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.

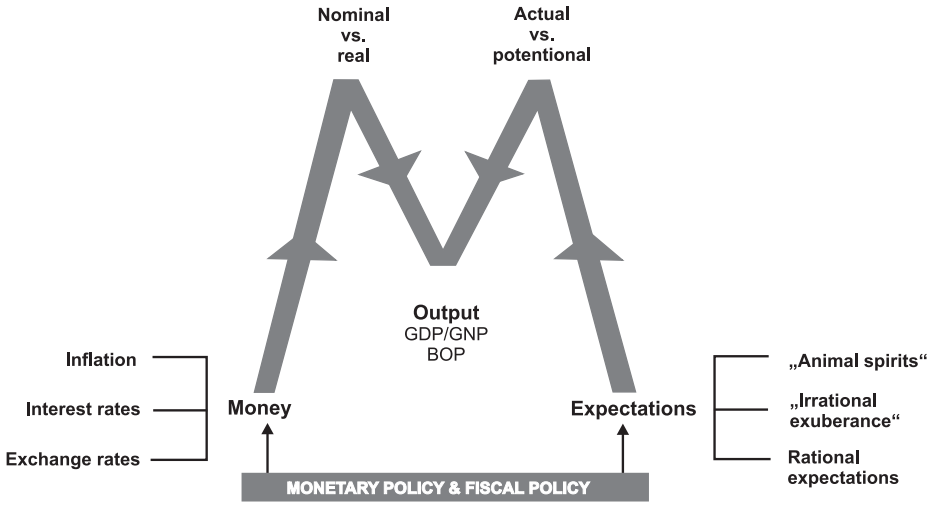
Ključne reči: *Srbija, makroekonomsko "M", strukturne neravnoteže, blizanci autput gepovi, blizanci deficiti, sistemski rizik, industrijske politike, realni sektor, automatski stabilizatori, monetarni odbor.*

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.

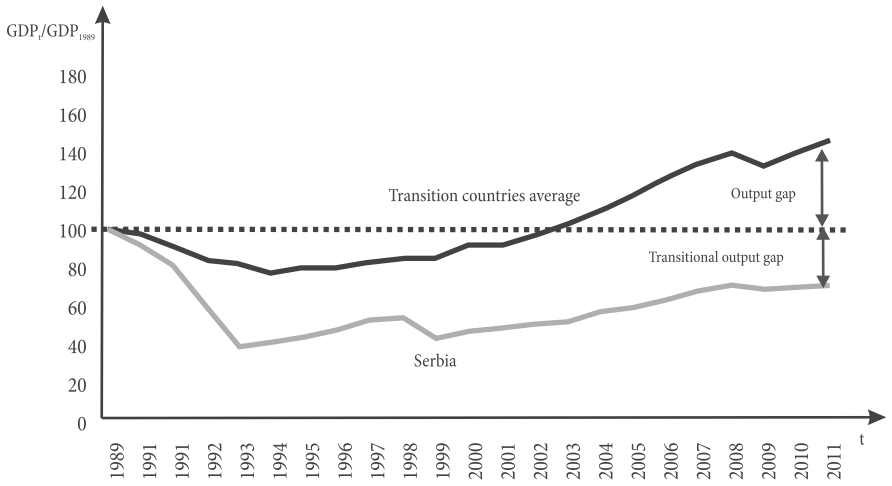
Output was off the radar of monetary policy and, consequently, this strategy provoked production collapse. Implicit costs of this strategy are increase of financial costs of maintaining low and stable inflation, higher interest rates, appreciated FX rate, as well as greater indebtedness. Unfortunately, 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).

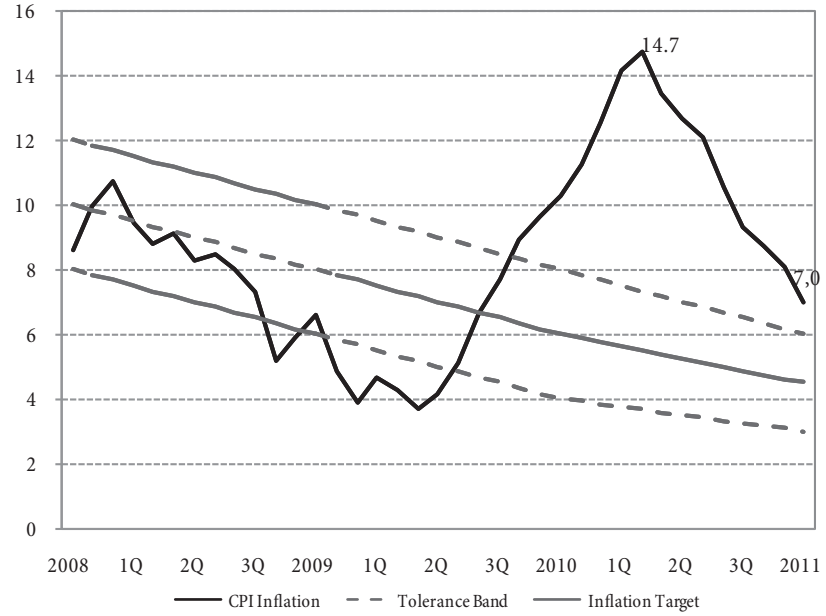
Related issue is a potential conundrum emerged as consequence of double digit interest rates effect on the output gap. Again, in absence of other instruments for cooling the economy, the NBS would have to face a controversial choice, having to accept higher output gap in exchange for relatively low inflation.

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.

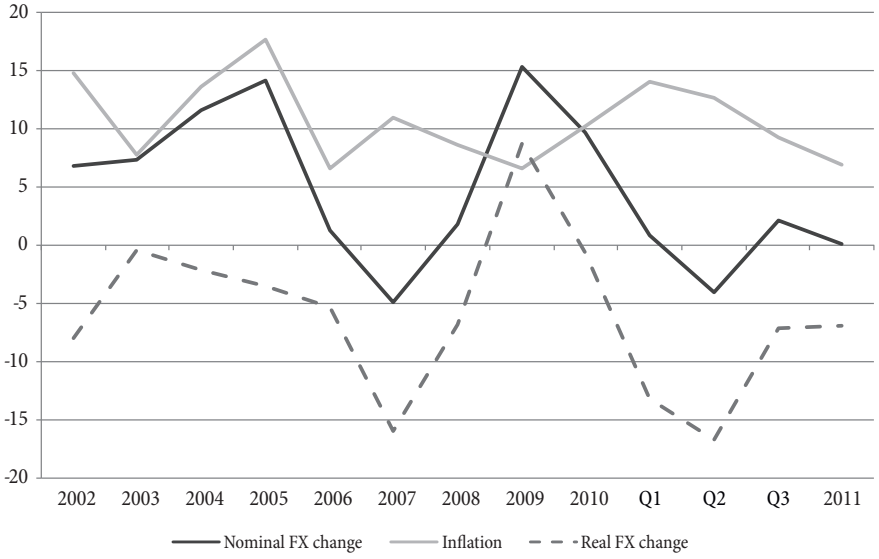
Fiscal policy played secondary role in the whole period with political constraints sharply limiting its usefulness. Also, architects of Serbia's fiscal policies ignored that counter-cyclical fiscal stance was extremely desirable for economies with limited number of fiscal stabilizers. As a consequence, 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,

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

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.

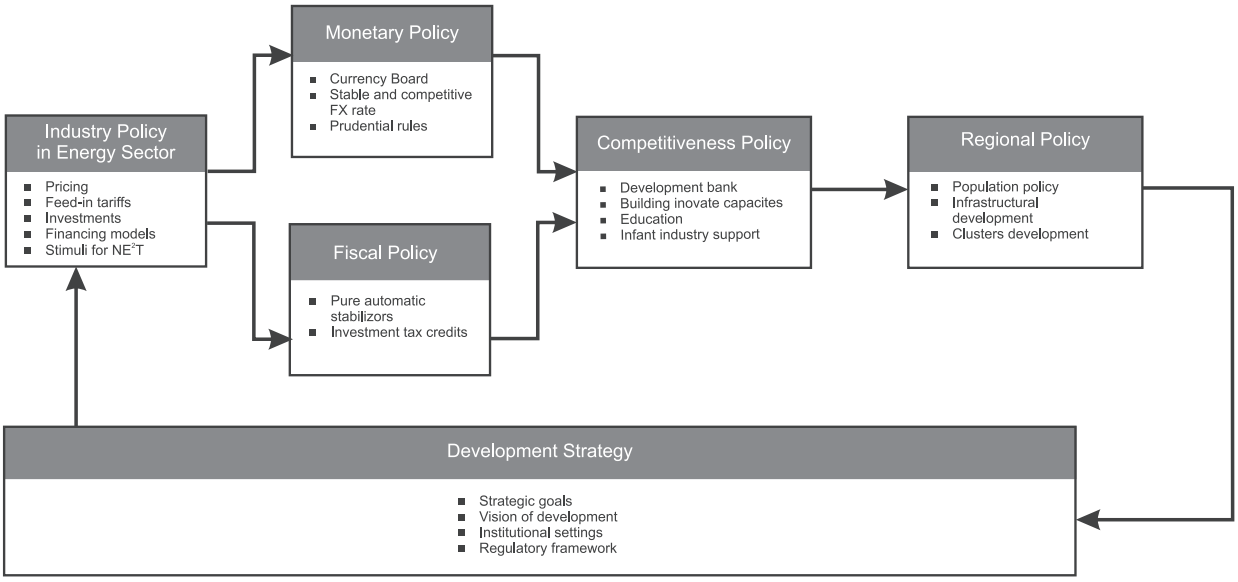
New monetary model is in the center of macroeconomic policies. In new policy framework it could be the model of currency board. Currency board with automatic adjustments ensures stable and competitive FX rate. Stable and competitive FX rate plays the role of automatic stabilizer. It encourages export 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.