = i_t - \pi_{t+1}^e$$

$$(7) \qquad \mu_t - \pi_t = R_5 \cdot \Delta y_t - R_6 \cdot \Delta i_t + \varepsilon_t^\mu$$

Equation (2) models aggregate demand. The output gap (y_t^{gap}) reflects the state of aggregate demand, which depends on inertia (y_{t-1}^{gap}), real interest rate gap (r_t^{gap}), real exchange rate gap (z_t^{gap}) and foreign output gap (y_t^{*gap}), i.e., GDP gap in the Eurozone, in the present case. Unexpected demand shocks are modelled via variable ε_t^y.

It is important to note that a standard aggregate demand equation is augmented by the fiscal deficit gap (q_t^{gap}). As in the case of other gap variables, the fiscal deficit gap is obtained using Hodrick-Prescott filter to extract the underlying fiscal deficit trend. Its evolution is farther modelled as autoregressive AR(1) process. There is a strong empirical negative correlation between output gap and fiscal deficit gap in the Serbian economy. Relying on that empirical association, it is possible to model fiscal consolidation as a policy option. Of course, the price to be paid for this modification is a slight deviation from a standard theoretical model. The fiscal deficit is defined as the ratio of budget expenditure over budget revenue.

Equation (3) presents a Phillips curve, which is a dynamic version of the IS curve from the traditional IS-LM Keynesian macroeconomic model, describing conditions under which the goods market achieves equilibrium. Inflation is not a monetary phenomenon, but depends on inflation inertia (π_{t-1}), inflation expectations (π_{t+1}^e), output gap (y_t^{gap}), real exchange rate gap (z_t^{gap}), and supply side shocks ε_t^π.

Equation (4) represents uncovered interest rate parity, where domestic interest rates (i_t) depend on expected changes in the nominal exchange rate (Δs_{t+1}^e), foreign interest rates (EURIBOR i_t^*), risk (u_t), and stochastic capital market shocks ε_t^s, in the framework of free cross-border movement of capital. In fact, this equation carries the effect of policy rate on the setting of nominal exchange rate.

Equation (5) provides a definition of the real exchange rate (z_t), with the following variables: nominal exchange rate (s_t), domestic prices (p_t, consumer price index) and foreign prices (p_t^*, CPI in Eurozone). All level values are expressed as logarithms.

Equation (6) is Fischer's equation for real interest rate (r_t), which depends on nominal interest rate (i_t) and expected inflation (π_{t+1}^e).

Equation (7) is obtained by differentiating relatively stable equation for money demand in a log-linear format, where M_t is the quantity of money in circulation at a point in time t, and μ_t is the money growth rate, P_t is the price level, and π_t is inflation, R_5 and R_6 are elasticity and semi-elasticity of income and interest rate, relative to money, respectively, i_t is the short-term interest rate, Δi_t is its change between two periods, and ε_t^μ is used to mark stochastic shocks affecting money demand.

Additionally, in comparison with the NBS model, our model is somewhat simpler, since it does not break down inflation into three categories (base inflation, controlled prices inflation, and fuels and food inflation).

The baseline forecast

Empirical calibration of the model is carried out using quarterly data between 2001Q1 and 2011Q3 for the Serbian economy, as well as on the Eurozone economy during the same period. Only the repo interest rate in Serbia covers a shorter timeline, as it was not introduced until 2006Q3. All other variables include complete data sets over the period. The model permits the computation of trend values for each variable separately, which means that shorter series for the NBS policy interest rate does not affect trend parameters of other variables.

One should notice that the GDP series recently provided by RSZ is a revised time series, which is adjusted to the EUROSTAT methodology, so some figures might not coincide with previously released data. Rates of growth for the first three quarters of 2011 are still estimated figures, subject to final revision. The original GDP series is normalized to 100 for 2005 as the base year. For this reason all other domestic and the EU series are similarly normalized.

As is always the case, any forecast is conditional and based on certain assumptions, and it is relevant insofar as the underlying assumptions are valid. In this particular case**,** assumptions relating to surrounding macroeconomic conditions in the Eurozone are vital. We have assumed the following:

- Positive output gap will prevail in the Eurozone in 2012 even if its magnitude will be rather modest, which is consistent with expectations that the average growth rate will be between 0.5% and 1%
- CPI in the Eurozone will be well above 2%, which is the ECB's target inflation rate, but we expect that this will slowly decline from the recent peak in October and November of 2011 and
- The ECB's refinancing rate will remain at 1%.

Of course, the said macroeconomic conditions can worsen during the course of the year. In addition to the baseline scenario, it is reasonable to take a worst case scenario into account. However, we will not report this in this paper, since we are focused on domestic policy options only. As far as the baseline scenario is concerned, we have assumed the following:

- The inflation targeting policy pursued by the NBS will continue, and the NBS will defend its position as an independent policy maker in relation to the Government
- Inflow of capital will be driven by differentials of domestic and foreign interest rates as assumed by the uncovered interest rate parity hypothesis
- It is also assumed that the sovereign debt rating, and generally speaking, the country's risk, will not deteriorate, which could have negative effects on interest rates and inflow of capital
- NBS's interventions on the foreign exchange market will be done only to remedy exchange rate volatility, and not for the purpose of building up official reserves or managing real exchange rates
- As far as fiscal policy is concerned, we assume that the Government will obey fiscal rules and will not destabilize the money or credit markets.

Based on the above assumptions, the model generates a general equilibrium solution of the policy rate, which will reduce actual inflation to the target level in the medium term. The simulation starts at the beginning of the fourth quarter of 2011 and ends at the same quarter a year later. The forecast period comprises five quarters.

We have set target inflation at 4.5% at the end of adjustment period (the 4th quarter of 2012). Also, we have assumed that target inflation will slowly adjust to its final level. In that sense, the path of target inflation is shown as a smooth declining line in Figure 1.9. At the start of the simulation, long-term trend of prices, which describes the path of target inflation, was at 6.1%, while actual inflation was 10.3%. After five quarters, these two lines strongly converged, but did not cross. The simulation indicates that double digit inflation should have been dying out by the end of 2011, which actually happened. The path of reducing inflation rate is evident from the inspection of Figure 1.9.

Hence high inflation is not envisaged as a crucial problem for the Serbian economy in 2012. Instead, after a quick period of growth, the Serbian economy will fall back into recession once again. The baseline forecast is summarized in Figure 1.

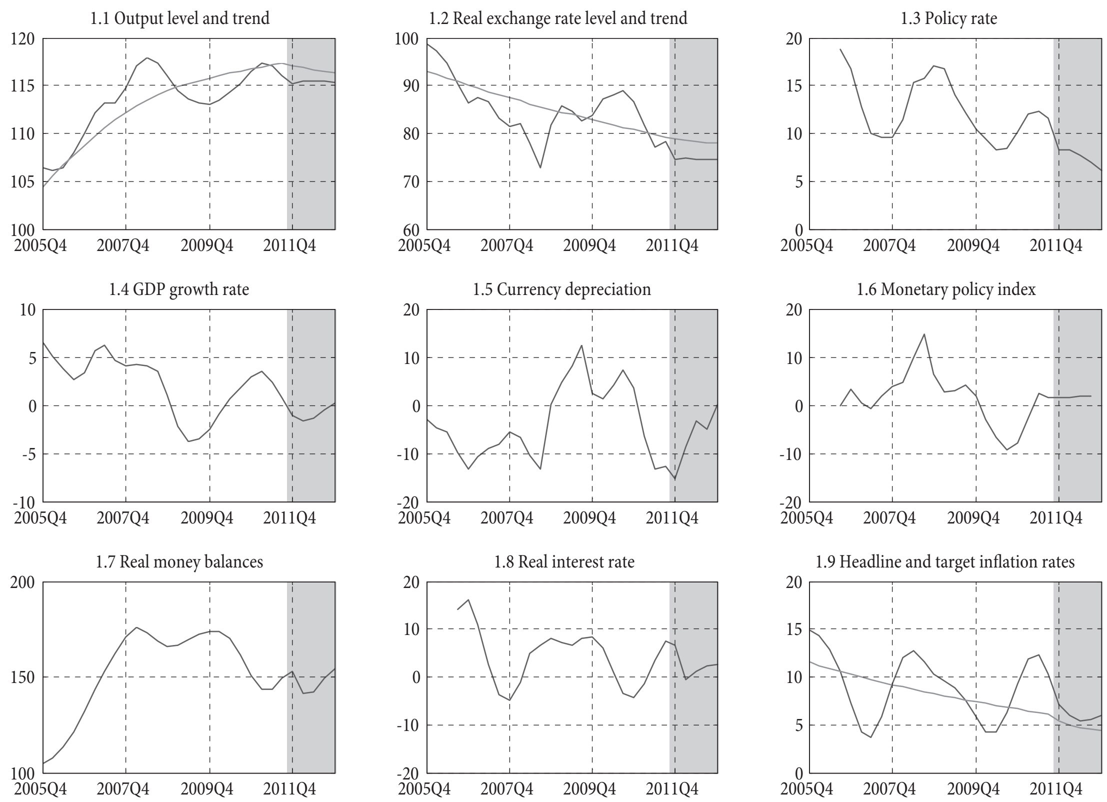
- A rising long-term output trend broke at the end of 2011, and started to decline (Figure 1.1). Even before the breaking point it indicates a slowdown. The growth trend shows signs of weakness but continues to show positive rates of change. That tendency finally died out at the end of the previous year. At the same time, the output gap has widened, pouring cold water on the prospects of an easy recovery.
- We estimated that the GDP growth rate in the fourth quarter of 2011 was already negative in the range of – 0.9% (Figure 1.4). That gives the estimated annual growth rate of 1.4% instead of officially announced 2% in 2011. The short-term downward trend of output continues into 2012 and lasts for the first

three quarters. A zero growth rate finally emerged in the last quarter. The forecast average annual growth rate is in the range between -0.9% and -1%.

- Consistent with those forecasts is a flat path of the real exchange rate level, despite the presence of a declining long-term trend (Figure 1.2). Such a tendency indicates the existence of persistent pressure on the real appreciation of the domestic currency. That effect did not materialize this time, since the interaction of domestic and foreign prices, together with a weakening of the nominal exchange rate, did not result in real appreciation. Under slightly different circumstances this could easily happen.
- Figure 1.5 shows the y-o-y rates of real currency change. Positive value means currency depreciation, while negative value indicates currency appreciation. Real appreciation slowly diminishes and definitely ceases at the end of 2012.
- Due to declining inflation (Figure 1.9), the policy rate will also decline (1.3).
- However, the path of real interest rates is volatile with a clear cyclical pattern (Figure 1.8). After a declining initial period, the real interest rate resumes its upward trend.
- The monetary policy index is presented in Figure 1.6. If it is positive, it indicates a tight monetary policy. In the opposite case, if it is negative, monetary policy is easing. The figure shows persistent but modest tightening of monetary policy in 2012.
- An alternative indicator of monetary policy stance is the level of real money balances, and its rate of change. Figure 1.7 plots the level of real money balances. After a short rise at the end of 2011, the real quantity of money goes down for the next two quarters. However, in the second half of the year it begins to rise again. Those figures illustrate glum expectations of aggregate demand, since the real money balance fairly well approximates the position of aggregate demand.

In the baseline forecast, a recession can reasonably be expected in 2012, and the monetary policy will not prevent this. Reducing inflation at any cost is the legal mandate of the monetary authority. Unless the law on the National Bank is changed, it is hard to complain about such a policy. Hence, all attention is focused on the new Government and its fiscal policy.

Figure 1: Model forecast for period 2011:4 – 2012:4, level variables 2005 = 100



Policy options

It has been evident for some time that there are numerous voices publicly calling for higher taxing on consumption and property rights. Since increasing the tax burden on property is politically delicate, an increase in VAT seems an easy alternative. A few countries in Europe have already done this, and hence such a policy will not be exceptional. Additionally, the IMF missions to the country reiterated this proposal several times, but the outgoing Government turned it down. If the VAT rate is now increased by 3% from 18% to 21%, this would not exceed the fiscal burden in many European countries. In that sense, it is possible to find comparative cases in order to support the argument.

Anticipated or unanticipated, a one-off increase in VAT rate will be an adverse supply shock to the Serbian economy. A shock of similar magnitude can be imagined if prices controlled by the Government are sharply increased in the first quarter of the year, as if this process is already taking place. Many other state-aide beneficiaries are also expecting the introduction of administrative taxes for protecting health, ecology or intellectual property rights. Hence, there are plenty of new tax initiatives. Common to all of them is a policy stance that fiscal consolidation should be effected mainly through the channel of fiscal revenue, since there is no option to make any tax and expenditure cuts in an election year. We can directly model this policy scenario by allowing a unitary supply shock to residuals in equation (3) and adjust the model for corresponding impulse response functions. Solutions are deviations around the steady state, which indicate paths of adjustment for all concerned model variables. It is important to note the pattern of adjustment, not its magnitude, since in reality these shocks might be of different sizes.

Additional state borrowing can be modelled indirectly by introducing appropriate shocks to the interest rate in equation (1). Public borrowing has two effects on the credit market. Firstly, it crowds out funds from the private sector. Many private companies are either heavily indebted already or have some non-performing loans or arrears to commercial banks. Lending funds to them is more costly than lending funds to the Government. Secondly, interest rates on treasury bills are higher than on repo operations. The state is also heavily indebted and it can raise additional funds only if it offers higher rates on treasury bills.

It is highly like that crude oil prices will rise, as a consequence of political instability in the Persian Gulf. If the Government does not reduce excise taxes on gasoline, another shock from foreign prices will materialize in the domestic market. We have not printed the corresponding foreign price equation and its residuals among model equations (1)-(7), but it has been included in the exercise.

If the fiscal policy is aimed at a reduction of the fiscal deficit by increasing fiscal revenue, and if it is combined with the monetary policy of inflation targeting as it was conducted in 2011, we obtain a policy scenario with the outcomes reported in Figure 2.1. We call it a pro-cyclical fiscal and monetary policy option. Impulse response functions are truncated to the first four quarters in order to highlight their immediate effects.

The reaction of the model to external fiscal and monetary shocks worsens the state of economy which is already in the stage of distress. The output gap has a tendency to increase by steering the output level out of the long-term steady state growth path. Cumulative output change is going down, or to put this in an alternative way, cumulative output losses are increasing. This is an indicator of welfare losses associated with the policy option. The interest rate slows down its speed of increase after the initial rise produced by combined shocks, and afterwards begins to decline. Inflation slightly increased, while the real exchange rate appreciated. Monetary policy index (Mps) has a positive value revealing a restrictive monetary policy stance. Real money balances declined (which was not presented in Figure 2.1 due to limited space). Monetary and fiscal shocks deepened the recession, and this was the rationale for calling this a policy mix a pro-cyclical option.

The second policy option calls for adjustments to fiscal policy, but leaves the monetary policy untouched. Less excessive public borrowing and some constraints on the fiscal revenue side, with a redesign of public expenditure channelling it in order to boost aggregate demand are key elements of the new policy package. Fiscal adjustments are simulated by adding short-term fiscal deficit shock ε_t^{qgap} to the previous set of shocks.

The effects of the new policy package are presented in Figure 2.2 and are labelled as an anti-cyclical fiscal policy and pro-cyclical monetary policy mix. There is no doubt that such a policy change might provide temporary relief from the immediate consequences of the economic crisis. Initially, this would push up GDP growth rates and produce the illusion that recession can be easily avoided. This will again create a public impression that "Serbia is doing better than its peers". However, that impression will not last for long before growth rates turn red. Another episode of recession would take place**,** with a deeper fall in cumulative output. The inflation impact will be stronger than in the first policy case, and the monetary policy reactions will be more vigorous. The final decline in the real money balances will be deeper and the rate of real exchange rate appreciation will be higher. All macroeconomic variables will be pushed farther from the steady state path. Misalignment of monetary and fiscal policies will resemble the recovery pattern after the first recession episode. The economy will not resume a stable long-term growth path, and it will fluctuate around a level of prolonged stagnation.

The third policy option is presented in Figure 2.3. It is based on a coordinated fiscal and monetary anti-cyclical policy mix. There is no doubt that fiscal policy must include a reduction in unproductive public expenditure, and lessen pressure on public borrowing. That is one of the key factors in reducing high interest rates. Another factor has to do with fiscal and quasi-fiscal debts. The Government budget should settle its arrears to the private sector, which will in turn improve liquidity of the private sector, and even its solvency. Banks will benefit as well since provisions for bad loans will fall, along with interest rates. A review of price controls and public sector pricing policy is also essential. Fiscal consolidation is modelled through short-term and long-term fiscal deficit shocks ε_t^{qgap} and ε_t^{qtnd}. Both shocks are parts of the corresponding fiscal deficit gap equation and fiscal deficit trend equation (which are not reported due to lack of space).

However, fiscal consolidation alone cannot avert the upcoming recession. Monetary policy should mitigate it, however. The quantity of real money is due to inflate due to some non-standard monetary operations. Monetizing fiscal debt by re-purchasing treasury bills at the longer

Figure 2: Three policy options, impulse response functions

Figure 2.1: Pro-cyclical fiscal and monetary policies

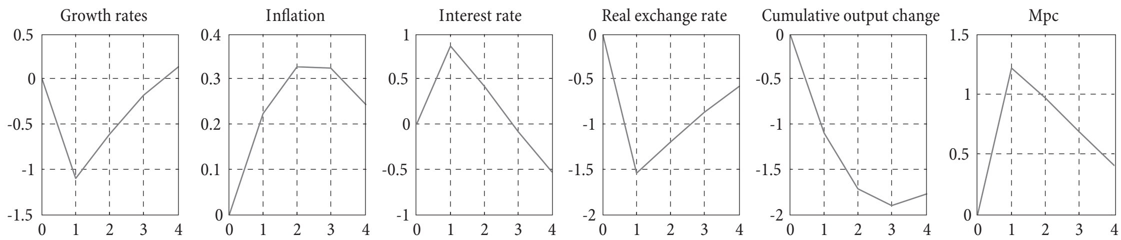


Figure 2.2: Anti-cyclical fiscal policy and pro-cyclical monetary policy

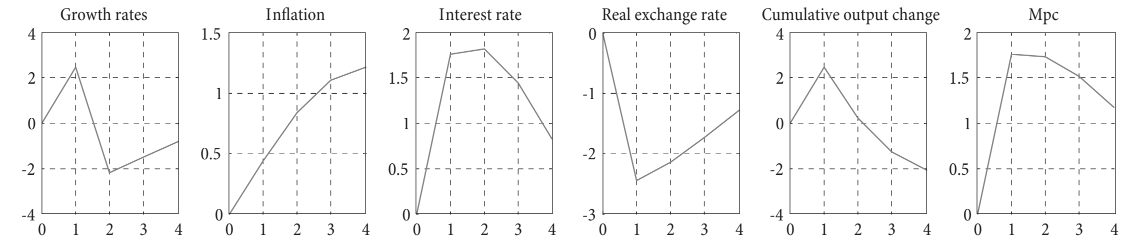
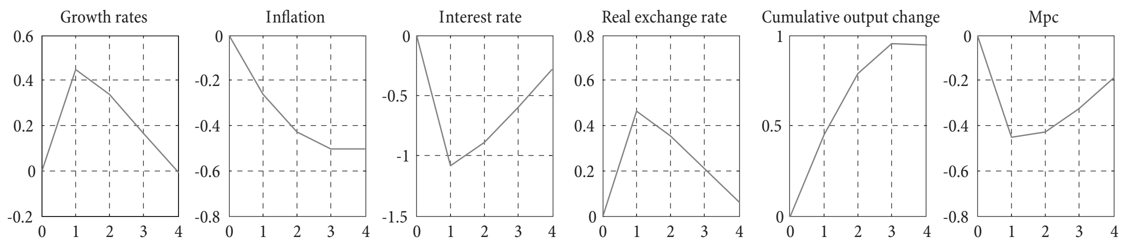


Figure 2.3: Anti-cyclical fiscal and monetary policies



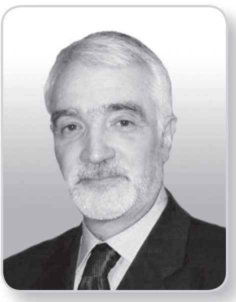
terms is not appropriate in the present case. There is an alternative, increasing money supply by reducing mandatory banking foreign exchange reserves. Additionally, the NBS should monitor the real exchange rate, and reasonably depreciate it using foreign exchange interventions. This is the price to pay for boosting exports and realigning domestic and foreign interest rates. Monetary policy is to be realistically expansionary, at least until the real economy escapes from recession. Exposure to inflation pressure comes mainly from the supply side as Figure 2.3 demonstrates that rising GDP growth rates are compatible with declining inflation rates. The key is the lower real interest rates. On technical grounds, the new monetary policy is modelled using the residuals from equations (1) and (4) and ε_t^i and ε_t^s.

Recommendations

It is obvious that the best short-term policy option is based on coordinated fiscal consolidation and monetary expansion. However, even such a policy has its limits. If we stretch the simulation horizon in Figure 2 from 4 to 12 quarters, the cumulative output change becomes negative after eight quarters. In the long run, structural policy measures are, therefore, inevitable, pointing to a reduction of quasi-fiscal debts in the pension fund, other public funds and public enterprises, implementation of the new growth strategy based on export, domestic savings and investment, reduction in the country's risk, and improvements in the business climate. This is the only way to achieve sustainable growth in the long-run. In the meantime, new elections are expected, followed by better coordination between fiscal and monetary authorities.

References

1. Berg, A., Karam, P., Laxton D. (2006), "A Practical Model-Based Approach to Monetary Policy Analysis –Overview", IMF, Washington, D.C. *Working Papers*, WP/06/80.
2. Clarida, R., Gali, J., Gertler, M. (1999), "The Science of Monetary Policy: A New Keynesian Perspective", *Journal of Economic Literature, Vol. XXXVII,* 1661-1707.
3. Gali, J. (2008a), *Monetary Policy, Inflation and the Business Cycle: An Introduction to the New Keynesian Framework*, Princeton, Princeton University Press.
4. Gali, J. (2008b), "A Comment on Fischer, Lenza, Pill, and Reichlin's 'Money and Monetary Policy: the ECB Experience since 1999-2006'", in Beyer, A., Reichlin, L. (2008), *The Role of Money – Money and the Monetary Policy in the 21st Century,* Proceedings of the ECB Central Bank Conference, ECB, Frankfurt, 182-189.
5. Gali, J., Gerlach S., Rotenberg J., Uhlig, H., Woodford, M. (2004), *Monetary Policy Strategy of the ECB Reconsidered: Monitoring the European Central Bank*, No.5, London, CEPR.
6. Đukić, M., Momčilović, J., Trajčev, Lj. (2010), "Model za srednjoročne projekcije Narodne banke Srbije", *Stručni radovi,* br.17, Beograd, Narodna banka Srbije.
7. Labus, M. (2011), "How to Bring Money Back into Monetary Policy in Serbia?", Bankarstvo, No.11-12, Beograd, Udruženje banaka Srbije.
8. Smets, F., Wouters, R. (2002), "An Estimated Stochastic Dynamic General Equilibrium Model of the Euro Area", *Working Paper Series*, European Central Bank, No 171, April.
9. Smets, F., Wouters, R. (2007), "Shocks and Frictions in US Business Cycles: A Bayesian DSGE Approach", *Working Paper Series*, European Central Bank, No 722, February.
10. Sørensen, P.B., Whitta-Jacobsen H.J. (2010), *Introducing Advanced Macroeconomics: Growth and Business Cycles*, 2nd ed. London, McGraw-Hill.
11. Walsh, C.E. (2010), *Monetary Theory and Policy*, 3th ed. Cambridge, Mass, MIT Press.
12. Woodford, M. (2003), *Interest and Prices: Foundations of a Theory of Monetary Policy,* Princeton, Princeton University Press.



Miroljub Labus

is professor of Economics at the Faculty of Law, University of Belgrade, and former Deputy Primer Minister of Serbia. He has received BA in law and PhD in economics from the University of Belgrade.
In his academic work, Miroljub Labus is focused on macroeconomics, international trade, transition and anti-trust protection. He has written a well known textbook "Foundation of Economics" and numerous monographs and articles in professional journals. Miroljub Labus has valuable experience in statistics and applied general equilibrium modelling (CGE and DSGE). He set up statistical journal „Economic trend" and business survey "Market barometer", and served as their first editor in chief.
As Deputy Prime Minister, Miroljub Labus was instrumental in getting Serbia back to international financial institutions after a period of sanctions, settling the Country's huge foreign debts, and negotiating the SAA with the EU.
Miroljub Labus founded in 2007 consulting firm Belox Advisory Services.


ENERGO WIND
Energowind d.o.o. je osnovan kao privatna kompanija 2005. godine sa ciljem razvoja i eksploatacije vetroparkova u Srbiji. Sa 3 godine lokacijskog merenja kao i najvećom jedinstvenom energetskom dozvolom izdatoj u Srbiji (400 MW), predstavlja ozbiljnog investitora i promotera industrije vetra u regionu. Trenutno je u izgradnji vetropark ukupne snage 102 MW i biće izgrađen u opštini Plandište.
www.energowind.rs

ORIGINAL SCIENTIFIC WORK
UDK: 336.1/.5(497.11) ; 338.24
Date of Receipt: January 28, 2012

Vladimir Vučković
Member of the Fiscal Council of the Republic of Serbia

PUBLIC FINANCE IN SERBIA: WHAT CAN COMPANIES EXPECT?

Javne finansije Srbije: čemu privreda može da se nada?

Abstract

Companies expect low taxes, adequate budgetary support and contribution to the stability of fiscal and financial system from the public sector. The current public finance performs none of the three tasks in an adequate manner. First, public consumption in Serbia is high and inappropriate. The quality of service, which the public sector provides the economy with, is not satisfactory. Second, the structure of public expenditures is unfavorable. Current expenditures, and salaries and pensions within these, have an advantage, while, on the other hand, a sharp reduction in capital expenditures is implemented and further projected, as well as reduction in subsidies and government loans, and in the purchases of goods and services from the budget. Third, public finance does not improve financial stability. The state is a strong competitor to companies in the financial market, and both the legal and the economic limits of the public debt are reached. As part of the required public sector reform, it will be necessary first for the state to seriously demonstrate to the economy that, through the reforms of health, education, public administration, public companies and pension system, as well as through regulation of business environment and grey economy, the conditions and costs of business operations will be more favorable in future. Then, the tax reform would also be easily accepted by the economy and by the citizens.

Key words: *public finance, budget, financial stability, taxes, public consuption, reforms*

Sažetak

Preduzeća od javnog sektora očekuju niske poreze, odgovarajuću budžetsku podršku i doprinos stabilnosti fiskalnog i finansijskog sistema. Sva tri zadatka aktuelne javne finansije ne obavljaju na odgovarajući način. Prvo, javna potrošnja je u Srbiji visoka i neodgovarajuća. Kvalitet usluga koji javni sektor pruža privredi nije na zadovoljavajućem nivou. Drugo, struktura javnih rashoda je nepovoljna. Tekući rashodi, a unutar njih plate i penzije, imaju prednost, dok se, s druge strane, sprovodi i planira oštro smanjenje kapitalnih rashoda, subvencija i državnih pozajmica, kao i kupovina robe i usluga iz budžeta. Treće, javne finansije ne unapređuju finansijsku stabilnost. Država je snažan konkurent preduzećima na finansijskom tržištu, a dostignuta je i u zakonska i ekonomska granica javnog duga. U sklopu potrebne osmišljene reforme javnog sektora, biće potrebno da najpre država pokaže ozbiljnost i da svebuhvatnom reformom pokaže privredi da će uslovi i troškovi poslovanja ubuduće biti povoljniji. Tada bi i poreska reforma bila lakše prihvaćena od strane privrede i građana.

Ključne reči: *javne finansije, budžet, finansijska stabilnost, porezi, javna potrošnja, reforme*

Introduction

This paper examines the extent to which public finance burdens the economy, helps the economy and ensures macroeconomic stability for the companies' business operations. The first part of the paper deals with Serbia's fiscal position and analyzes the dynamics of budget deficit and of the public debt, with an appropriate international comparison. The second part presents the ways in which the structure of public expenditures adapts during the budgeting in the crisis period. Finally, the last part introduces the medium-term framework of public finance in Serbia, which indicates that further absence of reforms will aggravate the position of economy in the next few years.

The fiscal position of Serbia

In the years before the global economic crisis outbreak, Serbia faced two divergent characteristics: low level of public debt (about 30% of GDP) and growing budget deficit (from the surplus in 2005 the deficit of 2.6% of GDP was reached in 2008). The low level of public debt led to a facile borrowing in the years following the crisis outbreak (from 2008), even though the growing deficit warned of an undoubtedly intensive increase in public debt. In the period after 2005, fiscal policy was expansionary and resulted in increasing expenditures and decreasing revenues. Taxes on income were reduced as well as the taxes on the transfer of absolute rights, certain products were transferred to a lower VAT rate, customs duties were reduced in the EU accession process, public sector wages and pensions rose before and after the elections, National Investment Plan and plentiful subsidy programs were launched. The crisis led to a sharp reduction in public revenues, but restriction of expenditures through freezing of wages and pensions was late (initiated only since 2009).

The high fiscal deficit was financed largely by borrowings, so the public debt intensely increased. Since late 2008 till the end of 2011 Serbia's public debt increased by EUR 5.7 billion, i.e. from 30% to 45% of GDP[1]. We can conclude that the expansionary fiscal policy led to high budget deficits and, finally, to the explosive growth of public debt.

Regional overview (Table 2) shows that the public finance development in years of the crisis could be different. There were countries in the region that, back in 2009, had significantly higher budget deficits than Serbia, but most of them made efforts in the period of three crisis years to considerably reduce the deficits[2]. With the exception of Bulgaria and Croatia, there is no state in which the deficit is not reduced compared to 2009, as is the case in Serbia. When it comes to public debt, Serbia's public debt is publicly often compared to the Maastricht criteria of 60% of GDP. However, Table 2 shows that the level of debt in less developed European countries is generally much lower than 60% (on average 39.3% of GDP) and that it cannot be said that Serbia is in a group of low-indebted countries.

High public consumption is a burden on the economy, since there is a constant pressure to use the fiscal and quasi-fiscal levies in order to provide funds for high public expenditures at all levels of government[3]. In addition, the public sector is inefficient and does not provide the economy with satisfactory services. The economy cannot be satisfied with the structure of public consumption as well. Capital expenditures of the central government account for less than 5% of total public expenditures, which is extremely low for a country that needs to build and modernize its infrastructure. Subsidies and net lending reported a share comparable to other countries (6% and 3% share in total expenditures), but the trends in this area are devastating, as will be discussed in more detail below.

Actual moment of Serbia's public finance

During the 2011 budget revision (as of September last year) and upon drafting the budget for 2012, it has become clear

1 Actual public debt of the general government was even higher in late 2011 (by about 2% of GDP), given that the percentage above-mentioned, of something less than 45% of GDP, should be also increased by non-guaranteed debt of local self-government and by budget beneficiaries' arrears (which, according to the Law on public debt, are not covered by the of public debt definition).

2 It is likely that the final data for 2011 for most countries will show somewhat poorer statistics than the given forecasts of October 2011.

3 National Alliance for Local Economic Development (NALED) identified more than 250 quasi-fiscal levies.

Table 1: Serbia: general government revenues, expenditure, balance and public debt, 2007-2012 (Percent of GDP)

	2005	2006	2007	2008	2009	2010	2011*
General government revenues	43,0	44,2	44,0	43,0	42,3	41,0	39,1*
General government expenditures	42,0	45,8	46,0	45,6	46,7	45,5	43,7*
General government balance	1,0	-1,6	-2,0	-2,6	-4,5	-4,6	-4,6*
Public debt	52,2	37,7	30,9	29,2	34,8	42,9	44,8**

Source: Ministry of Finance; * estimate, ** data as of late November 2011.

how the budget of Serbia is prepared in the conditions of the narrow maneuvering space. We will mention only those elements that can be evaluated as forced and harmful from the standpoint of the interests of growth and economic development. Common to both cases is that, in terms of public revenues drop (due to the weakening of economic activity) and of increased expenditures for salaries and pensions, the savings are reported in both the expenditures where this is not desirable, and, at the same time, the savings are avoided where possible.

Lessons from the revised budget for 2011, adopted in September, are related to capital expenditures and funds that the budget beneficiaries exercise in addition to budget funds (own-source revenues).

In 2011, current budget expenditures increased above the original ones, projected in the budget, due to increase in wages, pensions and social expenditures (totaling about RSD 18 billion). The projected increase in allocations resulted from objective and legal circumstances – inflation higher than that projected in 2011 and a high indexation of the given public expenditures. In order to create the room for the increase in expenditures, the capital expenditures were sacrificed by the supplementary budget. The supplementary budget, in fact, projected capital expenditures at about RSD 8 billion less than the originally projected expenses. Failure to execute the capital expenditures during the year and then to reduce capital expenditures projected by the revision, was an extremely negative result of economic policy in 2011. Development and equitable intergenerational distribution of fiscal burden depend on the investment and, in that sense, it is important to ensure greater level of execution and more budget resources for capital expenditures.

Another savings in the last quarter of 2011 (in the amount of RSD 9 billion) are projected in such a way that the amount of the own-source revenues (earmarked taxes, fees, etc.) should be larger than the amount of their spending[4]. Much of the personal income consists of levies that the economy pays to state funds (agencies, ministries, etc.) for clearly defined purposes of social significance. Savings in these budget positions can mean either that the burdens to the economy on these grounds are too large and that they should be reduced or that the relevant budget beneficiaries do not fully comply with their social role.

In drafting the budget for 2012, increase in spending on public sector wages and pensions had to be re-enabled, but now even in a worse situation – in the conditions of lower revenues at the central level after transfer of the income tax portion to the local level.

4 Savings are projected for the following beneficiaries: RSD 5.15 billion with the *Environmental Protection Fund*, RSD 2.15 billion with the Budgetary Water Fund of the Republic of Serbia, RSD 0.2 billion with the Ministry of Justice and RSD 1.5 billion with the Treasury.

Table 2: Emerging Europe: evolution of public debt and general government balance, 2009-2012 (Percent of GDP)

	General government balance			Public debt		
	2009	2010	2011	2009	2010	2011
Latvia	-7.8	-7.8	-4.5	32.8	39.9	39.6
Lithuania	-9.2	-7.1	-5.3	29.6	38.7	42.8
Hungary	-4.5	-4.3	2.0	78.4	80.2	76.1
Poland	-7.3	-7.9	-5.5	50.9	55.0	56.0
Bulgaria	-0.9	-3.9	-2.5	15.6	17.4	17.8
Romania	-7.3	-7.9	-5.5	50.9	55.0	56.0
Albania	-7.4	-4.2	-3.7	59.8	58.2	59.4
Bosnia and Herzegovina	-5.5	-4.3	-3.0	35.9	39.7	39.6
Croatia	-4.1	-5.0	-5.7	34.5	40.6	47.5
Macedonia, FYR	-2.7	-2.5	-2.5	23.8	24.6	26.5
Montenegro	-6.5	-3.8	-3.4	40.7	44.1	43.1
Serbia	-4.5	-4.6	-4.6	38.2	44.9	44.1
Emerging Europe	-6.2	-4.5	-2.1	30.5	40.1	39.3
EU	-6.7	-6.4	-4.5	74.3	79.8	82.3

Source: IMF, Regional Economic Outlook: Europe, October 2011

In preparing the budget for 2012, increase in wages and pensions imposed *ad hoc* adjustment again. It is obvious that the pronounced reduction in expenditures for the purchase of goods and services, as well as for subsidies and net lending was due to the fact that most of the budget expenditures were pre-defined by legal obligations of the state (Budget System Law) and by obligations to repay public debt. Compared to budget expenditures in the supplementary budget for 2011, increase in spending on pensions and wages was projected in the amount of RSD 30 billion, and increase in interest expenditures in the amount of RSD 17 billion. The projected increase in expenditure on wages and pensions complies with the Budget System Law while the increase in interest complies with the contractual obligations of the Republic. Therefore, discretionary budget expenditures had to be reduced. The biggest drop, of RSD 17 billion, was projected for the expenditures for acquisition of financial assets (net lending). Less expenditures, compared to 2011, were also projected in capital expenditures (by RSD 800 million), in the procurement of goods and services and in other current expenditures (by slightly over RSD 4 billion).

As for the projected direct support of the government to the economy in 2012, handling of subsidies and government loans (net lending) in the 2012 budget should be considered. Expenditures for subsidies and net lending are lower in the 2012 budget than in the budget revision for 2011, by about RSD 9 billion. In addition, subsidies increased by RSD 8 billion and net lending decreased by RSD 17 billion. It should be noted that the increase in subsidies results from methodological changes in the budget, but not from actual increase in subsidized funding for the economy. First, the budget contains subsidies allocated for roads for the first time (RSD 9 billion), as a result of changes in the collection of excise taxes and, consequently, the method of funding the PE "Roads of Serbia". If we exclude this new item from the budget, subsidies would actually amount to about RSD 1 billion less than in 2011. Second, certain expenses were previously credited as net lending, but are now credited as subsidies (subsidized loans for liquidity and investment of special significance – FIAT). Since the coverage is changed, the summarized expenditures for subsidies and net lending are not directly comparable with the last year's, and must be observed in individual items. Thus, subsidies for the railways should be reduced by RSD 3 billion (from 16 to 13 billion), corporate subsidies by RSD 1 billion. Subsidies to public enterprises decreased by RSD 1 billion, subsidies for tourism by RSD 200 million, while subsidies for culture decreased by RSD 120 million. On the other hand, budget subsidies for agriculture are projected to remain at almost the same level as in 2011 (about RSD 20 billion).

It must be emphasized again that the risk of spending the budget beneficiaries' own-source revenues exists in 2012 as well. A great part of public administration: ministries, funds, administration units, agencies, and the like generate their own income from various fees, taxes, penalties, and other sources. The manner in which these funds are used and displayed in the Budget Law is not in accordance with good practice of managing public finance. Apart from the budget beneficiaries' own-source revenues, earned during the year (the projected amount in 2012 is RSD 71 billion), sources of their additional income are numerous: unspent income from the previous year, grants from various domestic and foreign sources, borrowing at home and abroad, sales of assets and others. The projected framework for the budget beneficiaries' additional income in the 2012 budget (RSD 136 billion) is almost twice the own-source revenues (RSD 71 billion).

Transparency of the Republic budget is reduced by inadequate budget review in terms of sources and of the budget beneficiaries' own-source revenues spending. The most important aggregate budget tables are flawed due to the fact that they only display the Republic budget expenditures in the narrow sense. In other words, the expenditures funded from the budget beneficiaries' own-source revenues and other additional sources are not displayed. Non-transparent public finance and non-transparent economic policy arise as a result. Interpretation of the projected expenditures of individual ministries is difficult, even wrong, if the expenditures to be financed from the funds and agencies under their jurisdiction are not taken into account. The Ministry under the auspices of which most of own-source revenues is realized, is the Ministry of Agriculture, Trade, Forestry and Water Management. In 2012, in addition to RSD 23 billion of funds projected from the Republic budget (approximately the same amount as in 2011), the budget beneficiaries' additional funds are projected as source of funding in the amount of RSD 26 billion. In addition to about RSD 20 billion of budget subsidies (also shown in the Table in Article 1 of the Budget Law), the amount of more than RSD 15 billion of additional subsidies is projected to be funded from the budget beneficiaries' additional sources under the auspices of the Ministry of Agriculture, Trade, Forestry and Water Management. More drastic is the situation with the Ministry of Environment, Mining and Spatial Planning, for which slightly more than RSD 5 billion of budget sources is projected for 2012, but also more than RSD 12 billion of the budget beneficiaries' additional sources (agencies and funds) under its auspices.

An important change in the 2012 budget is initiated by the so-called fiscal decentralization. Due to amendments to the Law on Financing Local Self-Government there was a large imbalance in the revenues and expenditures at various levels of government. The Republic level of government will lose about RSD 40 billion (1.1% of GDP) in 2012, which accounts for the net effect of the application of the Law on Financing Local Self-Government. Revenues of the local level of government will increase for the same amount. In order to compensate for the loss on this ground, discretionary expenditure items of the Republic budget were forcibly reduced. Expenditures for the purchase of goods and services, subsidies and net lending decreased in 2012 in nominal terms compared to 2011, by as much as RSD 25 billion. According to the projections, an additional RSD 15 billion for the budget of the Republic should be provided from one-off revenues of the companies in bankruptcy – the residual claims of the state shall be collected from the bankruptcy estate. Projected savings will be hard to maintain and it is possible that it will result in increase in arrears in the payment of liabilities. In addition, it is not possible to permanently count on the income from the companies' bankruptcy estate, even if achieved in the projected amount, so the measures must be taken to systematically solve the emerging problem of lower income of the Republic.

Possible changes in the current system of public finance

The general public believes that the reduction in public consumption is possible if the number of employees in public administration is reduced and if the various agencies are abolished. Changes in these areas would be modest without serious reform of education, health, police, and military services. On the other hand, the prior discussion makes it is clear that the existing system can achieve significant savings in two ways: by changing the concept of the budget beneficiaries' own-source revenues and by transferring certain public functions to the level of local government.

Inadequate handling of budgeting, reporting, and spending of the budget beneficiaries' own-source and other additional income have several consequences. First, expenditures and general government deficit may break the projected boundaries, by which the process of fiscal consolidation at the central government level becomes pointless to a certain extent. High consumption of the budget beneficiaries' funds in 2012 may contribute to a 0.5 p.p. of deficit increase above the level of 4.25% of GDP. Second, we cannot clearly consider the annual resources available to the Ministries – only the funds allocated from the budget are clearly displayed, but not their own-source or other additional funds of the budget beneficiaries (those funds happen to exceed the budget funds manifold). Third, the implemented economic policy is vague – the structure of public expenditures (mostly subsidies) can be fully considered only if own-source revenues are transparently integrated into budgeting process. Fourth, spending of the budget beneficiaries' revenues cannot be reliably monitored during the year, due to, a broad, uncontrolled, framework for the spending thereof, on the one hand, and unreliable control mechanisms (arising from the legal and factual autonomy of budget beneficiaries) on the other hand. Fifth, further violation of the public finance transparency principles is possible: incentives increase to set up special budget beneficiaries (funds and agencies) that will be able to provide sufficient funds for the desirable expenditures of the relevant ministries. Sixth, the dispersed system of autonomous budget beneficiaries leads to increasing parafiscal levies (different taxes and fees), thereby increasing the burden on the economy and on the citizens.

Therefore, justification of certain forms of the budget beneficiaries' own-source revenues should be reviewed in future, as well as the possibilities of integrating a portion of those revenues with the core budget of the Republic of Serbia. This possibility should be considered since the funds saved in the current year practically do no flow into the Treasury but are transferred for the same purpose to the next year. Substantial savings are not generated in this way, but, actually, spending from the own-source revenues is only temporarily delayed. Opportunities to assess the necessity and the amount of various quasi-fiscal levies from which these funds are financed should also be considered, along with the possibilities of greater budgetary disposal of funds collected in this way.

It is also necessary to consider changes in the relations between the central government and the local government. In 2012 local authorities shall increase the liabilities on the expenditure side of the budget, by about RSD 15 billion. This is, in fact, the amount of liabilities the local government takes on for maintenance of local road infrastructure that was previously under the jurisdiction of the PE "Roads of Serbia" (about RSD 10 billion) and local investment projects that were previously conducted by the former Ministry for NIP (about RSD 5 billion). Local self-government should use the additional funds allocated in 2012, thanks to fiscal decentralization, by paying the accumulated arrears by the first half of the year (either directly or through local public companies), which would also have the desirable antirecession effect on the economy. During the second semester of the year, the new government should take steps as soon as possible to redirect a part of the local government jurisdiction from the republican level of government, probably in the area of social protection (material support to families, parental allowance, etc.). The basic idea of the proposed model of redirection is to comprehensively use the current administration, and for the local level of government to participate, to appropriate percentage, in financing social benefits for beneficiaries in their territory. In this way, reduced efficiency of public administration will be avoided, and non-productive increase in local administration employment would be prevented.

Public finance in the medium term

First, something should be said about the dilemma of whether to increase the legally defined limits on budget deficits and on public debt. In fact, according to certain viewpoints, reduction in deficit and in public debt cannot be insisted on during the crisis since – according to the Keynesian approach – the government must maintain demand and economic activity at a higher level by increasing both the deficit and the debt. Unfortunately, there is no room for application of this viewpoint in Serbia. Contrary to developed countries, Serbia cannot count on an almost unlimited financial support to scarce public finance. The total funds needed to finance the fiscal deficit and public debt principal in 2012 amount to about EUR 5 billion (deficit of EUR 1.5 billion and repayment of the public debt principal of EUR 3.5 billion). Part of the liabilities can be funded from the existing deposits on Treasury account, part of these funds could be secured by refinancing matured short-term debts arising from securities, but the remaining amount, necessary for financing fiscal deficit and due debts, is high and amounts to about EUR 2.3 billion.

Given the amount of funds necessary for financing deficit and liabilities, as well as the situation on international financial markets, problems may arise in early 2012 in financing the needs of the government. The current wave of public debt crisis in Europe has made investors distrustful and cautious so they now respond by refusing to finance the public debt of a country, at a much lower level of debt relative to GDP than was previously the case. The greatest risk Serbia can face is the situation at some point in time, which is not exactly predictable, in which the investors can estimate that Serbia is insolvent, and then can refuse to fund the needs of the state, which would mean entering a debt crisis. Serbia is particularly vulnerable to the possibility that investors can refrain from refinancing government securities, i.e. that the funds due are not reinvested in treasury bills. The last relevant international analyses indicate the possibility that, in the absence of liquidity, banks from the eurozone will begin to withdraw their capital from Central and Eastern Europe. Therefore, due to difficulties in funding the liabilities in 2012, it is almost impossible to use anti-cyclical fiscal policy (increasing the deficit and debt) to respond to the worsening of economic trends.

Government presented its medium-term plan on public finance in the Fiscal Strategy Report (previously known as the Memorandum on the Budget and on Economic Policy). According to the Fiscal Strategy Report for 2012 with projections for 2013 and 2014, we can consider the fiscal framework for the next three years. Based on this plan, it is obvious that decisive initiation of comprehensive reforms is necessary in order to bring about public expenditures cuts and increase in public revenues, because, otherwise, the public debt crisis could arise in the medium term. Due to a slowdown in economic activity in 2011 and a 1.5% of the projected low growth in real GDP in 2012, public debt will break the legal limit of 45% of GDP and, if the credible measures for a curbing thereof are not taken, it will continue to grow in 2013 and 2014. With such an upward trend in public debt Serbia will probably exceed not only legal limit of public debt but also the economic one, after which the investors will refuse to finance fiscal deficit and to service the existing public debt – i.e. Serbia will enter the public debt crisis. This means that the medium-term fiscal policy needs to be more restrictive than the one projected for 2013 and 2014 by the fiscal framework of the Fiscal Strategy Report. However, even the insufficiently restrictive fiscal framework could not be achieved in 2013 and 2014 with the current fiscal policy. It is therefore necessary to initiate comprehensive reforms as soon as possible, on both the expenditure and the revenue sides of the budget.

Decrease in the budget deficit, to 3.7% of GDP in 2013 and to 2.9% of GDP in 2014, was projected in the Fiscal Strategy Report. These deficit values are derived on the basis of the fiscal rules formula that defines the allowable amount of the budget deficit. The following assumptions are used: first, the fiscal deficit to be realized in 2012 will amount to 4.25% of GDP; second, the real GDP growth in 2013 will amount to 3% and in 2014 to 4%. The projected fiscal adjustment (i.e. the fiscal deficit reduction) in the medium term is carried out only through the expenditure side. Proposal on the Fiscal Strategy Report stipulates the fiscal adjustment of 1.7 p.p. of GDP (from 4.5% to 2.9% of GDP) in the period 2011-2014, whereby this adjustment will mostly be realized (1.6 p.p. of GDP) through reduction in public consumption. The substantial increase in public revenues was not planned (public revenue will increase, as projected, compared to GDP by 0.1 p.p. of GDP).

On the expenditure side, continuation of the sharp reduction in subsidies is projected, as well as is reduction in expenditures for goods and services, and in net lending. The largest expenditure items – the public sector pensions and wages – are defined by fiscal rules, and their share in GDP gradually reduces, which is also projected in the Fiscal Strategy Report. However, this reduction will not be sufficient to ensure the necessary adjustment of budget expenditures, so the Fiscal Strategy Report stipulated a sharp, medium-term decrease in the share of certain expenditure-side items in GDP. The priorities are allocations for the purchase of goods and services (a decrease of 1.1 p.p. of GDP) and subsidies (a decrease of 0.5 p.p. of GDP). The anticipated lending dynamics indicate the same low share in GDP as in the year of 2012. It will be very difficult to achieve such big savings.

More importantly, the proposed structure of public expenditures, even if achieved, is not desirable for the achievement of fiscal and development policy goals since the projected level of capital expenditures does not correspond to the country's development needs. Anticipated budget framework does not leave enough room for growth in capital expenditures. Only in 2012, a real increase in public expenditures is estimated to be higher than the GDP growth. In addition, their share in the public expenditures shall increase, while the dynamics in 2013 and in 2014 shall be unfavorable in terms of both growth (even a real decline is projected in 2013) and of their share in public expenditures. Such movement of capital expenditures is inconsistent with the country's development needs and with the imperative to increase the low share of capital expenditures in the structure of public expenditures.

If observed in the medium term, it is necessary to provide most of the fiscal adjustment through reduction in current public expenditures. Estimated share of public expenditures in GDP, of about 44.2% of GDP in 2012, of which over 40% of GDP are current public expenditures, is very high. Therefore, a key strategic goal of the state should be a permanent reduction in the share of current public expenditures in GDP, while a possible increase in public revenues should be of secondary importance. The time limit within which the current expenditures should be reduced is an additional restriction since estimates indicate an unsustainable increase in public debt if fiscal adjustment is not initiated as soon as possible.

Given that over 70% of expenditures is regulated by law or by liabilities (such as interest payment on public debt), the government's playing field for possible savings in the short term is small. If, however, the preparation of credible reforms is initiated and, on the bases thereof the amendments to existent laws commenced in early 2012, it is possible to improve the public sector efficiency in the short term as well as to adjust total public consumption with economic possibilities of the country. Timely systematic reduction in public consumption, compared to GDP, would have a vital contribution to the prevention of debt crisis. Sufficient savings in the current expenditure items are only achievable through systemic structural reforms, aimed at the largest expenditure items of the budget: reform of health and education sectors, streamlining of public administration, establishing of a sustainable system of fiscal decentralization, rationalization of public enterprises and continuation of pension reform.

A comprehensive tax reform will probably be necessary. It will probably have a net effect of the public revenues increase. Despite the fact that the most important tax rates remained unchanged, there was a reduction in the public revenues share in GDP in recent years. The said change was the result of the change in structure of economy at the expense of consumption decrease. Given that similar trends are likely to continue in the future, it is necessary to initiate a comprehensive tax reform that will, in the aggregate effects, lead to a certain increase in public revenues. Within such reform, VAT revenues would increase, as well as revenues from property tax and income tax revenues, while the fiscal burden on employment would decrease and a number of quasi-fiscal levies would also decrease or would be terminated. Apart from desirable fiscal implications, these changes would also have a positive effect on the improvement of business environment.

Conclusion

Companies expect low taxes, adequate budgetary support, and contribution to the stability of fiscal and financial system from the public sector. The current public finance performs none of the three tasks in an adequate manner. The paper discusses the present and the future perspective of the Serbian public finance in light of the given aspects of relationship with the economy. The conclusions are as follows:

First, public consumption in Serbia is high and inappropriate. The level of public revenues and expenditures, of 40% to 45% of GDP, does not deviate from the (high) European standards, but the declining trend in revenues, increase in expenditures, growing deficit and public debt increase are of most concern. The quality of service that the public sector provides the economy with is not satisfactory, which is equally bad as the abovementioned. In other words, it means in our case that the expensive state does not imply the state of high quality.

Second, the structure of public expenditures is unfavorable. The last two budgetary procedures (the supplementary budget for 2011 and the budget for 2012) indicate that the current expenditures, and wages and pensions within them, are undisputed. There are also growing liabilities to interest payment. Other groups of expenditure are mainly adjusted to the expenditures given below, in order to provide room for increased wages, pensions, and interest. Thus, the first in a row in 2011 were capital expenditures that additionally decreased from the already low levels. It is clear that this undermines the preconditions for rapid future growth and development. Furthermore, sharp reduction in public expenditure subsidies and government loans, as well as in purchase of goods and services from the budget, are projected as from 2012 further on. It goes without saying that the share of capital investment further decreases. The structure of public revenues in the period 2012-2014, anticipated by the government program, will probably be unsustainable but –

even if it is sustainable – it will be considered undesirable, especially from the development standpoint. The economy will not be able to count on direct government assistance (through grants and loans), or on the indirect effects (through public procurement), or even on the healthiest form of development aid – investment.

Third, public finance does not improve financial stability. On the contrary, the state is a strong competitor to companies in the financial market since the borrowing (direct and through emission of securities) reduces the banks' potential for lending to the economy and raises interest rates. The effect of increasing borrowing on the possibility to preserve macroeconomic stability is even more important. Serbia hits the legal and economic limits of the public debt. The funds necessary for financing budget deficit and for paying due debts are increased to such an extent (about EUR 5 billion in 2012) that it is uncertain whether Serbia will be able to provide them. This problem is particularly complex in terms of the general crisis of public debt in Europe. If Serbia enters a public debt crisis, the economy will be exposed to tectonic changes in the foreign exchange market (high depreciation of the dinar), in the financial markets (high interest rates and capital shortfall), and in the area of macroeconomic stability (high inflation). In such situation, we could not even expect a modest economic growth.

Correction of previous deficiencies is impossible without fundamental reforms of the public sector. If this does not happen, the maneuvering space will barely sufficient. This paper addresses some of the suggestions that are rarely discussed in public: the so-called budget beneficiaries' own-source revenues and transfer from the central government level to the level of local self-government. As part of the required public sector reform, it will be necessary first for the state to seriously demonstrate to the economy that, through the reforms of health, education, public administration, public companies and pension system, as well through regulation of business environment and grey economy, the conditions and costs of business operations will be more favorable in future. In that case, the tax reform, which would increase VAT revenue, property tax and income tax and which would reduce the burden on employment and regulate quasi-fiscal duties, would be more easily accepted by the companies and by the citizens. If the overall reform is reduced to VAT increase it would be a vulgarization of the concept that would be, rightfully, met with great opposition by the Serbian public.

References

1. Arsić, M. et al. (2010), *Tax policy in Serbia – looking ahead*, USAID Sega Project, Belgrade.
2. Fiscal Council (2011), *Ratings of Fiscal Strategy Report and the Proposal of the Budget Bill for 2012*, December 2011, Belgrade.
3. International Monetary Fund, (2011), *Regional Economic Outlook: Europe*, October 2011, Washington.
4. International Monetary Fund, (2011), *World Economic Outlook: Slowing Growth, Rising Risk*, September 2011, Washington.
5. Stamenković, S. et al. (2010), *Post-crisis model of economic growth and development of Serbia: 2011-2020*, USAID Sega Project, Belgrade.
6. Government of the Republic of Serbia, *Fiscal Strategy Report for 2012 with projections for 2013 and 2014*, December 2011, Belgrade.

Vladimir Vučković

received his B.Sc., M.Sc. and Ph.D.from the University of Belgrade, Faculty of Economics. He was elected a teaching assistant in 1998 and an assistant professor in 2004, at the same Faculty. Since June 2008, he has worked as an associate professor at the Faculty of International Economics, Megatrend University in Belgrade. He holds the position of Editor-in chief of the *Macroeconomics Analyses and Trends* magazine. He is a member of the Fiscal Council of the Republic of Serbia, a member of the Presidency of Serbian Association of Economists and an associate member of the Scientific Association of Economists. He participated in drafting numerous projects and research, supported by the Federal government, the Government of the Republic of Serbia, Republic ministries, the National Bank of Serbia, the European Agency for Reconstruction and other national and international organizations. He authored more than 70 papers in scientific and professional journals,and co-authored one textbook.

ORIGINAL SCIENTIFIC WORK
UDK: 339.7(4-672EU) ; 339.92(4-672EU)
Date of Receipt: February 2, 2012

Jasna Atanasijević
Hypo Alpe-Adria-bank Serbia

Vladimir Čupić
Hypo-Alpe-Adria bank Serbia

FINANCIAL INTEGRATION IN NEW EUROPE: OVERVIEW AND IMPLICATIONS FOR FURTHER GROWTH POLICIES IN SERBIA*

Finansijska integracija u "Novoj Evropi" – pregled i implikacije za buduće politike rasta u Srbiji

Abstract

Besides the incontestable benefits of financial development for output growth and increase of living standard across the region of so called Emerging Europe, many of underlying risks have been manifested during past two years, since the global financial crisis breakout. The aim of this paper is to overview the last two decades of financial integration with its impact on growth and income convergence of these economies. Moreover, in the perspective of change in global financial system and lower availability of foreign finance for emerging Europe, we also overview all risks stemming from the achieved level of financial integration for the macroeconomic stability. We document all identifies risks using the data for Serbia. Finally, after identifying all challenges for macroeconomic stability, we stress the importance of sustainable growth policies in the future which should aim to increase productivity and competitiveness.
JEL classification: E44, F15, F59, G32, O16,

Key words: *financial integration, New Europe, European integration, growth model, global economic crisis, income convergence, competitiveness, macroeconomic stability.*

Sažetak

Osim neospornih koristi od finansijskog razvoja za provredni rast, kao i za rast životnog standarda širom regiona, mnogi skriveni rizici su se manifestovali u području tzv. "Nove Evrope" tokom poslednje dve godine, odnosno od izbijanja globalne finansijske krize. Cilj ovog članka je da da pregled poslednje dve decenije finansijske integracije sa uticajem na rast i konvergenciju prihoda ovih privreda. Šta više, u perspektivi promena u globalnom finansijskom sistemu i smanjene dostupnosti stranih izvora finansiranja, dajemo pregled svih rizika za makroekonomsku stabilnost koji proizilaze iz trenutnog stepena finansijske integracije u zemljama tzv."Nove Evrope". U tom smislu, iznosimo sve identifikovane rizike koristeći podatke za Srbiju. Konačno, pošto identifikujemo sve izazove za makroekonomsku stabilnost, dajemo poseban značaj budućim politikama održivog rasta, čiji bi cilj trebalo da bude povećanje produktivnosti i konkurentnosti.

Ključne reči: *finansijska integracija, Nova Evropa, evropske integracije, model rasta, svetska ekonomska kriza, konvergencija dohotka, konkurentnost, makroekonomska stabilnost.*

Introduction

A lot has been written since the crisis spread out over the region, about the need of transforming the existing financial integration driven growth model in New Europe to a more sustainable one, relying on export and investments from local savings instead on foreign debt funded consumption growth. Financial integration of New Europe is also responsible for financial development defined as improvement in quantity, quality, and efficiency of financial intermediary services. Aside from unquestionable benefits of financial development for output growth and increase of living standard across the region, many of underlying risks have been manifesting during past two years, emerging also across old EU-members, this time qualified as EU periphery. These risks are due to (in particular foreign)

* The authors have benefited from research assistance from Olivera Radisa and Marko Danon, valuable comments from Boris Najman, Miloš Velimirović and Vuk Vuković as well as language corrections from Svetlana Imperl and Katarina Dimitrijević. All remaining errors are ours. The opinions expressed in this paper reflect the current judgement of the author and do not necessarily reflect the opinion of Hypo Alpe-Adria-Bank a.d. Beograd or any of its subsidiaries and affiliates. This paper is based on the publicly available information. Hypo Alpe-Adria-Bank a.d. Beograd and its affiliates do not accept any liability for the accuracy of information. Hypo Alpe-Adria-Bank a.d. Beograd and its affiliates do not accept any liability for any direct or indirect loss resulting from any use of this report or its contents. In case of quoting of this report or any of its parts, it is required to cite the source.

debt overhang (both private and public) that is exposed by inability to repay loans when interest rate rise (risk spreads), coupled with negative growth outlook (accelerated by sudden stop in debt inflows and even deleveraging in some cases) and resulting fall in asset prices and net wealth as well as still large foreign financing needs resulting from high fiscal deficits. Post Lehman-crisis difficulties to restore a steady growth path together with regulatory restrictions imposed to financial markets and banks in developed economies of Europe imply that, after a decade of intensive financial integration, this trend will certainly lose pace in the coming period. This change in trend will be particularly felt in so called Emerging Europe, where financial inflows from rich Western-European economies fuelled income convergence turning into an example of and represented a counterexample of global pattern in financial integration (where capital flows from poor to rich countries and faster growth is financed by own savings). In other words, we may see a future where foreign debt inflows being one of the main economic integration and growth driver in Emerging Europe, become scarce and more expensive or even stop.

In such a changing economic environment, we find it appropriate to overview and in some way to evaluate the previous decade of financial integration in Serbia and also to set it in a broader context of European integration. Under financial integration we consider all foreign financial and capital inflows and outflows. Combining cross country approach with use of some detailed insight from macroeconomic statistics for Serbia, we elaborate here both benefits and negative consequences from financial integration. In parallel, we summarize the main findings from the relevant cross-country studies in order to deepen some aspects of the subject. As the previous few years lasting debate on the economic policy priorities for bringing Serbia to the sustainable growth trend, as well as the recent literature by development-concerned community have brought out almost all necessary policy solutions[1] in the future, we restrain from analyzing specific policy solutions in this paper. We rather use systematical review of financial integration in order to point to the importance of investment in productive export oriented industries, of promoting domestic savings and efforts to improve competitiveness for future economic growth. Finally, a broader conclusion can be made from this – valid both for EU periphery as for New member states, candidates and future candidates. That is, as political integration perspective of these countries represented a significant levy for intensive financial integration one or two decades ago, the stock of accumulated cross country debt and direct investments received mainly by capital poorer countries from capital richer ones, reflecting the fact that economic integration has far outpaced the political one, is likely to represent at the present time a significant levy for further strengthening in the political ties across Europe.

The paper is composed as follows. In the first section we overview the income convergence as the specific European phenomena, supported by equally specific capital flows from rich to poor countries, both enjoying the catalytic role of explicit or implicit political integration in sense of institutional convergence on the first place. In the second section, we shed more light on the relation between financial integration and macroeconomic risks and vulnerabilities, while in the third section, we present the main insights on the relationship between financial integration and competitiveness of domestic manufacturing industry through local currency fx rate, increase in nominal wage and unit labour costs, as well as relative cost of financing.

Financial integration, income convergence and European integration process in Emerging Europe – overview and empirical findings

At the beginning of 1990s, the economic transition has started in the ex communist countries of the Central and Eastern Europe in parallel with their "political transition". The main ideology behind economic reforms has relied on the neo-liberalist proposition. It consisted of liberalization, privatization, macroeconomic stabilization (so called Washington consensus) and establishment of market institutions and policies. The specific reforms have been undertaken.

1 Republic of Serbia: Country Economic Memorandum "The road to prosperity: Productivity and Exports", December 2011, by World bank, represents an excellent study with strategic and policy recommendations.

The past two decades in European transition economies have been marked by an unprecedented level of integration. Formerly centrally planned economies politically belonging to the Soviet bloc have moved into the community of Western European market economies with democratic political traditions. The economic and political integration did happen in parallel. The two may be observed as strongly interrelated processes resulting in relatively fast convergence of income and living conditions of poorer European countries' citizens to the level much closer of even equal to their Western European co-habitants, Figure 1.

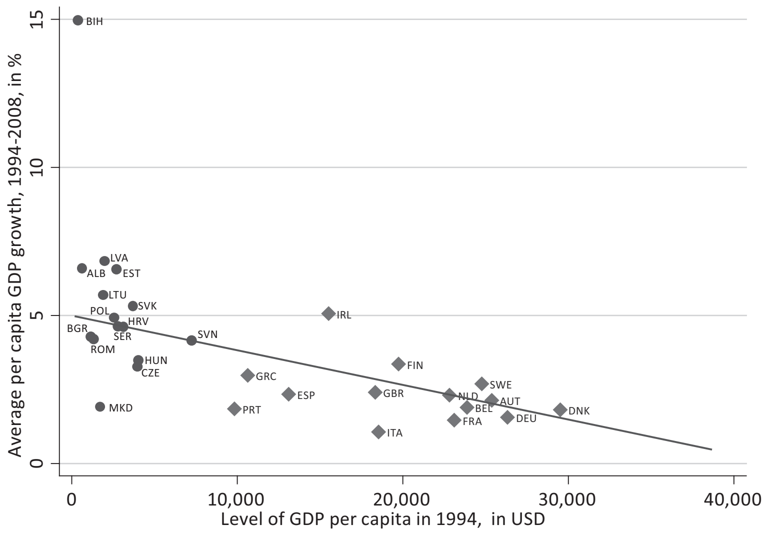
The economic integration took place on several main horizons – trade, financial, labour, knowledge where the financial integration, together with trade integration, had a prominent place.

It is however important noting that the financial integration within Europe including that of developing (Emerging) Central and Eastern European countries, took place during the worldwide trend of financial globalization. Financial globalization has started since 1980s resulting from large wave of deregulation of capital markets, opening of borders for capital flows and securitization.

And unlike global trade integration, where there is a consensus on clear positive outcome for developing countries welfare and growth (resulting from specialization, price reduction, diversification etc.), views on financial globalization are rather mixed. Financial globalization is seen as growth supporting thanks to capital accumulation and enhanced access to financing [7] and [13]. Nevertheless, it is associated with higher income volatility and exposure to crisis due to the sudden stops [4], [11] and [12]. Namely, wide range of literature on the direct net benefits from financial globalization for developing countries on the world wide scale is, however, inconclusive. An excellent literature survey by Kose et al. sum up that there is little robust evidence for the direct casual relation between financial integration and growth, but when accounting for thresholds like level of financial market development, institutional quality, governance, macroeconomic policies and trade integration, there is a positive effect of financial integration on growth for the countries above thresholds. Moreover, the benefits from financial integration seem to be rather indirect in way that financial integration plays a catalytic role in generating an array of collateral benefits that may help boosting long-run growth. These benefits are, similar to financial market development, better institutional environment, better governance and macroeconomic discipline.

When the international capital flows between developed and developing countries are concerned, there are several patterns observed on a world scale along the past two decades marked by financial globalization. The first is that capital usually goes 'uphill', that is from poor to rich countries, unlike the proposition of the neoclassical growth theory that capital goes where it is scarce and where its marginal product is thus higher, leading to the income equalization. This is known as Lucas' puzzle in international economics [10]. Second, global level economic evidence shows that there is a correlation between national level of savings and investment. This particularly mean that countries are growing based on their own savings and that there is a preference for investing at home even when there is a lower marginal return on investment than elsewhere. This finding has been puzzling from the point of view of the permanent income hypothesis, since high-growth countries should borrow abroad against

Figure 1. Convergence of income in Europe : 1994-2008



Source: World Bank databank

future income to finance a higher level of investment and consumption. It represents another famous puzzle in international economics, called Feldstein-Horioka puzzle (1980). Finally, Gourinchas and Jeanne [9] have observed on a large sample of non-OECD countries a negative correlation between productivity growth and net capital inflows over the period 1980-2000. This is known as "allocation puzzle" again contrasting the traditional view of neoclassical growth model where capital is directed toward more productive investment. The typical example for these three puzzles is that of China and United States capital flows.

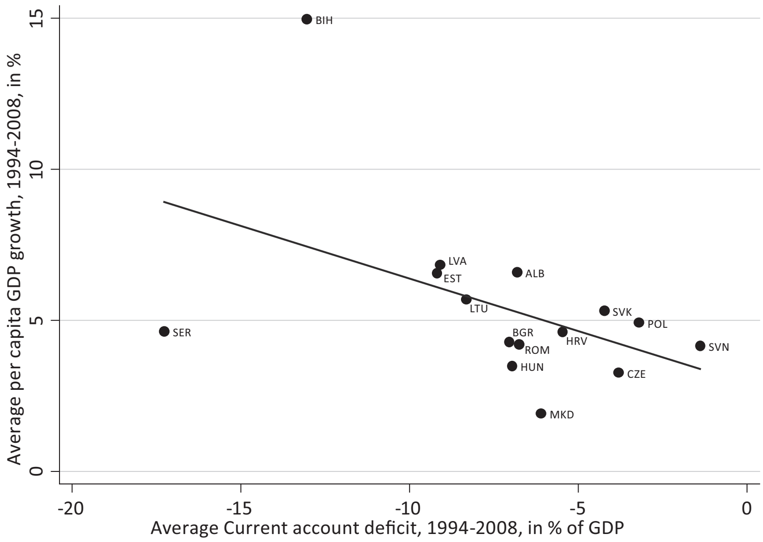
Unlike the previously described global pattern, the European case of financial integration and capital flows between 'old' and 'new' Europe over the last two decades offer a completely opposite picture. The European case is thus more corresponding to the theoretical model. In Europe, capital has been flowing 'downhill' – from rich to poorer countries. Poorer members of European Union were net receivers of capital during last two decades. Also European transition economies have been net receivers of capital from rich Western European countries since their liberalization with the end of Cold war.

Moreover, the financial integration has had a positive effect on growth in capital receiving countries of Europe, and a dimension of impact could not be explained by threshold effects (institutional quality, financial development etc.). A large study by Friedrich et al. [8] uses industry level data for 1998-2005 for 25 middle-income countries of which twelve from emerging Europe, suggests that it is political integration which causes financial integration to impact growth in Europe to a larger extent than elsewhere. They account for the four dimensions of political integration being: institutions, policy coordination, attitudes and political stability. This finding suggests that financial and political integration are complementary and that the political integration can considerably increase the benefits of financial integration.

Another European particularity is a phenomenon of income convergence. The term β-convergence was invented by Barro and Sala-i-Martin [3] and refers to the negative correlation between initial levels of real GDP per capita and its average yearly growth rate, either after conditioning for certain control variables (conditional β-convergence) or without conditioning (unconditional β-convergence). Together with the concept of β-convergence, Barro and Sala-i-Martin [3] introduce the concept of s-convergence. It refers to the decrease of the dispersion of real GDP per capita across economic units through time. It should be noted that β-convergence is a necessary but not sufficient condition for σ-convergence.

While in other parts of the world, there is no sign of convergence and in some parts of the world it has been 'a big divergence time', Europe offers again a counterexample. Catching up by new entering countries has been impressive (Figure 1). Intuitively, financial integration and income convergence in Europe are tightly related. What is more, it seems that financial flows from rich to poor countries have played a crucial role in income convergence of the last ones. And this link can be particularly well observed in the empirical analysis of determinants of current account deficits (as difference between national savings and investments) across Europe. In a large cross country study by Abiad et al. [1], explain the increased dispersion of current account deficit in Europe by the financial integration while the direction of that relationship depends on a country's income. In other words, while

Figure 2. Current account deficit and income growth in Emerging Europe



Source: World Bank databank

poorer countries that are more financially integrated run larger deficits, richer countries that are more financially integrated run larger surpluses.

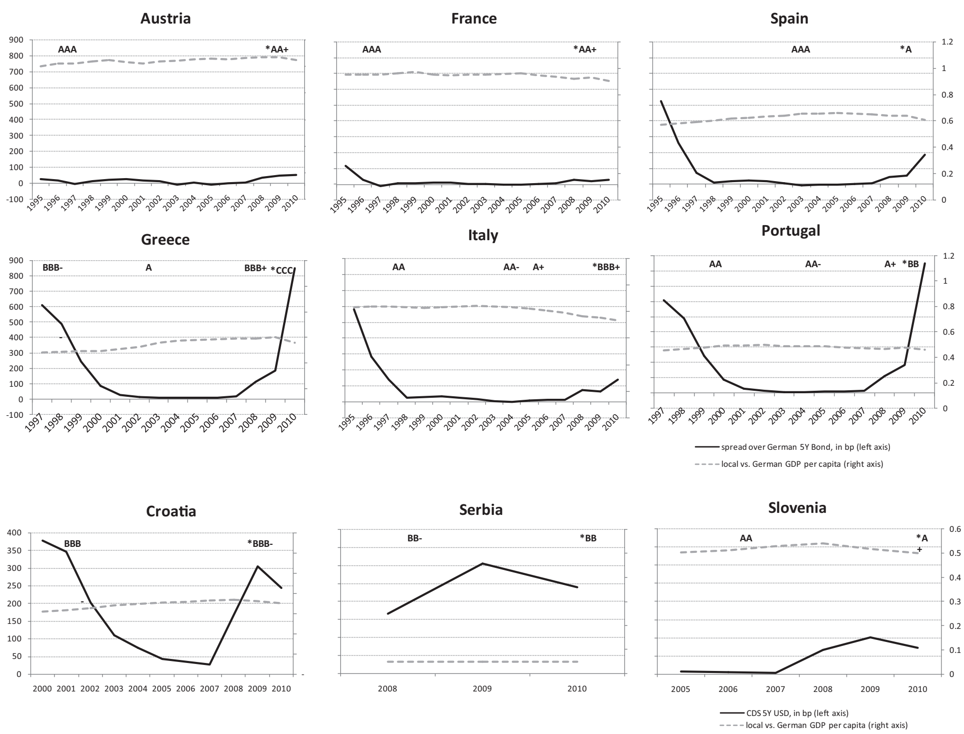
Following from the previous analysis, the negative correlation between size of current account deficit and GDP growth is registered in Europe (Figure 2), and not at all on the global scale.

But once we look at the relative cost of borrowing and income convergence across Europe over the previous decade or two, we see that the price of borrowing for poorer (but converging) European economies had reduced very fast and much faster than their per capita income has converged, Figure 3. This observation points to at least two trends. One is the abundance of financial funds willing to take a risk of investing in poorer European economies, thus reflected in high supply and lowering spread (price). Other trend is that a part of much faster decrease in spread than improvement in fundamentals (measured by relative GDP per capita to German GDP per capita) may be attributed to pricing of credibility of future alignments and convergence to richer part of Europe. The reversal in terms of spread, during last three years, after the Lehman crisis, is another proof for that assumption.

Up to this point we have depicted the big picture explaining economic processes during two decades of European integration as well as the interrelations between capital lows, financial integration, income growth and political integration. Further on, we have shown that financial integration in terms of capital price had much faster pace that economic convergence. Namely, price of foreign capital has been reduced much faster than simple improvement in fundamentals in emerging Europe as the financial markets have priced the credibility of future integration and convergence in income of these countries.

Since Lehman crisis and even more with the sovereign crisis within the EU economies, the risk of reversal of capital flows is increased due to more regulation of financial markets, more risk aversion and less liquidity. Even more, it is widely recognized that a radical change in global development agenda is in place with these last two severe crisis episodes [5]. These changes will most likely include (1) the end of 'foreign financing fetish' meaning that there will be no more cheap and abundant foreign funding of development in the future, and (2) more place for and interest in industrial policies (never criticized from theory point of view but always by the fact that economic

Figure 3. Price of debt, income convergence and S&P Rating evolution in selected European countries



Source: Bloomberg; Hypo Research

*latest available S&P rating as of January 2012 decision-making in developing countries could not be shielded from political pressure).

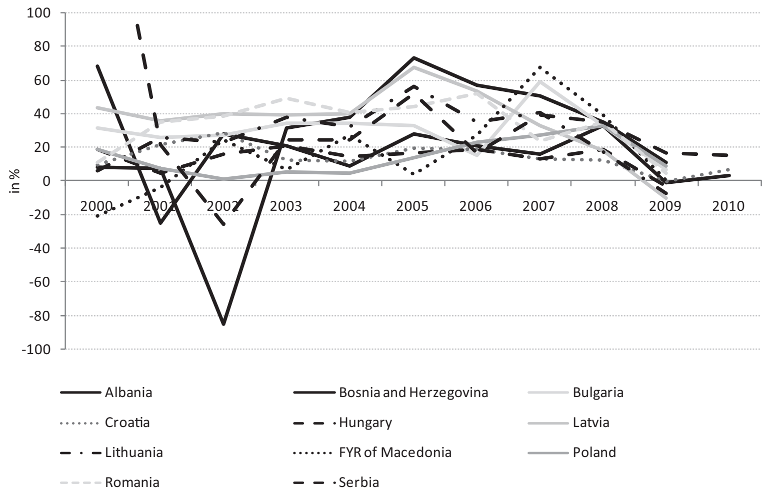
In the next section we are going to focus on risks and challenges from the financial globalization that happened in Europe, which are all relevant for managing future economic policy and for dealing with risks linked to the financial integration. These issues are as more relevant as the changes in global economic environment seem inevitable. In that context, and having in mind the explained genesis of financial integration and growth nexus in Europe, in the following section we are going to focus more on Serbian example all keeping the cross-country view. Also, we are going to illustrate the relevant macroeconomic imbalances and to give idea of their relative importance.

Macroeconomic challenges and vulnerabilities from financial integration

The increased level of financial integration, despite its incontestable income growth benefits, has opened a field for certain macroeconomic instabilities – short term volatility as well as long term structural imbalances. For the purpose of this overview, we classify all these main macroeconomic risks as follows: (1) demand boom impact to price and wage inflation and competitiveness; (2) risk of output fall due to sudden stops and reversals in foreign inflows; (3) exchange rate volatility and related monetary policy constraints; (4) debt sustainability risk and (5) risk of deepening of structural imbalances including fall in domestic savings rate, rise in fiscal deficit and underdevelopment of tradable (export oriented) sectors.

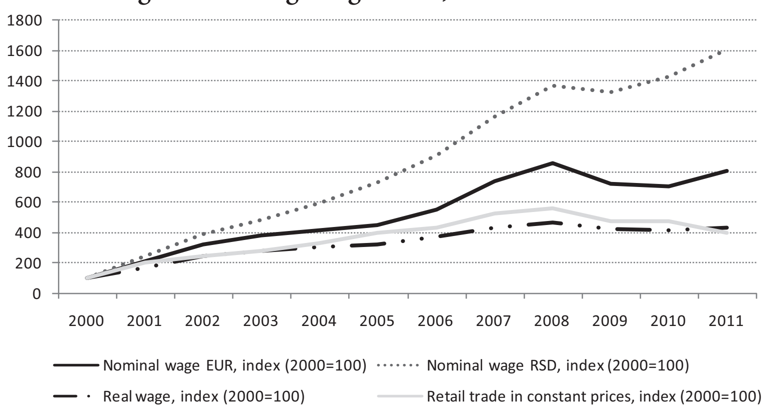
The long period of financial inflows has resulted in a demand boom, pushed in particular by bank credit expansion. Average annual credit growth across the region was of about 40% in the period 2003-2008, Figure 4. Some of this expansion can be attributed to the caching up due to the start from a low base once credit and consumption constrains were eliminated. However, the demand boom has been a principal cost push factor raising general price level and wages and consequently reducing overall competitiveness.

Figure 4. Domestic credit expansion, 2000-2010



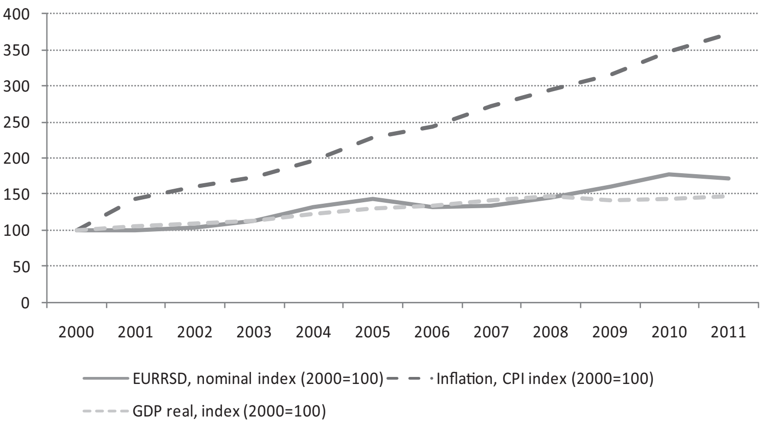
Source: EBRD; Hypo Research

Figure 5. Average wage index, Serbia: 2000-2011



Source: Statistical Office of Serbia; Hypo Research

Figure 6. Prices, exchange rate and output, Serbia: 2000-2011



Source: Statistical Office of Serbia; National Bank of Serbia; Hypo Research

Serbian example reveals that over the 10-years period from 2001-2011, consumer prices level has increased four times (same as real volume in retail trade), average nominal wage has boosted 16 times and real wage somewhat above four times. In the same time, real output has only doubled, Figure 5. During the same period, the exchange rate of dinar vs. euro has lost a half of its value in nominal terms, while it has almost doubled in real terms. Consequently, nominal wage translated into euro terms has increased 8 times, far less from the rise in value of production resulting in rise in unit labour costs, and therefore in fall in export competitiveness. Moreover, the trend in exchange rate and prices i.e. real appreciation of dinar has also resulted in reduction in export competitiveness since import became relatively cheaper and export relatively more expensive.

For better capturing the level of financial integration in Serbia during the previous decade, one should look at the balance of financial inflows and their "destination" in absolute terms, Figure 7.

A high dependance of output growth on foreign inflows is particularly uncomfortable once the flows suddenly reversed, and curent account deficit consequently contracts, Figure 8. That happened in Serbia, like elswere in the region of South-Eastern Europe, in last quarter of 2008. Although moderated by the arrangement with the IMF agreed in 2009, the output droped by 3% in 2009, and dinar lost about 20% of its value during last quarter of 2008 and first quarter of 2009. Since that time, the stock of cross border loans to companies, has started to melt down from the level of almost EUR 11bn at end-2009 with constant net repayments all over 2009, 2010 and 2011. However, Vienna agreement and relatively solid shape of European banks at the time of Lehman crisis have enabled localy present foreign banks' headquarters to compensate for the decrease of their direct exposure to companies with increase in ref-lines from headquarters to local subsidiaries. The trend of lack of foreign financial inflows was borken since end-2010 and all over 2011 when strong portfolio inflows destinated to government T-bills, and recently sold Eurobond outvalued the outflows from deleveraging by companies on cross-border loans, banking sector foreign liabilities remaining pretty stable. Serbian economy has registered somewhat accelerated growth in first half of 2011, and dinar has remained nominaly stable, appreciating 7% in real terms. One thing has, however, radicaly changed recently. Over last year the financial position of European banks have been deteoriating on sovereign debt crisis in EU periphery and fall in asset prices. New capital requirements in combination with increase in risk and fall in market value of assets have imposed much higher nominal capital needs[2], and many banks encounter difficulties to raise additional equity. On the other hand, improvements in capital adequacy

2 Estimated lack of capital by the EU banks after stress test in October 2011 was at EUR 105 bn at the time; however, due to the fall in government bond prices since, the capital requirement has increased significantly, UBS, 2011.

Figure 7. Serbian financial integration balance: 2000-2011

Investment destination of inflows, form of assets (contracts), stock at end-2011 - large part of the stock financed from flows listed in right column		Foreign financial inflows (net), cumulative for the period 2000-2011	
• Equity (privatization, greenfield investment, stock market)	~ EUR 10 bn	• Foreign direct investments	~ EUR 15 bn
• Domestic banking sector credit to companies and households (a part is financed from locally collected deposits)	a part of ~EUR 17 bn	• Foreign banks loans to local banks (mostly ref-lines from headquarters)	~ EUR 4.3 bn
• Government debt (Eurobond, stock of locally issued T-bills and bonds, other Gvt.debt net increase over the period, IFIs etc.)	~ EUR 3.8 bn	• Foreign banks direct cross-border loans to companies in Serbia	~ EUR 9 bn
• Short term liquidity, RSD reverse repo 2-week contracts with NBS	~ EUR 1.7 bn	• Portfolio inflows	~ EUR 2.6 bn
		Total	**~ EUR 30.3 bn**

Source: Hypo Research

may be reached as well by cutting banks' assets. The last would mean to reduce exposure to countries with lower investment rating. Translated into Serbian perspective, there is a high risk of net outflows of foreign funds in the following period. In that case, foreign financing channel may harm Serbian output growth and much effort should be put in mitigating such risks. In times of financial deleveraging, the necessity of FDI inflows for increasing investment and for balancing foreign currency flows in Serbia is particularly important. Also, in such circumstances, the arangement with the IMF plays as a buffer for external shocks. Moreover, other growth drivers, like productivity growth and support to export and competitivness should become high priority.

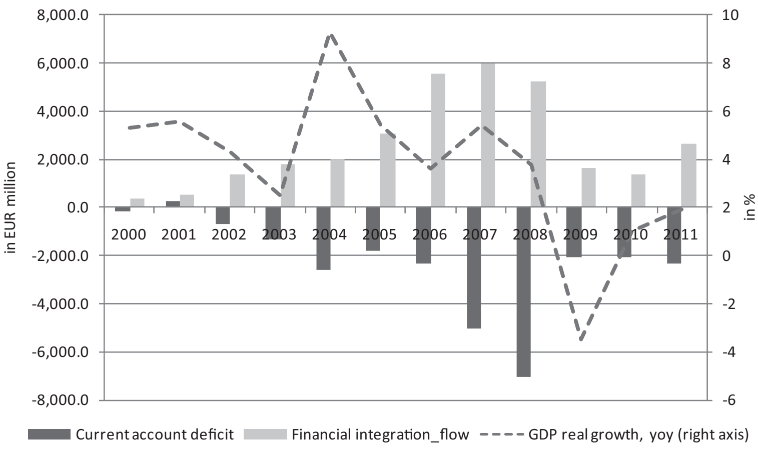
Although larger scale deleveraging of European bank may imacts each of host countries macroeconomic conditions, the coordination in a form of recently launched "Vienna 2.0" innitiative is a good example of political integration within Europe. It may help to avoid serious damages of sudden and uncoordinated deleveraging to output growth and exchange rate stability of host countries of South Eastern Europe and further deteoriation of the quality of banks' claims on these economies.

Foreign currency stability is an important element of stable business environment. It is also an important element of price stability, especially in small open economy with the hystory of inflation. However, a price to pay in order to have an independent monetary policy (instead of adopting a currency board and import price stability from the chosen hard currency country) is a floating exchange rate. It is known in economic theory as so called impossible or unholy trinity of fixed exchange rate, open capital account and stable prices where one has to be abandoned.

However, exchange rate flexibility happens to be very destabilizing in open economies with relatively shallow foreign currency markets. In such circumstances, during a wave of high foreign currency inflows, particularly in 2003-2007 period, countries deciding for floating exchange rates opted for so called sterilized interventions in order to manage the appreciation pressures. The intervention on foreign exchange market by the central bank would only mitigate the local currency volatility, in this case – appreciation. On the other hand, additionally created local currency liquidity would be absorbed through reverse repo operations by the central bank.

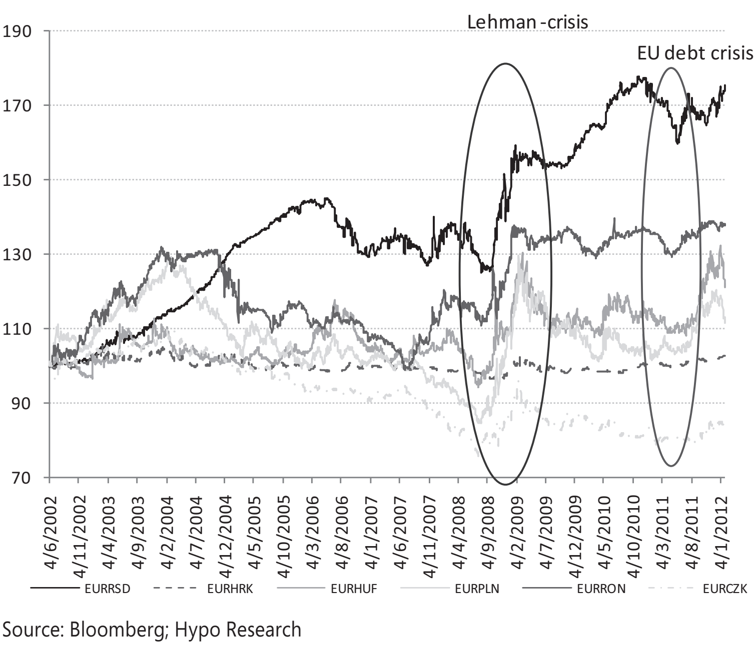
On the other hand, when condition reversed, with two last episodes of stress on the global financial market,

Figure 8 : Financial integration, current account deficit and growth, Serbia, 2000-2011



Source: NBS, Statistical Office of Serbia, Hypo Research

Figure 9. Exchange rate of emerging European currencies vs. Euro, index 2002=100



Source: Bloomberg; Hypo Research

all emerging European currencies went under strong depreciation pressures, Figure 9.

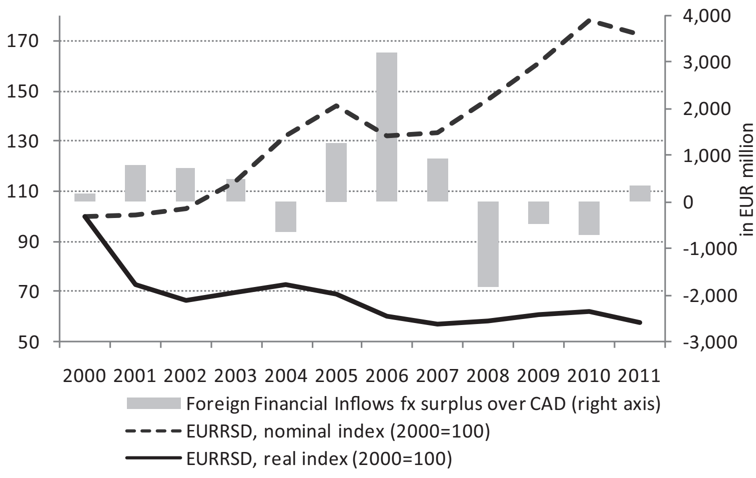
Although price stabilizing through direct impact on prices of imported goods and indirectly by anchoring inflation expectations, appreciation is reinforcing current account gap and worsens export competitiveness. Dinar depreciation is acting in right the opposite direction and is happening in absence of inflows from abroad in the economy with current account deficit. It is even stronger in circumstances of net outflows of foreign financing from the country. Dinar appreciation was likewise happening during the episodes of intensive foreign inflows, in 2006 and 2007 and in 2011, Figure 10. It depreciated in times of outflows in last quarter of 2008 and first quarter of 2009 and all over 2010. All these episodes were partly mitigated by NBS interventions against the exchange rate volatility.

All central banks that opted for exchange rate flexibility have also chosen the inflation targeting framework as monetary policy regime, as Czech Republic, Hungary, Poland, Romania, Serbia. On the other hand, some countries have chosen to keep pegging their currencies (or adopted currency boards) and provide the exchange rate stability as price stabilizer. These were Croatia with currency peg and Bulgaria, Montenegro, Bosnia and Herzegovina, Estonia with currency boards.

The positive differential between interest rate on the local money market (repo rate and Government T-bills rate) and interest rate from international money market rates (e.g. Euribor) joinlly with local currency exchange rate movements (or stability) have offered a space for international arbitrage or for so called carry trade.

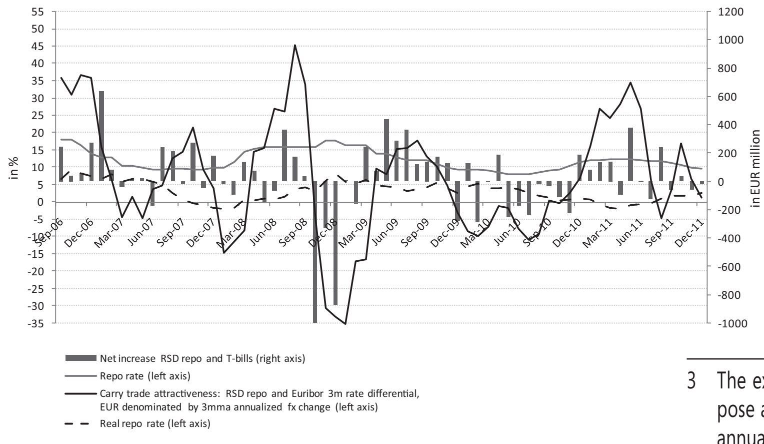
In that respect, we may observe that in Serbia, over the period 2006-2012, since the dinar repo and T-bills market have been in place, absolute value of inflows into these markets is highly correlated with the yield on dinar placements converted to euro after certain time[3] rather than to the level of nominal or real dinar interest rate, Figure 11.

Figure 10. Foreign currency surpluses and EURRSD rate



Source: NBS; Hypo Research

Figure 11. Carry trade attractiveness



Source: NBS; Statistical Office of Serbia; Hypo Research

Another characteristic of the financial system of emerging European economies, in some way directly linked to the achieved level of financial integration is a high proportion of total loans by banking sector with indexation clause to foreign currency, varying from about 35% in Poland over 60% level in Hungary, Bulgaria, Romania, to above 70% in Serbia, Croatia to even 90% in Lithuania.

What the previously exposed specifics – flexible exchange rate, presence of carry trade flows and high level of indexation to euro, imply for te efficiency of the local monetary policy in inflation targeting regime (inlation as a single goal, flexible exchange rate, local currency short term reference rate as the main instrument, high transmission of exchange rate movements to prices) in small open economies in emerging Europe?

3 The expected change in foreign exchange should be used for this purpose as an element of uncovered interest parity equation. Here, we use annualized change of exchange rate in the preceding three months as a proxy for the expected change in exchange rate.

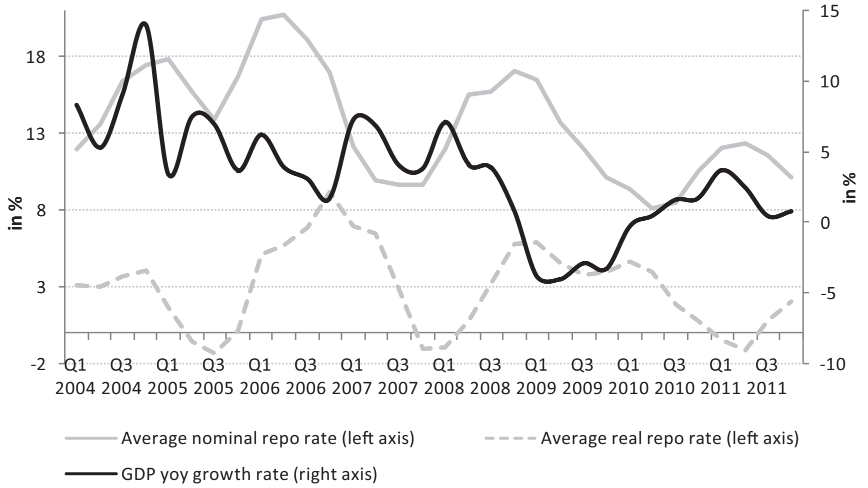
First of all, classical monetary policy channel of influencing real flows via interest rate impact on consumption, investment and saving decisions is theoreticaly limited to the local currency denominated part of monetary sector assets, which is 30-40% in average. The remaining part is rather influenced by the interest rate from the international financial market and the courty risk spread (evolving not only in line with fundamentals, but also in line with market participants risk aversion and market liquidity, Figure 3).

Secondly, within the local currency interest rate channel, central bank has to be always aware of the indirect impact of its reference rate on exchange rate movements. More precisely, if central bank decides to lower a local benchmark interest rate, lowering thus the return on money market placements of foreign funded market players, the central bank risks the outflow of funds temporarily parked in local currency contracts. That operation could then trigger a wave of outflows and induce local currency exchange rate depreciation. And vice versa. And once this mechanism is activated by an exogenous shock and foreign inflows suddenly reverse caousing depreciation of local currency (like with the Lehman crisis), even though the real activity is in danger of recession, central bank has an inherent limit in relaxing reference interest rate. Namely, lowering the interest rate together with exchange rate depreciation would lower the yield on carry trade and would risk additional foreign currency outflows. Even more, central bank, in these circumstances may be forced to increase its reference rate to induce some additional foreign currency liquidity inflows in order to stabilize the currency. This local interest rate – exchange rate link combined with high transmission of exchange rate movements to local prices is representing a second large limitation for the local monetary policy.

Following from the last set of observations, we may notice that reference dinar interest rate level was in a way pro-cyclical as a monetary policy instrument in Serbia, Figure 12. Contractions in output are coupled by high (restrictive) level of both nominal and real interest rate, and vice versa. Consequently, credit in local currency was relatively cheaper in good times and more expensive in bad times.

One more legacy of lasting financial integration and related foreign debt availability is a high level of accumulated foreign debt with emerging European countries. This was also the feature of poorer EU countries (so called EU-periphery) which have experienced the same financial integration – convergence model. Depending of the countries' fiscal discipline, this debt is in some of these countries more directed to public and in others to private entities. Anyhow, with the raise in debt price (sovereign risk spread), and recession in the real sector, and persistent foreign financing needs (for covering of the maturing part of the existing debt stock and new deficits of public finances, or private sector needs), new debt inflows and debt sustainability in that way come under question. From the simple debt sustainability equation, it simply follows that in the reduction of debt weight over GDP is possible with reduction in deficit, reduction of interest

Figure 12. Real output growth and reference interest rate movements, Serbia, 2004 - 2011



Source: NBS; Statistical Office of Serbia; Hypo Research rate on the existing debt[4], and by raise in output growth. In the absence of foreign financial inflows as fuel for local output growth, it implies that new growth sources have to be prioritized, such as productivity improvements.

Last but not the least, we arrive to the more structural and long lasting risk in terms of genesis and in terms of necessary time and effort for correction, which is a risk of structural imbalances resulting from longer lasting pattern of investment decisions in certain industries. Namely, as with soaring financial inflows, current account deficit have persisted (though contracted significantly), the underdevelopment of export oriented (tradable) sectors has become an issue since during the financial integration process, the major contributors to overall growth were in services sectors, real estate, trade and communications.

Some of reasons for underinvestment and lower productivity in tradable sectors relative to non –tradable ones, as discussed in Čupić, Atanasijević [2], may rely in less available financing for productive investments in terms of maturity (lack of necessary long term funding), and interest rate (country risk spread and local monetary policy cost components built in final interest rate result in unbearable or uncompetitive financing costs for local producers in manufacturing industries, traditionally needing higher fixed investment, longer period to reach full productivity and with lower profitability rate than services business).

Conclusion

The pattern of global capital flows during the last two decades of financial integration, characterized by three well known puzzles in international macroeconomics contesting the neoclassical theory propositions, consisted in: (1) capital moving from poorer to richer countries (Lucas puzzle), (2) countries growing based on their own savings and preference for investing at home even when there is a lower marginal return on investment than elsewhere (Felshtein Horioka puzzle), and (3) "allocation puzzle" by Gournichas and Jeanne [9]. All these pattern were completely opposed by the pattern of financial flows within Europe.

The perspective of implicit and explicit integration into the European Union has represented a significant leverage for the economic integration and for financial integration in particular. On the other hand, financial integration spurred a financial development, both having the incontestable role in economic growth. The contribution of financial integration to economic performance has been so crucial that the overall growth pattern in European transition economies has been qualified in the literature as "financial integration driven growth model". The role of financial integration and rapid financial development was also central for transmission of the recent global financial crisis to the New Europe. The last has pointed to the risks inherent to the growth model despite incontestable benefits for growth and welfare.

The lack of financial inflows will stress the importance of (1) competitiveness enhancing: institutional reforms, public sector reform, infrastructure PPP as financing pattern for infrastructure, business environment improvement (public administration, bureaucracy etc.), (2) structural reforms via investments in productive capacities – import substitution and export increase. State policies could here mitigate the problem of maturity transformation of short term savings to long term investment and of price for investment financing, (3) fostering domestic savings. This structural transformation is not particularly job creating so there is a place for particular policies to mitigate this problem. Increasing competitiveness in services sector could provide job creation. Education policy should also support these developments – higher demand of engineering and technical skilled staff unlike for commercial. Industrial policy directed toward industries with comparative advantage [15], presents the approach and identifies some of these industries.

Besides the exposed review of risks and challenges stemming from the financial integration, further integration should not be in question for a small open economy like Serbia. Better understanding of risks should serve for policymakers to be able to react and try to lead the integration process in more comfortable way from the local stability perspective. The alignment of regulation,

4 Important component of the interest rate on foreign debt is the country risk spread.

elimination of administrative barriers, and institutional convergence all represent a proven benefit for development and reforms in that respect should be pursued until the complete harmonization.

References

1. Abiad A, D. Leigh and A. Mody, 2009, "Financial Integration, Capital Mobility, and Income Convergence", *Economic Policy*, Vol. 24, No. 4, pp. 241-305
2. Atanasijević, J. and Čupić V, 2010, "Financial Integration and Access to Finance in Transition Economies: a Sectoral Approach", *Ekonomika preduzeća,* vol. 58, No. 1-2, pp. 50-58
3. Barro, R.J. and X. Sala-i-Martin, 1992, "Convergence", *Journal of Political Economy* No.100 (2), pp.223-251
4. Bhagwati, J, 1998, "The Capital Myth. The Difference between Trade in Widgets and Dollars", *Foreign Affairs*, Vol. 7, No. 3, pp. 7-12
5. Birdsall N, Fukuyama F, 2011, "The Post-Washington Consensus: Development after the Crisis", *Center for Global Development*, Working Paper 244
6. Feldstein M. and C. Horioka, 1980, "Domestic Savings and International Capital Flows", *The Economic Journal*, Vol.90, No.358 (June, 1980), pp.314-329
7. Fisher S, 1998, "Capital Account Liberalization and the Role of the IMF", in "Should the IMF Pursue Capital-Account Convertibility?", *Essays in International Finance, Department of Economics,* Princeton University, Vol. 15, No. 2, pp. 3-24
8. Friedrich C, I. Schnabel and J. Zettelmeyer, 2010, "Financial Integration and Growth – Is Emerging Europe Different?", *EBRD Working paper* no. 123
9. Gourinchas P.O. and O. Jeanne, 2006, "Capital Flows to developing countries: the allocation puzzle", *NBER Working paper,* Working Paper 13602
10. Lucas R, 1990, "Why doesn't capital flow from rich to poor countries?", *American Economic Review*, Vol.80, No.2, pp.92-96
11. Rodrik D, 1998, ''Who Needs Capital-Account Convertibility?, *Essays in International Finance,* No. 207 (Princeton , New Jersey: Princeton University)
12. Stiglitz, J, 2002, *Globalization and Its Discontents*, New York, W.W. Norton and Company
13. Summers L, 2000, ''International Financial Crises: Causes, Prevention and Cures'', *American Economic Review*, Vol.90, No.2, pp.1-16
14. UBS Investment research , 2011, "*Getting a grip (or otherwise)"*
15. World Bank, 2011, *"Republic of Serbia: Country Economic Memorandum, The road to prosperity: Productivity and Exports*", Report No. 65845-YF

Jasna Atanasijević

is chief economist at Hypo Alpe-Adria-Bank a.d. Beograd since October 2009. She worked previously as researcher and member of Managing Board of CEVES think-tank and member of the editing board of FREN's publication Quarterly Monitor of Economic Trends and Policies in Serbia. She has a number of published research papers both internationally and in Serbian journals. She has also experience in audit and advisory service at KPMG's Belgrade in 2001 and 2002. She is a PhD candidate at University Paris 1 Sorbonne and holds a degree in banking and finance from University Toulouse 1—Sciences Sociales and at Faculty of Economics, University of Belgrade.

Vladimir Čupić

Started career at Deloitte & Touche in 1997. Advisor to the Privatisation Minister and first Director and Executive Director of the Privatisation Agency in the period July 2001 – May 2003. Engaged by Hypo Alpe-Adria-Bank a.d. Beograd from 2003, Chairman of the Executive Board from 2007. Formally in charge of management and development of corporate banking, public finance, legal affairs, economic analysis, corporate communications, marketing and human resources.

Chairman of NALED Board of Directors, Chairman of the Banking and Insurance Committee of the Serbian Chamber of Commerce and Vice-Chairman of AmCham Finance Committee. Member of the Board Directors of the Serbian Banks Association, Presidency of Serbian Economists Association, Business Advisory Council of SEE, Board of Directors of the Serbian Association of Managers and Board of Directors of the company Metalac a.d. Member of the Board of Directors of the Sports Association Partizan and Vice-Chairman of the Serbian Skiing Association.

Named Banker of the Year 2007 by Ekonomist Media Group.

Married, father of two.

ORIGINAL SCIENTIFIC WORK
UDK: 338.45.01
Date of Receipt: February 15, 2012

Dušan Vujović
Singidunum University
Faculty of Economics,
Finance and Administration

NEW INDUSTRIAL POLICY: NAVIGATING BETWEEN MARKET AND GOVERNMENT FAILURE

Nova industrijska politika: slalom između Scile tržišta i Haribde državne intervencije

Abstract

After three decades of expulsion, the industrial policy (IP) is again a part of legitimate policy agenda in developed and emerging economies alike. The theoretical case for IP interventions remains valid in the presence of continued market failures enhanced by growing share of international trade and stronger connectedness in the global economy. But dangers of government failures are equally present, either through errors of commission (due to excessive and wrong government intervention) or omission (failure to act and correct the obvious market failures). At the practical policy level the issue is no longer "why" IP is needed, or whether the government should engage in IP, but "how" to design and implement IP measures that would avoid the known pitfalls of the past and help sustain development and obtain desirable economic restructuring. Recent debates (Lin-Chang, Rodrik-Lerner) and thorough literature surveys (Harrison) confirm the need for IP, but recommend a close alignment with comparative advantage (Lin), shift from hard (tariffs, subsidies) to soft IP interventions aimed at increasing productivity whenever possible (Harrison), and suggest avoiding risks of poorly designed IP measures through joint government-private sector "self-discovery" of optimal IP policy parameters not known ex ante (Rodrik). Advanced WTO and bilateral trade arrangements may seriously limit the scope for legitimate new industrial policy.

Key words: *industrial policy, market failure, government failure, trade, policy neutrality.*

JEL classification: L50, L51, O12, O13

Sažetak

Posle tri decenije izgnanstva industrijska politika (IP) ponovo je deo legitimnih politika koje stoje na raspolaganju razvijenim i novim tržišnim privredama. Toerijsko opravdanje za IP intervencije ostaje validno u prisustvu stalnih tržišnih nesavršenosti koje se pojačavaju rastom međunarodne trgovine i svejačih (ekonomskih i finansijskih) veza u globalnoj svetskoj privredi. Ali opasnosti grešaka državne intervencije ostaju prisutne, bilo da je reč o pogrešnim ili prejakim merama, ili o odsustvu nephodnih mera da se preduprede ili koriguju greške tržišta. Na nivou praktične politike, pitanje nije "zašto" je potrebna IP, i da li bi država trebalo da se anagažuje u vođenju IP, već "kako" da se pripreme i sprovedu mere IP da bi se izbegle greške iz prošlosti, podržao privredni razvoj i dostigla željena promena ekonomske strukture. Nedavne debate (Lin-Chang, Rodrik-Lerner) i detaljni pregled literature (Harrison) potvrđuju potrebu za vođenjem IP, ali preporučuju da mere IP budu usaglašene sa pravilimakomparativnih prednosti (Lin), pomerene sa tzv. Tvrdih mera (carine, subvencije) na mekane IP mere usmerene na porast produktivnosti(Harrison), i predlažu da se izbegava rizik loše koncipiranih IP mera putem zajedničkog delovanja države i privatnog sektora u "otkrivanju" optimalnih IP parametara koji ex ante nisupoznati (Rodrik). Postojeći aranžmani u okviru STO i bilateralni dogovori mogu ozbiljno da ograničavaju raspoloživi proctor za definisanje i sprovođenje legitimne industrijske politike.

Ključne reči: *industrijska politika, tržišne nesavršenosti, državni intervencionizam, spoljna trgovina, neutralnost ekonomske politike.*

Introduction and background: the global revival of industrial policy

As leading policy analysts predicted eight years ago [25], and the usually conservative but extra influential The Economist [10] repeatedly emphasized during the past few years, we are witnessing a strong global revival of industrial policy. After the 2008 financial crisis OECD countries intervened heavily to help ailing sectors and promote economic revival and growth. After three decades of ideological expulsion, the political stigma has been removed from industrial policy. In his previous incarnation as EC commissioner, Mario Monti said: "Industrial policy is no longer taboo. There's a revival of demand for it. "

Despite the recent revival, industrial policy (IP) remains controversial: there have been many successes, but also as many expensive failures in the past. Governments rarely evaluated the full costs and benefits of IP properly, and even when they did the full results were seldom made public. Past academic debates were, therefore, more inspired by pure scholarly positions and theoretical ideology than based on facts. In the US, the academic and policy debate over IP has raged fiercely since Baldwin [4] launched a frontal attack on infant industry protection, the centerpiece of old industrial policy, and Krueger [16] questioned the rent-seeking nature of IP and government interventions in general.

Initially, the academic debate had little influence on the ongoing IP activities. The US government has had a long tradition of IP[1] with some most glaring successes of global importance: the creation of internet and the rise of Silicon Valley were a direct result of projects funded by the government (defense department). Despite the successes and calls for a more coherent IP, the US government interventions to correct market failure remained sporadic and the political ownership of IP rested with the Democrats only. The big shift against IP programs happened during R. Reagan and G. Bush senior administrations (1981-1992). They fully endorsed the neoliberal trust in free-trade and self-correcting markets and thoroughly purged, scaled down or eliminated all IP programs and pro-development government interventions. The IP programs remained heavily underfunded or inactive by inertia during the Clinton administration (1993-2000) and by design during G. W. Bush terms in office (2001-2008). Based on past successes in the 1970's, the Obama administration has reintroduced an innovation strategy for sectors of national importance, revived many old programs, including support for SMEs, and set up new programs (such as national network of business incubators and support for green technology).

Europe also had some important IP successes in promoting the development of nuclear power technology and high-speed rail (in France) and Airbus industry (jointly in France, Germany and Spain). But IP failures and mediocre results were more usual. Despite a relatively mixed record, IP interventions in Europe were sustained over the past decades. With the exception of Britain during Margaret Thathcher years, IP in Europe has never been exposed to such a coordinated political and academic attack as in the US. After all, the very core idea of EU was based on an IP aimed to provide coordinated support coal and steel sector.

With a few exceptions, governments around the world often failed to boost entrepreneurship and structural change either because they "picked" the wrong industries to promote, or used flawed or poorly designed IP process. Another important reason for failure is owed to "global fads" in technology or propulsive sectors: when too many countries target very few priority sectors, by definition some IP programs are bound to fail, just like some private investment were destined to failure in the dot-com frenzy. Hence, the famed IP sector bias should be taken with a pinch of salt since some of the biggest IP successes and failures happened within the same (semiconductor) industry. Partly this is due to growing risks of IP style intervention associated with such a competitive, global and open industry; partly some of the failures were simply inevitable because the strategic importance of the semiconductor sector attracted too much IP attention, as indicated above. According to McKinsey Global Institute, around US $200 billion of IP subsidies went into this sector since 1976; about half that sum expensed in the US (US $36 billion), Korea (US $26 billion), and Taiwan

1 SMEs received loan guarantees by SBA (Small Business Administration) since 1953. Targeted defense and space spending was instrumental in creating Boeing, a national and global champion in aircraft-making. The government bailed out Lockheed in 1971 and Chrysler in 1979.

(US $43 billion) helped establish enduringly successful semiconductor industries. The other half has been labeled as wasteful use of public resources on IP despite the fact that 50% overall success ratio appears very high in such a risky globally competitive sector; additionally it remains to be seen if IP spent thus far by Germany, Japan, and especially China will indeed show no end result.

Despite obvious fears of past failures, the new wave of IP interventions in the US and Europe appears to be huge in size and scope. It has four main drivers: First, a need to counter the prolonged global economic crisis. After years of high unemployment and slow growth western governments became increasingly inclined to support selected industries to promote growth, save jobs and help fight foreign competition. Second, boost new green technology and sponsor traditional sectors (with proven growth and export record). The US, EU and many other countries showed clear intent to drop the famous policy neutrality and actively influence structural change (i. e. rebalance the structure of their economies away from swollen finance and property towards green technologies, targeted industries and related services). Third, protect jobs by supporting small and medium size industries through better access to financing. Fourth, replicate the apparently successful policies of fast-growing economies (China, Korea, India).

- The US has pumped hundreds of billions into banks and carmakers in line with government commitment to make "strategic decisions about strategic industries" (Obama). In addition, Obama's stimulus plan earmarked billions for innovation in green sectors (renewable energy, high-speed rail and advanced vehicles).
- Japan announced the recreation of the once famous "Japan Inc" idea to deepen links between businesses and the state, and combat the "increasingly aggressive" industrial policies of other countries (including the US, Britain, China, France, Germany and South Korea).
- EU countries have poured money on banks and carmakers, and the EC unveiled a new active industrial strategy [11] combining horizontal and vertical sector specific measures focused on enhancing innovation and competitiveness.
- Strategic Investment Funds have been setup in France and Britain[2] to guide new interventions in specific industries and companies, as well as tighten controls over public stake in companies.
- China, India, Korea and many other developing and emerging economies have been successfully using industrial policy to promote select industries as means of accelerating economic development. More recently China has oriented an important share of its IP efforts towards supporting new technologies.
- International organizations are also changing their attitude towards IP. After decades of consensus that industrial policy doesn't work for developing nations, the World Bank is again recommending its use, albeit confined to interventions designed to enhance traditional comparative advantage.

Despite many promises that the new IP drive will scrupulously avoid mistakes of the past (in picking winners or rescuing losers), the initial steps do not provide much confidence that this will indeed be the case. As an example, in a typical "picking winners" fashion, the EC has already moved to express preference about the green car of the future. Instead, given the level of uncertainty in this area, the EC could have better concentrated its efforts on creating demand for green products and services by setting a carbon price; or by engaging in a "discovery process" with the private sector to design the best support and market correction measures as suggested by Rodrik [25], [26] Hausmann [13], [14] and Harrison [12]. The choice of best technologies and individual products should emerge from the market.

In a similar fashion, the US Department of Energy has expressed its preference for new green vehicles by extending low interest multi-billion loans to three existing electric car producers and one startup. Financial markets have perceived this a clear sign of picking winners in this highly risky area and at this time would not invest in any other companies. Instead of favoring the so called horizontal measures that would support R&D in green technology, and the development of required skills that would jointly

2 Conservative-led coalition government in Britain has challenged this plan as "new interventionism" and has cancelled some loans, but much of the Labor party plan remains in place.

lead to innovations and ultimately the best technologies and products, the government is impatiently invoking crude vertical policies targeting specific subsectors and even individual companies. This approach is reminiscent of the old IP style; it has no credible underlying framework; and it exposes the new industrial policy to unwarranted risks that have undermined its credibility 30 years ago.

The pre-crisis literature on IP [13], [14], [25], [26] and [27] correctly predicted that the emphasis of the debate will shift from justifying "why" industrial policy is needed to "how" good industrial policy should be designed and implemented. We turn to these issues in section four of the paper. Before that, in section two, we provide a brief survey of theoretical justification of industrial policy and a review of selected empirical results, while section three summarizes some recent debates on the relevance and scope of industrial policy. Section five concludes with key policy lessons for the new industrial policy.

Theoretical case for industrial policy: market failure and government intervention

Since the start of the industrial revolution, and particularly after WWII, the debate on industrial policy has flared up when either market or state failures became too obvious. The first such instance happened during the post WWII reconstruction in Europe and Japan, and the economic revival of former colonies in the early 1960s; it provided rationale for traditional industrial policy interventions in the 1945-1970 period. The second occurrence was triggered by rampant government failures in the US and other developed countries in the late 1960's and early 1970's; this gave rise to neoliberal criticism of the role of the state and provided justification for a frontal attack on industrial policy. The third incidence started to shape with the growing signs of market failure in in the late 1990's (i. e. Asian financial crisis and meager growth response to liberal economic policies in Africa) and was completed with the outburst of global financial crisis in 2008; slowly the neoliberal mainstay gave way to the return of (new) industrial policy.

Based on widely held theoretical and political views of the time, the post WWII reconstruction in Europe and Japan and the economic revival of former colonies both required rapid industrialization. Industrialization was considered to be a necessary basis for development. However, market failures, pervasive in both war torn and underdeveloped countries, would prevent the process of industrialization from taking hold automatically. IP is needed to facilitate that process. Preferred forms of IP were infant industry protection (through import tariffs and quotas), state-ownership of productive assets and state coordination.

Paul Rosenstein-Rodan [28] argued that after WWII many European countries were caught in a low-level equilibrium trap resulting from policy and investment coordination failures. The industrialization based entirely on the normal incentive of private entrepreneurs would take a very long time, thereby inhibiting the change of economic structure for decades – the central problem of post war development. Therefore, in the view of Rosenstein-Rodan and other key authors of the time, the government's role was to provide the missing coordination role and ensure "balanced" approach to development consistent with his "big push" theory: "The whole of industry to be created is to be treated and planned like one huge firm or trust' implies an encompassing set of industrial policies." [28, p. 204]

This provided a strong rationale for traditional industrial policy interventions in the 1945-1970 period. The state intervened with traditional industrial policy measures aimed at correcting market failures, substituting for missing markets, and providing coordination necessary to enable and accelerate industrialization and accelerate economic growth. During the following three decades the role of the state continuously increased through policy interventions, growing asset ownership and expanding share in production. Over time this led to inefficient outcomes. The cost and disruptions of government failure exceeded the cost of market failures that motivated the interventions in the first place.

The neoliberal tide in economic theory launched a sweeping criticism of state interventions during the late 1960's and throughout the 1970's. Baldwin [4] launched a frontal attack on infant industry protection argument, the only remaining argument in favor of IP that was not dismissed free trade economists. The infant industry argument essentially states that, due to lack of experience, a new industry may initially have higher production costs than foreign competitors. Hence, temporary protection may provide the new industry with an opportunity to attain the necessary production efficiency equal to, or in a stronger case, even better than prevailing international standard. In the absence of protection, such industry may never attract investors and take off. Potential gains to both domestic and international welfare may be lost.

Baldwin's criticism of the infant industry argument was based on simple principles of discounted cash flow analysis. By analogy with investment projects, in initial years infant industry would exhibit higher costs and operate with a loss. If efficiency gains in subsequent years were sufficiently large to yield sufficient internal rate of return on investment (or a positive discounted net cash flow at appropriate discount rate), then private investors (or capital markets) would be ready to absorb the risk and invest in such industry. If this is not the case, the industry should not be established in the first place.

Baldwin's argument against infant industry case had a huge impact it had on shaking the theoretical and practical grounds of industrial policy, despite the fact that it actually fell short of explaining the essential market imperfections assumed away in his analysis, i. e. the capital market bias in financing a new industry in less developed countries or less developed regions within developed countries. Due to asymmetric information and other imperfections, the risk premium placed by the capital markets may be so high that initial losses can hardly be compensated with reasonable efficiency gains even if they rendered a price below present world price. As noted by Pack and Saggi [22], argument that if there were opportunities in an industry they would have been exploited by private investors is a weak link in Baldwin's assertion that infant industry case cannot exist in reality.

Nevertheless, this was sufficient to trigger a tide of negative articles emphasizing the dangers of government failure: market failures may indeed exist, but government interventions are equally bad, if not worse and should be avoided at all cost. Hence, although the theoretical case (market failure) may exist, neoliberals deny the existence of a practical case for government intervention. And this was the received wisdom and ruling academic position for almost three decades.

Attempts to revisit the theoretical justification for IP were isolated and often ignored until the turn of the century. Financial crises in the 1990's, culminating in Asian crisis of 1997, stock market crises in the US, and disappointing growth and trade performance in countries employing unaltered core Washington Consensus policy advice, all gave rise to a growing body of literature questioning the extreme neoliberal position vis-à-vis the role of the government.

In the most recent volume of the prestigious Handbook of Development Economics, Harrison [12] provides a detailed survey of theoretical and empirical literature on industrial policy centered on a popular albeit controversial idea that both developed and developing countries may benefit from abandoning policy neutrality *vis*-à-*vis* trade, FDI and resource allocation across industries.

The real policy context is set by the actual developments over the past three decades. Since early 1980's developing countries have made enormous strides in opening up their protected domestic markets to international trade and foreign investment. In parallel, most countries also instituted a range of domestic policies including price liberalization, privatization of SOEs and the introduction of sound macroeconomic management. On the external side, in addition to opening their markets most countries also introduced a range of policies to encourage exports, attract foreign direct investment (FDI), promote innovation as well as and favor some industries over others.

Government interventions that introduce tariffs, subsidies, and tax breaks beyond levels associated with optimal taxes or revenue constraints create are essentially the content of modern industrial policy. There are relatively few possible theoretical justifications for deviating from policy neutrality through IP: (a) learning externalities from exports; (b) knowledge spillovers from foreign companies; (c) production externalities in "advanced" sectors through value chains, backward and forward production linkages; and (d) coordination failures in investment and introduction of new technologies, production and provision of public services.

The presence of *learning externalities from export* has long been the main argument to justify IP interventions

Stiglitz: Neo-Liberalism: A global lesson in market failure

According to Stiglitz, neo-liberalism as a loose collection of ideas based on a fundamentalist notion that markets are self-correcting, allocate resources efficiently and serve the public interest well. As such, neo-liberalism is a political doctrine serving certain interests. It was never supported by sound economic theory or by historical experience. But it discredited the very notion of industrial policy and meaningful government intervention to correct market failures and steer economies towards better economic structure and sustainable social outcomes.

Countries that pursued neo-liberal policies sacrificed growth opportunities and allowed disproportionate distribution of growth benefits when they occurred. The trust in perfect markets produced huge overinvestment in fiber optics and dot-com companies. It created unprecedented housing bubbles in the US that gave rise to global financial and economic crisis, destroyed lifetime savings and job opportunities for hundreds of millions around the world. What's more, it deeply eroded the trust in modern financial instruments, the essential part of financial intermediation in a complex and globally connected world.

To make things worse, the march of neo-liberal follies did their best to destroy the trust in government ability to conduct industrial and other policies. Strong advocacy of looming government failure was used to lure in those who questioned or feared growing dangers of market failure. That did not stop government discretionary interventions in the economy, extension of special status and support to companies chosen by special interests (worse than any activity aimed at picking winners within misguided IPs of the past).

based on export subsidies. Exporters have a higher rate of learning-by-doing with positive spillovers to the rest of the economy through supply channels, information on export / world market opportunities, new technology and production processes, innovation, modern management practices, etc. The empirical literature suggests that exporting firms tend to be more productive than companies oriented only on domestic market, and that causality often runs from successful exporting to productivity increases.

Additionally, Hausmann, Hwang and Rodrik [13] show that production and productivity increases are associated not only with the extent of export orientation but also with export content. Their analysis shows that countries without IP interventions tend to get stuck with lower income goods due to important externalities that hinder entrepreneurship in export cost discovery. Conversely, countries that are able to overcome (internalize) these externalities through IP policies that entice entrepreneurs into new activities producing export goods corresponding to higher income levels can reap the benefits of trade and higher economic growth.

Individual enterprise drive to enter into export markets may be suboptimal in the absence of IP due to positive spillovers on the domestic economy, high sunk costs related to export activities, and likely but delayed effect on productivity growth. This makes the theoretical case for government intervention through export promotion measures such as direct export subsidies, provision of free product or country brand marketing, free foreign market research, certification of product quality etc. The support is often focused on some sectors, special economic zones (SEZs) or export processing zones (EPZs) which are disallowed by new WTO rules.

Knowledge spillovers from foreign companies operating in domestic market are another type of externality that supports the theoretical case for IP. Typically, knowledge spillovers are expected to benefit local firms, workers, and consumers, enhance entrepreneurial capacity and help improve management effectiveness. If proven, knowledge spillovers could justify the use of tax breaks, relocation allowances, assistance in accessing business information and provision of infrastructure and other business services to foreign firms. These and related IP measures are often designed and discharged through foreign investment promotion agencies.

Production externalities from "advanced" sectors also support a theoretical case for IP that could justify infant-industry protection or other measures to help these industries take hold and expand.

Overcoming coordination failures was the mainstay of old industrial policy and remains relevant to this day especially regarding the introduction of new technologies, creation of industrial and service clusters, provision of public services (in product certification, quality control, and sanitary inspections), and other areas of public-private interaction where capital markets provide incomplete and unreliable information. A range of IP measures can be justified to enable and/or provide better exchange of information, improve planning in the provision of public services, and overcome the breakdown of information flows on intended private investments.

Using a battery of simple specialized theoretical models Harrison [12] highlights the critical role of Marshallian and inter-industry externalities, industry-level rents, sector-specific coordination failures and information spillovers as a rationale for establishing the theoretical validity of industrial policy. The most important conclusion of this analysis is "that the theoretical justification for infant-industry protection requires at a minimum either that the country has a latent comparative advantage in the protected industry or that the international price for this industry is higher than warranted by the true opportunity cost of this good in the rest of the world. Moreover, for protection to deliver large gains, the protected industry must exhibit large Marshallian externalities. " [12, p. 4041]

It should be noted, however, that theoretical justification for infant-industry protection does not necessarily mean that traditional protection measures (tariffs and quantitative restrictions) should be used. Many empirical and policy studies have shown that production subsidies and other policies may be more efficient than protection since they may avoid the price increases and consumption losses associated with protection. Furthermore, in cases where market failure is caused by coordination problems, classical protection measures are not part of the solution.

While this provides sufficient theoretical justification for government intervention, the real question is whether IP measures can be designed and successfully implemented in practice. As already indicated, on the one extreme we have neoliberal critics who claim that government failure is equal or worse than market failure, and any attempt at IP is doomed to failure as well. This criticism pales against ample evidence multiple success stories recorded over more than two centuries: from the 18th century ban on cotton fabric imports in pre-industrial Britain to IP policies used to promote restructuring and industrial growth in late 20th century. Overall, the results on practical application of IP measures are mixed.

Overall, the empirical literature shows a large gap between the promise of "IP theoretical validity" and "effective IP practice. " Even in cases where empirical evidence confirms that protected or otherwise supported sectors grew faster, we rarely find sufficient information to demonstrate other critical aspects of IP performance and ultimately impact on sustainable economic growth and welfare.

A subset of *empirical studies focused on particular industries* that have received protection (such as steel and semiconductor industry)confirms the existence of significant Marshallian externalities and, hence, the practical possibility of using temporary protection measures to switch sectors to a better equilibrium. They also show the existence of inter-industry linkages with potential positive welfare impact on the whole economy.

Very few sector studies checked whether the new equilibrium was a "welfare-enhancing equilibrium" either at the sector or economy-wide level. In other words, the studies did not check whether the protected sectors satisfied both the Mill test – ability to eventually survive international competition without permanent protection, and the Bastable test – requirement that present value of net protection benefits is greater than zero (i. e. that discounted future benefits exceed present protection costs).

More specifically, the study of IP support provided to Japanese semiconductor industry shows impressive overall growth results and ability of the sector to survive and be competitive in international markets. However, persistent price differential between (higher) domestic and export prices led Baldwin and Krugman to conclude that "the cost to Japanese consumers outweighed the benefits, leading to net welfare losses for both Japan and the Unites States." [12, p. 4064]. Assuming the evaluation methodology is correct,[3] Japan IP intervention in the semiconductor sector met the Mill but not the Bastable test.

3 Higher domestic than export prices are not limited to semiconductor sector in Japan. Dual prices reflect deeper structural characteristics of the Japanese economy and should be evaluated in a broader context. Using a single price differential as a measure of welfare loss may be highly biased and hence unreliable.

The same authors evaluated the case of IP that allowed Airbus to enter the imperfect international aircraft market. They concluded that this intervention resulted in net welfare gain for Europe but attributed the brunt of the gain to the existence of monopoly rents that characterized the sector. The results were very sensitive to the choice of elasticity of demand and other parameter values, and allow that both Mill and Bstable tests were met.

Cross-sector empirical studies try to evaluate the impact of IP interventions by exploring the variation in productivity growth and other performance measures across industries. Obviously, the main hypothesis is that supported industries exhibit faster growth. This assumes that tariffs and quotas are imposed for IP reasons,which is not always the case: special interests, political considerations (rent seeking), and revenue generation needs may have an equally strong weight in introducing these instruments.

Surprisingly, a thorough survey of a large body of cross-sector empirical studies did not reveal much new knowledge or insights regarding the effectiveness of IP. Case study of Turkey indicated a positive relationship between increased trade protection and productivity growth in a given sector, thereby supporting infant-industry case. Most other cross-sector studies (i. e. Mexico, Brazil, Korea, even old Yugoslavia), show that the removal of protection generated positive productivity gains both at the firm and industry level.

Cross sector empirical studies often fell short of contributing much to the critical issues of IP design aimed at promoting sector restructuring, creation of efficient industry clusters and promoting competitiveness. On the one hand these studies are confirming that certain combination of factors, policies and institutions might have been instrumental in creating industrial concentrations and increasing productivity. But they also cautioning that Marshallian externalities may not materialize in a predictable fashion across developed and developing countries. "To put it crudely, subsidizing the software sector may not generate a Silicon Valley in a developing country. " [12, p. 4067]

Cross country empirical studies looked at the connection between trade policy and economic growth between pairs of similar countries, small sets of countries and the entire cross section of countries in the world. Most studies aimed to test the impact of protection on country performance, and more broadly the linkages between trade and growth. Harrison [12] suggests that two general lessons that may be drawn from the voluminous empirical evidence. First, perhaps surprisingly, no significant empirical relationship between average protection levels and growth could be observed in the second half of the twentieth century. Second, there is a positive association between trade volumes and growth.

This combination (weak association between average tariffs and growth, and strong relationship between trade shares and growth) suggests that any successful IP strategy must be outward oriented and ultimately increase the share of international trade in GDP. The presence of strong antitrade bias in IP interventions has been the main reason for government failure. It also shows that narrow focus on tariffs as a measure of trade performance and openness may be ill-defined: "there is a strong correlation between trade volumes and growth, while the association between trade policy—as measured by the World Bank's revenue tariff measure—and growth is weak. " [12, p. 4093]

Other empirical results relevant for the key dimensions of IP identified earlier show a considerable degree of complementarity between trade and FDI reforms and other government policies. The success of trade liberalization hinges on complementary measures in reducing barriers to new firm entry, increased labor mobility and creation of more flexible labor markets, and provision of improved infrastructure.

Strong theoretical and policy priors in favor of policies that attract and promote FDIs due to their direct and indirect effects on the economy have not been always confirmed by empirical studies. Micro empirical studies of inwards foreign investment flows confirm that FDIs are associated with direct technology transfer and positive labor market outcomes, but do not show strong evidence of horizontal spillovers or evidence that vertical spillovers exceed the cost of FDI subsidies. This is a very relevant conclusion for emerging economies ready to sink substantial IP resources into promoting FDI.

Most important single conclusion of Harrison survey is that enormous empirical evidence does not provide any conclusive support for "hard" IP interventions that would distort prices to deal with Marshallian externalities, support learning by exporting, and promote knowledge spillovers from FDI. More specifically, she does not endorse infant-industry protection due to difficult conditions that have to met in order to welfare-enhancing outcome. At the same time Harrison survey does not suggest that (close to) uniform and moderate tariff is bad for development. Actually, the survey envisions an important role for "soft" industrial policies. "The goal is to develop a process whereby government, industry and cluster-level private organizations can collaborate on interventions to increase productivity. We suggest programs and grants to help particular clusters by improving the formation of skilled workers, regulation, and infrastructure. [12, p. 4112]

Current debate on industrial policy: don't ask WHY, ask HOW

Now that the industrial policy is back on the table, the real question is no longer an easy academic "whether" and "why" IP is needed, but "how" should practical IP measures be designed and implemented to achieve the intended impact on industrial restructuring and economic growth. But neoliberal economists do not seem to be convinced. They continue to argue that government failures are so prevalent, and government competences so inapt, that all attempts to devise a meaningful IP to correct obvious market failures are doomed to fail from the start. Having lost all the academic debates in the last decade, neoliberals are now engaging in popular policy debates to reassert their position against IP.

In one of the last popular debates on the "why" of industrial policy was organized by The Economist, in July 2010, Josh Lerner,[4] a moderate proponent of neoliberal school tried to defend the central neoliberal claim that "Industrial policy always fails. " Dani Rodrik,[5] won the debate with a huge margin (70:30) by fully admitting that the IP was imperfect, risky and prone to failure, but nevertheless necessary, just like any other government public policy. Lerner's well-articulated criticism of IP as a suitable area for government intervention (due to lack of repetition, susceptibility to capture, and difficulties of unbiased evaluation) was sufficient to identify pitfalls of IP but fell substantially short of questioning the need for IP as such. Especially in the light of the issues and challenges identified by the proponents of the new industrial policy.

Most of the recent policy and scholarly debates have concentrated on "How" industrial policy should be designed and implemented. We single out a highly publicized debate published in Development Policy Review, in which Justin Lin[6] and Ha-Joon Chang[7] [19] directly exchanged views on the use of industrial policy in promoting economic growth and industrial upgrading. In two rounds of exchanges and concluding remarks they reached a high degree of agreement on the theoretical justification of industrial policy, the relevance of the principles of comparative advantage, and the positive role state intervention can play in promoting industrial upgrading and the associated risks of possible government failure in discharging IP.

The real differences between their positions emerged regarding the principles of designing IP interventions. Lin strongly believes in *comparative-advantage-conforming* IP that would allow developing countries to fully exploit their present comparative advantage. That allows countries to move in small albeit quick steps towards their desired industrial structure by making Pareto improvements that are simultaneously consistent with macroeconomic stability and dynamic growth. At the empirical level Lin concludes that this is how China managed its spectacular transition from planned to market economy over three decades; this is how Korea moved from simple hand-made consumer goods to become one of the leading global producers of cars and home electronics; this is how Nokia moved from wood processing to electronics in Finland. In short, Lin believes that industrial upgrading should proceed step by step in conjunction with the evolution of comparative advantage to keep the learning costs

4 Josh Lerner is a Harvard Professor and author of a bestseller book The Boulevard of Broken Dreams.

5 DaniRodrik is also a Harvard Professor and author of many academic and popular books on trade and IP.

6 Justin Lin is the Chief Economist and Senior Vice President of the World Bank.

7 Ha-Joon Chang is a Professor at Cambridge, England and the author of many academic and popular book on trade and development.

down and limit exposure to high risks associated with big leaps into new industrial sectors. In technical terms, Lin uses neoclassical economics and Heckscher-Ohlin-Samuelson (HOS) model with full mobility of factors and single best technology to define (open and latent) comparative advantage, guide trade policy and justify IP interventions.

Chang, by contrast, sees present comparative advantage only as a starting point, a baseline from which countries can depart both in small policy steps and big leaps. In his view neoclassical economics and restrictive assumptions of the HOS model ignore the adjustment costs associated with trade liberalization due to limited factor mobility, and assume away restricted technological choices countries have in reality. According to Chang, the essence of IP is precisely to help countries protect industries in which they currently do not have comparative advantage by enabling them to acquire higher technological capabilities and limiting the negative impact of free trade due to induced adjustment costs. In other words, Chang argues for *comparative-advantage-defying* IP, but acknowledges the risks of deviating too much from the current comparative advantage: governments should not use IP to push economy too far away from its structure too quickly.

In debating the rationale and scope of IP interventions Lin and Chang inevitably also discussed the underlying trade liberalization issues. Lin admitted that in reality trade liberalization has produced many losers in the past two decades, but attributes this outcome to the existence of industries / resource allocation that were not consistent with international markets and country's own comparative advantage: indeed, "removing protection in a shock-therapy manner caused the collapse of non-viable firms. " Chang agrees that wrong allocations might be attributed to wrong policies in the past, but questions the rationale for trade liberalizations conducted in the past two decades: "If we know that a country has deviated 'too much' from its comparative advantage, the prudent course of action will be not to try to liberalize trade too much too quickly, as otherwise the adjustment costs will be very high. Two wrongs do not make a right. " [19, p. 14]

New industrial policy: institutions, methods, instruments

Principles of new industrial policy: joint pursuit of public interest based on incentives

At a more applied level of IP debate, Rodrik suggested three important principles to be kept in mind.

First, IP is a state of mind and a process of reaching consensus rather than a fixed objective and a list of specific policies. Creating a climate of collaboration between the government and the private sector than is more important than providing financial incentives. Forums that elicit information about investment opportunities and bottlenecks, and market failures (such as deliberation councils, investment advisory panels, sector round-tables, or private-public venture funds) have an essential role in this process. The government should be "embedded" in the private sector, but not in bed with it.

Second, IP needs to rely on both carrots and sticks. Incentives need to be measured, temporary and based on clear (and transparent) performance criteria. The success of government efforts to spawn new industries will hinge on its ability to design and implement such a system of incentives. It is equally important to identify eligible users of IP incentives and those that did not perform.

Third, IP practitioners need to bear in mind that the aim of IP is to serve society at large, not the bureaucrats who administer the funds or the businesses that receive the incentives. To guard against abuse and capture, industrial policy must be carried out in a transparent and accountable manner, and its processes must be open to new entrants as well as incumbents. Those who enter the IP arena should recall the old inscription from the Rector's Palace (Knežev dvor) in Dubrovnik: OBLITI PRIVATORUM PUBLICA CVRATE – Forgetting private (interest) tend to public (interest).

The main objection to IP is government inability to pick winners. This is true but largely irrelevant in the context of new industrial policy focused on the principles of participation, incentives, and transparency. It is more important is the capacity to jointly identify binding issues, develop the right instruments, and attract all eligible stakeholders. Most importantly, be decisive about letting losers go. IP is subject to uncertainties and mistakes. The ability to recognize mistakes, eliminate non-performers, and engage in a self-discovery and iterative learning process is formula for success.

Institutional arrangements and design principles for new IP

In its quest to correct market failure caused by externalities (information spillovers) and coordination failure, IP is faced with two major challenges: First, the lack of information on the problem being addressed and on solution options; and second, exposure to corruption and rent-seeking risks. The first requires that the government engages with the private sector in a self-discovery process to obtain the necessary information and design the optimal IP interventions under the circumstances. Following Peter Evans, Rodrik [25] labels this type of public-private partnership as "embeddedness". The second issue requires the opposite: arms-length relationship and full government independence from private sector to avoid capture and the known pitfalls of corruption and rent-seeking.

It is critically important to find the right balance between government autonomy and the necessary collaboration with the private sector in defining optimal IP interventions. Too close connection with the private sector may produce biased IP measures and open door to capture through direct or indirect corruption. Too little interaction may result in inefficient or irrelevant IP measures. As Rodrik [25, p. 17] put it: This is a unique situation in which the process is more important than outcome. Getting the balance right overshadows the elements of IP design. With an iterative process in place, the right mix and intensity of policy interventions will eventually be reached anyway.

The institutional setup for a successful IP system requires at least three standard ingredients:

1. *Strong political leadership at the top.* Every big policy objective must have its champion. Fiscal prudence is pursued by the minister of finance. Monetary stability by the governor of the central bank. Economic restructuring and growth need an equally capable champion to provide vision and raise visibility, secure coordination, foster credibility of the policy design, guarantee transparency and accountability of the agency based on strong oversight and monitoring. Only then will the agency be able to find the right balance between autonomy and embeddedness with the private sector.
2. *Private-Public coordination and deliberation bodies (councils, panels, boards).* Although specific organizational modalities may depend on local circumstances, strong coordination and deliberation bodies with appropriate public and private sector representation are an absolutely must in the new industrial policy. The role of these bodies would be to articulate and substantiate the demands of the private sector, request government policy intervention to correct market failure, seek legal and regulatory changes to lower or eliminate harmful transaction costs, as well as help overcome coordination problems. A hierarchy of these bodies would be coordinated and professionally and administratively assisted by the responsible government agency (ministry).
3. *Transparency and accountability arrangements.* The public and social image of IP bodies and due process must be impeccable. This can be secured only through transparent rules and strong independent accountability arrangements.

The design principles for IP should be clearly stated, but the actual areas of intervention (priorities), methods and instruments used should be left to the well-designed process and IP institutions previously described. Based on Rodrik [25], [26] and [27] we suggest the following ten design principles for a successful, unbiased industrial policy:

1. *Provide incentives only to NEW activities.* The main purpose of IP is to correct market failure and enable economic restructuring by diversifying the economy and opening new areas of potential comparative advantage. [8]
2. *Establish clear benchmarks of success and failure.* Performance criteria should be simple, focused on some aspect of productivity, and resistant to

8 Bailing out or restructuring old companies / sectors should be avoided. Likewise, biased criteria (emphasizing size or special location) should also be avoided. Exit of old companies, special support to SMEs, and regional development problems should be left to other agencies.

manipulation and false reporting. The administration must be strict and just. Companies that do not meet criteria must exit the program. One feature that distinguishes countries with successful IP from countries with failed IP attempts is the ability to identify and eliminate losers from the IP programs.

3. *Have a built-in sunset clause.* Sunset clause provisions should supplement performance criteria to ensure that resources are not tied with the same recipients for too long.
4. *Target activities not sectors or companies.* To avoid misuse of resources, IP should target specific activities rather than sectors or companies as such. Typically, activities span many companies and sectors and directly target market failures.
5. *Subsidized activities must have potential to generate spillovers and demonstration effects.* Inline with the spirit of the Mill test, targeted activities must have potential to pay back public resources either through sustainable export performance or creation of positive externalities in the domestic economy.
6. *Implementation of IP policies must be vested in agencies with demonstrated competence.*
7. *Implementing agencies must be closely monitored by a principal with a clear stake in positive outcomes.*
8. *Agencies promoting IP must maintain communication with the private sector.*
9. *Minimize the cost of inevitable mistakes.* Well deigned IPs will sufficiently push the limit and, hence, inevitably have losers. The response should not be to minimize the probability of this occurrence, but to minimize the future cost and detrimental impact of such occurrence.
10. IP self-discovery cycle should be ongoing to enable learning.

With the right IP institutional framework, these design principles are likely to result in many incentive and market failure correction programs including the already well known examples of: (a) subsidizing part of the operating costs of coordination bodies and other IP self-discovery activities; (b) developing mechanisms for high risk finance through public guarantees, development funds/banks, and venture funds (that are publicly funded but professionally managed); (c) resolve coordination failure problems through existing or new coordination and deliberation bodies; (d) support publicly funded R&D that is directly relevant for innovations needed by the private sector; (e) support / subsidize general technical training and provision of critical skills in short supply; and (f) take advantage of diaspora in advancing the self-discovery process in IP.

The how of new EU industrial policy: horizontal and vertical IP measures

The European Union has a long tradition in planning and implementing IP. The newest IP paradigm presented in a recent EC document [11] combines broad horizontal competitiveness enhancing measures for all sectors with more specific measures targeting a subset of (priority) sectors. The name Matrix Approach to IP coined by Aiginger [3] succinctly conveys the idea of combining broad horizontal measures with sector specific vertical measures. The concepts and rationale for IP in the EU have generally followed the treaties and communications of the EC. In reality, the practical changes have occurred at a slower and less radical pace than the often substantial shifts in declared philosophy.

On the practical policy level, a clear divide is emerging between countries practicing a pro-active future-oriented approach (with emphasis on innovation and knowledge), and countries that take a more defensive stance focused on immediate issues (with emphasis on subsidies and regulatory interventions). Empirical evidence suggests that countries pursuing future-orientation achieve higher shares of technology-driven and skill-intensive industries and excel with respect to the goals of the Lisbon strategy.

The EC document [11] provides an ambitious strategy framework for new industrial competitiveness policy understood in a wider sense. [9] It includes the following structure under two broad policy pillars:

9 In a typical EC style this includes the following a long list: impact on cost, price and innovative competitiveness of the industry as a whole and of individual sectors; and synergy effects with all other policy initiatives such as single-market policy, trade policy, social and consumer protection policies, policies in transport, energy and environment, etc.).

Pillar 1: Horizontal policies

- Improving framework conditions for industry;
    - Competitiveness proofing and implementation of smart regulation;
    - Improved access to finance for businesses;
- Strengthening the single market;
    - Developing the single market and enforcing intellectual property rights;
    - Competition policy;
    - Improving infrastructure;
    - Standardization;
- New industrial innovation policy;
    - Industrial innovation;
    - Skill base;
- Capitalizing on globalization;
    - Trade and international regulations;
    - Ensuring access to raw materials and critical products;
- Promoting industrial modernization;
    - Resource, energy and carbon efficiency;
    - Structural excess capacities;
    - Building on corporate social responsibility;
- Ensuring access to raw materials and critical products;
    - Well-functioning global markets;
    - Raw materials initiative;
    - Sustainable international management of and access to raw materials;
    - Mining and processing technologies;
    - Sustainable supply and management of raw materials within the EU;

Pillar 2: Sector specific dimension – a targeted approach (vertical policies)

- Space industry: A driver for innovation and competitiveness at citizen's service
    - Galileo / EGNOS (European Geostationary Navigation Overlay System)
    - GMES (Global Monitoring for Environment and Security)
- Sustainable mobility;
    - Clean and energy-efficient vehicle;
    - Rail energy storage and automatic train supervision technology;
    - Aerospace industry;
- Tackling societal challenges;
    - Pharmaceutical and health care industries (medical devices);
    - Security industry;
    - Construction sector;
    - Bio-based markets;
- Reinvigorating EU competitiveness through enhanced value-chains;
    - Chemical industry;
    - Agro-food industry;
    - Textile, clothing, leather industry;
    - Cultural and creative industries;
- Addressing concerns of energy intensive industries;
    - Transition to low-carbon and resource-efficient economy;
    - Low-carbon production technologies;
- Advanced sector approach.

Whilst the economic crisis has shifted the focus on industrial competitiveness towards short term concerns (centered on rescue and recovery actions), the focus of the strategy should be on long-term structural challenges: maintaining global competitiveness, climate change, energy efficiency, population aging, skills and knowledge. Given resource constraints imposed by ongoing fiscal consolidation, the new strategy is not built on large spending programs but rather analytical and policy interventions focused on addressing structural reforms in areas such as business environment, public administration reform, building innovation capacity, and enhancing energy efficiency.

The space for design and conduct of IP policy has been greatly affected by the advanced WTO rules, regional and bilateral trade arrangements. With the exception of rules on transparency, which appear fully aligned with sound IP design, WTO, regional and bilateral trade arrangements often impose restrictions on feasible IP measures. Most notably, recent WTO Agreement on Subsidies essentially renders all economic free zones illegal for countries above the $1,000 per capita income. Similar restriction may come from recent TRPS Agreement which may undermine many IP interventions aimed at reaping knowledge externalities.

Conclusion: new industrial policy is back, but old challenges remain

After three decades of expulsion, the industrial policy is back on the legitimate policy agenda of all countries, developed and emerging economies alike. Global crisis has provided a grand excuse to devise huge interventions to help ailing sectors, reignite the engines of growth and jump-start investments in green and advanced technologies of the future. Recent surveys of the literature have shown that the theoretical case for IP interventions remains valid. If anything, the presence of continued market failures is only enhanced by the ever growing share of international trade and stronger connectedness in the global economy, thereby strengthening the rationale for IP interventions.

But dangers of government failures are equally present, either through errors of commission (due to excessive and poorly designed government interventions) or errors of omission (i. e. failure to detect obvious market failures and promptly act to correct them).

At the practical policy level, IP policies have been designed and implemented almost continuously, despite the raging academic battles. Now that the issue is no longer "why" IP may be needed, or whether the government should engage in IP, but "how" to design and implement IP measures, applied policy may expect to get more meaningful input from the economic profession. Policy makers can again expect specific advice on how to avoid the known pitfalls from the past, facilitate industrial upgrading, and sustain economic development.

Recent debates [19], [25] and thorough literature surveys [12] confirm the continued need for industrial policy, but recommend caution in the design and implementation of IP measures. Lin recommends close alignment of IP interventions with present comparative advantage. Harrison admits the theoretical viability of hard IP measures (tariffs, subsidies and similar interventions) but does not recommend their use due to known risks (changing prices, generating welfare losses and being unable to reverse such policies when needed by changing macro circumstances). Therefore, Harrison instead recommends the use of soft IP interventions aimed at increasing productivity. Both Rodrik and Harrison suggest avoiding risks of poorly designed IP measures through joint government-private sector "self-discovery" search of optimal IP design. This includes both the identification of activities to be supported under IP and the determination of policy parameters to be used in the quantification of government interventions.

Space for design and conduct of IP policy has been greatly affected by the advanced WTO rules, regional and bilateral trade arrangements. With the exception of rules on transparency, which appear fully aligned with sound IP design, new trade arrangements often impose restrictions on feasible IP measures and significantly reduce scope for industrial policy. Most obvious WTO examples are Agreement on Subsidies,which eliminates the possibility economic free zones, TRIPS Agreement which may undermine many IP interventions aimed at reaping knowledge externalities.

References

1. Aghion, P. (2009). 'Some Thoughts on Industrial Policy and Growth'. OFCE Working Paper 2009-09 (April). Paris.
2. Aghion, P. , J. Boulanger and E. Cohen (2011). 'Rethinking Industrial Policy'. Bruegel Policy Brief. ISSUE 2011/04.
3. Aiginger, Karl and Susanne Sieber (2006). The Matrix Approach to Industrial Policy, *International Review of Applied Economics, Vol. 20, No. 5, 573–601, December 2006*.
4. Baldwin, R. E. (1969). 'The Case against Infant Industry Protection'. *Journal of Political Economy*, 77 (3): 295-305.
5. Chang, H. -J. (2002). *Kicking Away the Ladder*. London: Anthem Press.
6. Chang, H. -J. (2003). 'Kicking Away the Ladder: Infant Industry Promotion in Historical Perspective'. *Oxford Development Studies*, 31 (1): 21-32.
7. Chang, H. -J. (2009). 'Industrial Policy: Can We Go Beyond an Unproductive Confrontation?' World Bank ABCDE Conference, 22-24 June. Seoul.
8. Chenery, H. B. (1960). 'Patterns of Industrial Growth'. *American Economic Review*, 50 (4): 624-54.
9. Devarajan, S. , and M. Uy (2009). 'Is it Worthwhile to Support Industrial Policy?' Paper presented at the DIE Workshop on Industrial Policy in Developing Countries, 18-19 November. Bonn.
10. Economist, The (2010). The Global Revival of Industrial Policy: Picking winners, saving losers. August 5, 2010.
11. European Commission - EC (2010). An Integrated Industrial Policy for the Globalization Era: Putting Competitiveness and Sustainability at Center Stage. COM(2010) 614, Brussels, 2010.
12. Harrison, A. E. , and A. Rodriguez-Clare (2009). 'Trade, Foreign Investment, and Industrial Policy for Developing Countries'. NBER Working Paper 15261, Cambridge, August 2009. Also published in Rodrik D. and M. Rosenzweig, editors: Handbook of Development Economics, Vol. 5, North-Holland, 2010, Chapter 63, pp. 4039-4214e

13. Hausmann, R. , and D. Rodrik (2006). 'Doomed to Choose: Industrial Policy as Predication'. Cambridge, MA: J. F. Kennedy School of Government, Harvard University. Mimeo.
14. Hausmann, R. , Hwang, J. , and D. Rodrik (2007). 'What You Export Matters'. *Journal of Economic Growth*, 12 (1): p. 1-25.
15. Krueger, A. (1974). 'The Political Economy of the Rent-Seeking Society'. *American Economic Review*, 68 (2): 270-4.
16. Krueger, A. (1990). 'Government Failures in Development'. *Journal of Economic Perspectives*, 4: 9-23.
17. Lall, S. (2004). 'Selective Industrial and Trade Policies in Developing Countries: Theoretical and Empirical Issues'. In C. Soludo, O. Ogbu and H. -J. Chang (eds), *The Politics of Trade and Industrial Policy in Africa: Forced Consensus?*. Lawrenceville, NJ: Africa World Press & IDRC, 4-14.
18. Lin, J. (2009). 'Learning from the Past to Reinvent the Future'. World Bank ABCDE Conference on Development Economics, 16 June. Seoul.
19. Lin, J. and H. -J. Chang (2009). 'Should Industrial Policy in Developing Countries Conform to Comparative Advantage or Defy it? A Debate between Justin Lin and Ha-Joon Chang'. *Development Policy Review*, 27 (5): 483-502.
20. Naudé, W. A. (2010a). 'Industrial Policy: Old and New Issues'. WIDER Working Paper. 106. Helsinki: UNU-WIDER.
21. Naudé, W. A. (2010b). 'New Challenges for Industrial Policy'. WIDER Working Paper. 107. Helsinki: UNU-WIDER.
22. Pack, H. , and K. Saggi (2006). 'Is there a Case for Industrial Policy? A Critical Survey'. *World Bank Research Observer,* July: 1-31.
23. Prebisch, R. (1959). 'Commercial Policy in Underdeveloped Countries'. *American Economic Review*, 49 (2): 251-73.
24. Robinson, J. A. (2009). 'Industrial Policy and Development: A Political Economy Perspective'. World Bank ABCDE Conference, 22-24 June. Seoul.
25. Rodrik, D. (2004). 'Industrial Policy for the Twenty-First Century'. CEPR Discussion Paper 4767. London: Centre for Economic Policy Research.
26. Rodrik, D. (2007). 'Normalizing Industrial Policy'. Commission on Growth and Development. Working Paper no. 3.
27. Rodrik, D. (2008). 'Industrial Policy: Don't Ask Why, Ask How. *Middle East Development Journal*. 2008. p. 1-29.
28. Rosenstein-Rodan, P. (1943). 'Problems of Industrialization of Eastern and South-eastern Europe', *Economic Journal*, 53: 202-11.
29. ul-Haque, I. (2007). 'Rethinking Industrial Policy'. UNCTAD Discussion Paper 183. Geneva: UNCTAD.

Dušan Vujović

is 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; 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 regiona and the Independent Evaluation Group. Authored and co-authored a number of publications on macroeconomic policy, development, and institutional reform and transition issues.

ORIGINAL SCIENTIFIC WORK
UDK: 338.1(497.11)"2001/2010" ; 332.12(497.11)"2001/2010"
Date of Receipt: February 7, 2012

Edvard Jakopin
Ministry of Finance
Department of National
Development

Jurij Bajec
University of Belgrade
Faculty of Economics
Department of Economic Theory
and Analysis

STRUCTURAL TRANSFORMATIONS – A DEVELOPMENT IMPERATIVE

Strukturne transformacije – razvojni imperativ

Growth and structural change are strongly interrelated. Once we abandon the world of homothetic preferences, neutral productivity growth with no systematic sectoral effect, perfect mobility, and markets that adjust instantaneously, structural change emerges as a central feature of the process of development
(Simon Kuznets, 1957)

Abstract

Economic growth is not possible without structural changes. The economic structure of an economy depends on the degree of development and of its comparative industrial advantages. The analysis of reform experiences shows that transition results depend both on the speed of implemented reforms and on the starting position. Generally speaking, economic growth was higher in those transition economies where reforms were faster than in those that pursued a strategy of gradual development. The crisis brought to the fore the importance of industrial policy, particularly in transition economies.

A development imperative of the Serbian economy are structural changes in manufacturing industry. The industrial structure in place is characterized by low level of value added generated by exports. The paper emphasizes the significance of three focal points of structural transformations: reformulation of macroeconomic policies to prop up industrial development, the development of dynamic entrepreneurship, and regional development of industry. Structural transformations are of decisive importance to the reallocation of resources to more productive sectors of the economy and for making room for new enterprises and development of the entrepreneurial sector.

Key words: *structural transformations, manufacturing, competitive position, structural development problems, macroeconomic framework for industrial development, dynamic entrepreneurship, regional development industry.*
JEL Classification: L16, O11, O14, O25, P21.

Sažetak

Privredni rast nije moguć bez strukturnih promena. Privredna struktura jedne ekonomije zavisi od stepena razvoja i od njenih komparativnih industrijskih prednosti. Analiza reformskih iskustava pokazuje da su tranzicioni rezultati zavise kako od brzine sprovedenih reformi tako i od startne pozicije. Generalno, privredni rast je bio veći u onim tranzicionim ekonomijama kod kojih su reforme bile brže od onih sa strategijom postepenog razvoja. Kriza je u prvi plan istakla značaj industrijskih politika, posebno za tranzicione ekonomije.

Razvojni imperativ srpske ekonomije predstavljaju strukturne promene prerađivačke industrije. Postojeća industrijska struktura odbacuje malu dodatu vrednost izvoznog karaktera. U radu je istaknut značaj tri težišta strukturnih transformacija: redefinisanje makroekonomskih politika u funkciji industrijskog razvoja, razvoj dinamičkog preduzetništva i regionalni razvoj industrije. Strukturne tranformacije su od ključnog značaja za realokaciju resursa u produktivnije grane privrede i obezbeđivanje prostora za osnivanje novih preduzeća i razvoj preduzetničkog sektora.

Ključne reči: *strukturne transformacije, prerađivačka industrija, konkurentska pozicija, strukturni razvojni problemi, makroekonomski okvir za industrijski razvoj, dinamičko preduzetništvo, regionalni razvoj industrije.*

Introduction

"Can 'that' happen again?" This was a question that some twenty years ago Hyman Minsky, a largely unknown economist back then, kept asking himself thinking of the Great Depression. He did not live to see but he did foresee an entire scenario of the global economic tsunami (which is referred to as the "Minsky moment"). Today, his book *Stabilizing an Unstable Economy,* dating back to 1986, is the world's bestseller in the domain of economics. The book is famous for some inferences such as: *"the capitalist financial system carries within itself a germ of self-destruction"*, and "*instability is an inherent and inevitable flaw of capitalism"*. According to Minsky, the only solution is as follows: *"the state should reach out and have a detailed control of the economy; it should relax economic cycles, balance the key imbalances, and accelerate structural reforms"*.

The global economic recession has validated Minsky's findings on the regularity of market cycles and on systemic macroeconomic imbalances. Recession waves hit hard against the transition shores of Southeast Europe. For a number of years transition economies have been overheated, and faced with rising current account deficits, increasing indebtedness, and unbalanced exchange rates. As the crisis steps up, the problem of financing is ever bigger and that is primarily evident in the economies in which restructuring has still not been completed. Macroeconomic effects are apparent: all the countries are faced with a higher external debt. The economic system of Serbia has managed to withstand crisis impacts but systemic imbalances, primarily structural ones, have emerged.

More than half a century ago (1957), a renowned economist Simon Kuznets emphasized that economic growth and structural changes are tightly linked. He said that *"structural changes are a central element of the process of development and a pivotal element of the growth model; they can hinder development if slow or inefficient but they can also contribute to growth if allocation of resources is continually improved" (Quantitative Aspects of the Economic Growth of Nations: Industrial Distribution of National Product and Labor Force).*

Transformation of the economic and social system in Serbia has lasted for a decade now. Consequences of the lost last decade of the 20th century are still visible in all segments of the economic system. We have not yet got around the economic lag of the 1990s. Vulnerable transition economies are hit hardest by recession blows since they are faced with numerous imbalances and systemic problems.

Under the impact of the global recession, transformation models of economic growth are rapidly being modified and substituted. Structural transformations have become a development imperative. Sustainable economic growth is unattainable unless there are investments in export-led industry. Mechanisms of macroeconomic policy need to serve this purpose.

Competitive position

The market economy rests on continuous economic adjustments made through structural transformations and alterations to the functioning of the national economy. A primary development objective is to boost economic competitiveness since only a competitive economy can resist challenges and pressures from other market actors while at the same time ensuring economic development, i.e. economic growth and social welfare. What does the competitive position of Serbia look like after a decade-long transition? The answer is presented in a brief overview of analyses done by most eminent international institutions that monitor developments of the main indicators of macroeconomic competitiveness on an annual basis.

The international barometer of competitiveness ranks the entire area of Southeast Europe rather low, at the back of the European competitiveness list. In the latest *Competitiveness Report 2011-2012 of the World Economic Forum*[1], which includes 142 countries, Serbia is ranked 95th and with GDP per capita of USD 5,233 is at the foot of the group of 28 countries that through enhancement of efficiency aim to achieve economic growth and improve overall competitiveness position (Stage 2). Almost all of

1 Since 2005 the WEF has based its competitiveness analysis on the composite Global Competitive Index (GCI), which defines competitiveness as a set of institutions, policies, and factors that determine the level of productivity of a country (expressed as GDP per capita in USD) which, in its turn, determines the level of development that can be attained. In other words, although productivity of a country clearly determines its ability to generate higher levels of income for its citizens, this is also one of the central determinants of investment efficiency.

the countries adjacent to Serbia are in the second stage except for Hungary (48) and Croatia (76) that are moving to the group of more robust economies. In 2011, Serbia improved its ranking by one position, but it is still one of the least competitive countries in Europe – only Bosnia & Herzegovina is worse ranked than Serbia. For a long time, Serbia has had a brain drain (136th position), which requires undertaking of special stimulating measures to retain the best graduates and researchers, as well as adoption of a long-term plan to encourage our scientists working abroad to return.

A comparative review of the competitive position of the Serbian economy and neighboring transition economies demonstrates, first of all, various degrees and speeds of implementation of the transition reforms. Some countries have undertaken radical reforms and heavily altered their structure (Slovenia, Hungary); some economies are in the final transition stage (Bulgaria, Romania); some are about to enter the EU (Croatia), while the Serbian economy that had a late transition start (it was not until 2001 that structural reforms started) is to continue the process despite having already completed many activities. Macroeconomic stability is based on reduced inflation and imbalances in the current balance of payments, this being a prerequisite for sustainable economic growth. It is necessary not only to boost the exports but also to alter the export structure in a quality manner, which would help reduce trade deficit.

Table 1: Comparative competitiveness matrix 2011

Indicators	Serbia	Bulgaria	Romania	Croatia	Hungary
WEF (GCI) – global rank	95	74	77	76	48
External solvency: • the ratio of external debt and exports[1] • the ratio of external debt and GDP[3]	 236.2% 82.1%	 169.5% 101.6%	 204.7% 74.6%	 266.9%2 102.1%	 168.8%3 143.3%
Credit ranking	BB	BBB	BB+	BBB-	BBB-
Investments (% GDP) 2010[4]	19.4%	23.5%	22.7%	21.6%	18.0%
Inflation 2010 (end period)[5]	10.3%	4.4%	7.9%	1.8%	4.6%
Earnings (net) EUR – July 2011[6]	382	276	340	716	483

Source: 1. WDI (World Bank), for Serbia the National Bank of Serbia (NBS); 2. Data for 2009 – Croatian National Bank; 3. National Bank of Hungary; 4. EBRD; for Serbia the NBS, 5. Eurostat; for Serbia authors' estimates; 6. Eurostat, for Serbia the Republic Statistical Office (RSO), 7. National statistical offices.

Table 2: Competitive position -WEF

GDP 2010 (IMF)		Index		
		2010/2005	EU-27=100	WB=100
GDP per capita (in USD)	5,233	154.3	17.2	93.4
WEF Global Competitiveness Index (GCI) 2012/2011	**Rank (R)**	**Index of value**		
		2011/2007	**EU-27=100**	**WB=100**
GCI	95	102.6	82.3	96.3
Subindex A: BASIC REQUIREMENTS	88	102.1	82.2	94.9
1st pillar: Institutions	121	93.5	68.5	84.8
2nd pillar: Infrastructure	84	134.9	72.2	95.0
3rd pillar: Macroeconomic environment	91	97.2	90.7	95.4
4th pillar: Health and primary education	52	96.4	93.7	100.9
Subindex B: EFFICIENCY ENHANCERS	90	104.8	80.0	96.7
5th pillar: Higher education and training	81	109.0	78.3	95.9
6th pillar: Goods market efficiency	132	98.9	75.7	86.1
7th pillar: Labor market efficiency	112	102.1	87.9	92.8
8th pillar: Financial market development	96	100.3	84.2	97.7
9th pillar: Technological readiness	71	108.7	71.5	93.9
10th pillar: Market size	70	111.8	84.1	120.9
Subindex C: INNOVATION FACTORS	118	90.6	69.0	92.3
11th pillar: Business sophistication	130	87.3	66.7	86.9
12th pillar: Innovation	97	94.2	71.7	98.8

Note: R – ranking of 142 selected countries; the value for Western Balkans is calculated as an average of values for Albania, Bosnia, Macedonia, Croatia, Montenegro, and Serbia.
Source: IMF - The World Economic Outlook, WEF - Global Competitiveness Report

Most significant reforms relate to: abolishment of monopoly, completion of privatization, and creation of a more favorable economic environment for an increase in greenfield investment. A faster rate of structural transformation involves establishment of a stable economy and faster accession and adoption of regulations the EU is built on.

According to the IMF data, over the period 2005-2008 Serbia's *GDP per capita* was rising on average by 19% annually, but in 2009 and 2010 because of the global economic crisis Serbia saw a decline which was steeper than in other SEE countries (the index of GDP *per capita* of Serbia is among the lowest in Europe and 3 times lower than the EU average).

Efficiency of the economy is not being improved adequately which is why the economy fails to seize better competitive positions in the global rankings, contrary to other adjacent transition economies that are up to the task. For the countries that are in the same development stage as Serbia, the most important are the attained values of indicators within subindex B – Efficiency Enhancers. Serbian economy is in a rather unfavorable competitive position since according to most indicators it is below the average of countries that belong to the second development stage, which means a far cry from the average of the EU member states. Unless the modernization of production capacities, constant investment in education, and enhancement of employees' expertise are achieved, Serbia will not be able to improve efficiency in other economic spheres, nor will it be able to reach a higher degree of development. Areas in which Serbia lags a lot behind countries in the group it belongs to are institutions, goods market efficiency, and business sophistication, in which the largest number of indicators is below 130th position.

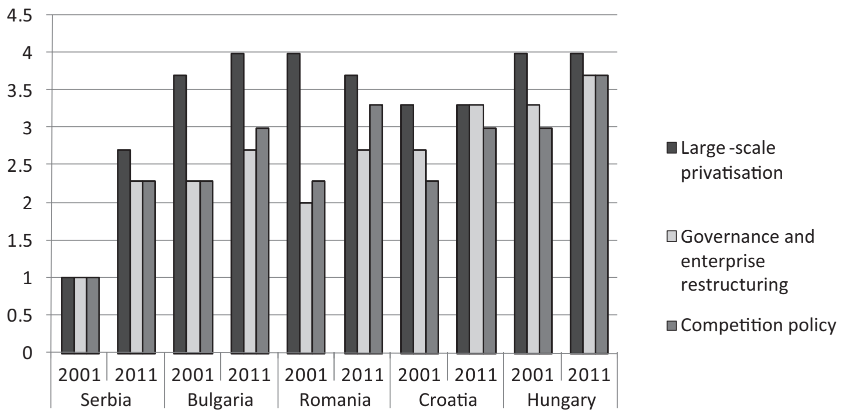
Table 3: Most critical fields of Serbia

	pillar	rank
• protection of minority shareholders' interests	1	140
• efficiency of regulative in settling disputes	1	137
• efficacy of corporate boards	1	136
• burden of government regulation	1	134
• extent of market dominance	6	139
• effectiveness of anti-monopoly policy	6	137
• intensity of local competition	6	136
• buyer sophistication	6	136
• brain drain	7	139
• cooperation in labor-employer relations	7	136
• firm-level technology absorption	9	136
• nature of competitive advantage	11	136
• willingness to delegate authority	11	136

Source: WEF Global Competitiveness Report 2011/2012

Closely related to this problem is inefficiency of the labor market in Serbia (pillar 7) whose ranking in relation to the previous year is down by 10 positions: for years Serbia has experienced a brain drain (136th position), not only because of better salaries for highly trained individuals abroad but also due to better conditions for scientific and research work. In order to prevent this phenomenon, stimulating measures must be undertaken to retain the best graduates and researchers; also, a long-term plan for getting our scientists back home must be adopted. There are other limitations that undermine the efficient use of talents as well, and thus productivity and creativity of employees most often are not salary criteria while managerial positions are usually occupied by individuals who are not professional managers selected on the basis

Figure 1: EBRD transition indicators 2011



Source: EBRD Transition Report 2011

of their job skills and work merits. The most critical fields are Institutions (pillar 1), Business sophistication (pillar 11), and Innovation (pillar 12).

According to EBRD transition indicators, Serbia lags behind most countries in the region in the areas of large-scale privatization, governance and enterprise restructuring, and competition policy.

Table 4: Competitive position-Business conditions 2010

BUSINESS CONDITIONS, rank	**92**
Starting a Business, rank	**92**
Procedures (number)	7
Time (days)	13
Cost (% of income per capita)	7.8
Min. capital (% of income per capita)	6
Dealing with Construction Permits, rank	**175**
Procedures (number)	19
Time (days)	279
Cost (% of income per capita)	1,603.8
Paying Taxes, rank	**143**
Payments (number)	66
Time (hours)	279
Profit tax (%)	11.6
Labor tax and contributions (%)	20.2
Other taxes (%)	2.2
Total tax rate (% profit)	34
Enforcing Contracts, rank	**104**
Procedures (number)	36
Time (days)	635
Cost (% of debt)	31.3
Resolving Insolvency, rank	**113**
Time (years)	2.7
Cost (% of estate)	23
Recovery rate (cents on the dollar)	24.4

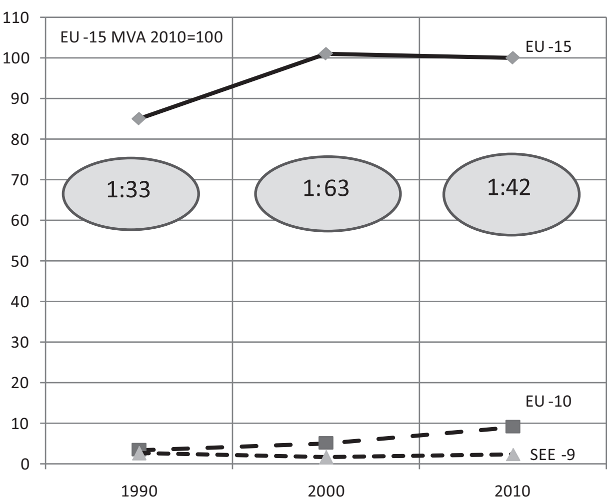
Source: The World Bank

Ranking on the ease of doing business, on the basis of relevant indicators devised by the World Bank, comprises various key aspects of the business environment that can either facilitate or hamper operations of economic entities (a higher rank of the index means that a regulatory environment conducive to solid business has been created). In this global ranking Serbia is ranked 92nd among 183 countries. Of all the European countries, Serbia is better positioned only than Ukraine (152), Bosnia & Herzegovina (125), and Greece (100). A comparative analysis of the dynamics and the rate of improvement of business indicators with adjacent countries indicates that the speed of reforms and competitiveness of the economy are mutually dependent. Serbia was among the most efficient reform initiators in 2005; in 2009 we had improvement only in the areas of starting a business and getting credit, and in 2010 – in the area of closing a business, whereas in 2011, just like in 2007, not a single one of the 10 major indicators saw progress. Costs associated with some indicators are expressed as a percentage of GNI per capita that measures income in an economy. In countries with low GNI per capita costs calculated in this way are very high, which results in low positions of those countries in the world ranking. GNI per capita of Serbia is one of the lowest on the European continent and accounts for only 17% of the EU average.

Transition-induced devastation of industry

Transformation of the economic structure in Southeast Europe has not contributed to economic growth – economic systems have not managed to adapt to ever fiercer market game rules and increasingly severe competition. Reasons for this lie in a late pre-transition start and slow and incomplete structural changes. Unlike the entire region of SEE, the efficient transition economies experienced a dynamic economic growth in the second half of the 1990s, mainly due to transformation of their industries based on reaping the benefits of higher exports of goods and services. Industrial transformations spurred competitiveness, triggering an extremely dynamic growth in industrial sectors that rely on the use of cutting-edge technology and economies of scale.

Figure 2: Gaps between industries of EU-15 and SEE



Note: SEE-9: Romania, Bulgaria, Serbia, Bosnia & Herzegovina, Croatia, Macedonia, Albania, Montenegro, and Moldova

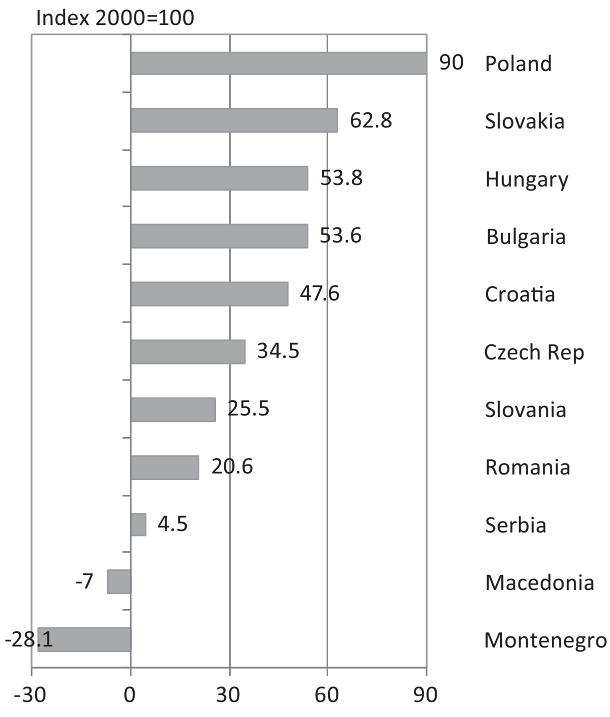
Source: author`s calculations on the basis of the UNSTAT data

Naturally, the EU market had a key role in the process of boosting exports (hereby we refer to geographic and location factors, comparative advantages, and dislocation of production facilities). It is a fact that the industrial advantage of transition economies was evident in those sectors of industry that required skilled but, at the same time, cheaper and more productive labor.

Given various transformation rates, the industrial map of Europe has changed and industrial differences have increased over the last two decades, i.e. the area of SEE increasingly trails not only behind the developed group of states (EU-15) but also ever more behind the group of countries that joined the EU in 2004 (EU-10).

Manufacturing value added of SEE (MVA) in 1990 was 33 times lower than gross value added (GVA) of the most developed group of European countries (EU-15). After two decades of transformation of SEE economies, the difference rose to 1:42. On the other side, we have a group of European countries that joined the EU in 2004 that succeeded in reducing the industrial lag by more than a half, from 1:25 to 1:11.

Figure 3: The level of industrial output of transition economies 2001-2010



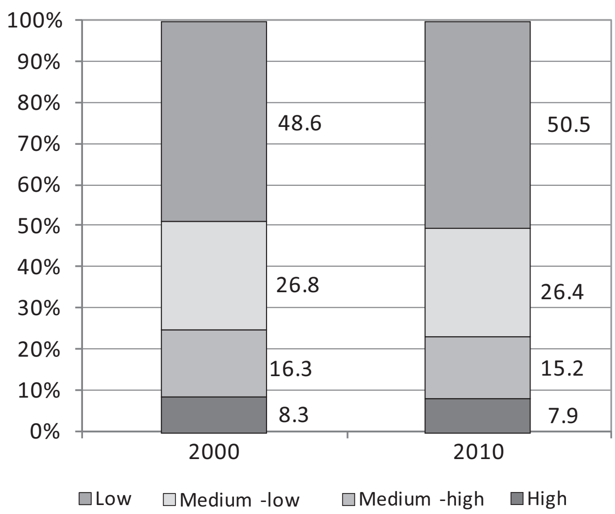
Source: author`s calculations on the basis of the UNECE Common Database, derived from national and Interstate Statistical Committee, Eurostat and national statistics

Over the last decade a high level of industrial output (above 50%) in 2010 in comparison to 2000 was produced in Hungary, Lithuania, Poland, Slovakia, and Bulgaria. In the same period, the level of industrial output in Serbia in 2010 compared to 2000 rose by 4.5%, and in manufacturing industry by 2.2% (an average annual growth rate at 0.4%, and in manufacturing at 0.2%).

Apart from transition-related problems, the industry of Serbia was particularly hit by recession blows in 2009-2011. Therefore even the minimal positive transition contribution to economic growth in manufacturing industry was neutralized (contribution of manufacturing industry to GDP growth in 2001 was 20%, and in 2011 it was at 14%). The greatest development problem is the loss of industrial employment (the number of industrial employees halved in the last decade) because the creation of the industrial structure is a rather long process. Similar transition economies still managed to maintain industrial employment. Reasons for a steep decline in industrial employment lie in post-privatization problems (a large percentage of unsuccessful privatizations) and strong recession impacts on an economy undergoing restructuring.

If we talk about aspects of structural changes and boost for competitiveness, the initial competitive position deteriorated. The technological structure of the value added by manufacturing industry after a decade-long economic transformation is rather unfavorable. The analysis by

Figure 4: Technological structure of MVA



Source: author`s calculations on the basis of the Business Registers Agency (BRA) technology groups in the structure of GVA of manufacturing industry signals that sectors of low technological intensity (50.5%) and medium-low technological intensity (26.4%) still have the largest share. Similar results are indicated by the subsector analysis of employment by technology groups (low and medium-low technology subsectors employ 75% of employees).

The trend of changes to the structure of technological intensity in the last decade had a reverse sign – sectors of lower technological intensity dominate the technological structure even more, which says a lot about problems that Serbian industry is facing. Establishment of a new industrial structure and its integration in modern market flows can be achieved only through development of industrial sectors with higher value added.

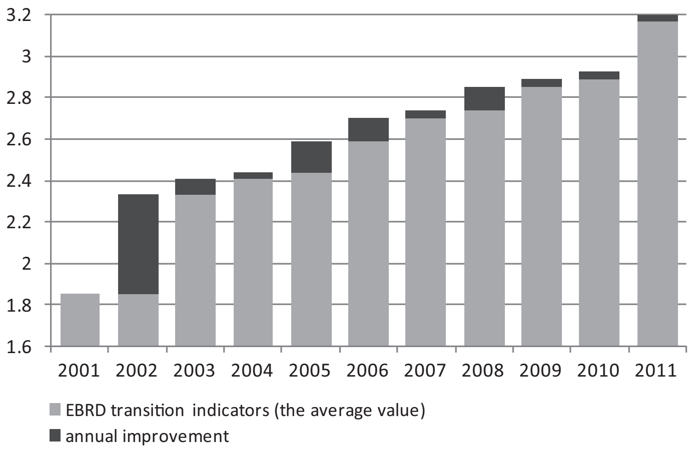
Structural development problems

The character of transition structural changes in Serbia is well illustrated by four major epistemological elements:

Firstly, incomplete and slow structural changes in economy. EBRD transition indicators, as most representative comparative indicators of the degree and dynamics of efficiency of institutional reforms, clearly indicate that after a speedy reform period 2001-2003 there came a period of reform stagnation while some progress was made in 2005 and 2008. This is confirmed by the Index of structural changes (indicates the speed of change to the GVA structure) and Lillien's coefficient. Because of a late transition start, Serbia lags behind in reform processes a lot (it is even below the average of SEE countries that are still not members of the EU), particularly in key segments such as: restructuring of large enterprises, competitiveness policy, and infrastructural reforms. In a word, transformation slowness was not conducive to the establishment of a new economic system. On the contrary, the transition "gradualism" ("gradual reforms" – Janos Kornai) of the Serbian economy has failed to comply with two main tenets: equitable reallocation of existing resources and fiscal stabilization of privatization effects. Transition experiences are confirmed by Kuznets's views: only structural reforms can lead to higher efficiency and faster economic growth (e.g. Baltic states and Poland that have completed more rapid structural reforms).

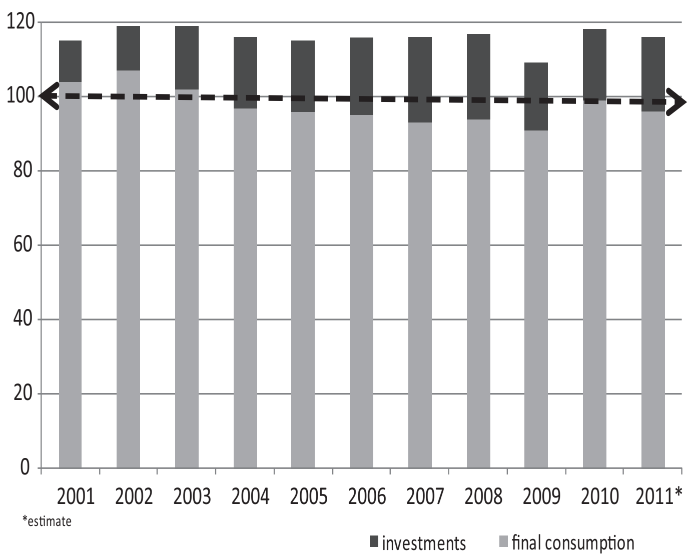
Secondly, spending is permanently above the limits. A rather low volume of output shows that the initial transition lag behind other transition economies is still taking its toll. After a decade of devastation and economic distortion, a non-restructured economic system is going through a decade of tough transformation. The economy is in an ever greater financial imbalance: in 2002 the loss equaled 9.7% of GDP and in 2010 it rose to 13.8% of GDP, accumulated loss increased in real terms by 50%, indebtedness increased 2.3 times, while the rate of lost capital is higher than the one registered at the start of transition.

Figure 5: Transition speed of structural reforms in Serbia



Source: EBRD

Figure 6: Transition surplus of domestic demand compared to output (% GDP)



Source: author's calculations on the basis of the RSO

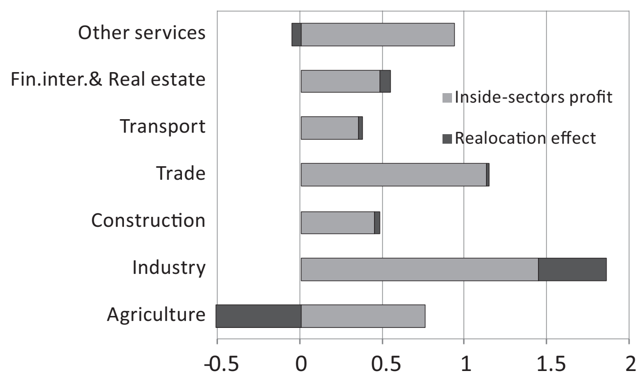
Manufacturing industry, a driver of development, has been living its hardest days over the last two decades. Despite the fact that in the transition period gross value added in manufacturing industry doubled, manufacturing industry of Serbia produces 50% less than manufacturing industry of Slovenia, almost 3 times less than Slovakia, 4 times less than Hungary, and as much as 6 times less than Czech Republic. Industrial decline in 2009 (-12.1%) caused by the global recession, annulled the entire transition contribution of manufacturing industry to economic growth – its share of 14% in GDP is the lowest in the region.

From the aspect of structural changes, results of the analysis of investment efficiency are particularly worrying: marginal capital coefficient shows an extraordinary inefficiency of manufacturing industry (manufacturing industry is 7 times less efficient than economy). Productivity of the Slovenian industry is 2.5 times higher, of Slovakian 2 times, and Hungarian 50%. Transition economies of Central Europe had a dynamic economic growth in the second half of 1990s, primarily owing to dynamic growth of investments and exports of goods, and realized structural reforms on the basis of which there were significant changes to the structure of industrial output (growth in medium- and high-tech sectors, whereas the steepest decline was registered in labor-intensive sectors).

Thirdly, high unemployment as a result of incomplete structural changes within economy, which is from a social and development point of view the most difficult thing to cope with. In contrast to other transition economies, manufacturing industry of Serbia over the last decade has lost a half of industrial workers. In any economy, the establishment of industrial structure is a rather long process which requires permanent education and strategic planning. The fact that in neighboring countries there are several times more industrial employees (in Bulgaria 2 times, in Hungary almost 3 times, in Romania as much as 6 times) and that almost all transition economies have managed to maintain industrial employment speaks volumes about difficulties that Serbian economy is faced with. In addition to post-privatization problems (a high percentage of unsuccessful privatizations), the effects of global recession have to a great extent contributed to decline in employment.

Fourthly, the key issue from the aspect of structural changes is: *has the transformation model of the Serbian industry contributed to sector reallocation of resources as an important source of growth and a deciding factor in boosting overall productivity? What was the transition growth of productivity based on?* The above average productivity (the ratio of GVA and employment) was reported by all service sectors (*transport, financial intermediation, real estate, etc.*) and the sectors of industry. Application of Syrquin's methodology for the transition productivity analysis (disaggregation of productivity to intra-sectoral profit and inter-sectoral employment shift) suggests that productivity growth in the last transition decade of 5.6% was mainly based on the "productivity effect", i.e. intra-sectoral income while the positive "reallocation effect" was marginal in all the sectors except for the sector of services (in Romania contribution of the reallocation effect was 0.57%, in Croatia 0.38%, and in Slovenia 0.19%). Contribution of labor reallocation among sectors in this period on the overall level was marginal (-0.01%). During initial transition years an excess of employees was a characteristic of all the economic sectors, and solving the problem through the process of privatization of social capital, restructuring of large systems and public companies, and undertaken structural reforms have not led to adequate labor reallocation. Reallocation effects were adverse for productivity growth in the sector of *Agriculture* (as a consequence of the negative growth rate of employment).

Figure 7: Decomposition of productivity growth 2002-2010



Source: author's calculations on the basis of the BRA

Productivity growth in industry was based on a reduction of the number of workers. In comparison to 2001 the number of employees in this sector halved (it went down by more than 320,000 employees). The economic crisis diminished the contingent of employees in production further – employment in industry in 2010 compared to 2008 went down by about 58,700 workers or by -13.3% (in economy by 73,820 or -5.2%). The reallocation effect in this recession period gains momentum – a portion of dismissed workers was absorbed by the service sector.

The minimal effect of the reallocation of labor can be attributed to the fact that reallocation within sectors still dominates over reallocation among sectors. Structural changes realized through the process of transformation of the social capital and through restructuring of large systems and public companies have not led to adequate labor reallocation.

Three development focal points

The EU's economic recovery from severe recession blows will in the first place depend on the enhancement of competitiveness and the pursuit of a coherent and coordinated industrial policy of member states. Apart from financial and fiscal stability, continuation of structural reforms is a necessary prerequisite for long-term sustainable growth. Reports of the European Commission on European competitiveness for 2011 [4] and competitive performances of member states and policies for 2011 [5] have identified key areas in member states that need to be further strengthened in order to make some progress toward achieving objectives under Europe 2020 and boost industrial competitiveness given that 75% of EU's exports are realized by production companies that also account for 80% of industrial R&D. The areas are:

- *Facilitation of structural changes* in economy with the view to making a shift to innovative and knowledge-based sectors that boost higher growth of productivity;
- *Ensuring industrial innovations*, especially by bringing together scarce resources and reducing fragmentation of innovation support system. It is expected that the growth of the markets for key enabling technologies (e.g. nanotechnologies) will grow by up to 50% by 2015, creating thousands of high value-added new jobs;
- *Promotion of sustainability and resource efficiency*, particularly through the promotion of innovations and usage of clean technologies, by ensuring fair and undistorted prices of energy, and promoting and interconnecting networks for energy distribution;
- *Promotion of business environment*, by reducing administrative burden on businesses and promoting competition among providers of broadband, energy, and transport infrastructure;
- *Benefits from a single market* with the support of innovative services, and
- *Support for small and medium-sized enterprises (SME)* through an easier access to funds and markets.

Development focal points of structural changes of the Serbian economy are primarily determined by the competitive position of the Serbian economy, the degree of uncompleted structural reforms, and development limitations. Therefore the focus of development and economic policy in the following period should be:

Macroeconomic framework and policies for industrial development

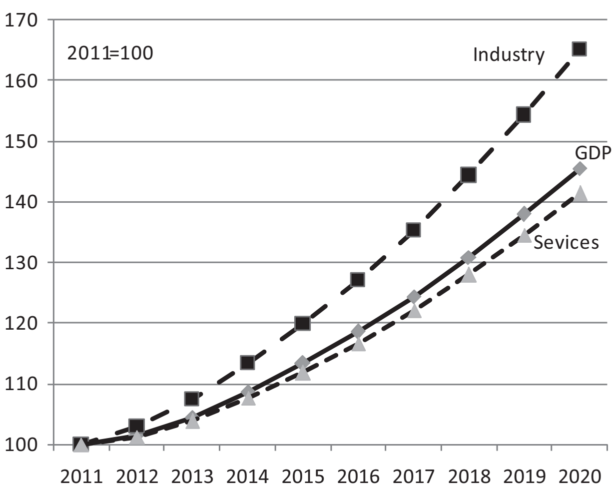
Realization of structural transformations will primarily depend on the realization of the macroeconomic framework for the new model of economic growth of Serbia in 2012-2020.

Recession blows in 2009-2011 led to downward corrections of macroeconomic growth projections of main aggregates by 2020, but the idea that essential structural changes and macroeconomic policies conducive to industrial development must be undertaken was only reiterated as a development imperative. Further in the text we aim to analyze projections of major macroeconomic aggregates by 2020 that are based on an average rate of economic growth of 4.3% for 2012-2020. In terms of structural changes, growth of the tradable economic sector (industry, construction, and agriculture) on average annually would be at 4.6%, while the sector of services would have a somewhat lower average growth of 3.7%. Key parameters that could impact on structural changes in economy are:

- a substantial rise in investment (the share in GDP to go up from 19.7% in 2012 to 24% in 2020)
- a considerable rise in exports (the share in GDP to go up from 35.9% in 2012 to 58.3% in 2020)
- reduction of external trade deficit (the share in GDP to go down from 14.9% in 2012 to 11.3% in 2020)
- reduction of deficit of current transactions in the balance of payments (the share in GDP to go down from 8.4% in 2012 to 4.5% in 2020)

Speeding up the economic growth is projected for the period 2015-2020 (an average growth rate of GDP is 5%) and it is based on a considerable boost of investment activity (coupled with a larger share of tradable goods in the structure of GDP), exports, and consumption. In order to see the share of gross fixed capital formation in GDP rise to 24% in 2020, it takes for an average real rate of investment growth to be at 8.5% (in 2012-2020). This growth would be twice as GDP growth and much faster than growth of overall domestic demand.

Figure 8: Projections of structural changes – cumulative indexes of real growth



Source: author's calculations on the basis of the RSO

Assumptions on reduction of foreign trade deficit indicate that a boost in exports will be essential in the period to come also as a substitute for a lack of foreign capital that will be ever more difficult to attract. An average growth rate of exports in 2012-2020 would be at 11.7%, while an average growth rate of imports would be at 9.4%. With such developments of exports and imports external trade deficit at the end of the period would equal 11.3% of GDP.

Growth of final consumption in the following period is linked to a considerable increase in investment. A lower increase in final consumption ensures the needed increase in investment. Assuming reduction of deficit of current transactions in the balance of payments, it is expected that internal demand will rise slower than GDP.

An average estimated growth of consumption is 2.9% but final consumption in 2011-2014 would stagnate (personal consumption would increase moderately and public consumption would go down slightly); only after 2014 higher growth rates are likely – an average growth rate of personal consumption in 2015-2020 would be 4.4% and an average growth rate of public consumption 3.2%. In 2012-2020 one could expect to see a decrease in the share of public consumption in GDP (of 3.1%). The share of final consumption in GDP would go down from 95% in 2011 to 86.4% in 2020.

Key macroeconomic policies should be in line with the new macroeconomic model of economic growth, and primarily the fiscal, monetary, investment, and employment policy. Industrial policy is particularly accountable when realization of structural changes in manufacturing industry is concerned.

The objective of the industrial policy is to prop up structural changes and all the activities that help more efficient functioning of the market and creation of a more favorable business environment, whereby direct interventions are permitted only in cases of deficient markets. Government intervention measures, undertaken as part of the industrial policy, must have a limited term, i.e. they must be prevented from deforming market relations extensively after having fulfilled their function. Through special intervention programs the state should support the establishment of a new industrial structure – through mechanisms of state aid it will stimulate development of export-oriented and competitive sectors as well as sectors that generate high value added, namely:

1. Food industry
2. Industry of transport equipment
3. ICT
4. Metal complex

5. Health industry

Stimulation of development of the listed industrial areas rests on the anticipated multiplicative impact on overall industrial development based on knowledge and application of innovations, particularly in the area of activation of development potentials of leading export-oriented companies – national leaders. Formation of a new industrial structure and its efficient involvement in modern market flows hinges on the given areas, primarily because of:

- opportunities for the creation of new, permanent jobs;
- projects in these areas have a direct impact on the boost of exports;
- they create linkages among domestic companies and attraction of foreign companies - providers;
- these areas have the potential for development of industrial clusters and they provide room for a competitive advantage after the principles of niches (small market segments).

Development of dynamic entrepreneurship

Propulsive enterprises present the backbone of future development of any economy. The drivers of development are most propulsive enterprises (*gazelles*), i.e. small and medium-sized enterprises that make use of their resources in a market environment most efficiently; they raise employment continually and improve their balance positions. Global processes bring to the fore the speed of gazelles' response to market signals and, accordingly, the speed of making business decisions (*"think global, act local"*).

Even in the most developed economies gazelles account for not more than five per cent in the total number of enterprises. As early as in the 1970s the author of the very term ***gazelles***, professor David Birch while studying the boom of the Silicone valley concluded that only three per cent of enterprises (most dynamic ones – gazelles) would survive and continue to develop. Conclusions entitled *Europe's 500* indicate new trends of dynamic entrepreneurship and state that their sustainability is based on a clear entrepreneurial vision and an innovative approach. *"The entrepreneurial generation of the day is creative, innovative, and strives to be true to its environment… it is very different from the capitalists of the 19th and mid 20th century we know of. Entrepreneurs create and in the first place bring to life new technologies, new products, new industrial branches; they generate new value and new jobs."* (Timmons, A. Jeffry)

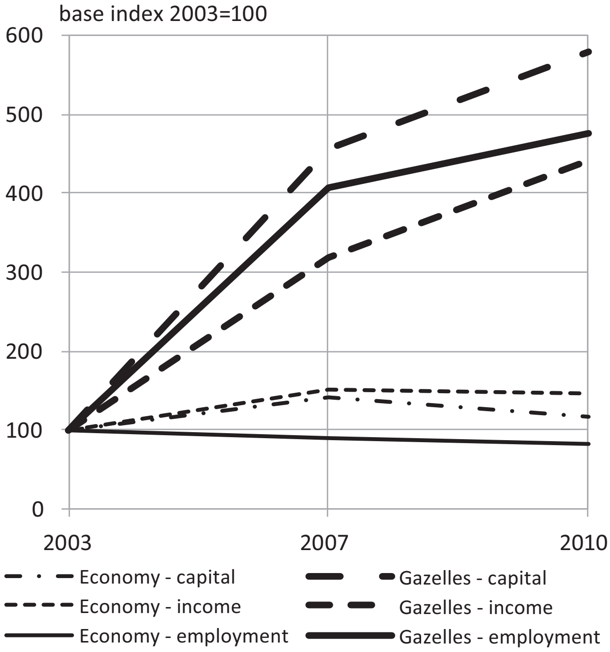
Recession impacts have clearly showed what the economic role of entrepreneurship is. Most jobs are, namely, created in the companies that employ up to twenty people. Small and medium-sized enterprises were the fastest rising enterprises in the 1990s, they created more jobs than large enterprises lost, and they realized the highest increase in revenues and profit.

Dynamic entrepreneurs are entrepreneurs with features such as: creativity and originality, long-term orientation to the market and buyers, morality and business culture, the ambition for long-lasting success and capital profit, the ability to predict risk and adjust, and pronounced problem-solving orientation. In transition countries there is a great mistrust of dynamic entrepreneurs (that many American authors dub heroes). In these countries some twenty years ago it was dangerous and illegal to talk about entrepreneurship and profit. Therefore it takes some time to change the attitude to entrepreneurship as a whole and for the state to initiate permanent building of a favorable climate for dynamic entrepreneurship.

Stimulation of entrepreneurship development in Serbia is one of the development focal points and a priority strategic objective of overall development of the country. Intensive development of modern entrepreneurship in Serbia started in 2001 as part of structural reforms but global recession heavily undermined transition results. Still, nowadays the entrepreneurial sector employs around 2/3 of economy, generates 56% of value added, 45% of exports, and accounts for 1/3 in GDP of the Republic.

Key weaknesses of entrepreneurship in Serbia are low competitiveness, a low level of entrepreneurial education and skills on the labor market, marked regional disproportions, an inadequate volume and spectrum of sources of funding, incomplete institutional infrastructure for the entrepreneurial sector, an incomplete legal framework, and inadequate implementation of the practice of a public dialogue between institutions and the private sector.

Figure 9: Significance of dynamic entrepreneurship



Source: author's calculations on the basis of the BRA

Although we still cannot say that dynamic entrepreneurship in Serbia is in line with European standards when it comes to economic robustness, innovativeness or competitiveness, if we modify criteria to some extent, we could identify enterprises that deserve the epithet of dynamic enterprises and most dynamic enterprises – *gazelles*. In keeping with modified "Europe`s 500" criteria of the European Commission, in 2010 in Serbia there were 538 dynamic enterprises and 54 most dynamic ones – gazelles.

The research into dynamic entrepreneurship shows that in 2008 the number of dynamic enterprises increased 2.5 times (from 237 in 1998-2002 to 532 in 2003-2007) and that the number of their employees doubled (from 12,473 to 22,167), while in the period 2006-2010 in 538 dynamic enterprises there were about 47,000 employees.

The main characteristics of 54 Serbian gazelles in 2010 were:

- A constant increase in employment – in 2003-2010 gazelles created about 10,000 new jobs;
- The impact of Serbian gazelles on overall economic developments is still marginal – 54 Serbian gazelles in 2010 accounted for: 1.2% of the number of employees, 1.5% of total revenues, 1.3% of income, and they had at their disposal 0.5% of capital;
- A more dynamic real rise in major indicators that that of economic developments: capital rose 5.8 times (by 17% in economy), total revenues rose 4.4 times (by 50% in economy), and income 4.3 times (by 2.2 times in economy);
- Section breakdown indicates that gazelles are concentrated in Trade (24) and Manufacturing industry (12);
- Pronounced regional concentration – 23 gazelles are registered in the territory of Belgrade, mostly in the service sector.

Stimulating the development of dynamic entrepreneurship and gazelles is a development chance of Serbia. Primary tasks are to continually create a stimulating environment and resolve key problems of development of enterprises in the stage of growth and development. It takes special stimulation of dynamic entrepreneurship as it leads to high growth.

Regional development of industry

The transformation model of economic growth over the last decade has made regional imbalances even deeper. Regional disproportions in Serbia stem from a series of factors, ranging from inherited to transition ones: discrepancies in the economic structure, demographic processes, inconsistent and uncoordinated regional policies, and a systemically incomplete institutional framework. Traditional models for promoting a more balanced regional development were not particularly efficient.

A direct consequence of the economic distortion of the 1990s and the process of transformation and readjustment of the economy to a market economy is the economic demise of large systems – drivers of regional industrial development and formation of a new group of municipalities with special development problems – the so-called *devastated area*. The devastated area comprises 20 industrial towns that have not managed to recover industrially over the past two decades (the loss of more than 40% of profit and more than 50% of employees in manufacturing industry). On the other side, we have a parallel process – the concentration of economic activities in two cities (Belgrade and Novi Sad).

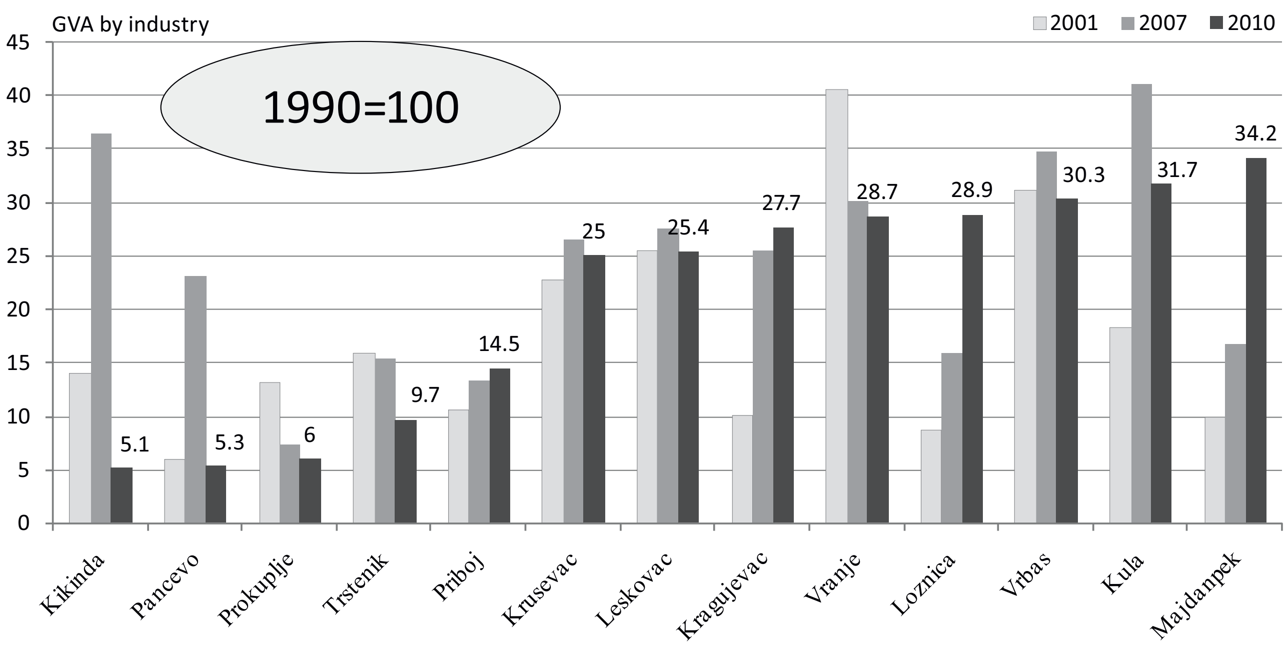
Discrepancies in regional competitiveness are manifested as the concentration of economic activity of efficient, high profit and employment companies in Belgrade and South Backa areas, whereas other regions are faced with low economic activity, underdevelopment, and high labor costs. Regional economies are not adequately restructured to meet high demands of competitive foreign markets.

There is the deepening of regional asymmetries that is manifested in two ways: firstly, as an ever greater concentration of economic activities in the Danube-Sava area and, secondly, as ever stronger economic problems in the devastated area. Former industrial centers that have been propellers of economic development for decades have become transition loss-makers and are faced with enormous development problems. The fact that 2/3 of manufacturing industry are concentrated in two regions (the regions of Vojvodina and the Belgrade region) speaks volumes about the necessity to devise specific solutions for regional development of Serbian industry.

The regional analysis of the degree of devastation of regional industrial centers indicates three phases: (a) decline in GVA of industry during the period 1990-2000 in most cities in Serbia ranged within the interval of 70-90%, (b) during the transition period 2001-2007 a number of industrial cities boasted positive trends and recorded modest growth rates, and (c) the recession period after 2009 was so severe that a number of industrial centers suffered negative growth rates of the pre-transition period (regional centers such as Kikinda, Pancevo, Kraljevo, Novi Sad, Vrbas, Krusevac, etc.).

The third strategic development imperative in the period to come should be to adopt a special program for the stimulation of regional development of industry. Because of ever larger intra-regional and inter-regional discrepancies that hinder overall development and initiate numerous systemic deformations (demographic, social, budget, etc.), the state should redefine the regional institutional framework in order to cushion transition impacts and limitations that vulnerable areas face, i.e. to help their auto-propulsive development. This particularly refers to the assistance for areas with special development problems (through investments and stimulation of the inflow of capital) so that these areas could offset their structural weaknesses. This primarily refers to devastated industrial centers and large economic systems in which restructuring is underway.

Figure 10: The degree of devastation of the industrial centers 1990-2010



Source: author's calculations on the basis of the BRA

Conclusion

The European economy is undergoing deep changes. Recession crisis waves hit hard the industrial sectors of transition economies – industrial systems that have not realized structural changes and equipped themselves for a permanent competitive game are suffering most.

The transformation of the economic structure of Serbia from the very start trailed a lot behind other transition economies. Although Serbia managed to catch up over the past decade, major structural reforms are yet to be undertaken, priorities being the completion of privatization and restructuring of enterprises as well as enhancement of business conditions. Transformation of state public companies is in its early days.

The transformation model has not produced results in terms of the speed of structural changes, labor productivity boost, and sector reallocation of growth factors towards highly productive sectors. The rise in productivity was not coupled with the rise in employment, far from it. The decade of transformation of the economic structure in Serbia was characterized by the rise in services and a decline in the industrial sector. The structure of manufacturing industry of Serbia is uncompetitive and based on labor-intensive and resource areas – the dynamics of transformation has not enabled the setting up of a new industrial structure primarily based on industries of higher value added. Low competitiveness of the Serbian economy is best illustrated by an inadequate level of investment, low productivity, and insufficient exports.

Structural transformations are of determining importance for the reallocation of resources to more productive sectors of economy and for making room for new enterprises and the development of an entrepreneurial sector that drives growth in modern market economies. Structural transformations are supposed to accelerate the reallocation of resources from the social and state-owned to the private sector, and to help create a new economic structure through the process of restructuring and modernization of economy. Therefore it takes for the recently adopted strategic document, *Strategy and Policy for Development of Serbian Industry by 2020* to be implemented in all the stages and all domains.

Global instability has once again proved that liberalization, deregulation of the market, and privatization – three holy words of the neoliberal concept – are ineffective and inefficient without structural economic reforms. Structural transformations need to be realized continually because, as Minsky concludes, "*just like stability and balance, perfection is nothing but an illusion*".

References

1. Aghion,P., Harmgart, H., Weisshaar, N. (2010), "Fostering growth in CEE countries: a country-tailored approach to growth policy", EBRD, Working Paper No 118.
2. Bajec, J. and group authors. (2010), *Postkrizni model ekonomskog rasta i razvoja Srbije 2011-2020*, USAID.
3. Chang, H.J. (1993), "The political economy of industrial policy in Korea", *Cambridge Journal of Economics* 17: 131-157.
4. European Commission. (2011), *European Competitiveness Report 2011*, DG for Enterprise and Industry. Brussels.
5. European Commission. (2011), *Member states competitiveness performance and policies 2011*, DG for Enterprise and Industry, Brussels.
6. European Commission. (2011), *Innovation Union Competitiveness Report 2011*, DG Research and Innovative, Brussels.
7. European Commission. (2010), *EUROPA 2020, A strategy for smart, sustainable and inclusive growth*, Brussels.
8. EBRD. (2009), *Transition Report 2011*.
9. Jakopin, E., Bajec J. (2009), "Challenges of Industrial Development of Serbia", *Panoeconomicus*, 56 (4): 507-523.
10. Jakopin, E. (2010), "Industrial Transformation: Key to Economic Growth", Ekonomika preduzeća, 1-2: 67-79
11. Haraguchi, N., Rezonja, G. (2011), "Emerging Patterns of Manufacturing Structural Change", UNU World Institute for Development Economics Research (UNU-WIDER), Working Paper No. 2011/43
12. Ministarstvo finansija. (2011), Izveštaj o razvoju Srbije 2010, Beograd.
13. Ministarstvo finansija. (2011), Razvoj preduzetništva u Srbiji 2010, Beograd.
14. OECD. (2001), *Structural change and growth: Trends and policy implications*, Paris, Directorate for Science, Technology and Industry.
15. Porter, M. (2008), "The Five Competitive Forces That Shape Strategy", *Harvard Business Review*, 25-39.
16. Polanyi, K. (2003), *The Great Transformation*, Beograd, Filip Višnjic.
17. Republički zavod za razvoj. (2011), Strategija i politika razvoja industrije 2011-2020, Beograd, Sl. glasnik.

18. Rodrik, D. (2008), "Industrial Development: Some Stylized Facts and Policy Directions" in O'Connor, D., Kjöllerström, M.(eds), *Industrial Development for the 21st Century*, Hyderabad, Orion Printers.
19. Syrquin, M. (1984), "Resource Reallocation and Productivity Growth", in Syrquin, M., Taylor, L., Westphal, L. E., eds., *Economic Structure and Performance*, New York, Academic Press.
20. World Bank. (2011), *Doing Business 2012,* Washington DC.
21. World Bank. (2010), *World Development Report,* Washington DC.
22. World Economic Forum. (2011), *The Global Competitiveness Report 2011/2012,* New York, Oxford University Press.
23. International Monetary Fund. (2011), *The World Economic Outlook: Slowing growth, rising risks,* Washington DC.

Edvard Jakopin

is Assistant of Minister of Finance, Head of Department for National Development. He has obtained all the academic titles (the undergraduate degree, the postgraduate degree, and PhD in economics) at the Faculty of Economics in Belgrade. He has written numerous expert and scientific papers in the field of macroeconomics, economic development planning, competitiveness, and regional modeling. He has been the project team leader in various research projects and studies, the coordinator of formulation of the National Strategy for Economic Development of Serbia 2006-2012, the head of the process of designing the Strategy for Regional Development of the Republic of Serbia 2007-2012 and the Regional Programme for Economic Development of AP Vojvodina 2004-2007 and 2007-2010, Industrial Policy of Serbia 2011-2020, etc.
Since 2004 he has been a member of EADI (European Association of Development Research and Training Institutes). He is a member of Presidency of Economist Association of Serbia and associate member of Scientific Society of Economists.

Jurij Bajec

was born in Slovenia but most of his life he spent in Belgrade. He was educated in Ljubljana, Bonn and Belgrade, graduated and got his M.A. and Ph.D. at the University of Belgrade. Mr. Bajec is professor at the Faculty of Economics, University of Belgrade. His main research and teaching fields are: public sector policies, economic development, competitiveness policy , economies in transition. He is also Senior Research Fellow at the Economics Institute, Belgrade, and was Visiting fellow at the Institute of Development Studies, University of Sussex, U.K and assistant Professor at the Addis Ababa University.
Prof. Bajec was member of key economic professional organization and expert teams preparing national economic reform and restructuring programs, including Serbian Post-Crisis Economic Growth and Development Model, 2011-2020. Prof. Bajec is author of several books and papers. He speaks English, German and Slovenian. Currently, he is Adviser to the Prime Minister of Serbia.

ORIGINAL SCIENTIFIC WORK
UDK: 330.342.22(497.11) ; 332.021.8(497.11)
Date of Receipt: January 30, 2011

Nenad Popović
ABS Elektro

THE NEW INDUSTRIALIZATION OF SERBIAN ECONOMY

Nova industrijalizacija srpske privrede

Abstract

The aim of this paper is to emphasize the necessity of reindustrialization of the Serbian economy. In order to ensure the preservation of the economy in terms of substantially altered external environment, first of all, it is necessary to consolidate the existing state and to ensure the growth of industrial production. This can be achieved by focusing resources primarily on the following industries: petrochemical, agro-industry, automotive industry, textile industry, and building materials industry. However, to ensure long-term sustainability of the Serbian economy, as soon as an acceptable level of growth in industrial production is reached, it will be necessary to enter the next phase – development of the Serbian industry based on knowledge and modern technologies.

Key words: *industry, reindustrialization, knowledge-based economy*

Sažetak

Cilj ovog rada je da ukaže na neophodnost reindustrijalizacije srpske privrede. Da bi se obezbedilo očuvanje privrede u uslovima bitno izmenjenog eksternog okruženja, najpre je potrebno konsolidovati postojeće stanje i obezbediti rast industrijske proizvodnje. To se može ostvariti fokusiranjem resursa, pre svega, na sledeće grane industrije: petrohemija, agroindustrija, automobilska industrija, tekstilna industrija i industrija građevinskih materijala. Međutim, da bi se obezbedila dugoročna održivost srpske privrede, neophodno je, nakon dostizanja prihvatljivog nivoa rasta industrijske proizvodnje, ući u sledeću fazu – razvoj srpske industrije baziran na znanju i savremenim tehnologijama.

Ključne reči: *industrija, reindustrijalizacija, ekonomija zasnovana na znanju*

Introduction

Turbulent changes that have swept the world at the beginning of XXI century have particularly affected the economic flows of developed countries which are characterized by intensive development processes and coopetition (cooperative competition). On the contrary, the economic system of Serbia entered the second phase of the transition process considerably weakened due to a number of adverse events that have marked the last decade of the 20th century.

A large decline in industrial production in the 1990s was not recovered in the past decade, but has stagnated at a very low level. Serbia lost significant infrastructure, human and technological resources, which has reflected on the existing industrial system that is fragmented and dysfunctional. At the same time our industry is far behind compared to most countries in transition and developing countries that at times adopted a new paradigm of development and through the implementation of reindustrialization process gave to the industry a key role in the overall economic development. A present state of the industry in Serbia does not only disable economic development, but the overall social prosperity of the country as well.

Thus, special priority must be given to adopting an industrial policy that would enable the realization of the process of industrial structure transformation in line with changes in the environment (global competition, changing customer expectations, technological discontinuities, transformation of information and knowledge into the key economic resources, environmental concerns, etc.), through an in-depth review of the current situation, and considering the specifics of our industrial system. With respect to the aforementioned, some guidelines are given in this paper. In the first part, we will analyze the performance of the industrial system of Serbia over the past decade in order to recognize the essence of the current situation. Then, it will be identified industries that have the most potential to achieve significant growth in the medium term. Finally, it will be pointed out the necessity of improving industrial branches by adopting new concepts of industrial development based on knowledge and innovation.

Overview of the industrial sector in Serbia

Serbia's GDP grew at an average rate of 4% per year from 2001 to 2009 [4] and [5], while in 2010 recorded growth of 1% compared to the recessive 2009 [4] and [5]. The service sector has contributed most to this relatively dynamic growth of the gross domestic product in the second phase of the transition process. However, by pushing the development of the service sector, traditionally and predominantly oriented to the domestic market, the development of the real sector has been completely neglected, which had significant impact on the change in the structure of the economy.

The share of industrial production in GDP creation dropped from 21.7% in 2001 to 15.9% in 2010 (processing industry accounted for only 13.7%), which resulted in deformation of the economic structure. In the period from 2001 to 2009, the average rate of decline in GVA of industrial sector was about -0.1% (-0.4% of processing industry), with a marginal negative contribution to GDP growth [4] and [5]. Therefore the share of tradable goods sector has been low in GDP structure formation (25.2% in 2009). However, the gap between the sector of tradable and non-tradable goods further deepened in 2010, which hinders the improvement of export performance [4] and [5].

In the period 2001-2009, the average growth rate of industrial production amounted to only 0.5% [4] and [5]. The whole transitional cumulative growth of the Serbian processing industry from 2001 to 2008, which amounted to 18.6%, was annulled (-18.7%) during the crisis of 2009 [3]. After a significant drop in 2009, the industry sector in 2010 recorded a slight recovery. In 2010, there was a growth in GVA of the total industry in amount of 2.2% (processing industry by 3.4%) [4] and [5]. Despite this, the recorded volume of industrial production in 2010 accounted for only 45.9% of the volume in 1990, with cumulative growth of negligible 2.5% in the last two decades (Figure 1) [6]. According to the estimates for 2011, total industrial production recorded a modest positive growth (overall industry growth was 2.1% after eleven months), primarily due to electric power and mining [1]. However, the data for processing industry in 2011 will be lower than in 2010. A sharp downward trend in processing industry, which makes more than 70% of Serbian industry, and significant negative results are reported monthly from April 2011 [1].

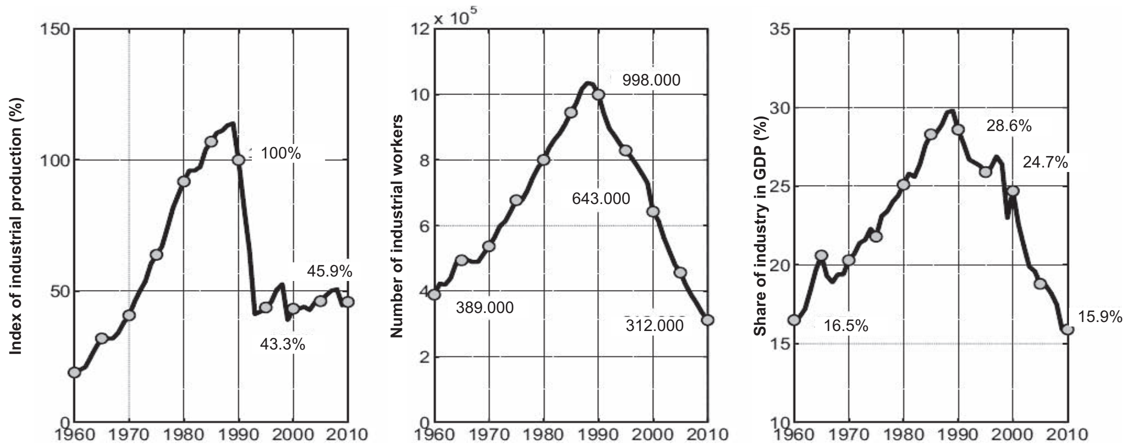
The number of industrial workers has dropped from nearly one million, as it was in 1989, to only 312,000 in 2010 (Figure 1) [6]. Number of workers employed in the processing industry halved in the period 2001-2009 (decrease of 47%), which is the one of the biggest economic transformations of all transition countries in the region [3]. Hereby the industrial system is not lost only in quantitative terms of the human potential, but also in qualitative – keeping in mind its ability to successfully manage and innovate its own business systems in such a way as to make them more competitive in the global market. One of the reasons that has largely contributed to this situation is the low levels of investment in human resources, research and technological development which are the basis for economic development – the budget allocated for education is approximately 4.5% of GDP, while about 0.3% is provided for science, but more than 90% of these expenditures go to salaries of employees in these sectors [4] and [5].

A particular problem is that the Serbian industry in terms of technology is far behind not only in comparison with the leading world and European economy, but also in comparison with the technological level that it had until 1990 [4] and [5]. Companies from the sectors with low technological intensity (47%) and medium-low technological intensity [4] and [5] dominate in the structure of the processing industry [4] and [5]. More than 90% of industrial companies are located in LMT sectors, and they employ(ed) over 90% of industrial workers (2008) [6]. This situation has very negative implications for the qualifications of the industrial workers, which creates an unfavorable demand in the labor market for highly qualified workers [6]. A share of high and medium-high technologies, which are the engine of industrial development and an essential component of long-term stability and independence, is very small in the Serbian industry [4] and [5]. This has a very negative effect on the structure of Serbian exports (over 95% of Serbian exports come from the industry), which are predominantly based on primary products (34.5% in 2009) [4] and [5], instead of the high value-added products and those of higher level of finalization.

These indicators clearly show that in recent times Serbia is not stagnant primarily due to the impact of the global economic crisis, but because of its own autochthonous crisis caused by internal factors, which started much earlier. The devastation of industry in the last two decades has led to silent death of the traditional industrial centers in Serbia and massive unemployment. Due to the systematic destruction and degradation of internal resources (human resources, infrastructure, production programs), in terms of development, the Serbian industry tends to vacuum state. In addition to growing economic crisis in the country, external shocks such as financial, economic or debt crisis are further deteriorating economic situation. The key problem is that the governance of industrial system of Serbia is completely reduced to the economic level, focusing only on one aspect – how to attract foreign direct investment, and ignoring entirely other, equally important factors such as technology and human resources [6].

The current crisis that has engulfed the peripheral countries of euro zone, has revealed that the prerequisite for a steady growth of the state is a sound economy, founded on developed industry. To ensure the sustainability of the economic system of Serbia, it is necessary to consolidate the industry and bring it back to functional state through the proper selection of branches that have the most potential to provide needed growth in the medium term. The aim of diversifying the economy and creating new sources of growth must become a part of economic development programs and strategic documents the implementation of which will be a priority. This includes efforts to increase the competitiveness of selected branches of industry by improving the technological base and human resources. The economy based on knowledge and innovation must be built for the benefit of all citizens.

Figure 1: Comparative view of aggregate indicators of Serbian industry in the period 1960-2010 [6]



The new industrialization as the basis of the development cycle

As shown in the previous chapter, Serbia has in the past decade implemented an absolutely inadequate model of economic development based on the inflow of foreign capital and on a highly dynamic development of the service sector. The development of the real sector, i.e. the existing industry and agriculture, has been neglected. This in turn has resulted in a malformation of the economic structure, hence, Serbia has already experienced a fall in the GDP growth rate, a high and an ever-rising unemployment rate, a deficit in the foreign trade, and also a high and increasing external debt which is impossible to control without a prior change in the foreign trade orientation. Consequently, the future development of Serbia depends on a reindustrialization oriented towards the goals to be achieved on export markets, in which the parties will play an important, however not critical, role in the industrial production growth. The depth of identified macroeconomic problems is multiplied by the effects of the economic crisis, especially its second wave, when the possibilities for reactive microeconomic strategies are exhausted, which further proves that time is one of the crucial variables in the future success formula.

The linear and non-transparent policy of incentives implemented so far has shown that no strategy of creating new industry has been formed, and that the first step in its adoption involves the identification of the key sectors of the future industry of Serbia. The industry policy support has to be oriented primarily towards concrete activities, segments, and even products that will help increase production and exports, and raise the employment rate in the shortest possible term, i.e., towards the industries that dispose of certain capacities and technological level that already guarantee competitive advantage on the existing markets. The most important in this view are the agriculture and food processing industry, chemical industry, petrochemical industry, and textile and shoemaking industry sectors. In the medium term, it is necessary to adopt the measures that could improve international competitiveness of the sectors that have new products and/or can capture new markets. These requirements can be met by the energy supply sector, the metal sectors (especially automotive industry), the construction industry, and the recycling industry. In the long run, the potentials for growth in the domain of telecommunications, bioengineering and "green energy" should be exploited. In the second phase, upon three to five years, reindustrialization should be characterized by the transition from manufacturing labor-intensive products (with a lower share of added value in the product price) to technologically-intensive products, and thus preventing the situation in which the production of industrial products increases, however, without the change in the added value this sector creates, having in mind that a further fall in the prices of labor-intensive products is expected in the years to come. If the policy of randomly supporting every foreign investor who wants to come to Serbia and only certain national investors continues, the result will again be an inadequate allocation of resources with no long-term prospects to create conditions for an endogenous growth and therefore, the economic growth of Serbia will depend again on foreign investments.

Agriculture and food-processing industry sector. Serbia is unfortunately still an agricultural country, which is shown by the statistics of the products of agricultural origin dominant in the production (over 24%) and exports (over 28%). There is no reason to be satisfied with the achieved, seeing that the Serbian exports per hectare of arable land are twice as low by comparison with the exports of the Macedonian agriculture, the difference being even more striking by comparison with Croatia. Besides, the year 2014 will be characterized by an overall liberalization of agricultural and food products trade with the European Union, and the Serbian agriculture is not yet ready for the conditions of fierce European competition, not even on the national market.

A survey of the agricultural statistics reveals that meat and meat products are barely included in the exports, nor are milk and dairy products. In the period from October 2010 until April 2011, Serbia exported 1.5 million tons of corn, and imported 7 thousand tons of pork meat, an indicator of the presence of significant limitating factors of further growth in the very structure of the agricultural sector. The policy of subsidies to agriculture implemented in the past four years has significantly contributed to the exports statistics remaining unchanged. Out of the total of the subsidies paid, around 80% is allocated to crop farming, out of which as much as 37 % consisted of the incentives to livestock farming in the period before 2008. In the past decade, all the average annual values of production in livestock farming have been lower (fattening pigs by 36.6%, eggs by 28.9%, beef by 25.5%, pork by 24.4%, mutton by 11.2% and poultry by 31.7%). Another problem is the size of the budget that has for years stagnated or decreased, and has been distributed unequally, to an ever decreasing number of farms.

Serbia should produce and export the higher-phase processing products, branded products, processed in accordance to both traditional and modern technologies that ensure high quality and a share on the markets characterized by a higher purchasing power of ultimate consumers. Since livestock farming is by its nature a higher processing phase in comparison with crop farming, and since industrial herbs, fruit and vegetables make the basis for an accelerated development of the food-processing industry, the need for change in the domain of subsidies allocation is evident. In the domain of crop farming, it is necessary to introduce subsidies what will ensure the link to be created between the yield and subsidies in order to motivate producers to implement modern methods in the primary crop farming. It is also important to introduce differential subsidies for the producers of industrial herbs, fruit, and vegetables, as well as to gradually increase subsidies in livestock farming to the level of 50% of the total agrarian budget. This would be a significant incentive to the employment rate growth in this sector, given a higher labor intensity of these activities in comparison to crop farming. The flippancy in the approach to agriculture is further highlighted by the fact that last year Serbia exported USD 528 million worth of fruit and vegetables, with no secured differential subsidies for the production of these cultures, normally paid to producers throughout Europe.

On the basis of the above-mentioned a conclusion can be drawn that in a medium-term period the most important for the further growth in this sector is to improve the situation in the food-processing industry. The structure and the level of technical and technological equipment in the food-processing industry sector in Serbia is on the level that does not make the growth factor a limiting one in agriculture and its restructuring. A relatively low level of capacity exploitation is constantly evident, both in the overall industry of agricultural produce processing and in its aspects individually. So, for example, the oil mills employ as much as 60% of their capacities, sugar mills employ around 30%, the confectionery industry employs 40%, meat packing plants exploit 35% of their capacities, the fodder processing industry employs 15% of its capacity. The subsidies to the exports of end products of these producers could simultaneously result in the growth in the demand and the higher prices in purchases from the producers, which would further enhance the primary production. In such conditions, the agricultural exports could be expected to rise by 50% in three years, and even to double in five years.

Energy supply industry. Investments into power engineering make one of the key priorities in creating infrastructure conditions for investing in other economic sectors, since no economy can expect a significant economic growth based on the growth of commodity production and investments without having at disposal available economic energy capacities. The share of the energy supply sector in the Serbian GDP amounts to over 7.5%, the sector employs over 80 thousand people, increases the foreign trade deficit by more than USD 30 billion, and the total investments in the sector, even in the present conditions, exceed EUR 500 million annually. The last construction works in the energy sector in Serbia date back to 1989, when the "Drmno" power plant was completed. These facts only point out that any further delay in planned investments in the energy supply sector on the basis of the Strategy of the Energy Supply Development of the Republic of Serbia until 2015 will endanger energy safety and also the future of the Serbian economy [9].

Investments into energy sector required to be made in Serbia will induce technological improvement, that is, the urge to implement the R&D results to reduce energy intensity. Empirical studies prove that the increase in prices of energy resources up to the market level will not result in the fall of the GDP in case there is enough available capital to implement necessary technological changes in the thermodynamic conversion that result in energy efficiency. Institutional economists suggest that the key role of policy makers is to provide subsidies to investments and an environment that ensures a long-term orientation of participants in the market. In the case of Serbia, this means creating an economically sustainable business model as well as attracting investments of public and private companies in the energy sector. The plan of investments into the energy sector should also be adjusted to the principles of energy safety, which in turn should be adopted as a Pareto optimum between the demands to reduce energy dependence and technical, economic, political, and environmental risks. A number of facts corroborate the statement that investments into the energy sector of Serbia will produce a manifold favorable benefit for the future economic growth. Firstly, the planned investments in the energy sector are based on the domestic finance sources, on condition that realistic prices of energy resources are secured. Secondly, in the South Stream project, as well as in the projects on the construction of the thermal power plants, regulations are provided as to the maximum (or minimum) engagement of the national construction industry and suppliers, which should both directly and indirectly employ at least 50 thousand workers. Thirdly, the South Stream project will earn revenues from transport taxes in the amount of at least EUR 500 million annually, while the imports of electric power will be replaced by the exports of this power worth EUR 300 million annually, on average. Fourthly, the planned investments worth around EUR 15 billion should be finalized by 2017, which would ensure a higher than 25% total rise in investments in the years to come as well as projects for the national companies worth half of the sum, and the effects upon the completion would be visible both in foreign trade and in the rise in investments in related branches and industries based on energy resources consumption.

Petrochemical sector. The past decade is predominantly characterized by a business collapse and a definite closing down of a number of domestic producers of petrochemical derivatives of a higher processing phase (ZORKA, Šabac; VISKOZA, Loznica; ŽUPA, Kruševac; IHP, Prahovo; HIPOL, Odžaci) [10], and finally, in 2009, the "cornerstones" of the Serbian petrochemistry – HIP PETROHEMIJA, HIP AZOTARA and MSK. After so many years of transition we are still at the beginning, as the state is still, directly or indirectly, the majority owner of all the companies; the capacities are totally or mostly depreciated, whereas the production program still remains unchanged. Over four thousand employees and the entire basis of the Serbian chemical industry are endangered due to being neglected for a large number of years. Even in this condition, this sector enables Serbia to be included in the chemical industry of the region with over USD 250 million worth of exports. In three years, with the investments that do not exceed this amount, it is possible to double the scope of production and exports and to activate a number of new as well as some of long closed capacities. The optimism in the development plans for this sector is based on the change in the ownership relations in the petroleum sector and the announcement of the beginnings of the South Steam project execution towards the end of the current year, which brings closer the time of parity optimum price relationship between the input and output products in the petrochemical sector.

The reasons for a more intensive participation of the state in this sector are numerous. The profitability of the petrochemical business is sinusoidal, with cycles lasting 7 to 9 years. Given that 13 years have passed since the last maximum in the prosperity of this sector, it is with great certainty that we can say that a growth in the profitability of this sector is expected in a short time; however, the Serbian companies are neither organizationally nor technologically, nor financially prepared for it. Due to a high share of fixed costs, the production units in Europe, of the size similar to the existing ones in Serbia, will face a number of problems considering the competitiveness of their primary petrochemical derivatives. The result is that today the European petrochemical companies generally resort to an internal valorization of their primary derivatives through the development of capacities for the production of a wide range of much more accumulative higher order derivatives, offering their own ethylene, propylene, methanol or aromatics on the "spot" market only sporadically, in cases of unplanned slowdowns in their own higher-finishing phase production plants. Due to all these, and also due to an already dramatic rise in the consumption of the PR in China, in India, and in the Russian Federation, there are still significant opportunities for the survival and growth of the placement of the petrochemical complex of Serbia on the regional market. The alternative to the state investments for the purpose of preserving the capacities of the basic chemistry is an intensification of efforts in connecting the national companies with strategic partners within marketing-technological alliances, with "large" corporations that would invest into the development in order to get the opportunity to enter the regional market of higher-processing phase derivatives.

Automotive industry. The production in the world automotive industry is highly concentrated, which is supported by the fact that as much as 77% of world production is covered by only 10 companies. The European manufacturers outsourced over 75% of their production to component producers such as Bosch, Valeo, Faurecia, and Siemens VDO. Even in the crisis conditions, the fall in this industry is not that dramatic and certain countries even record a growth. A possible prosperity of this industry in Serbia is enhanced by a joint business venture with the Italian Fiat. The restructuring of the plant of the former automobile factory Zastava, as well as the construction of the new business premises of Fiat and the component suppliers Magneti Marelli, Johnson Controls, Promo Magneti, Seajet and HTL are close to completion. The estimates on the final manufacturing and export effects of this project are still in the domain of forecasts, nevertheless, significant amounts of money invested will by all means foster the Serbian exports as well as the technological level of the automotive industry. On the other hand, to achieve at least a portion of a success whose benefits are now enjoyed by the employees in the automotive industries of Slovakia, the Czech Republic, Hungary, and Poland seems rather necessary than possible. It is also vital to attract other manufacturers of automobiles and components. The reverse order of things is more probable, however, equally desirable from the point of view of the development effects. The production of auto components in Slovakia makes around 50 percent of the total income of their automotive industry and has increased 11-fold over the last ten years, now earning around EUR 9 billion annually [11]. The differences in the labor costs between the countries with developed automotive industries and Serbia are not enough to ensure a favorable result, since there are also differences in productivity, level of industrial knowledge and education system that Serbia can offer. Since the precedent was established with the special conditions of support for Fiat, it will cost Serbia dearly to attract new companies in the automotive industry sector; however, this can pay off in the long run. The planned 5 thousand employees in Fiat will be paid with around EUR 100 thousand per work position, which will never be earned back if the development of the new automotive industry in Serbia ends with Fiat and its only one model.

As the conditions under which any company in this industry can come to Serbia failed to be defined earlier, it is necessary to define them now. The subsidies should be based primarily on tax relief and on infrastructure provision and they should be tied to the amount of investments, since this is most highly correlated with the technological level of the planned investment.

Construction industry. The most direct effects of the economic crisis in Serbia are felt in the construction industry, and they are vertically transferred to over 30 related industry branches. A constant fall in private investments, a fall in budgetary allocations for capital investments and the lack of opportunity to enter foreign markets without the financial support from the state are major causes of the problems. Hence resolving these problems will help exit the crisis. Currently, works are only conducted at the most important infrastructure projects financed from the budget or from the loans the state was granted. Out of the total of 15 tenders announced in 2010 and 2011 for works on the Corridor 10 and the "South Adriatic" highway, national companies won in only four cases. National companies could not even apply either autonomously or as consortium leaders at other tenders as the tender conditions are such that they cannot meet them. The construction industry too has recorded a substantial fall in production since 2008, especially in exports that amounted to 49.1% for the entire period till 2012. Due to such trends, the employment in the construction industry decreased by 40% and now the industry employs fewer than 80 thousand employees, with a large number of employees waiting for months to be paid their salaries.

To ensure the solvency of the construction companies and enable them to compete on foreign markets, it is necessary to adopt and consistently enforce the decision on limiting the deadlines for payment of the work completed, start the development bank that will financially support the execution of large state construction projects and issue adequate guarantees for the Serbian construction companies to compete on the national and foreign markets, establish a guarantee fund from the inactive state property to issue bank guarantees to construction companies. It is also necessary to reprogram the loans to construction companies to a longer term and relieve them from collaterals for equipment and machinery that hinder their normal functioning. Twenty years ago, construction industry earned nearly USD 3 billion abroad; today, it earns less than USD 200 million. In order to make the growth on foreign markets come true, it is required that, apart from being efficient, the construction industry implements modern, energy-efficient technologies, as well as the "green" construction elements. Certificates for the implementation of these standards are granted today to 60% of construction companies in the EU; in five years, 90% will be granted these, but none in Serbia. Obviously, this calls for the state support.

Textile, leather and shoemaking industries. The industrial sector that served as the development driver, especially employment driver during the 1990s in many parts of Serbia has been wrongly abandoned. From 230 thousands in 1990, the employment plummeted to 33 thousands last year, which equals the number of employees once working in the region of Užice. The trends in the region, precisely in Macedonia and Bulgaria, are simultaneously reverse. The exports have increased six-fold, while the employment has remained at the same level. Given the current changes induced by the effects of the economic crisis and the events in the countries of Northern Africa with which the EU established a diagonal cummulation of origin of goods as early as 2005 and 2006, many large companies redirected the production of textiles to the Balkan region as well. This sector appears to have a fresh opportunity. The state has done almost nothing to take this opportunity; nevertheless, the companies and small entrepreneurs have made certain adjustments. The exports have doubled in five years and are now worth over USD 800 million, 70% being exported to the EU countries. The ownership structure, company size, and the labor technology have in the meantime significantly changed, with almost no support from the state, except a total of EUR 36 million in subsidies to investors, which makes less than 1% of capital allocated for support to economy so far. Given that the labor costs in this sector are significantly lower than in other sectors, which significantly contribute to competitiveness, and that this country has enough available capacities to offer to this sector, it is clear that an adequate state support can help improve the employment rate in this sector up to 100 thousand people and achieve three times larger exports over the five following years. In order to achieve these goals, apart from direct subsidies to investors, the state should reduce fiscal and other burdens, establish control of the goods flow on the national market, abolish customs duties on imports of raw materials for the exports-oriented production, support efforts to enhance solvency and export businesses, and provide educational support to improve activities throughout the sector.

The development of industry based on knowledge and innovation

The deterioration of performance of the industrial system in Serbia is not only a consequence of uncontrolled de-industrialization process, but also of a longtime existing crisis of industrial development. It is obvious that sufficiently stimulating environment for industrial development has not been created yet, which has impact on the overall development component that is at a very low level in companies engaged in industrial activities in Serbia [6]. Coordinated strategic management of the modern economy implies constant adjustment of industrial structure (and economy) to increasingly frequent changes in the environment and requires the adoption of a new development concept in which the focus would be on the use of modern technology and innovation ensuring lifelong learning, facilitating the establishment and maintenance of relationships with key stakeholders in the chain of production, etc.

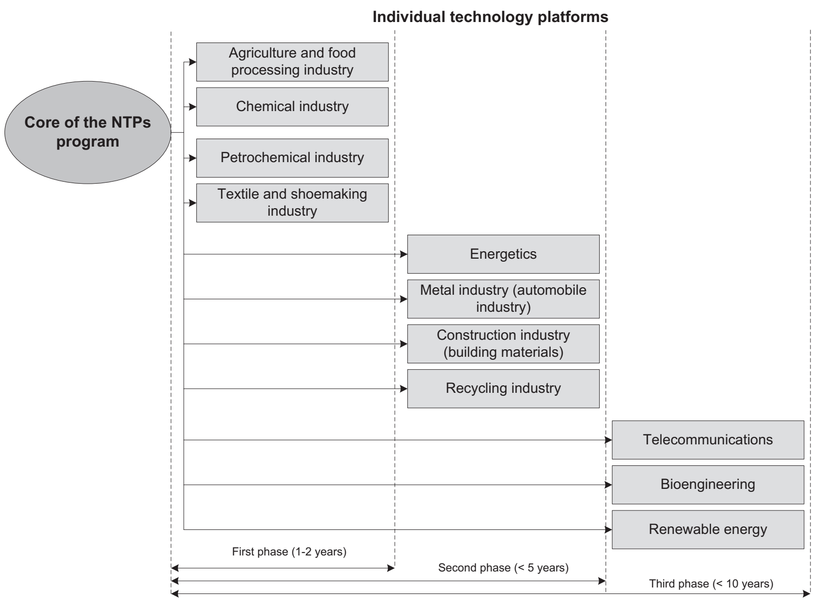
Innovation is a key competitive factor in the global economy. The contribution of institutions of higher education and research to technological recovery and innovation of industry, as well as initiating of a new spiral of development and transformation of industry should be of a key concern. Namely, Serbia must create models capable of supporting academic-based innovation and its transition to the markets. One model which has proved to be successful in practice is the introduction of technology platforms. Technology Platforms (TPs) are industry-led stakeholder fora charged with defining research priorities in a broad range of technological areas [2]. The essence of the TP is a close interaction of three key participants in the process of technological development [8]: (1) industry, (2) holders of research and development activities, and (3) holders of the investment capital. TPs foster effective public-private partnerships, contributing significantly to the development of knowledge for growth. Public-private partnerships can address technological challenges could be key for sustainable development, for the improved delivery of public services and for the restructuring of industrial sectors [2].

In most European countries TPs have been established in the following research areas: Energy (Biofuels, TPWind, Zero Emission Fossil Fuel Power Plants– ZEP, Renewable Heating & Cooling, etc.), ICT, Bio-based economy (Farm Animal Breeding and Reproduction Technology Platform, Food for Life, Plants for the Future, etc.), Production & processes (Construction Technology Platform, Steel Technology Platform, Technology Platform on Sustainable Mineral Resources, Future Textiles and Clothing, Water Supply and Sanitation Technology Platform, Sustainable Chemistry, Advanced Engineering Materials and Technologies, Industrial Safety ETP) and Transport [2].

In Serbia, a program of the national technology platforms was initiated and developed by the Serbian Academy of Engineering Sciences with the aim of introducing technological dimensions and engineering to the process of recovery and development of Serbian industry. The NTPs program was conceptualized as a structure that is composed of two hierarchical levels: NTPs Core, which is located in the Serbian Academy of Engineering Sciences and governed by NTPs Committee, and NTPS Individual Platforms, a set of up to 10 individual platforms (production, food, energy, construction, ICT, transport, health, environment, fashion, and materials) that emerges from NTPs Core as a network of mutually complementary, highly networked and interacting entities [8].

Given that the aforementioned program, made on the model of ETPs (European Technology Platforms), is comprehensive and ambitious, it should be insisted on its implementation in stages in view of the limited resources that Serbia has. Through its regulatory mechanisms, the state should support the creation and functioning of national technology platforms in the process of generating and implementing new technological knowledge. This means that it first has to establish NTPs in those branches of the industry that have the most potential to achieve growth immediately (food-processing industry, chemical industry, petrochemical industry, textile, and shoemaking industry), then in the medium term in other promising branches (energetics, automotive industry, building materials industry, waste recycling industry) and, successively, in the long term in some other areas (Figure 2). NTPs will bring together stakeholders in key economic sectors so as to: (1) develop a long-term vision of the sector, (2) create

Figure 2: NTPs organizational structure



Adapted from [8]

a strategy for delivery, and (3) establish a management structure to ensure maximum impact.

Conclusion

The Serbian economy is faced with autochthonous crisis that has lasted for two decades, which has particularly negative impact on the industry. The way out of the crisis requires economic growth that cannot be achieved without consolidation of the economy and focused approach to key industrial branches. In order to succeed, it is necessary to adopt a phased approach. Priority should be given to industrial branches whose facilities are not sufficiently exploited and that have the potential to reach significant growth in a short period of time (food-processing industry, chemical industry, petrochemical industry, textile and shoemaking industry), and then to those branches of the industry that can achieve significant improvements in the medium term (energetics, automotive industry, building materials industry, waste recycling industry). In the modern world, the stability is a value that can be acquired and provided only through persistent hard work, openness to change, and willingness to implement advanced, well-thought-out and balanced reform. A new concept of industrial policy should not only provide support of growth of industrial production, but also facilitate its development and competitiveness enhancement of national industries. The development of the industry requires the establishment of national technology platforms that would enable the improvement of the technological basis and apply experts' knowledge.

References

1. Ekonomski institut, Makroekonomske analize i trendovi- MAT, br. 206, decembar, 2011.
2. European commision: CORDIS, http://cordis.europa.eu/technology-platforms/ (accessed 25.01.2012.)
3. Jakopin, E., (2011), "The Framework of New Serbian Industrial Policy", *Ekonomika preduzeća*, vol. 59, iss. 1-2, pp. 73-88.
4. Ministarstvo finansija Republike Srbije, makroekonomski podaci http://www.mfin.gov.rs/UserFiles/File/tabele/2011%20decembar/Tabela%201%20Osnovni%20makroekonomski%20indikatori.pdf (accessed 24.01.2012.)
5. Ministarstvo finansija, Izveštaj o razvoju Srbije 2010, Beograd, 2011, http://www.mfin.gov.rs/UserFiles/File/dokumenti/IZVESTAJ%20O%20RAZVOJU%20SRBIJE%202010.pdf (accessed 24.01.2012.)
6. Petrović, P. (2010/ 2011), "Industrijski sistem Srbije- Amputirano znanje", *Biznis top 2010 – 2011*, www.ntp.rs/wp-content/uploads/2011/11/amputiranoznanje.pdf (accessed 24.01.2012.)
7. Petrović, P., Milačić V., (2010.) "Nacionalne tehnološke platforme Srbije - novi formalni okvir za reinženjering industrije", *Istraživanja i projektovanja za privredu*, Vol. 8, 147- 161.
8. Petrović, P., Milačić, V., (2011), National technology platforms of Serbia, 3*4th International conference on production engineering*, University of Niš, Faculty of Mechanical Engineering, pp. 15-25.
9. Popović, N.,(2011), "Investments into energy supply in Serbia and economic development sustainability", *Ekonomika preduzeća*, vol. 59, iss. 1-2, pp. 99-110.
10. Popović, Z., Marinković, D. (2009): "Revitalizacija i razvoj proizvodnje derivata više faze dorade: preduslov opstanka srpske petrohemijske industrije", *Istraživanja i projektovanja za privredu*, Vol 7/4
11. SARIO, Slovenská agentúra pre rozvoj investícií a obchodu, http://www.sario.sk/userfiles/file/sario/pzi/sektorove/auto/automobilovy_priemysel.pdf (accessed 26.01.2012.)

Nenad Popović

Born in Tuzla in 1966. He graduated from the Faculty of Mechanical Engineering at the University of Belgrade, and obtained his Master and PhD degrees at the Faculty of Economy in Moscow.
Mr. Popovic is the owner and president of the international company ABS Electro (www.abselectro.com), engaged in the production of electro-technical equipment, creating advanced engineering solutions for a variety of industries such as electrical power, shipbuilding, oil, gas, metal, mining and others.
He teaches at the Faculty of Economy of Moscow's Lomonosov University and the Faculty of Economy of the Moscow State Mining University.
Mr. Popovic is Vice President of the Democratic Party of Serbia and a Member of Parliament of the Republic of Serbia.
He published eight books and over 120 scientific papers in the area of economy and regional development. He speaks English and Russian.

ORIGINAL SCIENTIFIC WORK
UDK: 338.45.01 ; 338.1(497.11) ; 338.43(497.11)
Date of Receipt: February 1, 2012

Zoran Njegovan
University of Novi Sad
Faculty of Agriculture
Department of Agricultural
Economics and
Rural Sociology

INDUSTRIAL POLICIES IN AGRARIAN ECONOMY

Industrijske politike u agroprivredi

Abstract

Industrial policy is a significant element of successful agro-economic development considering that it integrates three highly important elements of development and growth - economy of scale, innovativeness and synergy – at a global level. As a complex and comprehensive activity it is oriented, by its nature, to structural regulation and promotion of competitiveness of the industry. Serbia does not have a clearly and consistently developed industrial policy, nor does it implement it in an effective manner. As such, it becomes a "receptor" of industrial policies of others – developed countries. However, it could be said that, even with such an orientation, it is not very successful. Hence, this paper treats the global industrial policies issues, as well as policies of the successful countries such as China, USA, EU, and others whose experience Serbia could use as a paradigm. Furthermore, the paper comments the industrial policies of the countries of East Asia and countries in transition, as examples of a positive experience. Finally, it analyzes the situation in the industrial policy segment in Serbia within a historical context, indicates the constraints and offers the possible directions for their relativization.

Key words: *industrial policies, agrarian economy, imperialism, mercantilism, Lisbon Strategy, Republic of Serbia.*

Sažetak

Industrijska politika predstavlja bitan elemenat uspešnog agroprivrednog razvoja, s obzirom na to da u sebi objedinjuje tri veoma važna elementa razvoja i rasta - ekonomiju obima, inovativnost i sinergiju, i to na globalnom nivou. Ona je kao kompleksna i sveobuhvatna aktivnost po svojoj prirodi usmerena na strukturno regulisanje i podsticanje konkurentnosti industrije. Srbija nema jasno i konzistentno izgrađenu industrijsku politiku, niti je primenjuje na način koji bi joj tako nešto obezbeđivao. To je kao takvu čini receptorom za industrijske politike drugih - razvijenih zemalja. Međutim, može se reći da ni u takvoj orijentaciji ona ne ostvaruje mnogo uspeha. Zbog toga se ovaj rad bavi globalnim pitanjima industrijskih politika, kao i politikama uspešnih kao što su Kina, SAD, EU i drugi čija iskustva mogu poslužiti Srbiji kao paradigma. Takođe, u radu se komentarišu industrijske politike zemalja istočne Azije i zemalja u tranziciji kao pozitivno iskustvo. Konačno, analizira se i stanje na segmentu industrijskih politika u Srbiji u istorijskom kontekstu, ukazuje na ograničenja i nude mogući pravci za njihovo relativiziranje.

Ključne reči: *industrijske politike, agrarna privreda, imperijalizam, merkantilizam, Lisabonska strategija, Republika Srbija.*

Industrial imperialism – neomercantilism in action

The process of deindustrialization of developed countries[1] began in late seventies of the twentieth century induced by the end of the several decades long negotiations within GATT on the liberalization of world trade and creation of WTO. As a consequence, after admission to WTO in 2001, a new hegemonic tendency emerged, contained in the economic imperialism of China as a totalitarian regime[2]. Since then the current world economic struggle

1 The basis of the industrial policies of developed countries at that time is the orientation to move the capital of production companies to less industrialized countries at the time which availed of low-cost resources (labor and natural resources).

2 China disposing at this moment with major economic resources, namely, population, the most developed trade in the world, GDP similar to USA, has become the strongest financial power in the world that also represents a technological and military force, diplomatic world power, etc. (for more see in Brunet, A., Guichard, P. J., 2011).

is often related to the clash between imperialism on the rise and the current imperialism that has been associated till now with USA[3] and somewhat earlier with England. Namely, these countries have ruled the world for over two hundred years now creating the so-called democratic capitalism which is based, above all, on mercantilistic model, as interpreted back by William Petti[4], and which held the position on the surplus of foreign trade based on manufacturing activities and their products. On the subject of agro-economy, it is necessary to point out that protectionist measures were resorted to, as a rule, during the process of its development[5]. This particularly applied to the circumstances where agro-economy made half of the economic activities of the country, or even more, and where the sudden slump of prices, under the circumstances of opening up to external competition, would be fatal.

The question is raised as to the role of mercantilism in the industrial policies issues. Its characteristics are mostly related to trade surplus resulting from the implementation of powerful protectionism (high customs duties, taxes, manipulation of exchange rate, and depreciation of own currency) or as stated by some, by military means (opening the market with "canon balls" which was the specific approach applied to China during the period 1820-1945). Theoretically speaking, such an approach enabled a classification of countries into mercantilistic and deficit countries, namely, creditor and debtor countries[6]. Therefore, it is a fact that such an approach assigns different positions to individual countries. Hence the advantages and constraints in creating and managing respective industrial policies in different economic segments. The mercantilist policy (realized either by loyal or disloyal means) leads to absolute advantage of a specific country providing continuous surplus in international economic relations and thereby broader basis for further more successful and efficient industrial development and internationalization – globalization of own activities. On the other hand, the strategy of external debts and discouraging internal savings – stimulating the demand, imperatively causes the drop of interest rates, which in the long run leads to market inflation of assets (real estate and at the exchange) which can push the economy into recession considering that such a state, in view of its external deficit, is unable to successfully implement the monetary and budget policy.

Guided by such approach, through a series of activities of newer date, adopting the lessons from the World Model of Development and using the open clash between USA and Japan (1985-1995), China was able to impose itself as a competition to Japan which suited USA at the time. Clinton's administration deferred and China was accepted to WTO without raising at the time any conditions regarding the Yuan exchange rate. As a consequence, China was developing a growing surplus, first of all with USA because of the fact that was enormously important to the US companies that had opened their *joint venture* branches in China and the possibility of subcontracting works, which employed enormous Chinese labor. When the fact of devaluation of Yuan in 1997 is added to this, which caused the so-called "Asian Crisis", which in turn suited the US capital, it can be concluded that China, similar to Japan from the period 1945-1985, conducting the policy of undervaluation of foreign exchange rate, low interest rates, low wages, and raising obstacles to the penetration of foreign capital, succeeded in becoming a new industrial imperialist power, owing to the very fact of implementation of mercantilistic measures. The formula of conducting industrialization policies on a global world scale was verified once again.

Industrial policies of developed countries

Industrial policy (IP) of developed countries is focused, first of all, on creating conditions for achieving goals and tasks of industrialization and, specifically, on promoting

3 The four centuries of European domination over the world ended on the eve of World War I (1914) although England still dominated at the time (more in Kennedy, P., 1988).

4 Points out the significant role of the state in the trade with distant countries, importance of military power on one side and industry on the other, and finally, importance of surplus in foreign trade. William Petty (1671) *L'Aritmétique Politique*, London (see more in Furquet, François, 1989).

5 Back in the 1930s, USA is prominent on the world stage by its aggressive protectionism (Smut-Houli ultra protectionistic tariffs) which was a significant instrument of its industrial policy by which it protected its young industries, particularly agrarian economy.

6 Two coefficients are singled out in that respect – internal consumption modulation coefficient and foreign trade balance coefficient. Four categories of countries can be singled out in that respect ("+ +", "+ -", "- +", "- -"), although, generally speaking, practically two of the types could be singled out (more in Brunet, A., Guichard, P. J., 2011).

industrial growth and efficiency. It is very important here that the main goals of industrial policy are compatible with other economic development goals. It must contribute to the general economic growth, financial stability, improvement of balance of payments position, full employment, and improvement of prosperity.

The industrial policy, within the economic policy, can have a so-called positive and negative approach. The positive approach pertains to stimulation of new industries or new products and processes, and the negative approach to abandoning outdated resources and technologies in individual productions. In reality, there are such industrial sectors on a decline that seek additional support from the state to aid them in procuring new equipment and maintaining employment. In such situations, the industrial policy in practice is related to numerous segments of economic policy.

The realization of industrial policy objectives is greatly dependant on whether the instruments actually work in practice. Furthermore, it is important that the instruments and procedures are not too complicated so that their use by the companies could be easy to manage and their implementation would not cause major additional costs.

Therefore, it can be concluded that establishing and carrying out the goals of industrial policy is a highly complex task which implies numerous actions taken in numerous segments. Coordination and integration of a great number of various institutions and organizations are highly important, but also optimum establishing of measures of economic policy. The industrial policies of developed countries can be taken as paradigm, above all those of the EU and countries of East Asia.

Industrial policies of the EU before and after the Lisbon Strategy

Industrial policy of the European Union was understood in the past as a set of activities of the countries that have set a goal of achieving industrial changes by incentives that promote production of specific industries or stimulate entering and exiting a market with specific industrial products. However, the high barriers to entering an integrated Union market, externalizing between the companies and markets of the member countries, imperfection of the capital and labor market, high costs of structural adapting of the industry and other affecting factors, have led to the appearance of intervention at the European Union level instead of at the national levels.

The industrial policy in the Union was developing in phases, from sector protectionism to horizontal support and clear promotion of competitiveness, i.e. from passive to active policy. As EEC was shifting from the negative (passive IP) to positive (active IP) integration, the importance of supra-national IP grew. Nevertheless, the constitutional problems were continuously present, conflict of interest and ideologies among the members, fear of supra-nationality (large members) and lack of resources. Four periods may be singled out in the constitution and conducting of IP in the EU in spite of the fact that the economic literature is not on the same line and is imprecise: 1) period from Marshall's plan to creation of EEC (1947-1960); 2) period of accelerated growth to the oil shocks (1960-1973); 3) post crisis period (1973-2000), and 4) period after 2000, i.e. period after the Lisbon Strategy. It is important to emphasize for this occasion the newer EU experience.

Since the "Maastricht Treaty", IP in the EU is based on Article 157, Chapter XVI-Industry. The chapter "Industry" is a codification of "IP Directives", whereby EU competencies related to IP were officially entered. In order to resolve these problems a White Paper on Growth, Competitiveness and Employment was passed in 1993, which was harmonized with the Directives from 1990. The White Paper was followed by a whole series of important documents and directives which became the basis of horizontal IP concept. It is obvious that EU IP since 1990 has made a major turn from sector policy to a clear promotion of competitiveness. The IP targets the realization of which was aimed at during the 1990s were: (1) support to retraining of labor; (2) trans-border mobility and exchange; (3) promotion of entrepreneurial capital market and investment in human resources; (4) subsidies for positive external effects (technological research), and (5) providing a stable macroeconomic environment and access to foreign markets on a reciprocity basis. Therefore, the common and integrated IP at Union level in the course of the 1990s, but also after the adoption of the Lisbon Strategy, was government intervention oriented to: (1) external market (trade policy); (2) domestic market (competition policy); (3) factoring markets (on the capital and labor markets); and (4) three additional independent components of IP (policy of regional development, policy of technology, and development of framework conditions for industry or business environment).

The world globalization trends, economic and political domination of USA, high competitiveness of the Japanese industry, as well as China's developing into a new economic power, are the most significant reasons for the new IP approach in the EU. It began after the Lisbon Summit of the European Council in 2000.

According to LS, the strengthening of EU competitiveness and its potential for the industrial growth is based on seven of the total of 12 targets: (1) broader and more efficient use of new information technologies (IT) and creation of European area for research and innovations; (2) completion of developing a unique internal EU market; (3) creation of efficient and related financial markets; (4) strengthening of entrepreneurship by improvement and simplifying of regulatory environment (particularly for SMEs); (5) better social cohesion founded on promotion of employment; (6) improving skills and improving the social protection system; (7) sustainable development that would ensure a long-term quality of living. Related to this, the Action Plan included four areas of activities: (1) process of coordination and creating key technologies that would gather numerous protagonists and implement a common strategy for development and use of these technologies in EU; (2) greater investment of industry in research and linking research and industry; (3) increasing public financial subsidies for research; (4) improving the environment for research and innovations in the EU through protection of intellectual property, regulation of products market and related standards.

Integration of new members in LS began at the session of the European Council in Goeteburg 2001. The new countries achieved a high level of macroeconomic stability and made an important step in the direction of market opening and modernizing of institutional, legal, administrative environment and privatization which contributed to their significant industrial restructuring. With respect to the Lisbon targets these states adopted the "Europe Plus Strategy" and thus took part in the European strategy of employment and raising of social cohesion. The achieved LS results indicated to the EU that the framework of changes and responsibility for their achievement must be decentralized. This meant the division of responsibilities among certain member countries that were bound to prepare their national annual programs of reforms within the basic LS concept. The common framework of the "Revised (New) Lisbon Strategy" retained the focus on targets significant for the entire developmental and strategic EU position. The EU introduced the "Corporate Social Responsibility" (CSR) as a key dimension in reviving LS in its document from 2006 titled "Implementing the Partnership for Growth and Jobs: Making Europe a Pole of Excellence on CSR".

The Union confirmed the importance of integrated guidelines, and emphasized as priorities in the "Community Lisbon Program 2008-2010" [2]: a) the need for stronger investment in knowledge and innovations, b) unblocking and strengthening the business potentials, particularly that in the SMEs, c) greater level of adapting the labor market, based on concept of flexibility, and d) importance of energy and climate changes.

Under the circumstances of growing globalization and a more pronounced international competition, the EU presented in 2005 a new and integrated IP, whose aim was creating a better climate for the development of all segments of industry. Particular attention was devoted to establishing better framework conditions for the processing industry, as the basis of economic growth in the EU. It underwent specific changes and was met with great challenges and a favorable business environment was required for its further development and success. This was preceded by a multifaceted and comprehensive analysis of each individual segment in order to define the potentials and problems.

The new IP contains a set of proposals and main initiatives for IP, with emphasis on initiatives that may lead to raising its efficiency. 1) Improvement of regulatory environment – industrial companies must be subject to a set of technical rules pertaining to security, health, environment and consumer protection. 2) Raising the innovative role of SME – geared towards strengthening the role of European

SMEs, whose dynamism and level of survival are lower than in USA. 3) Financing of Community – EU projects through a predominantly horizontal approach the IP plans to take part in financing the industrial projects (trans-European network) and long-term research programs whose goal is European public interest harmonized with industry. 4) Support to structural harmonization – EU plans to promote restructuring and use of structural funds in order to ensure industrial competitiveness and attractiveness of the region that is falling behind. 5) Creating work groups – in order to promote IP EU plans to create work groups that will link all industrial branches. 6) Financial prospects – launching of a new IP in the EU needs to be supported also by the finances and costs segment.

The situation was somewhat more complicated for the European Union in the past regarding IP and existence of conditions for its coordination at Union level. But, as the Union moved to a positive integration, the importance of coordinated supra-nationality of IP grew. Nevertheless, there were constitutional problems, conflict of interests and ideologies among the members, fear of supra-nationality, particularly of large member countries and insufficiency of resources. However, creation of a common European Union IP was a key element for the successful economic development and highly important for the achievement of competitiveness of industrial products and services, both on the integral internal market, as well as competitiveness towards the main foreign trade partners. But, the relatively slow implementation of the "Lisbon Strategy" targets demanded from the member countries to subject it to revision. Therefore, the new IP is geared towards achieving other more relevant forms of economic policy, by integrating different dimensions of IP, in order to exert a stronger impact on raising the competitiveness of industry as the main target.

Industrial policy in the countries of East Asia

The countries of East and South-East Asia have exhibited the greatest growth after 1960. By 1980 East Asia became the new industrial center of the world economy. Their rapid growth took place under the conditions of significant structural changes of their economics, with a growing share in industrial production sector (more than 1/4 GDP is created within industrial production). The industrial production was promoted with success from a simple work intensive to intensive. The restructuring process of the East Asian NIEs was extremely successful, and some twenty years since their takeoff, these countries were ranked already among the first ten countries of the so-called "World Innovators Club". In late eighties of the 20th century, numerous Korean and Taiwanese companies became equal partners with the US, European and Japanese multinational companies in development of their new technologies. The successful development of the East Asian countries is characterized by very high growth rates, and related to this, significant improvement of the standard of living. There is a pronounced increase of income per capita, its more uniform distribution, and the social development indicators (e.g. infant mortality rate, anticipated lifetime and adult literacy rate) began to approach that of the developed world. It can be concluded that the industrial policy of the East Asian NIE is one of the most important elements of their successful development process.

The World Bank study on the "East Asian Miracle" holds that three elements are important for their development: (1) macroeconomic stability, (2) selective openness and (3) investment in human resources. In spite of certain differences that existed in the implementation of industrial policy by certain East Asian countries, it is possible to notice some common traits. For example, the governments of these countries had taken over, to different degrees, the leadership in the process of structural transformation. They identified and supported those sectors in which they had forecast the greatest potential for growth and where they expected significant spill-over effects. The governments of the East Asian countries had strong influence on stimulating the industrialization process in four main directions: trade policy, competitiveness policy, financial sector interventions and finally, through state companies.

Industrial policies in the countries in transition

The transition process began after the fall of the Berlin Wall and disintegration of the socialist social system in Europe. All the newly created countries, the so-called "countries in transition", had only one goal – to join the

European Union as soon as possible. In order to achieve this they had to fulfill certain conditions for accession. The industrial policy of the European Union is used by the governments of these countries (Central and Eastern Europe) to form their industrial policy strategies. Thus, the European Union launched in 1989 several programs for rendering support to the countries in transition. This initiative developed within a very short time into the largest integral source of financing the transfer of know-how to these countries. As a result of the tendency to join the European Union, the former socialist countries tried to bring their economic policies as close as possible to the EU policy. Hence, in the industrial policy a growing number of horizontal measures of industrial policy were adopted. However, it is important to point out that the current approach to the industrial policy of the Union has its roots in the West European historical experience formed according to the specific needs of the EU countries. Hence the opinion that, in view of the different historical and development experiences, the former socialist countries have the need for completely different industrial policies. It would, therefore, be necessary to discard the general concept of the European industrial policy if it does not cover the specific problems of the countries in transition. Namely, the countries in transition should adopt the general concept of industrial policy of the Union based on competitiveness and innovativeness of the industrial sector, but also develop in the process their own framework of industrial policy.

In its approach to industrial policy the European Commission recommends to the countries in transition several general priorities: macroeconomic environment, development of competition policy, stimulating the small and medium size entrepreneurship, education and employment policy, and infrastructural policy. Only with the existence of these prerequisites is it possible to develop a successful industrial policy. One should not forget in the process certain guidelines of development of industrial policy of the East Asian NIE. The success of the East Asian NIE shows that the achievement of prominent industrial economies required a flexible and practical industrial policy. This is particularly important for the countries in transition considering that they face new challenges. Based on insight in the industrial policy of East Asian NIE, it can be concluded that the successful industrial policy must be based on three main pillars: sustainable macroeconomic stability, open economy and investment in human resources. Furthermore, the national culture of learning is emphasized within the framework of the industrial policy of East Asian NIE. Their governments were always prone to learn from those that are better. They carefully analyzed, took over and adapted the policy of prominent economies that were already proved successful, studying the markets in which others are successful and copying their policy to detail. A moral can be drawn from the above for the East European countries in transition. It is necessary to open up to the foreign markets and learn from others that are more successful, as this is the only way to quickly achieve advanced industrial economies. This improves the education of domestic manpower. The selective openness of the East Asian NIE indicates that the export orientation is highly important for the countries in transition because their industrial production can thus become efficient and competitive.

Finally, it is important to emphasize that the experience of the European Union as well as the experience of the East Asian NIE, point out the importance of efficient institutions in creating the industrial policy. It means establishing one or two state agencies in charge of forming and implementing the industrial policy. Certain ministries can also perform this work however, it is important that they employ highly educated and expert staff which is politically neutral.

State of IP and prospects in the agro-economy of Serbia

The development of agro-economy in Serbia to date is cause-and-effect related to the course of development in the segment of implementation of respective IPs. Their lack and/or inadequate implementation, parallel with the process of destabilization of economy, resulted in exhibiting of retrograde processes in the past few decades. They have led, both on the total as well as in agro-economy, from the level of average developed to the level of undeveloped and impoverished economy. Significant constraints of further development have appeared in connection therewith based on offensive IPs which has floated to the surface as latent. The following constraints need to be listed as basic:

- The former implementation of IP in agro-economy took place with primarily imported technology which caused the establishing of a high degree of one-way technological and economic dependence on other countries,
- The import, above all, of food technology was broad and non-selective, which pushed the agro-economy into a growing instability and further dependence, slowing down the time schedule of growth proportional to the drop of the capacity for foreign indebtedness,
- The purchase of licenses, trademarks, models and samples, transfer of know-how, technical assistance, long-term cooperation, joint investments etc., were generally detrimental to the domestic partners. This deteriorated the import-export relation – it became a practice of restrictive clauses (import of material, components etc. on one side and limitation of export on the other) which rendered the international recognition of domestic products impossible,
- The forms and conditions of cooperation between the domestic agrarian companies, based on policy of closing up and self-sufficiency that was being developed also at lower social and political levels – municipalities, represented fertile grounds and most often took on the role of transmission through which the competitive struggle was waged between the multinational companies and other foreign companies in our market,
- The objective need for development of own technology existed all the time however it was significantly limited, reduced to a minimum by inadequate policy. Hence, the economic power of the majority of domestic companies in the agrarian complex was not based on own IR efforts but on foreign, and
- Throughout all this time a significant constraint was also the non-ownership structure of capital in the domestic companies as well as different treatment of the "private" and "social" sector of the agro-economy, which represented two completely different segments from the aspect of chances for research and technological development.

Accordingly, the former research and technological development in agro-economy, based on a broad and non-selective import of technology over a long period of time, represented a permanent source of instability of agrarian development. At the same time, being that the industrial policies are related to the total economic policy, limitations were appearing continuously at the macro and sector level. The main limitations concerning rural development in Serbia represent the possible basis for the future priorities setup. Few general limitations could be stated:

1. *An overstated role of agriculture in rural development* has occurred as a result of a misunderstanding of the role of agriculture in sustainable rural development. Agriculture has been regarded as the only sector in rural areas and as an isolated object of policies.
2. *Isolation of agricultural policies from macroeconomic policies* has been an important factor resulting in the lack of consistency in economic policy. Changing price and trade policies and the removal of state subsidies in recent past have resulted in decline in production, consumption and trade.
3. *The maintaining of a strong position by the state in the food chain* during the decades is one of the characteristics maintained by a tendency to overstate the direct role of the State through monopoly storage enterprises, state marketing channels, state regulation of foreign trade and state regulation of prices, use of resource, etc. The budgetary costs of such a policy were not as high as the administrative costs of monitoring state monopolies and their low efficiency.
4. *Cooping of CAP-like policies* in the administrative and centrally planned economy brings a lot of negative consequences by increasing both the inflatory pressure caused by higher agricultural and food prices, as well as raising the budgetary costs of agricultural policy.
5. *Lack of progress in land reform*. Land reform has been carried out through land restitution, land compensation and land distribution, but rarely

through the establishment of land market. Severe restrictions have been imposed on the land market and land tenure. Limits of the size of farms as well as moratoriums on the selling of land. One of the major technical constraints for the development of the land market and land tenure were non-transparent property rights on land.

6. Privatization without abolishing market imperfections. The privatization *per se* is not enough to increase efficiency in an environment characterized by substantial lack of market institutions developed towards the needs of private enterprises. The different approaches in the privatization have been implemented, but all the time there was a lack of progress in the privatization of the food processing industry and in up stream sectors. As a result, the food industry performance was destroyed and was not changed substantially with the change of the company management in most cases.
7. *Ad hoc policy measures vs. stable and continuation policy approach*. Consistent policy measures were not applied all the time. Government policy has continuously imposed shocks to the economy by unclear and confused policy measures which were often changing and thus producing much uncertainty and risk for agricultural producers.
8. *Direct vs. Indirect state programs*. There is a lack of experience with market economy in Serbia and because of some distorted market practices observed in Western Europe – CAP policies direct state programs are costly for the budget. It creates room for setting up market institutions, support to the market infrastructure such as storage facilities and market information systems, support for R&D and its application, support for the establishment of the extension services, further development of food safety system, food security system, and harmonizing the quality standards to international standards.

In view of the above, the agrarian economy cannot continue its trend of technological development using extensive industrial policies. It is necessary to overcome the problems of too low productivity, overly modest innovativeness and high technological dependence on the developed world, which causes the selection of new strategic direction in the development of industrial policies in agro-economy. The initial framework of the future industrial policy should be assessed realistically. Namely, it is a fact that the Industrial Centers are practically non-existent; the development of entrepreneurship has not been oriented to production but to the service sectors; there is an absence of market and public institutions required for the implementation of industrial policy based on technological innovations; lack of domestic investment potential; interaction between the producer and the user is poor; and there are undeveloped ties between science and economy.

The development of industry and integration in the European industrial and economic flows requires creation of institutional structure and functional ties of the entrepreneurial, research and educational and public sector. Hence, the targets of IP Serbia during the period 2011-2020 should be linked with:

- Dynamic and sustainable industrial growth and development
- Proactive role of the state – institutional building up
- Improvement of investment environment
- Strengthening competitiveness
- Faster development of entrepreneurship
- Increasing and restructuring of export
- Reform of the educational system in accordance with the needs of the economy
- Active and dynamic cooperation between science and industry
- Encouraging innovations
- Reform of the labor market and employment policy
- Balance of the stabilizing, developmental, and social role of the state
- Development of regional industrial centers and regional business infrastructure
- Improvement of energy efficiency
- Environmental protection

Related to this, the possibility of stimulating the modern technological processes characterizing the global agrarian development by IP and integrating Serbia in that process would require: (1) establishing the macroeconomic stability, (2) selective openness of economy, and (3) investment in manpower. The state should play an important role in all of this. This would lead to modernizing of the existing technological entities and adoption of innovative trends on a rather broad segment of research and technical achievements. This would provide an adequate interrelation between the processes of generation of new know-how and modern technologies, a quick and efficient transfer of new technologies and expansion of manpower base in science and practice. The objective of such shifts would be:

- Increasing the earning ability and profitability of the companies,
- Improvement of the energy conversion process,
- Upgrading the quality of management of natural resources – water, land, air,
- Development of biotechnology and increasing its effects,
- Promoting genetic potential in cattle breeding and plant production,
- Development of necessary research and professional human potential,
- Development of information system as a support to the human potential, and
- Promoting human development and understanding the importance of relation between the natural system and human creation.

In cases of modernization, it is very important for the users of research and technological achievements to be trained as active participants. Such a relation requires a certain foreknowledge and adequate technological culture in order to value fully the advantage of technical equipment and technology. This is very important under the circumstances in Serbia considering that the opinion had prevailed for a long time that only those that create technologies must be active. An active approach requires a continued orientation to keeping up with the new achievements, measurement of results of their implementation and measurement of their efficiency. Such a system cannot be established easily but is an imperative of the modern developmental trends and an unavoidable element of industrial policies.

As a consequence of the above, the development and transfer of know-how and agro technologies in Serbia represents, more than ever, practically the most important factor of development and thereby of economic and social progress. It could, therefore, be claimed without exaggeration that its agrarian economy is at a technological crossroads of sort. However, in order for further research-technological development to bloom, it is necessary to overcome the difficulties that hamper the process of transformation of agro-economy, and only then face the international competition. A necessary requirement for this is a sufficient number of expert manpower and respective information logistics, existence of management techniques and practice, conforming of resources (land above all) and, of course, adequate financial environment. It is necessary to bear in mind here that individual countries differ in many aspects in order to be able to develop uniform formulas for IP implementation. Therefore, it is necessary to take into account the size of the economy, achieved level of economic and social development, existing economic structure, geostrategic position, state organization, etc. As may be seen, there is a strong impact of socio-economic environment on the forms, limitations and prospects of IP creation and implementation, namely, on the choice of new strategic directions that are to speed up the development of agro-economy. Such an approach could serve as a basis on which to build the national priorities. IPs should take into consideration in the process also the following factors: national targets, need to resolve acute problems, implementation of scientific possibilities, and local availability of strong research schools. The appreciation of the subject factors clearly emphasizes the basic fields of effect of IP in the achievement of development of agro-economy in Serbia, as follows:

- Agro-industrial technology
- Ecology and health food
- Biotechnology, biomedicine
- Agriculture and fishing industry
- Production of energy and energy efficiency
- Storage and transport of agricultural produce
- Use and implementation of innovations, i.e. ready-made electronic and informatics solutions in agro-economy
- NTI development program and science research manpower markets

- Investment in knowledge, know how, education and training
- Opening up to the world
- Small and medium companies in agro-economy

The process of strengthening the coordination within the state, which is a problem *per se*, is of particular importance for IPs. On the other hand, an efficient IP implementation assumes a strong professional support, organized so as to stimulate total values and develop all developmental aspects, above all in the large-scale private sector of agriculture, integrating in the best possible way the development of agro-economy in the overall concept of economic development.

Final discussion

Capital flight, foreign investment, multinational corporate competition and global interdependence of production activities are all dimensions of what has been termed the *new international division of labor.* Leading cites in the emerging international network of production and exchange often are described as "world cites". The logic of these cites development often is assumed to be driven entirely by the imperatives of transnational capital accumulation and from the perspective of the unfolding logic of the world system. The political life in the world cites has been characterized by socio-spatial conflicts between multinational corporate growth strategies and national, regional and local forces demanding a stable economic base. Growing political pressures and declining economic returns in the periphery make the continuing reallocation of capital to these areas somewhat less attractive today than 10 years ago.

Alongside more purely technical constraints, the political and economic trends have begun to induce a reconcentration of industrial capital in core areas. This process can be conceived of as the development of new investment zones for world capital.

Concerning the agro-business of Serbia, the main priority is to create human and institutional capacities, then strategy and relating policies which will facilitate in the long run the membership in the EU. Also, faster growth of income in the rural sector represents the overcoming priority, followed closely by attention to regional distribution. The real constraints to growth are systemic and such that, if not remedied, can only continue actual trends toward lowly state of the sector performance. On the other side, for any reform and development efforts there is a need for substantial development assistance.

There is still no consistent and long-term sustainable industrial policy in Serbia that promotes growth of competitive and market-sustainable companies. Most of the incentives are invested in remedying the losses of ruined giants, and much less in stimulating R&D, environmental protection and energy saving, and small and medium companies, which could serve as a basis for quality growth. The process of accession to the EU by Serbia will gradually change the former relations with growing adherence to the EU policy and rules which support "smaller, but quality incentives". This means that the incentives will be focused on horizontal targets. Considering the great share of structural incentives which forced various rehabilitations and restructuring of losers on one side and maintaining a social policy of retaining peace, raised doubt about the efficiency of the incentives granted to date.

It can therefore be concluded, *inter alia*, that several following positions are important: 1) Fragmentation of anyhow small allocations has led to the lack of large multidisciplinary teams of researchers that would have the capacity to respond to some major scientific issues of interest to Serbia and the world. Hence, it is necessary to select in the field of agriculture and food (beside Ministries) a coordinator of research and technological development – projects pertaining to fundamental, development and applied research (suggestion: Faculty of Agriculture in Novi Sad and Zemun). 2) The domestic capacity is a basis for international connectedness, however, there is no critical mass of human and other capacities in any area related to agriculture and food. Therefore, the first encouraging steps in international cooperation must be supplemented by attracting technology companies. 3) Dissemination of new technologies is an important factor that determines the future of the agricultural and food sector. The productivity must increase, first of all, on large agricultural estates and in developed agricultural areas. It is necessary to include in the scientific and technological research a much greater scope of plant and animal species of implementable type than the basic species. Furthermore, it is necessary to include greater access to energy efficiency, as well as to resource conservation programs, etc. This emphasizes to a significant degree the need to develop IPs and interaction of science and technology as well as management in practice in various segments. 4) Strengthening the interaction between economy (agriculture and food industry) and research and development institutions including training and strengthening the expert and consulting services as interlinks in dissemination and transfer of techniques and technology. It is necessary to differentiate clearly in that sense the IPs that promote technologies and management practice, specifically for large and specifically for small producers, which is not differentiated separately in former considerations and is of great importance.

References

1. Brunet, A., Guichard, P. J. (2011), *Ekonomski imperijalizam, hegemonijske težnje Kine*, prevod, urednik: Srdjan Redžepagić, Beograd, IEN.
2. COM (2007) 804 final *"Proposal for a Community Lisbon Programme 2008-2010"*, European Commission, Brussels.
3. COM (2006) 502, *"Pretvaranje znanja u praksu, strategija inovacija za EU praksu: Sveobuhvatna EU"*, Commission of the European Communities, Brussels, available at: http://www.innovaatiostrategia.fi/files/download/Commission_AbroadbasedinnovationstrategyfortheEU_2006.pdf, 25.08.2007.
4. Fourquet, F. (1989), *Richesse et puissance*, Paris, La Decouverte.
5. Kennedy, P. (1988), *Naissance et déclin des grandes puissances*, Laussane, Payot.
6. Ministarstvo ekonomije i regionalnog razvoja, Republički zavod za razvoj (2011) *Strategija i politika razvoja industrije Republike Srbije 2011-2020*, Beograd, p.187.
7. Mićić, V. (2008), "Industrijska politika Evropske unije", *Ekonomski horizonti*, 10, (1-2) Ekonomski fakultet Kragujevac, pp. 65-90
8. Njegovan, Z., Pejanović, R., Jovanović, R. (2008), "Global political economy and the new challenges for competitiveness development", *Thematic Proceedings*, Institute of Agricultural Economics, Belgrade, pp. 86-93, ISBN 978-86-82121-55-8, COBISS.SR-ID 148134412, CIP 338.43(082); 502.521:622.271(082).
9. Njegovan, Z. (2005), "Macroeconomic Aspects of the Competitiveness in Serbia and Montenegro – Building a new Paradigm", Proceedings: *Global Political Economy and the new Challenges for Development*, Institute for International Economic Relations, Athens, Greece.
10. Njegovan, Z., Bošković, O. (2006), "Strategija konkurentnosti poljoprivrede u Republici Srbiji", zbornik: *Razvoj, finansijski sektor i konkurentnost*, Savez ekonomista Srbije (SES), Kopaonik (ISBN 86-84651-09-X); COBISS.SR-ID 128949260.
11. Obadić, A. (2001), "Industrijska politika kao dio ekonomske politike", *Ekonomski pregled*, 52 (5-6) izvorni znanstveni rad; UDK 338.45:338.24:338.9, Zagreb, pp. 645- 666.
12. Reinert, S. E. (2004), *Global Økonomi. Hvordan de rike ble rikere og hvorfor de fattige blir fattigere,* Oslo, Spartacus Forlag.
13. Shumpeter, J. (1975), *Povijest ekonomske analize*, Zagreb, Informator.
14. Škreb, K. M., Jović, I. (2011), "Industrijska politika i državne potpore u Hrvatskoj", *Newsletter*, Institut za javne financije, br. 55, ISSN pp.1333-4263.

Zoran Njegovan

is full profesor at the University of Novi Sad, Faculty of Agriculture, and the chief at the Department of Agicultural Economics and Rural Sociology. During his carrier he was employed in Economics Institute, Belgrade; Institute of Agricultural Economics, Belgrade; Belgrade Banking Academy and School of Economics, Novi Sad. He is a member of the Publishing boards of the journals "Ekonomika preduzeća", "Ekonomika poljoprivrede" iz Beograda i "Agroekonomika", Novi Sad. He is ex Advisor of the Minister of Agriculture of the Republic of Serbia, member of the WTO accession commision, chair of the Scientific Commitee of the Ministry of Science and Technology of the Republic of Serbia. His professional orientation is connected with Development – Technology, Rural, Regional, Local; Agricultural Economics, etc. Also in consultancy he deals with problems of Privatization, Restructuring, Investments, etc. He publishe tenths books, articles, participated at the different Symposia in the Country and outside, Recent books are: 1. Economic System, Policy and Development; 2. Rural Regionalization of AP Vojvodina; 3. Entrepreneurship and (Agri)Economy; 4. New Generation of European Sustainnable Development Docs. and suggestions for Serbia; 5. Tranzition – Rural Development and Agricultural Policy; 7. European Strategies and Policies in Local Community, etc.

ORIGINAL SCIENTIFIC WORK
UDK: 338.48 ; 338.1
Date of Receipt: February 7, 2012

Goran Petković
University of Belgrade
Faculty of Economics
Ministry of Economy and
Regional Development

Renata Pindžo
Singidunum University
Faculty of Economy, Finance and
Administration
Ministry of Economy and
Regional Development

TOURISM AND NEW ECONOMIC CHALLENGES

Turizam i novi ekonomski izazovi

Abstract

Tourism has evolved into a global phenomenon – one of the most important economic sectors and social activities of our time. Today, it contributes directly to 5% of the world's GDP, one in 12 jobs globally and is a major export sector for many countries, both in the developing and developed world. The next 20 years will be of continued growth for the sector. They can also be years of leadership: tourism leading economic growth, investment processes, social progress and environmental sustainability. To make this possible we need to make tourism a priority in national policy decisions, foster competitive and responsible business models and practices and increase cooperation between the public and private sectors.

The future brings enormous opportunities for tourism to take centre stage in the political and economic agenda, seeking recognition for its contribution to economic growth and development. It also brings added challenges and responsibilities for tourism sector to take the lead in mitigating its potential negative impacts on host communities and the environment.

Key words: *tourism, GDP, growth, trade balance, investments, awareness*

Sažetak

Turizam se razvio u globalni fenomen - jedan od najvažnijih privrednih sektora i društvenih aktivnosti našeg vremena; ova delatnost beleži 5% u svetskom BDP, a svaki 12. zaposleni radi u ovoj oblasti. Turizam predstavlja glavni izvozni sektor za mnoge zemlje, kako za razvijene, tako i za zemlje u razvoju. Napredak razvoja ovog sektora se posebno očekuje u narednih 20 godina. Istovremeno, to će biti godine u kojima će turizam biti pokretač ekonomskog rasta, investicija, opšteg društvenog napretka i održivosti životne sredine. Da bi se ovo ostvarilo, neophodno je da turizam dobije prioritet u donošenju nacionalnih politika ekonomskog razvoja, uz negovanje konkurentnih i odgovornih poslovnih modela i praksi, kao i unapređenjem saradnje između javnog i privatnog sektora.

Budućnost će turizmu doneti ogromne mogućnosti u smislu zauzimanja centralnog mesta na političkom i ekonomskom planu, potvrđujući na taj način njegov doprinos ukupnom ekonomskom razvoju. Vodeća uloga u otklanjanju negativnih uticaja na životnu sredinu i lokalne zajednice predstavlja dodatni izazov i odgovornost za turizam.

Ključne reči: *turizam, BDP, rast, trgovinski bilans, investicije, podizanje društvene svesti*

Introduction

International tourist arrivals, globaly, grew by 4.4% in 2011 to 980 million (up from 939 million in 2010), according to the latest UNWTO World Tourism Barometer., in a year characterised by a stalled global economic recovery, major political changes in the Middle East and North Africa and natural disasters in Japan. By region, Europe (+6%) was the best performer, while by subregion South-America (+10%) topped the ranking. Contrary to previous years, growth was higher in advanced economies (+5.0%) than in emerging ones (+3.8%), due largely to the strong results in Europe, and the setbacks in the Middle East and North Africa. With growth expected to continue in 2012, at a somewhat slower rate, international tourist arrivals are on track to reach the milestone one billion mark later this year.

„International tourism hit new records in 2011 despite the challenging conditions," said UNWTO Secretary-General, Taleb Rifai. For a sector directly responsible for 5% of the world's GDP, 6% of total exports and employing one out of every 12 people in advanced and emerging economies alike these results are encouraging, coming as they do at a time in which world urgently need levers to stimulate growth and job creation.

Available data on international tourism receipts and expenditure for 2011 closely follows the positive trend in arrivals. Among the top ten tourist destinations, receipts were up significantly in the USA (+12%), Spain (+9%), Hong Kong (China) (+25%) and the UK (+7%). The top spenders were led by emerging source markets – China (+38%), Russia (+21%), Brazil (+32%) and India (+32%) – followed by traditional markets, with the growth in expenditure of travelers from Germany (+4%) and the USA (+5%) above the levels of previous years.

UNWTO forecasts international tourism to continue growing in 2012 although at a slower rate. Arrivals are expected to increase by 3% to 4%, reaching the historic one billion mark by the end of the year. Emerging economies will regain the lead with stronger growth in Asia and the Pacific and Africa (4% to 6%), followed by the Americas and Europe (2% to 4%). The Middle East (0% to +5%) is forecast to start to recover part of its losses from 2011.

Tourism's contribution to global economic balances

Tourism's role in the economy is often perceived as being limited to the hospitality industry (cafes, hotels and restaurants) and outbound and inbound travel agencies and carriers, which form the leading service sector in many countries. However, the economic impact of tourism is much greater, since many inputs are needed in order to produce tourism and leisure services, spanning the whole range of farm, agrifood and industrial production, including the production of capital goods as well as construction and public works.

Assessing the economic impacts of tourism helps to inform the conduct of stimulus policies in response to international economic and financial crises. It shows that tourism can become a driver of recovery, fostering stable and sustainable economic growth, provided that sectorial support policies are implemented taking the central role of tourism into account.

Following the economic crisis, countries which experienced significant recovery in 2010 and 2011 took advantage of surging tourism demand, both domestic and international, to buttress the growth of all their economies. In most slower-growing countries, the recovery of international tourism probably took longer to establish itself (it could be seen in early 2011) and to contribute to global growth.

Analysis of the economic impact of tourism on foreign trade involves taking account of tourism deficits and surpluses in the T20 countries in relation to the major global imbalances in international trade. This analysis shows the extent to which tourism can alleviate such imbalances by helping to restore current balances of payments between developed and emerging countries. At the same time, however, the positive impacts of tourism are mainly concentrated in emerging countries, against a background of growing regional demand in Asia and South America. Consequently, the tourism sector could play a much greater role in reducing macroeconomic imbalances in Europe and North America. Currently available data measure the direct impact of tourism on balances of payments without taking account of the indirect effects on foreign trade in other sectors, especially very considerable spillover effects in some countries.

Exports of tourism services generated $1,093 billion in 2010, or 30% of total world exports of services ($3,670 billion). According to the World Tourism Organization (UNWTO) and the World Trade Organization (WTO), tourism exports grew at a slightly slower pace than overall exports of services, increasing by 8% between 2009 and 2010 compared with 10.8% for all exports of services. The T20 countries account for 79.3% of global exports of services.

An analysis of tourism balances shows that some T20 countries run a surplus which plays a significant role in reducing overall deficits in current balances of payments. The tourism deficits run by countries with a substantial surplus in trading goods help to redress balance in relation to their very considerable balance of trade surpluses. During the economic upturn in 2010, international tourism helped to revive world trade, and hence also economic growth. Until now, however, tourism has not acted as a real driver for other service sectors, since tourism exports grew more slowly than overall exports of services. In contrast, tourism plays a significant regulating role in a certain number of T20 countries, partly offsetting their balance of trade surpluses.

The emerging countries also played a very important counter-cyclical role in the 2008-09 economic crisis, as international tourism spending continued to rise, often very substantially, despite the crisis.

The particularly high indirect contribution of tourism to GDP suggests that tourism has the potential to make a substantial contribution to growth in all countries. However, the extent and effectiveness of that contribution, especially where it is indirect, depends on the policies to promote tourism implemented in each country.

Substantial investment is required in order to develop tourism, which often leads to tourism being compared to heavy industry in terms of public and private investment in infrastructure such as road and transport networks, drinking water distribution, waste treatment, access to the electricity network and access to new communication systems.

Table 1. Comparison of tourism's contribution to GDP in the T20 countries (%)

T20 country	Direct contribution of tourism (2011 estimate)	Indirect contribution of tourism (2011 estimate)	Total contribution of tourism (2011 estimate)
Australia	3 3	6.9	13 0
Spain	5.1	6.3	14.4
Argentina	4.0	4.7	11.0
United States	2.6	4.2	8.8
China	2.5	4.2	8.6
South Africa	5.0	4.1	11.4
Indonesia	3.2	4.1	9 1
Turkey	4.1	3.9	10.0
Brazil	3.3	3.7	9.1
Italy	3.2	3.6	8.6
Mexic o	6.2	3.5	13.0
France	3 9	3.4	9 1
Japan	2.2	3.2	6.9
United Kingdom	2.4	3.1	6.9
Russian Federation	1.4	3.1	5.9
Canada	14	2.6	5.0
Republic of Korea	1.8	2.5	5 1
Saudi Arabia	3.0	2.5	6.7
Germany	1.7	2.0	4.6
India	1.9	1.6	4 5

Source: WTTC 2011

Table 2. Tourism balances and total service balances in the T20 countries (2009)

T20 countries	Balance of trade in tourism ($ bn)	Balance of trade in services incl. tourism ($ bn)	Balance of trade in goods ($ bn)
Spain	36	16	-72
United States	21	143	-547
Turkey	17	17	-28
Italy	12	-14	-5
France	10	17	-76
Australia	8	0	-11
Mexico	4	-6	-12
South Africa	4	-2	-9
India	2	7	-89
Indonesia	1	-2	21
Germany	-46	-26	190
United Kingdom	-20	72	-129
Japan	-15	-21	30
Saudi Arabia	-12	-	97
Canada	-11	-20	-14
Brazil	-10	-31	19
Republic of Korea	-10	-18	41
Russian Federation	-6	-18	112
China	-4	-29	176
Argentina	-1	0	11

Source: WTTC 2011

In addition, as pointed out in United Nations Conference on Trade and Development (UNCTAD) reports since 1998, it is often necessary to take a long-term view of investment in tourism. This is the case in the hotel business in particular, where the return on investment can often take ten years or more. In these circumstances, tourism can play a significant role only if the prospects for growth in tourism demand are good enough to justify capital spending projects that require very substantial funding in order to build essential infrastructure and generate the desirable productive investment.

The T20 countries that were little affected by the economic and financial crisis and enjoy strong economic growth continued to see growth in revenues from international tourism and a sharp rise in spending on international tourism, generating very positive spillover effects, mainly in a regional context, as in Eastern and Southern Asia. The scale of intra-regional tourism noted by the UNWTO was confirmed in 2010, with 791 million arrivals of intra-regional tourists and 218 million arrivals of long-distance inter-regional tourists. The scale of intra-regional tourism is not necessarily a favourable factor in times of crisis:

- For emerging countries, mainly in Asia, intra-regional tourism strengthens the growth of domestic tourism, stimulating growth in the tourism sector and overall economic growth.
- For other, mainly European countries, a high degree of specialisation in intra-regional tourism may be a handicap, since lower purchasing power in European countries directly affects tourism demand and hence intra-regional tourism.

Tourism as imortant tool of global economic growth and sustainability

Analysis of the data confirms that tourism, both international and domestic, should be regarded as a key component of economic stimulus programmes, especially in times of economic crisis. Its role as an economic stimulant means that tourism should be central to measures designed to revive economic growth because the trade flows generated by a strong tourism industry have a major effect on business and consumer confidence, as can be seen from the scale of the indirect economic effects of tourism in the T20 countries.

Comparisons between the economic crisis of 2009 and the economic upturn in 2010 show that considerable differences exist between T20 countries according to their particular economic situation.

In countries with strong economic growth, revenues from international tourism help to accelerate growth: growth rates in periods of recovery are higher than those for industrial growth.

In countries with weak economic growth, initial findings about the upturn in GDP growth in 2010 in relation to 2009 indicate that international tourism does not appear to meet expectations as afactor favouring economic recovery in a certain number of T20 countries, especially in Europe.

However, tourism's limited contribution to the resumption of economic growth probably corresponds only to a time-shift, since a very sharp upturn can be seen in Europe's leading tourism countries in the first half of 2011. In countries with a strong recovery in economic growth, mainly in the Americas and especially in South America, the tourism sector makes a substantial contribution to the resumption of economic growth.

Consequently, the tourism sector can play a major role in economic stimulus plans in response to crisis situations, provided that tourism is regarded as a key component of such plans, as both an economic stimulant and a source of job creation that complements other sectors, especially manufacturing.

Tourism may be regarded as an economic sector that favours the growth of the "green economy". It is based on passenger travel that has limited effects on the environment, as is apparent from UNWTO reports, since travel and tourism account for only 5% of all carbon emissions (UNWTO). Under these conditions, achieving green economy objectives may be regarded as a target for the tourism sector.

The T20 countries in particular can play a crucial role in promoting green tourism. This involves promoting guidelines for the management of sustainable tourism in all its forms. These include mass tourism and various niche segments, especially ecotourism and nature tourism, which are not just a passing trend but which reveal a profound change in people's mindsets. Green tourism creates new demand, especially for local tourism, which fosters reduced use of transport and heavy infrastructure as well as a better regional distribution of tourism flows. To encourage the development of green tourism, the T20 countries use many systems based on renewable energy sources, energy saving and new materials which transform the traditional approach to investment in tourism and generate indirect effects on cutting-edge technology sectors in the economy.

Consequently, the principles of sustainable tourism refer to three major aspects: the environment, the economy and the sociocultural dimension. Sustainable development should not be confused with ecotourism, which is only one aspect of the green economy. Greater international cooperation between T20 countries based on common research programmes, especially with the participation and support of the World Bank, the UNWTO and regional development banks (EIB, EBRD, Asian and African Development Banks), into the application of new green technologies to tourism can be of mutual benefit to the T20 countries as well as to all other countries that wish to encourage more environmentally friendly forms of tourism. That is also the purpose of the French proposal that led to the creation of a Global Partnership for Sustainable Tourism in 2011.

Tourism's contribution to sustainable development is also expressed in terms of regional impact by its role in regional planning and development, which can help to correct economic imbalances between regions. In many regions, tourism generates numerous opportunities for diversification of the local economy, by attracting economic resources to areas where there are few possibilities for alternative development. Tourism can thus be regarded as a key regional development resource that reduces inequalities between regions, especially when economic times are hard, as in many countries at the present time.

That is the case in the European Union, where financing from the European Regional Development Fund (ERDF) is designed to strengthen economic and social cohesion within Member States by correcting regional imbalances, at an estimated cost of €347 billion over the period 2007-2013. The ERDF finances many tourism development programmes in underdeveloped regions, especially in Southern Europe, through:

- Direct aid for business investment, especially in SMEs, in order to create lasting jobs,
- Specific measures for tourism-related infrastructure such as telecommunications, protection and enhancement of the environment, renewable energy sources and regional transport,
- Financial resources (venture capital funds, local development funds, etc.) designed to support regional and local development and encourage tourism cooperation between cities and regions.

The policy helps to achieve the goals of convergence, competitiveness and territorial cooperation.

- Convergence, by helping to modernise and diversify economic structures and preserve or create lasting jobs by favouring tourism-related initiatives.
- Regional competitiveness and employment, by promoting initiatives around innovation and the knowledge economy, the environment, risk prevention and access to tourism-related transport and telecommunication services.
- European territorial cooperation, by providing targeted assistance for the development of tourism based on crossborder activities and transnational cooperation in order to make regional policy more effective.

The example of the EU's structural and cohesion funds shows that a specific regional policy which embraces tourism and develops tourist activities can alleviate economic, environmental and social problems in a country by restoring balance in favour of regions with natural geographical drawbacks and in ultra-peripheral zones.

Tourism toward 2030

Tourism Towards 2030 is new long-term research UNWTO study and presents future vision of tourism: the study forecasts international tourism growth through the year 2030 and identify key actual and future trends and their impact on tourism development. It is a body of work that will be used and relied upon by thousands of private and public sector operators within the tourism sector over the next decade. According to TT 2030, global growth in international tourist arrivals will continue, but at a more moderate pace, from 4.2% per year (1980–2020) to 3.3% (2010–2030), as a result of four factors[1]:

- The base volumes are higher, so smaller increases still add substantial numbers,
- Lower GDP growth, as economies mature,
- A lower elasticity of travel to GDP,
- A shift from falling transport costs to increasing ones.

Tourism Towards 2030 shows that there is still a substantial potential for further expansion in coming decades. Established as well as new destinations can benefit from this trend and opportunity, provided they do shape the adequate conditions and policies with regard to business environment, infrastructure, facilitation, marketing and human resources. Along with opportunities, challenges also arise in maximising social and economic benefits and minimising negative impacts. Long-term tourism growth pattern: more moderate and sustainable. Also, TT 2030 predict the following:

- Emerging economy destinations to surpass advanced destinations in 2015
- Asia and the Pacific will gain most of the new arrivals
- Europe continues to lead in international arrivals received per 100 of population
- No major change in share by purpose of visit: eisure, recreation and holidays, VFR, health, religion, other and business and professional
- Air transport will continue to increase market share, but at a slower pace
- Travel between regions continues to grow slightly faster than within the same region
- Asia and the Pacific will also be the outbound region that grows most
- Outbound tourism participation is highest in Europe and still low in Asia and the Pacific

According to the UNWTO research Tourism Toward 2030, the next two decades will be of sustained growth for the tourism sector. International tourist arrivals are set to increase by an average 43 million a year between 2010 and 2030. At the projected pace of growth, we will surpass the 1 billion mark by 2012, up from 940 million in 2010. By 2030, the number is anticipated to reach 1.8 billion meaning that in two decades' time, 5 million people will cross international borders for leisure, business or other purposes such as visiting friends and family every day, besides the four times as many tourists traveling domestically. There will also be much change beyond the numbers.

While the international tourism industry was negatively affected by the global economic crisis, the tourism sector is expected to grow in the coming years and provide millions of new jobs, according to the United Nations labour agency. The travel and tourism industry generated about nine per cent of total gross domestic product (GDP) and provide for more than 235 million jobs in 2010, representing eight per cent of global employment. It is expected that tourism will generate 296 million jobs by 2019.

"Tourism has the potential to become a major generator of jobs after the crisis," ILO Director-General Juan Somavia said, adding that "social dialogue between governments, employers and workers can ensure that the jobs generated will be decent." These include private sector-led growth and job creation, social protection, decent work and growth in the least developed countries, poverty, lack of training and skills, ecologically sound development and social protection.[2]

Future arrivals will be spread more widely across the globe; the share of international tourism to emerging economies will surpass that to advanced ones, and many of the new arrivals will be to destinations in Asia, Latin America, Central and Eastern Europe, Africa and the Middle East. According to the David Edgell, East Carolina University, important world tourism issues for the forthcoming years are[3]:

Repercussions on the travel and tourism industry from the global economic slowdown

- Concern for safety and security remains an important issue for the travel industry
- The transformative impact tourism has on global socio-economic progress

1 UNWTO; Tourism toward 2030

2 International Labor Organization, Global Employment Trends 2011

3 Edgel D.; *"Ten Important World Tourism Issues"*, East Carolina University, 2011

- Negative impact on the travel industry of increases in fuel prices and airline fees
- Importance of maintaining a destination's social, cultural, natural and built resources
- Effect on tourism from natural and man-made disasters and world political disruptions
- Influence of increased use of electronic and other technologies on the travel industry
- Changes in tourism demand resulting from increased travel by emerging nations
- Greater interest in potential long term consequences of climate change on tourism

Need for increased national/local leadership in tourism policy and strategic planning.

Background of Serbian tourism development

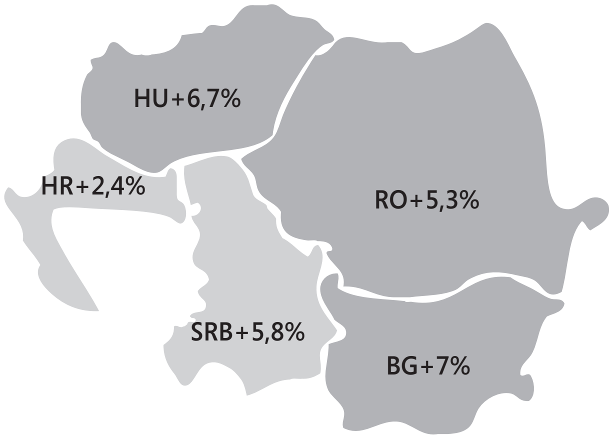
According to the WTTC forecasts, it is expected that direct contribution of travel and tourism industry on total serbian economy in 2011 will account to 81.1 bilion RSD (2,3% of total GDP), and will continue to increase by 4,4% on annual basis resulted in the amout of 124.4 billion RSD (2,2% of total GDP) in 2021. Although, offical data are still not published by Republic Bureau of Statistics, it is expected that with expected 1 billion USD revenue from tourism, Serbia will take 97. place in 2011, after Croatia and Bulgaria, and before FYR Macedonia, Bosnia and Herzegovina and Montenegro. World`s average is 15,68 billion USD. If we take into account, GDP contribution, Serbia is on the 131 place. According to the WTTC, it is expected that up to the 2021, Serbia will take 109. place. Total contribution of travel and tourism industry to GDP can be direct, indirect[4] and induced[5] and it is expected that total contribution of travel and tourism in Serbia will recorded increase by 4.3 % annualy. In 2011, it accounted to 8,0 % of total GDP.

The same source predicts that tourist industry will provide directly 38.000 jobs (2.1% of total employment) in Serbia in 2011. godini, and that this number will remain unchanged till 2021[6]. Serbia has 111. position on the global list with relation to the number of employees in tourism and on 136. place with regard to procentual share in total number of employees (5.2% is global average).

In 2011, Serbia recorded 2,068,610 total turist arrivals, out of which 764.167 were foreign tourists which represens increase by 12% in comparation to 2010. At the same year, number of foreign turists overnights recorded increase by 13%. The number of domestic tourists were at level of 2010. Foreign tourists represents key component of direct tourist contribution to the GDP and balance of payments. Last five years, nuber of foreign turists increase by almoust 45%. In the first eleven months of 2011, Serbia earn 904,3 million USD which is 25% higher compare to the same period in 2010. It is expected, that total results will show that Serbia will realize the same foreign exchange inflow as in record 2008. year (bearing in mind that 2008. was year of Universiade and Eurosong). WTTC predicted that tourism will have 10.1% share of total export in Serbia by 2021. These figures indicate that Serbia is in a position to substantially increase the contribution that tourism makes to its economy.

According to the WTTC, total investments in Serbian tourism in 2011. accounted to 19.7 billions RSD or 2.9 of total investments in Serbian economy. WTTC forecasts that investments will recorded increase by 3.4 % annualy to the level of 27.7 billions RSD up to 2021. At the sametime, total travel & tourism investment in Europe is estimated at 144.1 billion USD or 3.8% of total investment in 2011. It should rise by 3.9% annualy to reach 214.2 billion USD (or 3.9%) of total investment in 2021

Figure 1. International arrivals in region in 2010



Source: UNWTO

4 Investments, taxes, influence on supply chain

5 Food, beverage, clothing, household products

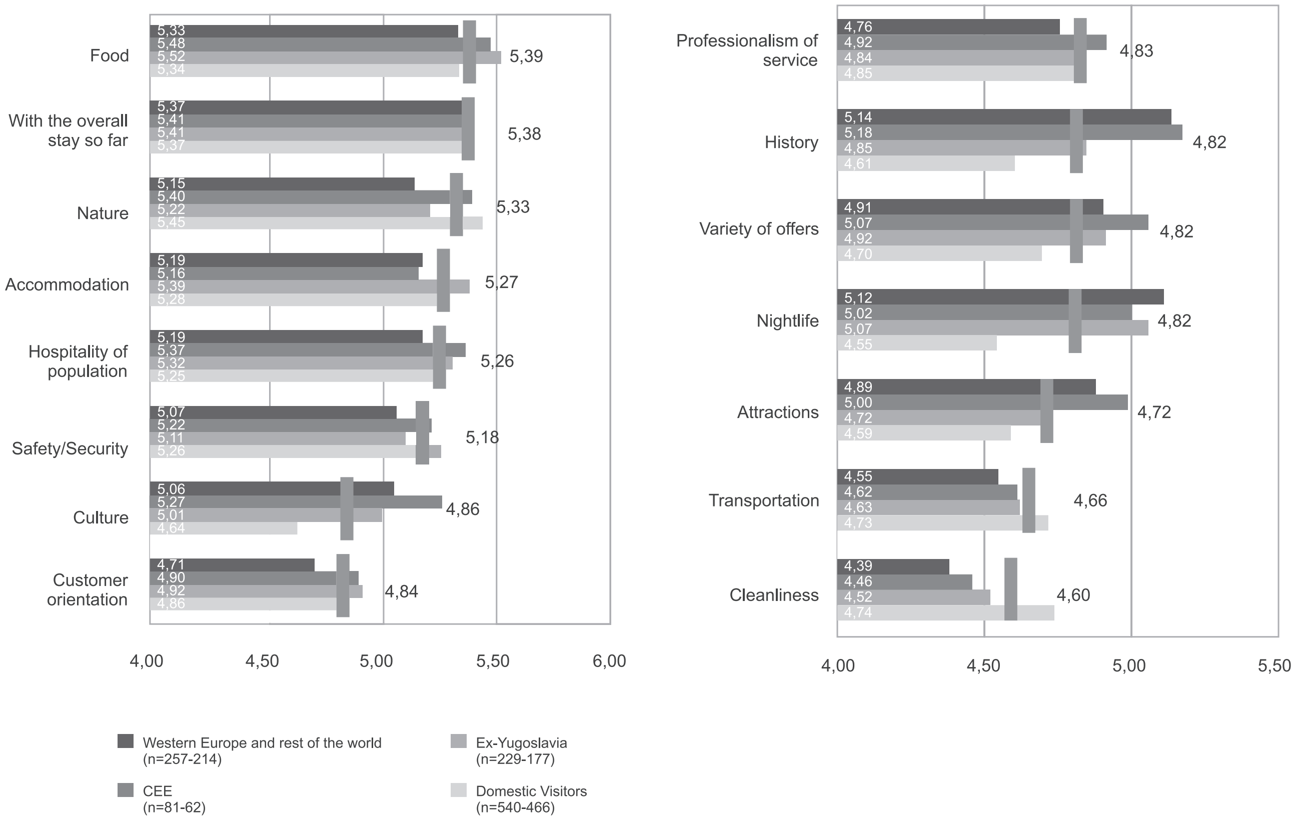
6 Republic Bureau of Statistics published that accommodation and nutrition employed around 21.000 people (only legal entities and report doesn't include entrepreneurs that have ¼ share of total employment).

Strategy for tourism development, addopted at 2006. by the Goverment of the Republic of Serbia, clearly highlights strategic potentials of Serbian tourism but also identified main shortcomings. Addoption of the Strategy, broad political consensus on the potential contribution of tourism to the Serbian economy was reached. Goverment has selected tourism as one of the four priority sectors for restoration and development of Serbian economy.

Serbia was recognized as a country that may assume the responsibility for the development of its own distinguishable competences in tourism, offering to the world various tourist products which combine the attractive natural, historical and social elements which abound in the Serbian environment. All above mentioned is flavored and linked to the distinguishable Serbian lifestyle, which may be best experienced in the cultural surrounding of friendly people. Bearing all that in mind, Serbia should not offer dominantly one-sided tourist products, but a large number of different products, born in its strategic long term potentials. Due to the offer of numerous reasons for arrival and stay, but also due to the global demand changes, Serbia is recognised as potentionaly, the best choice for the second and third annual holiday.

Analysis of data of tourist arrivals and overnights form 2007 to 2011, showes that after initial increase, the total number of tourist arrivals and overnights has declined when global financial and economic crisis aroused affecting tourism globally. This decline is more obvious with regard to domestic demand, especially as a result of deterioration of life standard and abolishment of visas for Serbs for travel abroad. After all, Serbia recorded a stable increase of international tourist demand in last five years by more than 45%, which can be explained with increased investments in tourism, improvment of business interest for international economic cooperation but as well as new access of tourism promotion of National Tourism Organization of Serbia. Last few years, some of new destinations emerged - such as Stara planina mountain resort, Vršac, Kragujevac, Niš and old ones are regaining their old shine - such as Kopaonik, Zlatibor, Divčibare

Table 3. Satisfaction rates divided by countries
Scale: 1 =not satisfied at all to 6 = very satisfied



Source: Support to implementation of the National Strategy for Tourism, Ref. no. 07SER01/23/11 and Đerdap area. In addition, new greenfield project are currently under development - new ski slopes, wellness and spa facilities, aqua-parks, etc. Great progress has been made regarding cultural heritage and cultural tourism. Archaeological sites have been restored and visitors' and interpretation centres built - Roman sites - Sirmium and Viminacium, as well as unique neolithic settlement in the world - famous Lepenski Vir. Revitalization of the Golubac Fortress in Đerdap will start in 2012 as well as and Roman Emperors Cultural Route project (together with neighboring countries - Croatia, Romania and Bulgaria).

Inspite of global economic crisis, the Serbian tourism sector remained stable and provide reasons for optimism. Given the circumstances of the global economic turndown during which this resilience was achieved, it bodes well for the future of sector in Serbia.[7] According to the authors of Support to implementation of the National Strategy for Tourism (IPA 2007 project) results achieved in tourist visitation do not match the ambitious targets set out in the Strategy 2006, but they are not at all disappointing given the major recession in the global economy and the crisis in the Eurozone that could not have been predicted at the time the authors set out the targets.

Serbia's generally aim by 2020 is to increase market share from regional and European perspective, in other words, the number of arrivals and overnights of domestic and foreign tourists. Value added is also in the focus and especially measured by daily expenditures of guests. The development of the destinations should facilitate the development of products and services developing tourism from the basis and attracting investors. Increasing the number of investors and the general amount of investments is another important target Serbia wishes to achieve. Under the qualitative perspective, Serbia needs to raise visitor satisfaction and boost the awareness and image of the country, keting strategy. It is neccesary to start with systematic measurement of awareness at least on the main markets. Undoubtedly, defined vision, mission and objectives for tourism development in Serbia set by the Strategy, need to be constantly verified on the international market and adopted accordingly in order to be competitive and sustainable internationally.

Conclusion

As destinations worldwide look to stimulate travel demand under pressing economic conditions, it is urgent for governments to consider advancing travel facilitation, an area in which in spite of the great strides made so far there is still much room for progress. According to the UNWTO, it is necessary to improve technologies in the proces of visa application and processing formalities, as well as the timings of visa issuance, and to analyse the possible impact of travel facilitation in increasing their tourism economies. Travel facilitation is closely interlinked with tourism development and can be key in boosting demand.[8]

In the following period, also Serbia needs to plan tourism resources very carefuly with special attention to priority tourism destinations. Recommendations of EU and UNWTO in the field of sustainability should lead Serbia in the process of implementation of sustainable tourism development, especially lowering seasonality, decreasing energy use and increasing the use of renewable energy resources; protecting, maintaining and commercializing natural and cultural resources with full care; improving the quality of jobs in tourism, developing tourism capacities and programmes that are available for all (disabled persons, low income, young or elderly,..) and raising the awareness of the value of natural and cultural resources for inhabitants, tourists and visitors with information and education.

References

1. UNWTO World Tourism Barometer, Publication 10, No. 1, January 2012.
2. UNWTO Roadmap for Recovery, 2009;
3. Tourism Outlook 2012., UNWTO;
4. Labour Force Statistics, OECD, 2011;
5. Vellas F.: Economie du tourisme international, Economica, Paris, 2007;
6. WTTC, Travel & Tourism Economic Impact, (181 countries), 2011;

7 Support to implementation of the National Strategy for Tourism, Ref. no. 07SER01/23/11

8 UNWTO: Tourism Toward 2030

7. UNWTO, Positioning tourism in economic policy: Evidence and some proposals, Second Meeting of T20 Tourism Ministers, Republic of Korea, 11-13 October 2010
8. Petković G., Pindžo R.: Ekonomska politika Srbije u uslovima globalne krize, Kopaonik biznis forum 2009;
9. Petković G., Pindžo R.: Sector policies: Roadmap for tourism recovery, Ekonomika preduzeća vol. 58, br. 1-2, 2010;
10. Petković G., Zečević B., Pindžo R.: Turizam kao deo nacionalne ekonomije, Ekonomika preduzeća vol. 59, br. 1-2, 2011;
11. UNWTO, Sustainable Development of Ecotourism: A Compilation of Good Practices, Madrid, 2003
12. UNWTO, Practical guide for the development and use of sustainable tourism indicators, Madrid, 2003
13. Support to implementation of the National Strategy for Tourism, Ref. no. 07SER01/23/11;
14. Edgel D.; "Ten Important World Tourism Issues", East Carolina University, 2011
15. www.stat.gov.rs
16. www.wttc.com
17. www.unwto.org

Goran Petković

is the State Secretary, in the Ministry of Economy and Regional Development in charge of tourism since 2007, and a full professor at the Faculty of Economics, University of Belgrade. He graduated from the Faculty of Economics in Belgrade in 1986. At the same faculty he received master's degree in 1989, and in 1994. a PhD. As a consultant he worked on numerous projects of which the following stand out: "Tourism Development Strategy in Serbia," "How Much Does It Cost to Have a Business in Serbia", "The Competitiveness of Serbian Economy", "Strategy And Development Policy of Trade In Serbia". Also, in addition, he published "Marketing Channels", "Marketing in Trade", "Sales and Sales Management", "Foreign Investments in Serbia: Kolinska Case Study ", "Exploring Language Web Orientation in Emerging Markets: The Eastern European Case", "Models of Monitoring The Competitiveness of National Economy." He also published numerous scientific papers in domestic and international publications.

Renata Pindžo

Since July 2008, Assistant Minister in Ministry of Economy and Regional Development, Sector for Tourism. She attended Faculty of Economy on Belgrade University, where she obtained BA and MA diploma. In 2011, she obtained PhD diploma on Faculty of Economy, Finance and Administration, Belgrade where she is engaged as assistant professor of Investment Management.
Ms Pindžo's experience includes more than 12 years in Management Consulting and Financial Advisory Services. She has gained knowledge by providing consulting services to many domestic and international companies, including financial institutions and local municipalities. Also, she has managed large assignments in the field of: privatization (sell and buy side advisory, commercial and financial due diligence preparation, managing of tender process as Advisor, preparing privatisation strategy, market assessment report, preparation of tender documentation, negotiation and closing) and restructuring (financial (debt), business and organizational), transaction support services, business strategy development, business procedures development, market research and assessment; for many large national and international enterprises etc.
As a member of Delotte team, where she was previously employed, she has privilege to work for leading companies from different industrial sectors: retail, agribusiness, food industry, pharmaceuticals, metal complex, public sector (municipalities, energy sector, water and vast water public companies), banking sector and etc. She was also engaged as consultant by large international organization (USAID, DIFID, EAR) on the projects of restructuring of large Serbian enterprises and economy in general.

PROMOTIVNA POSLOVNA GALANTERIJA

nevski

2012

Partizanske avijacije 12/2, 11070 Novi Beograd
tel/fax: (+381 11) 228 10 55, 228 12 35, 228 10 96
www.nevski.rs • email: office@nevski.rs

ALPHA BANK

ALPHA BANK SRBIJA
BEOGRAD, KRALJA MILANA 11
TEL: 011/3240-248
FAX: 011/3240-248
www.alphabankserbia.com

Banca Intesa

BANCA INTESA AD BEOGRAD
NOVI BEOGRAD, MILENTIJA POPOVIĆA 7B
TEL: 011/2011-200
FAX: 011/2011-207
www.bancaintesabeograd.com

BEOGRADSKE ELEKTRANE
NOVI BEOGRAD, SAVSKI NASIP 11
TEL: 011/2093-000
FAX: 011/3186-341
www.beoelektrane.rs

BERLIN-CHEMIE MENARINI

BERLIN-CHEMIE, PREDSTAVNIŠTVO SRBIJA
BEOGRAD, PRILEPSKA 1
TEL: 011/3657-098
FAX: 011/3657-101
www.berlin-chemie.co.rs

Centralni registar
depo i kliring hartija od vrednosti

CENTRALNI REGISTAR
BEOGRAD, TRG NIKOLE PAŠIĆA 5
TEL: 011/3331-380
FAX: 011/3202-329
www.crhov.rs

DELTA HOLDING

DELTA HOLDING
NOVI BEOGRAD, MILENTIJA POPOVIĆA 7b
TEL: 011/2011-110, 2011-100
FAX : 011/2011-111
www..deltaholding.rs

Димничар
Београд

DIMNIČAR
BEOGRAD, DELIGRADSKA 26
TEL: 011/2646-278
FAX: 011/2646-464
www.dimnicar.com

DIRECT GROUP

DIRECT GROUP
ZEMUN, AUTOPUT ZA NOVI SAD 96
TEL: 011/3532-900
FAX: 011/3532-908
www.direct-group.com

ДУНАВ ОСИГУРАЊЕ

DUNAV OSIGURANJE ADO
BEOGRAD, MAKEDONSKA 4
TEL: 011/3224-001
FAX: 011/3227-289
www.dunav.com

ЕДБ

ELEKTRODISTRIBUCIJA
BEOGRAD, MASARIKOVA 1-3
TEL: 011/3618-850
FAX: 011/3616-641
www.edb.rs

ЕПС

ELEKTROPRIVREDA SRBIJE
BEOGRAD, CARICE MILICE 2
TEL: 011/2628-622
FAX: 011/2623-984
www.eps.rs

ENERGOPROJEKT
OPREMA a.d.

ENERGOPROJEKT OPREMA
NOVI BEOGRAD, BULEVAR MIHAJLA PUPINA 12
TEL: 011/3101-646
FAX: 011/3101-648
www.energoprojekt-oprema.com

ERNST & YOUNG

ERNST&YOUNG
NOVI BEOGRAD, BULEVAR MIHAJLA PUPINA 115D
TEL: 011/2095-808
FAX: 011/2095-890
www.ey.com/rs

ERSTE BANK

ERSTE BANK
NOVI SAD, BULEVAR MIHAJLA PUPINA 3
TEL: 021/527-733
FAX: 021/529-507
www.erstebank.rs

KOLEKTIVNI ČLANOVI SAVEZA EKONOMISTA SRBIJE

EUROBANK EFG
BEOGRAD, VUKA KARADŽIĆA 10
TEL: 011/206-5816
FAX: 011/302-8952
www.eurobankefg.rs

FAKULTET ZA EKONOMIJU I INŽENJERSKI MENADŽMENT
NOVI SAD, SIME MILUTINOVIĆA SARAJLIJE 32
Tel: 021/400-499
Fax: 021/469-518
ww.fimek.edu.rs

FAKULTET ZA MENADŽMENT
ZAJEČAR, PARK ŠUMA "KRALJEVICA" BB
TEL: 019/430-800
FAX: 019/430-804
www.fmz.edu.rs

FOND ZA RAZVOJ REPUBLIKE SRBIJE
BEOGRAD, MAKEDONSKA 14
TEL: 011/2621-887
FAX: 011/2627-214
www.fondzarazvoj.gov.rs

GALEB GROUP
ŠABAC, POCERSKA 111
TEL: 015/367-700
FAX: 015/367-788
www.galeb.com

GALENIKA AD
ZEMUN, BATAJNIČKI DRUM BB
TEL: 011/3020-760
FAX: 011/3370-179
www.galenika.rs

GRADSKE PIJACE
BEOGRAD, ŽIVKA KARABIBEROVIĆA 3
TEL: 011/3806-680
www.bgpijace.rs

HYPO ALPE ADRIA BANK AD
BEOGRAD, BULEVAR MIHAJLA PUPINA 6
TEL: 011/222-67-13
FAX: 011/222-67-98
www.hypo-alpe-adria.rs

ITM GROUP
NOVI BEOGRAD, OMLADINSKIH BRIGADA 86
TEL: 011/31-07-400
FAX: 011/3107-492
www.itm.rs

JP PTT SAOBRAĆAJA "SRBIJA"
BEOGRAD, TAKOVSKA 2
TEL: 011/3022-000
FAX: 011/3229-911
www.posta.rs

JEDINSTVO
UŽICE, PRVOMAJSKA BB
TEL: 031/533-681
FAX: 031/533-685
www.mppjedinstvo.co.rs

KOMERCIJALNA BANKA AD
BEOGRAD, SVETOG SAVE 14
TEL: 011/3080-100
FAX: 011/3440-033
www.kombank.com

KOMISIJA ZA HARTIJE OD VREDNOSTI
NOVI BEOGRAD, OMLADINSKIH BRIGADA 1
TEL: 011/3115-118
FAX: 011/137-924
www.sec.gov.rs

LUKA BEOGRAD
BEOGRAD, ŽORŽA KLEMENSOA 37
TEL: 011/2752-971
FAX: 011/2764-764
www.lukabeograd.com

KOLEKTIVNI ČLANOVI SAVEZA EKONOMISTA SRBIJE

MEĐUNARODNI CENTAR ZA RAZVOJ FINANSIJSKOG TRŽIŠTA DOO
BEOGRAD, NEBOJŠINA 12
TEL: 011/3085-780
FAX: 011/3085-782
www.mcentar.rs

MENADŽER TIM DOO
BEOGRAD, MARŠALA BIRJUZOVA 3/VII
TEL: 011/2028-541
www.menadzer.biz

Република Србија
МИНИСТАРСТВО ЗА ИНФРАСТРУКТУРУ И ЕНЕРГЕТИКУ
Управа за утврђивање способности бродова за пловидбу
NOVI BEOGRAD, NARODNIH HEROJA 30
TEL: 011/2607-080
FAX: 011/3192-041
www.registar-brodova.org.rs

NACIONALNA SLUŽBA ZA ZAPOŠLJAVANJE
BEOGRAD, KRALJA MILUTINA 8
TEL: 011/3307-900
FAX: 011/3307-980
www.nsz.gov.rs

NELT CO
BEOGRAD, KARAĐORĐEVA 65
TEL: 011/2071-231
FAX: 011/2071-221
www.nelt.com

NLB BANK
NOVI BEOGRAD, BULEVAR MIHAJLA PUPINA 165/V
TEL: 011/2225-100
FAX: 011/2225-101
www.nlb.rs

OTP BANKA
NOVI SAD, BULEVAR OSLOBOĐENJA 80
TEL: 021/4800-001
FAX: 021/4800-032
www.otpbanka.rs

PANONSKE TE-TO DOO
NOVI SAD, BULEVAR OSLOBOĐENJA 100
TEL: 021/527-754
FAX: 021/6613-017
www.panonske.rs

PB AGROBANKA AD
BEOGRAD, SREMSKA 3-5
TEL: 011/637-622
FAX: 011/3281-408
www.agrobanka.rs

PHARMA NOVA
BEOGRAD, KUMODRAŠKA
TEL: 011/3404-060
FAX: 011/3404-047
www.pharmanova.com

PRIRODNJAČKI MUZEJ
BEOGRAD, NJEGOŠEVA 51
TEL: 011/3085-018
FAX: 011/3446-580
www.nhmbeo.rs

PRIVREDNA KOMORA BEOGRADA
BEOGRAD, KNEZA MILOŠA 12
TEL: 011/2641-355
FAX: 011/2642-029
www.kombeg.org.rs

RAIFFEISEN FUTURE A.D. BEOGRAD DRUŠTVO ZA UPRAVLJANJE DOBROVOLJNIM PENZIJSKIM FONDOM
NOVI BEOGRAD, BULEVAR ZORANA ĐINĐIĆA 64A,
TEL: 011/220-7180
FAX: 011/220-7186
www.raiffeisenfuture.rs

REGIONALNA PRIVREDNA KOMORA NOVI SAD
NOVI SAD, NARODNOG FRONTA 10
TEL: 021/4802-088
FAX: 021/466-300
www.rpkns.com

KOLEKTIVNI ČLANOVI SAVEZA EKONOMISTA SRBIJE

REPUBLIČKI FOND ZA PENZIJSKO I INVALIDSKO OSIGURANJE
BEOGRAD, DR ALEKSANDRA KOSTIĆA 9
TEL: 011/206-1102
FAX: 011/206-1127
www.pio.rs

REPUBLIKA SRBIJA MINISTARSTVO FINANSIJA -UPRAVA CARINA
NOVI BEOGRAD, BULEVAR ZORANA ĐINĐIĆA 155a
TEL: 011/2696-523
FAX: 011/2690-531
www.carina.rs

ROADSTAR INVEST & CONSULTING
BEOGRAD, TRG REPUBLIKE 3/V
TEL: 011/2025-600
FAX: 011/2025-647
www.europen.rs

"SAVA OSIGURANJE"a.d.o.
BEOGRAD, BULEVAR VOJVODE MIŠIĆA 51
TEL: 011/3644-804
FAX: 011/3644-889
www.sava-osiguranje.rs

SOCIETE GENERALE SRBIJA
NOVI BEOGRAD, BULEVAR ZORANA ĐINĐIĆA 50a/b
TEL: 011/3011-400
FAX: 011/3113-752
www.societegenerale.rs

JP SRBIJAŠUME
NOVI BEOGRAD, BULEVAR MIHAJLA PUPINA 113,
TEL: 011/311-5036
FAX: 011/311-5036
www.srbijasume.rs

TIGAR TYRES
PIROT, NIKOLE PAŠIĆA 213
TEL: 010/30 43 65
FAX: 010/42 00 12
www.michelin.rs

AKCIONARSKO DRUŠTVO ZA OSIGURANJE "TRIGLAV KOPAONIK"
BEOGRAD, KRALJA PETRA 28
TEL: 011/3305-100
FAX: 011/3305-138
www.triglav.rs

UNIVERZAL BANKA AD
BEOGRAD, FRANCUSKA BB
TEL: 011/3022-801
011/3343-017
www.ubbad.rs

UNIVERZITET U BEOGRADU EKONOMSKI FAKULTET
BEOGRAD, KAMENIČKA 6
TEL: 011/3021-240
FAX: 011/2639-560
www.ekof.bg.ac.rs

UNIVERZITET U NOVOM SADU EKONOMSKI FAKULTET SUBOTICA
SUBOTICA, SEGEDINSKI PUT 9-11
TEL: 024/628-080
FAX: 024/546-486
www.ef.uns.ac.rs

VIŠA POSLOVNA ŠKOLA NOVI SAD
NOVI SAD, VLADIMIRA PERIĆA VALTERA 4
TEL: 021/450-101
FAX: 021/334-055
www.vps.ns.ac.rs

ZAVOD ZA URBANIZAM
NOVI SAD, BULEVAR CARA LAZARA 3/III
TEL: 021/459-144
FAX: 021/455-395
www.nsurbanizam.rs

ЦЕНТАР ЗА ПРОМОЦИЈУ НАУКЕ

ИЗГРАДЊА СТУБОВА ЕКОНОМИЈЕ ЗНАЊА

Будућа зграда Центра за промоцију науке у Блоку 39 на Новом Београду

Након што је Законом о научноистраживачкој делатности основан као државна институција надлежна за промоцију и популаризацију науке, Центар за промоцију науке је 23. новембра 2010. уписан у регистар јавних установа. Средствима Европске инвестиционе банке, у Блоку 39 на Новом Београду, Република Србија подиже нову, импозантну зграду Центра, у којој ће се сместити бројне занимљиве изложбене поставке, специјализоване лабораторије за научне демонстрације, дечји научни клуб, планетаријум и други програми, који ће бити отворени за све грађане. Грађевина, која издалека делује као да лебди над земљом, градиће се према пројекту аустријског архитекте Волфганга Чапелера, победника Међународног конкурса за архитектонско решење зграде ЦПН-а, који је, иначе, у 2010. години био највећи архитектонски конкурс на свету. Но, не чекајући на зграду, Центар је током прве године рада окупио сараднике из целе Србије, покренуо прве кораке у промоцији науке и само годину дана касније постао јавно препознатљива установа која се отиснула на дуги пут ширења „културе науке" и подршке успостављању економије знања у Србији.

ФЕСТИВАЛИ, ЈУБИЛЕЈИ, ИЗЛОЖБЕ, РАДИОНИЦЕ

Центар за промоцију науке је учествовао у свим већим научнопопуларним акцијама током 2011. године. Био је важан партнер у организацији Фестивала науке у Београду, али и у другим градовима Србије – Новом Саду, Нишу, Крушевцу... Уз манифестације као што су "Ноћ истраживача" и „Геометрија око нас", Центар је у септембру 2011. организовао Дане открића, интерактивне радионице из десет научних области за више од 6000 основац, док је на Београдском сајму књига представио је 900 нових издања српских научних институција. Уз то, Центар је под покровитељством УНЕСКО-а покренуо прво обележавање Светског дана науке и мира у Србији, а обележио је и национални Дан науке (10. јул), као и бројне научне јубилеје.

СУФИНАНСИРАНИ ПРОЈЕКТИ

Током 2011. Центар за промоцију науке је суфинансирао 33 пројекта научних институција и стручних друштава по конкурсу расписаном почетком године. Уз то, многим од ових пројеката Центар је пружио и другу логистичку подршку у реализацији. Нови јавни позив за финансирање пројеката промоције и популаризације науке у 2012, отворен од 28. децембра 2011,. до 28 јануара 2012. године, привукао је интересовање чак 150 оргфанизација које су на њега пријавиле у конкурсном року.

ПУТУЈУЋИ ЦПН

Већ у првој години, Центар за промоцију науке одлучио је да не буде једна од установа које не сежу даље од Београда. Због тога је осмишљен такозвани Путујући ЦПН, пројекат који чине Научни камион (лабораторија од 120м2) и Брод лабораторија Аргус, којим ће популарна наука стићи у све делове наше земље. Претходних година запостављен, славни брод Аргус је укључивањем у Центар добио пажњу коју заслужује и прилику да поново заплови.

ЕЛЕМЕНТАРИЈУМ

Центар је током прве године постојања развио и специфичну мрежу интернет страна на адреси www.cpn.rs, који су након мање од два месеца постојања изабрани на листу 50 најбољих сајтова у Србији. Поред основног сајта самог Центра, посетиоци на посебном домену www.elementarium.rs могу да истраже Елементаријум, научнопопуларни портал ЦПН-а који доноси опсежне приче са светске научне сцене, али и оне потекле из домаће научне заједнице. Поред тога, сајт ЦПН-а је и дом електронског сервиса на коме се објављују конкурси важни за промоцију науке (konkursi.cpn.rs), затим научни калнедар (kalendar.cpn.rs), као и место на коме су представљене све наше научне институције и научна друштва (institucije.cpn.rs).

ЦЕНТАР ЗА ПРОМОЦИЈУ НАУКЕ

Doživi više. Doživi BlackBerry® 7.

Ponuda za jedinstveni BlackBerry® 7 doživljaj.

BlackBerry® Torch™ 9810 smartphone

BlackBerry® Curve™ 9360 smartphone

BlackBerry® Bold™ 9900 smartphone

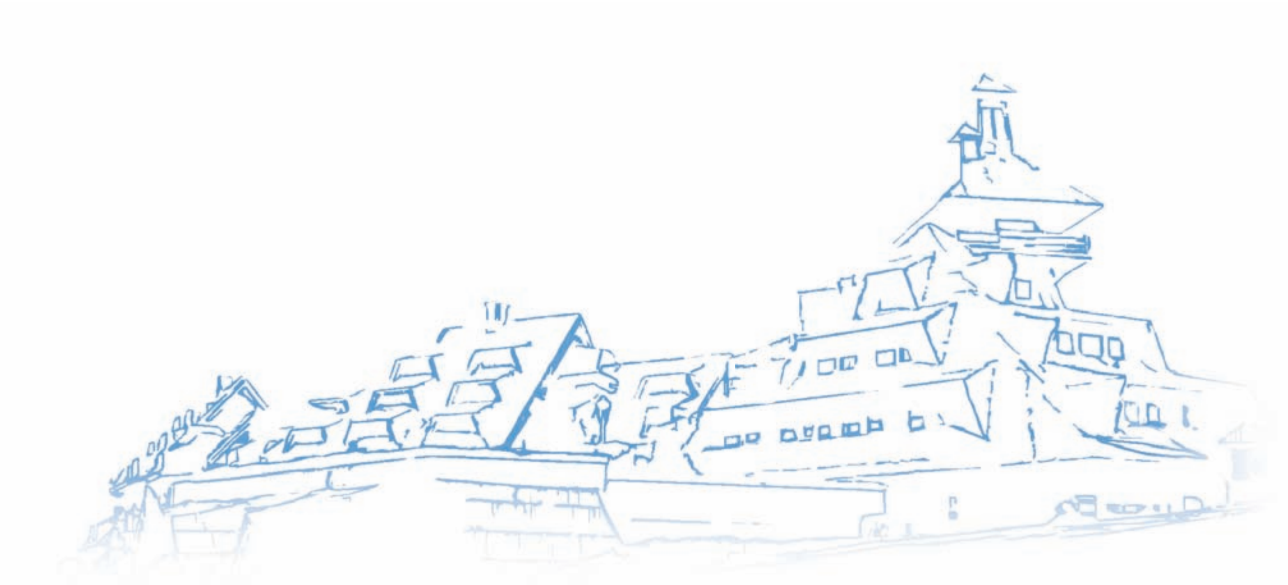
BlackBerry® Torch™ 9860 smartphone

Na svom novom BlackBerry® smart telefonu pokrenite BlackBerry App World™ i preuzmite mnogobrojne aplikacije koje Vam omogućavaju da efikasnije radite, igrate se i bolje upotrebite svoje vreme. Iskoristite i prednosti koje nudi BlackBerry® Messenger i lako komunicirajte sa kolegama i prijateljima. Personalizujte svoj BlackBerry® svet!

mt:s

www.mts.telekom.rs
biznis.prodaja@telekom.rs
Korisnički servis 064/789

BlackBerry®



THE 2012 KOPAONIK BUSINESS FORUM

How to Preserve the Future of Serbia: Economics, Business and Related Issues