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The Foundation for the Advancement of Economics (FREN)
Kamenička 6, Beograd
Tel/Fax: 011 3021 069
E-mail: office@fren.org.rs
http://*www.fren.org.rs*

DESIGN OF INNER PAGES
Stefan Ignjatović

PRINTING PREPARATION
Maja Tomić

COVER DESIGN
Nikola Drinčić

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The Analytical Appendix can be found at www.fren.org.rs.

Analytical and Notation Conventions

Values

The data is shown in the currency we believe best reflects relevant economic processes, regardless of the currency in which it is published or is in official use in the cited transactions. For example, the balance of payments is shown in euros as most flows in Serbia's international trade are valued in euros and because this comes closest to the measurement of real flows. Banks' credit activity is also shown in euros as it is thus indexed in the majority of cases, but is shown in dinars in analyses of monetary flows as the aim is to describe the generation of dinar aggregates.

Definitions of Aggregates and Indices

When local use and international conventions differ, we attempt to use international definitions wherever applicable to facilitate comparison.

Flows – In monetary accounts, the original data is stocks. Flows are taken as balance changes between two periods.

New Economy – Enterprises formed through private initiative

Traditional Economy - Enterprises that are/were state-owned or public companies

Y-O-Y Indices – We are more inclined to use this index (growth rate) than is the case in local practice. Comparison with the same period in the previous year informs about the process absorbing the effect of all seasonal variations which occurred over the previous year, especially in the observed seasons, and raises the change measure to the annual level.

Notations

CPI – Consumer Price Index

Cumulative – Refers to incremental changes of an aggregate in several periods within one year, from the beginning of that year.

H – Primary money (high-powered money)

IPPI – Industrial Producers Price Index

M1 – Cash in circulation and dinar sight deposits

M2 in dinars – In accordance with IMF definition: cash in circulation, sight and time deposits in both dinars and foreign currency. The same as M2 in the accepted methodology in Serbia

M2 – Cash in circulation, sight and time deposits in both dinars and foreign currency (in accordance with the IMF definition; the same as M3 in accepted methodology in Serbia)

NDA – Net Domestic Assets

NFA – Net Foreign Assets

RPI – Retail Price Index

y-o-y - Index or growth relative to the same period of the previous year

Abbreviations

CEFTA – Central European Free Trade Agreement

EU – European Union

FDI – Foreign Direct Investment

FFCD – Frozen Foreign Currency Deposit

FREN – Foundation for the Advancement of Economics

GDP – Gross Domestic Product

GVA – Gross Value Added

IMF – International Monetary Fund

LRS – Loan for the Rebirth of Serbia

MAT – *Macroeconomic Analyses and Trends*, publication of the Belgrade Institute of Economics

NES - National Employment Service

NIP – National Investment Plan

NBS – National Bank of Serbia

OECD – Organization for Economic Cooperation and Development

PRO – Public Revenue Office

Q1, Q2, Q4, Q4 – 1st, 2nd, 3rd, and 4th quarters of the year

QM – *Quarterly Monitor*

SORS – Statistical Office of the Republic of Serbia

SDF – Serbian Development Fund

SEE – South East Europe

SEPC – Serbian Electric Power Company

SITC – Standard International Trade Classification

SME – Small and Medium Enterprise

VAT – Value Added Tax

From the Editor

The greatest tensions associated with the response to the current economic crisis lie in the domain of fiscal policy. In the short term, it is fiscal policy that should allow a deficit to appear and thus stimulate economic activity; at the same time, in the medium term, it is again fiscal policy that needs to prevent a disproportionate increase in public debt. The key challenge, both professionally and politically, is striking the right balance between these two mutually opposing demands. Monetary policy should, finally, assist in getting the economy off the ground: the recession is still strong, while inflation has been halted; this justifies monetary relaxation. Any further real growth in the value of the dinar should be prevented: taking a wider perspective, once the economic crisis is over Serbia needs to abandon its previous growth model based on an overvalued dinar and abundant inflows of foreign capital, and turn to creating conditions for a growth in productivity and a resulting expansion in the tradable sector that will be competitive at the global level.

The Serbian Government and the International Monetary Fund (IMF) did not come to agreement in August on next year's budget – the IMF had accepted for this year an increase in the fiscal deficit from 3% to 4.5%, but had also wanted to see how Serbia would make the necessary cuts to its budget deficit in 2010. The Government has thus far been promising public sector reforms, but has still failed to demonstrate *by how much* and *where* public spending would be reduced. The two sides are to meet again in October for further negotiations.

Why did the IMF, and the Serbian Government with it, change their stance on fiscal policy in 2009 – in other words, why did they shift from an allowable deficit of 1.75% to 3%, and, finally, to 4.5%? The reason lies in the fact that government spending has in the current economic downturn proven to be virtually the only quick and direct response to the crisis. Government expenditure was intended to partially offset the substantial drop in private spending that was brought about by the nearly total drying-up of foreign capital and loan inflows, and to thus prevent a large-scale slump in production. In addition, banks have – both in Serbia and globally – become very cautious when granting new loans, thereby reducing effects of monetary expansion on the part of the central bank on credit growth (the money multiplier has gone down, both in Serbia and across the world: see Section 7, Monetary Flows and Policy). Such accommodating fiscal policy, allowing as it does increased deficit, is a departure from the IMF's general approach to economic crises – the response had previously been to cut deficits. Initial assessment of the effects of the IMF's new approach aired in early September at an international conference in Brussels bears out the appropriateness of this strategy.

Serbia has thus also adopted an accommodating fiscal policy in response to the crisis – the 2009 budget deficit will probably rise to 4.5% of GDP in relation to the 2.5% seen in 2008. The deficit would have grown even more had public spending not adjusted, in another display of a trend common to all current IMF programs in Eastern Europe. In Serbia, justifiably, the key role was played by the freezing of pensions and public sector wages. Renewed attempts to keep the deficit at 3% by rebalancing the budget in late April remained fruitless. The deficit rose to 4.5% due to underperforming revenues, primarily due to a fall in economic activity and consumption. The logical reaction of economic policy to this objective deterioration was an increase in the deficit.

The failed attempt to rebalance the budget in April 2009 offers two lessons. The first one is that there can be no serious adjustment to public expenditures and revenues through the use of hastily adopted ad hoc measures; rather, this calls for well-thought-out medium-term reform. If such a plan is not adopted and politically supported, the next lesson is that the necessary cuts to public spending will ensue in a chaotic manner: it is exactly those expenditures that should be increased that will see reductions. The budget rebalance has indeed met planned goals with respect to slashing overall expenditures, but it has done so in the worst possible way – by making drastic – and unplanned – cuts to investment in infrastructure (see Section 6, Fiscal Flows and Policy). The Government has, in general, exhibited utter incompetence in the very area where it has had a chance to successfully respond to the crisis – namely, increasing public investment. Foreign funds were, and still are, available; such investment would directly stimulate flagging economic activity and, in the medium term, lay foundations for quicker sustainable growth.

And now for the reform of public finances promised by the government. This needs to quickly translate into numbers (i.e. the 2010 budget) and firm plans involving spending, revenues and deficit levels in the years to follow. However, even when the first step is made from general commitment to reform to concrete action, the room for manoeuvre is seen to be very narrow; the Government needs to make some serious decisions (see *Spotlight on: 1*). Essentially, a balance should be struck between the budget deficit, which – as we have seen – stimulates economic activity in the short term, and the public debt, which – again due to the deficit – can become too high to sustain. It is exactly out of concern for

the sustainability of public debt, and in the expectation that 2010 will see a certain recovery in economic activity, that the IMF recommends cuts to fiscal deficits in its current programs for European economies in transition.

Serbia has thus been recommended a reduction in the fiscal deficit to 3.5% of GDP in 2010. Even initial rough estimates indicate that this would be a major adjustment (see *Spotlight on: 1*). Even if pensions and public sector wages remain frozen at current levels, an additional €700 mn would still need to be saved, representing in excess of 2% of GDP. It was over the amount that would have to be saved, and how the savings would be made, that the Serbian Government and the IMF disagreed during the round of negotiations held in August; they intend to try again in October. If a higher deficit were to be agreed, public debt could reach between 50% and 60% of GDP over the coming several years (see *Spotlight on: 1*). Interest payments alone would then amount close to 3% of GDP, which is nearly three quarters of overall spending on education in Serbia. Is this what we really want?

On the other hand, cutting the deficit to 3.5% involves savings in current public spending of more than the 2% mentioned above – as, if the Government is serious about its infrastructure plans, public investment would need to be increased in 2010. The above would involve a further major cut in current public spending (see *Spotlight on: 1*) that may prove economically and/or politically unsustainable. Therefore one should not rule out a partial increase in taxes. At any rate, robust political backing will be decisive for the large-scale fiscal adjustment described above. The President has lent his general support to the reform of public finances; we can but hope that, with his assistance, a divided Government will also be able to agree on necessary – if politically painful – measures. Not only is a poor outcome possible, one that involves a large deficit and a prodigious public debt – a poor compromise may also ensue. This needs to be resisted, as it would entail achieving the necessary reduction in public spending by cutting public investment, as was done this year.

For its part, monetary policy was, and still is, able to give a substantial stimulus to economic activity. There are as yet no firm signs of the economy coming out of recession (see Section 2, Economic Activity), while inflation has been halted, and will be driven down to as little as 5% at the annual level in the second half of the year (see Section 5, Prices and the Exchange Rate). Both show that there is room for monetary relaxation, i.e. for a major cut in the NBS reference interest rate. This should push banks away from safe high-yield investment into NBS and government securities, and turn them towards investing in the private sector, as the high reference interest rate resulted in the NBS and the government completely squeezing out businesses. The government sector attracted about €1 bn in bank loans as of July 2009, while loans to the private sector were negligibly low over the same period (see Section 7, Monetary Flows and Policy).

Finally, the monetary relaxation should put a stop to the disastrous trend of continued appreciation of the dinar. Serbia will no longer be able to – nor should it – base its economic growth on major foreign capital inflows and an overvalued national currency. Both have led to domestic overspending and a skewed (inefficient) economic structure that has seen the quickest pace of growth in the non-tradable sector (i.e. commerce, real estate, services and the like). A large foreign trade deficit and growing foreign debt are also consequences of this. Serbia must base its new, post-crisis growth model on an expansion of the tradable sector (manufacturing, cross-border services, segments of agriculture, etc) that will compete in the international arena, both abroad (as exports) and at home (against imports).

The overvalued dinar made such competition unfair, and stifled the growth of the tradable sector; it would continue to do so in the future. And yet the value of the dinar is just a part of the whole picture: supply-side reforms that should lead to a major rise in productivity are decisive for changing Serbia's economic structure and leading to healthy economic growth. These reforms should, primarily, result in a substantial increase in Serbia's competitiveness, as the country is ranked 112th out of 133 in the latest *Global Competitiveness Report* of World Economic Forum. Another factor pointed out in the Report is over-regulation, also noted by the World Bank's *Doing Business.* Serbia is still among the worst performers when it comes to issuing building permits. Finally, new infrastructure should give a major boost to future production growth, as this is yet another area where Serbia's competitiveness lags far behind that of other nations (the country is ranked 107th out of 133). We have seen, however, that the Government has missed yet another year for launching substantial public investment.

Articles in the *Spotlight On* section of this issue of *QM* are devoted to the crucial economic question in Serbia today: fiscal policy and the reform of public finances. *Spotlight on: 1* (Arsić, M.) analyzes medium-term fiscal adjustment options available to Serbia. *Spotlight on: 2* (Dillinger, W.) discusses directions of public expenditure reform and examines possible areas of downsizing. Public revenues, or, more precisely, individual income taxation, are the subject of *Spotlight on: 3* (Arsić, M., Ranđelović, S., Altiparmakov, N.). In *Highlights 1*, Simon Gray, head of the World Bank's office in Serbia, explains the role of development loans granted to Serbia by the Bank. *Highlights 2* contends that official GDP indicators overestimate its actual size. The poverty reduction trend has unfortunately been halted in Serbia – *Highlights 3* examines why. *Highlights 4* analyzes the strengths and weaknesses of the new Law on Competition.

TRENDS

1. Review

The economy is in deep recession, with no reliable indicators of recovery apparent – the y-o-y fall in GDP in Q2 amounted to 4.4% as measured using SORS methodology, but *QM* estimates indicate that the *fall in economic activity* was even deeper (see Highlights 2). The substantial Q2 y-o-y drop in economic activity was caused by the impact of the global economic crisis that caused a fall in aggregate demand. The second quarter saw both domestic and export demand record real y-o-y drops in the double digits. Domestic demand contributed much more than export demand (due to its greater share) to the fall in overall demand, and thereby to the fall in economic activity. Its share in the fall of overall demand amounted to 74%, as opposed to 26% for export demand.

The fall in domestic demand in Q2 was mainly caused, as over the previous two quarters, by the reduced inflow of loans to businesses and households. The quarterly accretion of loans to businesses and households from all sources has been all but stagnant since Q4 2008, and even entered negative territory in Q2. Let us stress that, before the crisis escalated, the average quarterly accretion of loans had amounted to €1.5 bn. The other two major aggregates used in financing domestic demand – the wage bill and public spending – merely dampened the significant fall in domestic demand in Q2.

Employment was also on the slide, but not by as much as economic activity. The number of people employed fell by 2.5 percentage points between October 2008 and April 2009, while the unemployment rate rose from 14.7% to 16.4% over the same period. We have observed, however, that the fall in employment has not affected all categories of employees equally. Employment has fallen most across sensitive categories – workers with flexible employment contracts, mainly young people between 15 and 24 years of age, as well as the self-employed. When viewed by ownership structure, the private sector is more inclined to lay workers off, while the public sector more often opts for cutting real wages, which is only understandable since the private sector is primarily profit-oriented, while the public sector also takes into account the social aspect of employment.

The recession has also influenced the harmonisation of foreign and domestic imbalances. The measure of foreign imbalance, the *current account deficit*, amounted to a mere €162 mn in Q2, or 2.1% of GDP. This deficit had stood at as much as €1.8 bn, or 20.1% of GDP, over the same period one year previously. The fall in the current account deficit in Q2 was mainly caused by the fall in imports outstripping that of exports. The trade deficit stood at some 14% of GDP in Q2 2009, far lower than its customary values seen before the crisis hit (23.2% in Q2 2008). On the other hand, not only did remittances from abroad not fall; they even rose by some €400 mn in Q2 relative to the same period one year before.

Due to the contraction and stabilization of nearly all items that had had an impact on the balance of payments deficit over the first several months of the crisis (current deficit, outflows of capital due to repayment of loans, etc), the balance of payments recorded a surplus in Q2, while the dinar again began appreciating against the euro in real terms. This upward trend recorded by the Serbian currency is not desirable at this time, especially as improvements to the balance of payments are linked to recessionary movements in the economy.

The measure of internal imbalance, *inflation*, slowed in Q2 in relation to Q1, but was still high. The Consumer Price Index rose by 3% in Q2, or 12.6% at the annual level. What is, however, obscured by this high inflation rate is low market inflation coupled with high growth of administratively regulated prices, primarily those of oil. The *Quarterly Monitor's* analysis indicates that, in spite of high Q2 growth, inflation – just like the high current account deficit – has been virtually broken by the economy's recession. Our analysis is borne out by the newest, low, Consumer Price Index growth rates for July and August.

As regulated prices will see no significant increases until the end of the year, inflation over the second half of 2009 will not in all likelihood exceed 2% or 3-4% at the annual level. The inflation rate of at most 5% is, therefore, the underlying inflation trend in 2009; although clouded by high growth of administratively-controlled prices in the first half of the year, this became apparent in July as the overall inflation rate.

Loans to businesses and households are still modest – the downward turn in the overall accretion of loans, and the outright negative accretion of cross-border loans, bear witness to the reluctance of both the banking sector and businesses to enter into new loan arrangements. This can be explained partly by the increasing share of non-performing loans in the overall loan supply: the second quarter saw non-performing loans reach a share of 12.4%, unusually high for Serbia (by way of a comparison, this figure had stood at a mere 4.5% in late 2008). The latest Credit Bureau data are, however, somewhat more favorable – in early Q3 the share of loans past due by over 90 days dropped to 10.6%.

Banks have therefore been directing investment at the government rather than the business sector. In spite of the NBS reference interest rate being cut to 12% in July, banks continued investing in repo agreements (NBS securities). Since the start of 2009 the repo stock grew by some 60 bn dinars; these, together with Ministry of Finance treasury bills, whose value reached nearly 70 bn dinars by late August, attracted nearly €1.4 bn in bank capital into the government sector. The accretion of loans to households and businesses has at the same time completely ceased.

We have therefore observed three clear indicators of a possible relaxation that should take place in the field of NBS *monetary policy*. These are: (1) the real appreciation of the dinar in evidence since March; (2) low inflation – up to 5%, and (3) recession and the cessation of loans to business closely linked to it. The *reduction* of the dinar share in the reserve requirement from 40% to 30% could be seen as a possible intimation of a move towards somewhat more expansive monetary policy. The expansive nature of this measure is reflected in the attendant increase in banks' dinar liquidity; this is then used to cover greater investments into Ministry of Finance securities and liquidity loans to businesses (although part of these assets is sterilized again through the purchase of NBS securities). On the other hand, the increase of the foreign currency share in the reserve requirement is currently not having a major impact on credit activity, while it has led to a rise in NBS foreign currency reserves (by as much as €320 mn in July). Although limited in scope, this is the first relaxation after a series of decisions made by the NBS in 2008 aimed at *increasing* the dinar share in the reserve requirement and later sterilizing these assets.

However, probably the most powerful expansionary monetary policy measure is the cut in the reference interest rate – where indications of any major changes are still absent. Particularly worrying is the prospect of the burden of paying high interest rates being in the end shifted onto an already oppressed fiscal sector, which could end up having to finance any NBS losses incurred through repo operations.

Fiscal policy was much more exposed to the blows of the crisis than monetary policy. The trend of falling real public revenues in relation to the same period one year before, as well as in relation to amounts planned, continued into Q2 2009. Real revenues fell by 13.6% in Q2 in relation to the same period the previous year. Such a substantial real reduction in public revenues was caused by a major fall in domestic demand, i.e. a fall in revenue from consumption taxes (primarily VAT and customs). Data on public revenue movements in July did indicate a slight improvement on Q2, but there is no certain indication that July trends will continue to the end of the year.

Consolidated public sector expenditure also recorded a real y-o-y drop, amounting to 6%, in Q2. As public revenue saw a much greater real fall (13.6%), the overall fiscal balance was negative in spite of the drop in public expenditure, with the consolidated budget deficit amounting to as much as 6% of GDP in Q2. As for public expenditure, an especial cause for concern is the fact that the greatest fall in expenditure relates to capital outlays, while social transfers rose in real terms. In other words, public expenditure may have been cut, but its structure has also deteriorated. Total consolidated public sector deficit recorded in Q1 and Q2, amounting to 56 billion dinars, was 60% greater than the amount agreed to by the IMF for the period.

The high consolidated budget deficit, which will amount to 4.5% of GDP in 2009, will be met from government borrowing in the domestic financial market and abroad. Although public debt does not seem worrying yet, standing as it does at 31.5% of GDP in Q2, its projections certainly are cause for concern. Even with major fiscal adjustment (if 2010 consolidated budget deficit stands at 3.5% of GDP, and trends down thereafter), public debt will in all likelihood exceed 40% of GDP in the medium term, while annual costs of servicing it will reach 2% of GDP. If, however, this reduction in the fiscal deficit does not happen (i.e. if 2010 deficit amounts to 4% of GDP or more), the share of public debt threatens to reach 50%, a level unacceptably high for Serbia. These tendencies in movements in public debt indicate the necessity of a substantial adjustment, not only on the expenditure side, but also on the revenue side of the budget.

Global trends, the trigger for an escalation of the economic crisis in Serbia, are still the subject of professional analysis. The global economy has probably started to slowly come out of the greatest recession since

World War II, but positive indicators are still not convincing enough for us to be able to claim this with any degree of certainty. At any rate, recovery will be very unequal, both by region and by country. The IMF has again revised 2009 and 2010 growth rates for Central and Eastern Europe; according to these new estimates, a fall in economic activity of some 5% is forecast for 2009. However, one should bear in mind that this region's chances for recovery depend to a large extent on trends in Western European economies, as well as that there is a great deal of divergence between individual countries. Serbia has been placed by IMF estimates in the group expected to see an average fall in economic activity in 2009 (a drop in GDP of 4%) followed by a slight recovery in 2010 (growth of 1.5%).

Serbia: Selected Macroeconomic Indicators, 2004-2009[1)]

	Annual Data					Quarterly Data					
						2008				2009	
	2004	2005	2006	2007	2008	Q1	Q2	Q3	Q4	Q1	Q2
Prices and the Exchange Rate						**y-o-y[2)]**					
Retail Price Index - total	10.1	16.5	12.7	6.8	10.9	11.3	12.0	10.7	8.9	9.8	10.1
Retail Price Index - core inflation[3)]	7.9	14.8	10.3	3.9	9.0	6.4	9.1	10.2	10.5	11.3	9.9
Real fx dinar/euro (avg. 2005=100)[4)]	100.5	100.0	92.1	83.9	79.7	82.5	79.7	75.0	81.7	86.0	84.3
Nominal fx dinar/euro (period average)[4)]	72.62	82.92	84.19	79.97	81.46	82.65	81.07	77.12	85.02	93.71	94.17
Economic Growth						**y-o-y, real growth[2)]**					
GDP (in billions of dinars)	1,384	1,687	1,980	2,363	2,791	…	…	…	…	…	…
GDP	8.2	5.6	5.2	6.9	5.4	8.5	6.0	4.9	2.8	-3.5	-4.4
Non-agricultural GVA	6.6	6.8	7.5	8.7	5.4	8.3	6.3	5.0	2.5	-2.7	-3.8
Industrial production	7.1	0.8	4.7	3.7	1.1	6.0	2.3	1.0	-5.0	-16.9	-18.2
Manufacturing	9.7	-0.7	5.3	4.2	0.7	4.4	3.7	0.4	-6.0	-22.5	-22.1
Average net wage (per month, in dinars)[5)]	14,108	17,478	21,745	27,785	29,174	26,814	28,846	29,435	31,599	30,120	31,808
Registered Employment (in millions)	2.047	2.056	2.028	1.998	1.997	1.995	2.002	1.998	1.993	1.981	1.850
Fiscal data			**in % of GDP**					**y-o-y, real growth**			
Public Revenues	41.2	42.1	42.4	42.1	41.5	7.6	5.2	2.8	-0.7	-12.6	-13.4
Public Expenditures	40.0	39.7	42.7	42.8	43.7	3.8	21.7	-0.4	-3.5	-3.4	-6.0
						in billions of dinars					
Konsolidovani bilans (def. GFS)[6)]	17.5	14.8	-33.5	-58.2	-68.9	8.0	-19.6	-5.9	-51.3	-11.7	-44.3
Balance of Payments						**in millions of euros, flows[2)]**					
Imports of goods	-8,302	-8,286	-10,093	-12,858	-15,057	-3,479	-3,953	-4,008	-3,617	-2,596	-2,601
Exports of goods	2,991	4,006	5,111	6,444	7,428	1,672	1,972	2,061	1,723	1,291	1,535
Current account[7)]	-2,197	-1,805	-3,137	-4,994	-5,873	-1,279	-1,780	-1,524	-1,290	-818	-162
in % GDP[7)]	*-11.6*	*-8.6*	*-12.9*	*-17.2*	*-17.4*	*-17.1*	*-20.8*	*-16.7*	*-15.0*	*-11.6*	*-2.1*
Capital account[7)]	2,377	3,863	7,635	6,126	6,060	1,385	1,769	1,430	1,476	806	234
Foreign direct investments	773	1,248	4,348	1,942	1,830	831	656	133	210	643	251
NBS gross reserves (increase +)	349	1,675	4,240	941	-1,755	32	-309	257	-1,736	-240	880
Monetary data						**in billions of dinars, e.o.p. stock[2)]**					
NBS net own reserves[8)]	103,158	175,288	302,783	400,195	475,110	420,508	417,579	440,936	475,110	502,606	489,062
NBS net own reserves[8)], in mn of euros	1,291	2,050	3,833	5,051	5,362	5,109	5,287	5,757	5,362	5,303	5,234
Credit to the non-government sector	342,666	518,298	609,171	842,512	1,126,111	908,598	953,977	1,018,307	1,126,111	1,215,843	1,218,702
FX deposits of households	110,713	190,136	260,661	381,687	413,766	410,836	419,824	431,261	413,766	450,852	461,401
M2 (y-o-y, real growth, in %)	10.4	20.8	30.6	27.8	2.9	26.2	19.2	13.3	2.9	-3.2	2.1
Credit to the non-government sector (y-o-y, real growth, in %)	27.3	28.6	10.3	24.9	25.2	22.0	16.2	17.8	25.2	21.7	16,4
Credit to the non-government sector, in % GDP	23.9	29.6	28.6	35.0	42.0	36.9	37.4	38.3	42.0	45.9	45.8
Financial Markets											
BELEXline (in index points)[9)]	1,161	1,954	2,658	3,831	1,198	3,068	3,092	1,942	1,198	844	1,173
Turnover on BSE (in mil. euros)[10)]	423.7	498.8	1,166.4	2,004.4	884.0	210.8	365.7	176.9	130.6	61.2	72.6

Source: FREN.

1) For more details (monthly series) see www.fren.org.rs.

2) Unless noted otherwise.

3) Core inflation measures the price movements of goods and services that are not under administrative control, but formed freely on the market. In January 2009, the Statistical Office of the Republic of Serbia stopped publishing the data for core inflation, so data from this period onward are QM's estimate, based on available data.

4) Calculation based on twelve-month averages for annual data and three-month averages for quarterly data.

5) Data for 2008 have been corrected on the basis of the widened reach of the sample used in calculating the average wage. Thus nominal wage values for 2008 are comparable with nominal values for 2009, but not with those for previous years.

6) Overall fiscal balance (GFS 2001 methodology) - Consolidated fiscal surplus/deficit adjusted for "budgetary loans" (lending minus repayment according to old GFS methodology).

7) In Q1 2008, NBS changed the Balance of Payments methodology. Due to this change, there is a drop in current account deficit, and a decrease in the capital account balance. For a more detailed explanation, see QM 12, Section 6, Balance of Payments and Foreign Trade.

8) NBS net own reserves = NBS fx reserves, net - (foreign deposits of commercial banks + government foreign deposits). For details see Monetary Flows and Policy.

9) Index value at the last day of the given period.

10) Total turnover on Belgrade Stock Exchange, includes turnover of stocks and FFCD bonds. Dinar amounts for stocks turnover are converted into euros using the average exchange rate for the given period.

2. Economic Activity

The economy remained in deep recession in Q2. *QM* estimates that the GDP will decline by 4.4% and non-agricultural GVA by 3.8% y-o-y. Although the decrease in the GDP slightly exceeded the fall in Q1, *QM* analyses show that economic activity is slowly stabilizing. The decline in both export and domestic demand is the main cause of the slump in economic activity. The drop in domestic demand deepened in Q2 while export demand stayed at a level similar to the one in Q1. The lower level of domestic demand may prove to be a longer term trend as Serbia is unlikely to witness the extremely high foreign capital inflows that had been funding domestic demand. The remaining alternative is to turn the economy to the production of tradables and exports as soon as possible. Unit labor costs in Q2 exceeded the medium-term trend because lesser production is still not accompanied by a proportional decline in wages and/or employment. Nevertheless, the labor market appears to have begun adjusting to the lower level of economic activity in Q2. Industrial production recorded an 18.2% and the construction industry a circa 20% y-o-y decline in Q2.

Gross Domestic Product

GDP decline in Q2 is estimated at around 4.5%...

According to *QM*'s preliminary estimates based on available data on economic activity results, the y-o-y decline of the GDP in real terms stood at around 4.4% in Q2 (Table T2-1). Non-agricultural GVA, considered a more reliable measure of economic activity, fell in Q2 by around 3.8% y-o-y.

...and the decline of non-agricultural GVA at around 4%

QM's estimate of a 4.4% drop in economic activity was arrived at by applying the Statistical Office of the Republic of Serbia (SORS) methodology[1], the weaknesses of which are reviewed in Highlights 2 of this issue. *QM* authors have opted for official assessments of economic activity flows although conducted analyses indicate that the real GDP decline both in Q1 and Q2 was around 2 percentage points higher than the one indicated in official data. There is no dispute, however, that both a 4 and 6 percent decline in economic activity constitute deep recession wherefore there are no essential changes in the content of the text on economic activity.

Real economic activity decline is probably slightly greater

The y-o-y plunge in economic activity in Q2 is the consequence of the impact of the world economic crisis on the economy – the drop in domestic and export demand and greater insolvency of companies. The 4.4% y-o-y GDP decline in Q2 shows that economic activity has additionally slowed down compared to Q1, when the GDP fall stood at 3.5%. The fact that the trend of the sharp GDP slowdown is weakening is, however, encouraging (Table T2-1) and economic activity may be expected to stabilize at a level similar to the one in Q2 in the upcoming period, and maybe even begin to recover mildly.

1 The methodology used to estimate the GDP is based on the estimates of the real gross value added growth of individual sectors of the economy by activity. The tax component is added to the sum of these estimates. Modifications of the SORS methodology are partly related to the indicators on the basis of which sectoral growth is estimated and which the QM authors consider to be more reliable indicators of real sectoral growth in specific cases (e.g. cement production in the construction industry). Also, given that QM authors have fewer indicators at their disposal than the SORS, their estimate also includes indirect indicators which are not a composite part of the official statistical methodology. QM authors also conduct deeper analyses of trends in individual sectors and a demand analysis.

Table T2-1. Serbia: Gross Domestic Product, 2005-2009[1)]

	Y-o-y indices										Base index	GDP share
	2005	2006	2007	2008	2008				2009		(jan-jun)$_{09}$/ (jan-jun)$_{02}$	2007
					Q1	Q2	Q3	Q4	Q1	Q1[2)]		
Total	105.6	105.2	106.9	105.4	108.5	106.0	104.9	102.8	96.5	95.6	135.8	100.0
Taxes minus subsidies	110.2	99.8	109.5	104.2	109.9	104.4	102.1	101.7	92.8	92.0	147.9	16.4
Value Added at basic prices	105.0	106.4	106.5	105.8	108.3	106.5	105.6	103.2	97.5	96.6	133.9	83.6
Non agricultural Value Added	106.8	107.5	108.7	105.4	108.3	106.3	105.0	102.5	97.3	96.2	137.9	88,2[3)]
Agriculture	95.1	99.8	92.2	109.1	109.0	108.3	109.8	109.0	98.9	100.0	107.4	11,8[3)]
Manufacturing	99.9	105.6	104.8	101.3	104.7	104.6	101.0	95.6	79.1	79.0	93.2	15,8[3)]
Construction	102.0	107.7	110.8	101.7	104.8	105.7	99.8	96.6	85.6	80.0	124.2	3,6[3)]
Transport, storage and communications	123.4	129.3	120.1	112.9	118.0	115.7	110.8	108.4	110.7	108.0	300.0	16,4[3)]
Wholesale and retail trade	122.0	110.3	119.9	107.1	111.6	105.8	107.6	104.3	93.8	95.0	221.9	13,6[3)]
Financial intermediation	111.9	112.2	115.6	110.2	114.3	110.1	108.9	108.3	105.9	106.5	168.3	4,6[3)]
Other	102.1	100.6	101.5	103.1	104.6	102.8	103.2	102.1	100.7	99.6	110.3	34,1[3)]

Source: SORS.
1) At constant prices in 2002
2) *QM* estimate.
3) Share in GVA.

Manufacturing industry suffering the greatest decline

Observed by activity (Table T2-1), the manufacturing industry suffered the greatest decline in Q2, falling by 21% over Q2 2008. *QM* estimates that construction decreased by 20% and wholesale and retail trade by 5% y-o-y in Q2. Like in Q1, the decline in these three sectors of the economy accounted the most for the drop in overall economic activity. There were hardly any changes in the level of activity in these three sectors in Q2 compared to Q1, wherefore the deepening GDP decline is actually a consequence of a slowdown in activity in other sectors which had not initially been under such strong and direct impact of the economic crisis.

Decline of domestic demand deepening

Table T2-2 presents the year-on-year growth of domestic and export demand. Although both export and domestic demand are experiencing a deep fall – two divergent trends were observed in Q2: stabilization of the decline in export demand and the deepening decline of domestic demand. The two main aggregates corroborating the trends at the macro level are *exports* – recording a mild recovery in Q2 over Q1, and *imports* – the decline of which continued to deepen in Q2.[2]

Table T2-2. Serbia: Growth of Aggregate Demand and Components, Contributions to Growth, 2005-2009

	2006	2007	2008	2008				2009	
				Q1	Q2	Q3	Q4	Q1	Q2
	Y-o-y indices								
GDP	105.2	106.9	105.4	108.5	106.0	104.9	102.8	96.5	95.3
Domestic demand	106.0	106.9	106.3	107.4	110.4	106.2	101.2	95.7	87.0
Export demand	125.1	125.6	113.3	120.4	118.2	113.2	101.6	78.4	81.7
	Contributions to Growth (Fall) of aggregate Demand (%)								
Domestic demand	49.1	52.1	65.5	59.4	69.6	65.1	75.1	44.5	73.9
Export demand	50.8	47.9	34.5	40.6	30.5	34.9	24.9	55.5	26.1

Source: *QM* based on NBS and SORS data.

Given that export demand has stabilized[3], domestic demand is the most responsible for the deepening decline of the GDP in Q2 over Q1. It accounted for as much as 74% of the y-o-y decline in aggregate demand in Q2, while export demand accounted for 26% of the drop in overall demand (Table T2-2). Most answers to questions about the causes and rate of economic activity decline were reached by analyzing the flows of the major components of domestic demand: credits, wage bill and fiscal policy.

Slowdown in credit activity affecting decline of economy the most

Like in the previous three quarters, the decline in domestic demand was influenced the most by the major slowdown in loans to enterprises and households.[4] Flow of credits to enterprises and households from the domestic banking system and abroad is given in Table T7-5 (Section 7 of

2 For more details, see Section 4, Balance of Payments and Foreign Trade in this issue of *QM*.
3 There are still no reliable signs that exports are recovering, while the stabilization of exports is at a very low level.
4 More details in Section 7, Monetary Flows and Policy of this issue

this issue). The Table shows that the quarterly growth in loans has in less than a year fallen from an average level of around 1.5 billion Euros to zero (and was even negative in Q2). The greatest slowdown in credit activity was recorded back in Q4 2008, when the quarterly growth of credits dropped by 1.5 billion Euros over Q3 2008. The current level of credit activity has additionally fallen since and, although there are still no indications of recovery, it may be stabilizing. GDP flow largely follows the dynamics of credit flow.

Wage bill in real terms smaller than last year

Consumption (domestic demand) is falling not only due to lesser credit activity but the decrease in the total wage bill as well. Notwithstanding all the reservations about the reliability of official statistical data on employment and wages, *QM* estimates that the wage bill was around 3% smaller in real terms y-o-y in Q2. The slowdown in the wage bill is the consequence of the slowdown in the real growth of average wages and lower employment.[5] Given that domestic demand suffered a real decline of 13% year on year in Q2 (Table T2) – a decline considerably greater than the real decrease of the wage bill – the flow of the wage bill indicates that the wages have nevertheless cushioned the overall drop of domestic demand despite the y-o-y decrease.

Fiscal policy was expansive in Q2

The fiscal policy in Q2 increased in expansiveness given that the consolidated budget deficit in Q2 equaled as many as 6% of the quarterly GDP. It should, however, be underlined that the budget deficit was the consequence of a decrease in tax revenues and that the state has actually been spending much less in 2009 than it did in 2008. Namely, public expenditures were 6% lower in real terms y-o-y in Q2 and the deficit was created by the even greater decrease in public revenues, which amounted to as much as 13.4%.[6]

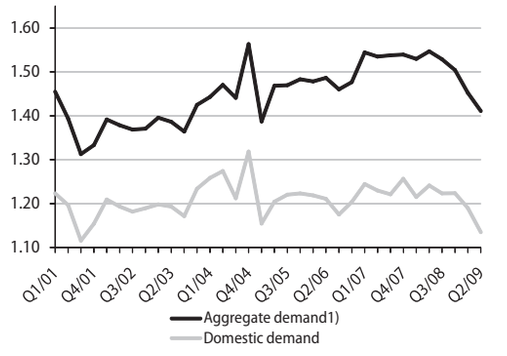
...due to a drop in revenues

The Q2 budget deficit increase led to an increase in the level of domestic demand because the state spent 44.3 billion dinars (6% GDP) more than it earned. The impact of state spending on the increase of overall domestic demand, however, may not be as high as it may seem. The high interest rate, exceeding 12%, at which the state borrows in dinars, sets a very high level above which the market interest rate for short-term loans to enterprises is set and some potential credit applicants may well have been deterred. The state would effect a much greater increase in domestic demand if it borrowed abroad rather than from the domestic financial system.

Strong adjustment of consumption to production

Graph T2-3 shows the ratio of consumption to production. Consumption (domestic demand) is still higher than production but its share in the GDP has fallen considerably. Consumption was 14% higher than production in Q2, at its lowest in relative terms since 2001. Consumption had ordinarily exceeded production by over 20% in the previous years. This used to be the greatest structural problem of the domestic economy. The strong adjustment of consumption to production in 2009 is the consequence of a much greater decline in domestic demand than in production, accompanied by a major drop in the current balance of payments deficit and the slowdown of inflation.[7]

Graph T2-3. Serbia: Aggregate and Domestic Demand Ratio to GDP, 2001-2009



Source: *QM* based on SORS data.
1) Aggregate demand = domestic demand + exports.

The real sector will probably have to face external restrictions in the longer term which will prevent the restoration of the pre-crisis 1.20 consumption/production ratio (Graph T2-3). These restrictions comprise the values of foreign direct investments and foreign credits, which will probably remain below the pre-crisis level for quite some time. The ratio of domestic demand and production will have to remain at a level similar to the one in Q2 due to the fewer chances of obtaining foreign funding. Exports, rather than domestic demand, will probably be the "engine" of economic growth in the future.

5 More details in Section 3, Employment and Wages of this issue.
6 More details in Section 6, Fiscal Flows and Policy of this issue.
7 More details in Section 5, Prices and the Exchange Rate and in Section 4, Balance of Payments and Foreign Trade in this issue.

More expansive policies are desirable…

The analysis of the current consumption/production ratio indicates that it will be possible to undertake specific anti-recession monetary and fiscal policy measures in the shorter term without fear of them undermining macroeconomic stability. Increasing the expansiveness of the monetary policy may positively affect the recovery of economic activity. Namely, greater insolvency of companies has also contributed to lesser economic activity. The number of companies whose accounts were blocked grew again in Q2 by around 6,000 since end March and exceeded 66,000 at the end of July. Around 25,000 companies had on average been insolvent before the crisis escalated in Serbia. Although Q2 has seen a slowdown in the negative trends that began in the latter half of 2008, the increase in monetary expansiveness may lead to a reversal in the trend of the rise in the number of insolvent companies.

...but with numerous restrictions

A somewhat more expansive fiscal policy is constrained by deficit funding possibilities. Greater government foreign loans could, however, in the short term make up for part of the decline in domestic demand due to the drop in private borrowing and positively affect the economy. The state needs to borrow money for two reasons: to cover the budget deficit and to fund state projects. As regards project funding, the borrowing would have to selectively target indisputably useful investment projects, such as road and energy infrastructure construction. Notwithstanding all the potential positive impact on economic activity, government borrowing abroad is a measure limited both in terms of time and value and must be accompanied by constant monitoring of the level of public debt and rate of its repayment.

ULCs were somewhat higher than usual

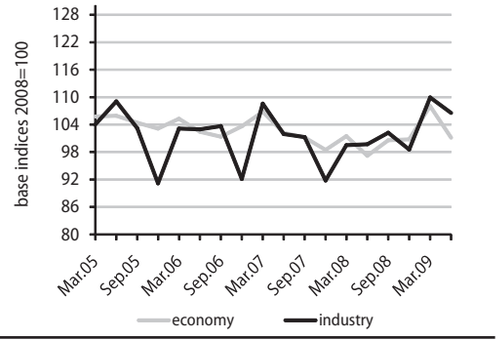
Measured in dinars, unit labor costs[8] (ULCs) were somewhat higher than ordinarily in Q2, but have fallen over Q1 (Graph T2-4). ULCs were 5.5% higher y-o-y in Q2, but dropped by around 5% over Q1.

Employment as a rule reacts with delay to changes in production. The increase in ULCs is clear indication of the short-term discrepancy between labor costs and real production. The ULCs, which were higher in Q2 than ordinarily, indicate a greater share of labor costs in the achieved value added and, consequently, pressures to cut wages and/or the number of workers. Despite specific reservations about the reliability of SORS data on GDP and employment, the recorded drop in ULCs in Q2 over Q1 probably indicates that the labor market is adjusting to lesser economic activity (wage growth slowdown and decrease in employment).

Competitiveness is probably improving

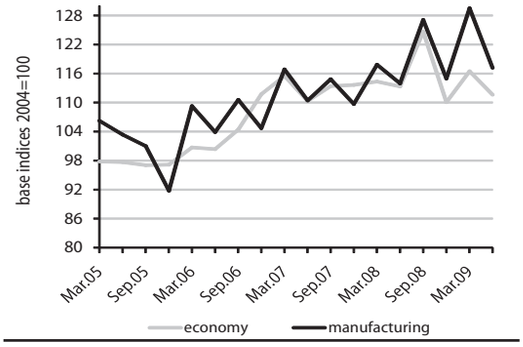
Unit labor costs measured in euros (euro-ULCs) in stable circumstances indicate the international competitiveness of a national economy because they define the highest national cost component (labor costs) vis-à-vis value added. *QM* calculates the euro-ULCs for the manufacturing industry, which produces by far the greatest share of tradables, and for the whole economy.[9] It must be, however, borne in mind that the euro-ULCs are not an ideal measure of change in competitiveness

Graph T2-4. Serbia: Real Unit Labor Costs in Economy and Industry, 2005-2009



Source: *QM* based on SORS and NBS data.

Graph T2-5. Serbia: Real Euro Unit Labor Costs in Economy and the Manufacturing Industry, 2005-2009



Source: *QM* based on SORS and NBS data.

8 Unit labor costs in dinars are calculated for the economy (excluding the agriculture and state sectors) and the industry.
9 Excluding the state and agriculture sectors.

where there has been an abrupt change in the level of economic activity and that this purpose is currently better served by analyzing the real depreciation of the dinar[10]. The real depreciation of the dinar in 2009 indicates that the competitiveness of Serbia's economy has been growing.

Table T2-5 shows the euro-ULC flows in economy and the manufacturing industry. Unusually great changes in the euro-ULCs have occurred since the crisis escalated in the latter half of 2008. On the one hand, the real depreciation of the dinar led to a decrease in the euro-ULCs, while, on the other hand, the decline in economic activity led to an increase in the euro-ULCs that was not accompanied by a proportional decrease in the number of workers and in wages. This instability in the flow of the euro-ULCs is yet another reason why the *QM* does not take the euro-ULCs as the measure of competitiveness until the macro-environment, in which they are observed, is stabilized.

Industrial Production

Strong decline of industrial production

Industrial production recorded a 17.8% fall in Q2 over Q2 2008 (Table T2-6). Despite the extremely deep y-o-y decline, industrial production is actually stabilizing at a level similar to the one in Q1, when the y-o-y decrease stood at 17%.

Table T2-6. Serbia: Industrial Production Indices, 2005-2009

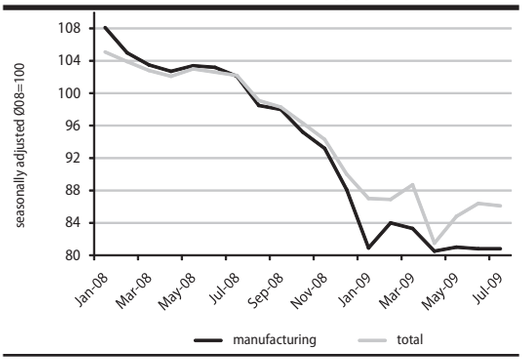
	Y-o-y indices										Share
	2005	2006	2007	2008	2008				2009		2008
					Q1	Q2	Q3	Q4	Q1	Q2	
Total	100.8	104.7	103.7	101.1	106.0	102.3	101.3	94.9	83.0	82.2	100.0
Mining and quarrying	102.1	104.1	99.4	103.6	106.0	101.8	103.0	102.8	92.8	90.1	6.2
Manufacturing	99.3	105.3	104.2	100.7	104.4	103.7	100.7	94.1	77.4	78.4	75.5
Electricity, gas, and water supply	106.6	102.2	102.8	101.8	112.0	96.1	103.2	96.0	99.2	98.7	18.3

Source: SORS.

Manufacturing industry declines by 21.6%

The decline of industrial production is concentrated in the manufacturing industry, which has the greatest share in industrial production. This datum does not come as a surprise given that the manufacturing industry was hit by all the negative aspects of the crisis – both by the decline in domestic and export demand and lower liquidity of companies. The year-on-year decrease in industrial production in the manufacturing industry stood at 21.6% in Q2, and was almost the same as in Q1 (Table T2-6). The production and distribution of electricity, gas and water was at a similar level as last year, i.e. recorded a negligible y-o-y drop of 1.3%; mining and quarrying on the other hand recorded a 9.9% y-o-y fall in Q2.

Graph T2-7. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2009

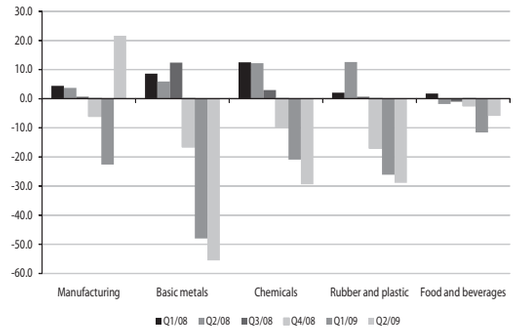


Source: *QM* based on SORS data.

Graph T2-7 shows seasonally adjusted industrial production indices for the industry as a whole and the manufacturing industry. One can observe a sharp decline of industrial production since mid-2008, very low and unstable levels of production in early 2009 and, finally, the

10 Herewith a concrete example in illustration. Take two extreme cases in Serbia's current macro-environment: (1) a company that temporarily suspended production because of the crisis and sent its workers on paid leave, and (2) a company that continued operating as it used to. The ULCs and, therefore, the euro ULCs as well, will increase significantly in the first case notwithstanding the depreciation while, in the second case, the euro ULCs will decrease under the influence of depreciation. It is sensible to measure only the competitiveness of the second company still competing with its products in the market, given that the first company is practically inactive. This is why the change in the dinar's value vis-à-vis the euro is a better indicator of the short-term change in competitiveness during the crisis than euro-ULCs are.

Graph T2-8. Serbia: Year on Year Growth of Specific Manufacturing Industry Sectors, 2008-2009



Source: SORS.

stabilization of industrial production in the last few months.

Graph T2-8 gives the year-on-year growth of specific sectors with significant shares in the manufacturing industry. It can be noted that all the observed sectors suffered a decline in industrial production in Q1, but that it was the greatest in export-oriented sectors.

The food industry may be starting to recover

The food industry, which has the greatest share in industrial production, recorded a y-o-y decline of 5.9% in Q2, nearly half of the fall in Q1 (11.6%). The drop in food industry production is much smaller than the decrease in the other observed sectors (Graph T2-8) because 2008 had a successful agricultural season and the demand for food industry products has not dropped as much as demand in other sectors. The circa 5% lower y-o-y decline in the food industry over Q1 is extremely encouraging, especially given the plunge in the overall manufacturing industry and uncertainty regarding the estimates of economic flows in the upcoming period.

The major decline in export demand affected the fall in other observed sectors of the manufacturing industry. The production of basic metals in the first six months of 2009 was, for instance, merely half of that in the first six months of 2008. However, the restart of the *US-Steel Serbia*[11] blast furnaces, the gradual recovery of export demand and the price of basic metals augur well for production in this area in the upcoming period. Industrial production in the other observed sectors in Q2 and market demand still do not indicate recovery.

Major decline in the production of intermediary goods

When broken down by main industrial groupings (Table 2-9), one can observe a decline in the production in all groupings. The smallest y-o-y drop – of 3.3% in Q2 – was recorded in the energy sector given that electricity production accounts for a large share in this grouping and it recorded solid growth in 2009 due to the favorable exogenous factors (hydrological conditions).

The greatest y-o-y decline in Q2 was recorded in the production of intermediary products, which fell by 34% over Q2 2008. When the production of basic metals is excluded from the group of intermediary goods, the decline is somewhat milder, but still high – 26.6% (Table T2-9). Production of capital goods in Q2 recorded a 22.4% decline year on year, while the production of consumables was 14.9% lower over Q2 2008. Interestingly, the decline in the production of consumables is much higher, standing at 33.5%, when the food industry is excluded from this group.

11 US Steel Serbia temporarily launched production because of the international reorganization of production within the company US Steel. Namely, production in the US Steel facilities in Kosice (Slovakia) had to be temporarily suspended due to technical problems and the Smederevo plant restarted the blast furnaces until the Kosice capacities are relaunched.

Table T2-9. Serbia: Production of Industrial Products by Main Industrial Groupings, 2005-2009

	Y-o-y indices										Share[5]
	2005	2006	2007	2008	2008				2009		2008
					Q1	Q2	Q3	Q4	Q1	Q2	
Total	100.6	104.7	103.7	101.1	106.0	102.3	101.3	94.9	83.0	82.2	100.0
Energy[1]	103.9	102.5	101.2	101.5	110.2	98.2	102.4	96.4	98.3	96.7	26.6
Investment goods[2]	74.2	90.0	105.4	105.5	106.5	118.3	105.0	92.1	71.4	77.6	6.0
Intermediate goods[3]	104.9	106.7	104.9	100.0	106.0	106.8	99.7	87.2	65.1	66.0	30.4
Intermediate goods without basic metals	101.5	101.3	107.3	98.8	105.1	107.1	95.3	89.1	69.6	73.4	22.6
Consumer goods[4]	101.6	112.0	107.1	97.9	99.4	97.5	100.0	101.8	85.1	83.4	37.0
Consumer goods without food industry	96.3	128.3	109.2	96.3	95.8	96.5	103.4	108.5	80.1	66.5	14.2

Source: SORS.
1) Extraction of coal, crude oil, natural gas, electricity and water supply.
2) Manufacture of metal products excluding machines (sections 281, 282 and 283, Classification of Activities), machines and equipment (excluding electric), office machinery and computers, radio, TV and communication equipment, precision and optical instruments, motor vehicles and trailers, other transport equipment.
3) Mining of metal and non-metal ores, stone quarrying; manufacture of textile yarns and fabric, wood and pulp products (except furniture), cellulose, paper and paper products, rubber and plastic products, chemical products (except pharmaceuticals and household chemicals), petrochemicals, construction materials, basic metals, sub-sector of metal goods production excluding machines (sections 284, 285, 286 and 287, Classification of Activities), electrical machines and appliances, and the recycling sub-sector.
4) Food products, tobacco products, clothing, leather products and footwear, publishing and printing products, pharmaceutical products and household chemicals, furniture and other various products.
5) Share in total industrial production.

Construction

Construction activity records strong fall of around 20%

Construction activity was around 20% lower in Q2 over the same period last year. The cement production index is the most reliable of the many indicators describing flows in construction[12] (Table T2-10). Cement production in Q2 fell 18.6% over Q2 2008.

...as substantiated by a number of different data

Of the other construction industry indicators published by the SORS, *QM* highlights the value of the conducted construction work in Q2 in its analysis. This value substantiates findings arrived at by observing cement production alone. The value of construction work was nominally lower by 15.8% in Q2 and by 20.5% in constant prices over Q2 2008.

Table T2-10. Serbia: Cement Production, 2001-2009

	Y-o-y indices				
	I quarter	II quarter	III quarter	IV quarter	total
2001	89.5	103.5	126.9	148.1	114.2
2002	83.6	107.9	115.6	81.6	99.1
2003	51.1	94.4	92.7	94.4	86.6
2004	118.8	107.4	98.5	120.1	108.0
2005	66.1	105.0	105.8	107.4	101.6
2006	136.0	102.7	112.2	120.2	112.7
2007	193.8	108.9	93.1	85.0	104.4
2008	100.1	103.7	108.1	110.1	105.9
2009	34.1	81.4	-	-	-

Source: SORS.

The plunge in construction activity indicates that this is one of the sectors hit the hardest by the economic crisis. Prognoses of the level of construction activity in the future will to a great extent depend on the announced acceleration of work on major infrastructure projects, such as the construction of Corridor X and the state's possible engagement in the construction of apartment buildings.

12 Cement consumption would be the proper indicator but data on cement consumption are not available at a quarterly level. Research has shown that cement production approximates consumption relatively reliably.

3. Employment and Wages

The world economic crisis has not yet had as negative impact on employment levels as on economic activity. Although the data at first sight appear to be worrying, the employment rate has fallen by 2.5, while the unemployment rate rose by 1.7 percentage points. For the time being, the greatest impact of the crisis is seen among persons in vulnerable employment i.e. the employment of workers with flexible work contracts and the self-employed. Namely, the recession has had the greatest impact on the reduction of employment among the young, the age group of 15-25 years, who in the absence of work move to temporarily inactive category, frequently for further schooling or for the military service, while the decline in employment rates among the older population cohorts can partially be contributed to the process of restructuring of public and socially-owned enterprises, not only to the economic crisis. Growth of both real and nominal wages continues to slow down, so that the year-on-year wage growth in real terms was 2% in Q2. A decline in real wages took place in the public sector, with the greatest fall in public administration wages. Wages in the real sector continue grow in real terms, but their nominal levels are still below the public sector wages.

The world economic crisis has not yet had as negative impact on employment as on the economic activity

The employment rate in Serbia modestly fell between Q4 2008 and Q2 2009. The assessment of *QM* is that by the end of Q2 2009 the global economic crisis had a negative impact on employment, but still to a lesser degree than on economic activity[1]. Such a situation was expected considering that the adjustment of the labour market to economic slowdown has a time lag and two complementary adjustment mechanisms – the decline in employment and the decline in wages. In general, the total decline in working income as a macroeconomic category (the product of overall employment and average wages) and its decomposition to the decline of employment and wages – will be conditional on the depth and length of recession and flexibility of the legal framework[2].

The global economic crisis has so far mostly affected persons in vulnerable employment – workers with flexible work contracts and self-employed

The global economic crisis has so far been felt the most by those in vulnerable employment. In fact, data indicate that between October 2008 and April 2009, the private sector adjusted to the economic slowdown primarily through cutting down the number of workers who were on the most flexible employment contracts, while at the same time the growth of real wages slowed down. Also, there was a decline in self-employment, which is often a vulnerable and insecure form of employment in Serbia.

Recession contributes to faster implementation of inevitable and unpopular reforms

The most obvious changes have taken place in public and socially-owned enterprises, which lay off workers and cut down real wages, even though those adjustments, which are part of restructuring of state-held enterprises, could have been expected regardless of the global economic crisis. By the end of Q2, real wages fell in the public sector and further wage adjustments could be expected through additional lay-offs. Even though the recession contributes to a faster implementation of some inevitable and unpopular reforms in the state-owned and socially-owned sectors, it is important to stress that all the changes in the labour market cannot be contributed to the world economic crisis.

The employment rate fell by 2.5 percentage points between October 2008 and April 2009. The unemployment rate rose from 14.7 percent to 16.4 percent in the same period

Looking at the labour market statistics, the decline in employment since the start of the crisis (October 2008) looks almost dramatic. In fact, the total number of employed among the working population fell by 160,000 persons[3] or 6 % between October 2008 and April 2009, based on the latest Labour Force Survey. This significant decline has led to the decline in employment among working population from 53.3 % in October 2008 to 50.8 % in April 2009 (Table T3-1, columns 1 and 3). At the same time, the number of unemployed rose by 30,000, so that the unemployment rate rose from 14.7 % in October 2008 to 16.4% in April 2009 (Table T3-1, columns 4 and 5).

1 In the first half of 2009, GDP fell by around 4%. For more detail please see section 1. Economic Activity of this *QM* issue

2 For example, in a bid to increase the labour market flexibility, the Parliament adopted amendments to the Labour Law in July 2009, allowing an extension of the paid leave beyond 45 days, during which a salary equivalent to 60% of the previous three-month average will be paid.

3 The Labour Force Survey is based on a sample of households, so the nominal values should be interpreted with a grain of salt, while the survey is more indicative of relative trend movements.

Table T3-1. Serbia: Employment and Unemployment According to the Labor Force Survey, 2008-2009

		Total number of employed 15-64[2)]	Number of employed in agriculture and unpaid family workers 15-64[3)]	Employment rate 15-64	Total number of unemployed 15-64	Unemployment rate 15-64
		1	2	3	4	5
2008	April	2,652,429	..	54.0	432,730	14.0
	October	2,646,215	589,240	53.3	457,204	14.7
2009	April	2,486,734	437,957	50.8	486,858	16.4

Source: Labor Force Survey (LFS), SORS.
Notes:
1) The Labor Force Survey is conducted twice a year since 2008 - in October and in April.
2) Persons of 15-64 years of age are considered to be working population.
3) Prior to October 2008 LFS there was no 15-64 age group classification for the number of employed in agriculture and contributing household members, only 15+.

The recession has had the greatest impact on declining employment rates among the young, of 15-24 years of age, who in the absence of jobs turn temporarily inactive, often for further schooling or the military service

A large number of persons who stopped working, moved to inactivity[4], and that is why the growth in the total number of unemployed was not proportionate to the decline in the number of employed (around 80% of the persons who stopped working between October 2008 and April 2009 moved to the inactivity and not to the unemployed). A more detailed analysis of the Labour Force Survey figures show that the biggest decline in employment of some 50,000 or 25% took place among those in the 15-24 years of age, while at the same time the number of unemployed in the same group also fell. Those developments, seen in Serbia, basically coincide with the general trend at the time of crisis – faced with weak chances of finding a job, the young persons more frequently continue their education or opt for military service, by doing so moving to a temporary inactivity. Supporting this trend are also the findings of other research efforts which show that the young people in Serbia are the most vulnerable when it comes to employment safety and the number of hours worked, considering that they most frequently work with temporary employment contracts. A positive response to this unenviable situation came from the Ministry of Economy and the National Employment Service in April, with a launch of a programme to ensure jobs for 10,000 trainees in 2009, as well as a programme of public works which will, beside other risk categories, also partially respond to the needs of the low skilled young people.

The fall of employment rates among older population groups can partially be contributed to the process of restructuring of state-owned and public companies, not only the economic crisis

The age group of 45-54 has also been significantly hit, with total employment rate falling by 7%. At the same time, unemployment and inactivity have also increased in this age group, and the most visible is an increase in the number of inactive persons who want and can work, but who constitute an "sub-category" of discouraged unemployed persons, i.e. the persons who are not seeking jobs because they believe they would not find one. Even though the recession has led to declining employment it is extremely important to mention that the process of restructuring in the public sector is still under way in Serbia and that many of the older workers, whose numbers in this sector have been above the average, have lost their jobs regardless of the global economic crisis. Therefore, the figures on labour market movements at the time of recession should be taken with a grain of salt, because they could lead to a wrong conclusion that the impact of the crisis on the Serbian labour market is greater than it really is.

There has been a fall in both formal and informal (self) employment

It is interesting that both formal and informal (self) employment have fallen, even though one would tend to expect that informal employment rises if formal employment falls. The explanation to this parallel declining trend is probably in an initial stage of the impact of the crisis on the labour market where people start loosing their formal jobs, but have not yet been forced or have not found a replacement in the informal sector.

Employment rates in 100 selected big companies in Serbia fell by 7,500 or 3 %

The situation in the labour force market, shown by the Labour Force Survey, to some degree is confirmed by administrative data (RAD). Employment in 100 selected big enterprises in Serbia between December 2008 and June 2009 fell by around 7,500 jobs or around 3% against the total sample. In this *QM* issue we are using that sub-sample of the RAD survey to assess the

4 The Labour Force Survey treats as inactive all the persons who have not taken any concrete steps to try to find work in the preceding 4 weeks.

employment outlook (because those enterprises employ the biggest number of workers), in the absence of labour market statistics which would methodologically and in full encompass sudden turns in trends. Those figures confirm the findings of the Labour Force Survey that employment is falling primarily in the public sector.

The number of unemployed registered by the National Employment Service rose by 32,000 between September 2008 and March 2009, but it no longer rose between March and July

According to the figures of the National Employment Service, the number of registered unemployed persons rose by 32,000 between September 2008 and March 2009, confirming unemployment trends shown by the Labour Force Survey (Table T3-2, column 7). The latest figures by the National Employment Service on the number of unemployed that are at our disposal (July 2009), show that there was no increase in the number of registered unemployed persons since March 2009. Finally, the number of registered unemployed persons is still below the figure in March 2008. However, we must emphasize the limited usability of the administrative register of unemployed persons for the needs of interpreting real labour market trends, because a strict compliance with regulations and an up-to-date removal of the number of inactive unemployed persons could, at least partially, be responsible for the latest positive trends.

We must very carefully interpret the figures from the RAD Survey for March 2009

The mentioned inability of administrative figures (RAD Survey) to methodologically encompass dynamic changes in the labour market suggest that figures on the number of employed shown in the Table T3-2 should be interpreted very carefully. In fact, according to those figures for the period between September 2008 and March 2009, there was no decline in employment rates at enterprises, but rather a net growth of the number of employed by around 3,000 (Table T3-2, column 2). The figures on employment by economic activity (Table P-5 in Analytical Appendix), indicate that the most significant increase in employment took place in the real estate sector (net growth of around 7,000 jobs) during the above-mentioned period. This sector was followed by financial mediation and wholesale and retail trade with a cumulative employment growth by 6,000 jobs (3,000 in each sector). There is a chance that those trends to some degree show inertia from the previous period due to earlier investments (e.g. shopping mall Usce), but a more detailed analysis of the sample used for the RAD Survey showed that the most of the growth could have taken place even before September 2008, but it was statistically captured only in March 2009[5].

Table T3-2. Serbia: the Number of Registered Employed and Unemployed Persons, 2004-2009

		Total no. of employed	Employees in legal entities[2)]	Entrepreneurs			Total no. of employees	Number of unemployed (NES)
				Total	No. of entrepreneurs	No. of employees with entrepreneurs		
		1 (=2+3)	2	3 (=4+5)	4	5	6 (=2+5)	7
		in thousands						
2004	March	2,065	1,601	464	208	255	1,856	...
	September	2,037	1,560	477	210	267	1,827	843
2005	March	2,070	1,557	513	228	285	1,842	884
	September	2,067	1,536	531	230	300	1,836	898
2006	March	2,032	1,496	536	228	308	1,804	920
	September	2,019	1,447	572	242	330	1,777	915
2007	March	2,004	1,438	566	239	327	1,765	913
	September	2,001	1,428	573	245	328	1,756	808
2008	March	2,006	1,432	574	245	329	1,761	795
	September	1,998	1,424	574	245	329	1,753	726
2009	March	1,860	1,428	432	138	293	1,721	758

Source: SORS – The semi-annual report on employed persons and wages of the employed persons RAD-1/P; the update to the semi-annual survey RAD-1; Semi-annual survey on private entrepreneurs and their employed workers RAD-15; the National Employment Service.

Notes:

1) By the registered number of employed, we refer to the formal economy, i.e. those employees with employment contracts and for whom social security contributions are being paid. By the registered number of unemployed, we refer to those persons that have registered with the National Employment Service (NES). NES moved from monitoring the number of job seekers to the number of unemployed persons in September 2004. This is why we do not have these data for the previous period (column 7). Employment ServiceEmployment ServiceEmployment Service Bringing the register of private entrepreneurs and their employed workers up-to-date and changes to the statute of the Serbian Health Insurance Fund showed a significant decline in the number of private entrepreneurs and their workers

5 The sample of enterprises responding to the RAD survey is prepared once a year, based on the Statistical business register as at December 31 of the previous year. The sample of monitoring units for the whole of 2008 is made based on the number of registered enterprises on December 31, 2007. We came to this conclusion after having realized that a significant increase in employment in some of the mentioned sectors between September 2008 and March 2009 took place as a result of an increase in monitoring units, and not the number of employed within the existing monitoring units. That means that newly added companies could have also become operational in the course of 2008.

The overall decline in the number of employed by around 133,000 persons between September 2008 and March 2009 showed by the RAD survey (Table T3-2, column 1) resulted from a decline in the number of private enterprises and their workers (Table T3-3, columns 4 and 5). The decline resulted from register updates and changes to the statute of the Serbian Health Insurance Fund (RZZO) in late 2008, as the Statistical Office of the Republic of Serbia takes the figures on the number of entrepreneurs from the Health Insurance Fund. In fact, the Health Insurance Fund wiped out from its register all those entrepreneurs and their employed workers who had not paid or were late with payments of health contributions. The important thing is that such a change in the total number of entrepreneurs does not necessarily mean that those persons are no longer working, but rather that they are no longer fully encompassed in the formal economy. On the other hand, some persons could have really stopped working long time ago, but that is shown only after the register is updated. A more realistic picture on the number of registered entrepreneurs and their workers we are likely to have only when the Statistical Office of the Republic of Serbia publishes figures for September 2009, considering that after the changes to the statute of the Health Insurance Fund one would expect more regular payments of health contributions. Such structural breaks in employment series indicate how much the figures on formal employment are vulnerable to changes of methodology or periodical adjustments.

The number of employed in the public sector rose, despite a need to downsize

Between September 2008 and March 2009, the number of employed workers financed from the budget rose, while state-owned public companies registered a fall in the number of workers by around 11,000. It is interesting that an increase was registered in public administration and education, despite constant insistence on the need to downsize the public administration and optimize the school network. Possible reasons for the employment increase in public administration could be the opening of new posts after elections in mid-2008, or the widening of the coverage of public institutions, to include those employed by regulatory bodies.

Table T3-3. Serbia: Public Sector Employment, 2004-2009

		Employees in legal entities						
		Public sector					Public sector - total	Other[1)]
		From the budget			Public enterprises			
		Administration - all levels	Education and culture	Health and social work	National public	Local public		
		1	2	3	4	5	6	7
		in thousands						
2004	March	63	117	147	125	57	509	1,092
	September	63	116	148	124	57	508	1,052
2005	March	63	119	148	122	61	513	1,044
	September	61	117	147	112	61	498	1,038
2006	March	60	118	141	105	61	485	1,011
	September	58	117	138	102	60	475	972
2007	March	58	121	138	100	59	476	962
	September	59	120	139	100	58	476	952
2008	March	60	124	140	99	58	481	951
	September	61	122	141	100	58	482	943
2009	March	64	125	142	89	57	478	935
	July	64	124	142	89	58	477	934

Source: SORS.

Note: Those employed in the Ministry of Defense and the Ministry of the Interior, even though financed from the budget, do not enter the total balance of the employed persons presented in this table. Their numbers are estimated at around 80,000, and they add another 4% to the total number of employed in Serbia. The data on their exact numbers and wages are not published by the SORS because of national security concerns.

Footnotes:

1) Private, socially-owned and mixed ownership enterprises (without entrepreneurs). This column is not disaggregated further due to data availability limitations. The number presented in column 7 is calculated by subtracting the total number of employees in public enterprises and those financed from the budget from the total number of employees in legal entities from Table T3-2.

Wages

Both real and nominal wage growth continues to slow down. Year-on-year wage growth in Q2 was only 2%

The year-on-year real wage growth fell from 2.6% in Q1 2009 to 2% in Q2. Nominal wages too have constantly slowed down, so that the nominal year-on-year growth stood at 10.2 % in Q2 compared with 12.5% in Q1 (Table T3-4). In this *QM* issue we are not publishing figures on wages by economic activity, considering that after a change in methodology to assess wages, figures between 2008 and 2009 are not comparable by economic activity. In July, the dynamics of wage growth was roughly the same as in Q2.

Table T3-4. Serbia: Average Monthly Wage and Real Y-o-y Wage Indices, 2008-2009

	Average Monthly Wage[1]				Average Gross Monthly Wage Index[2]	
	Total labour costs[3], in dinars	Net wage, in dinars	Total labour costs, in euros	Net wage, in euros	nominal	real
	1	2	3	4	5	6
2008	47,882	29,174	586	357	117.8	105.5
2008						
Q1	43,957	26,814	532	324	119.3	105.2
Q2	47,351	28,846	584	356	119.4	103.1
Q3	48,322	29,435	627	382	117.9	105.0
Q4	51,898	31,599	602	366	115.1	104.1
Dec	56,399	34,348	637	388	112.0	103.1
2009						
Q1	49,444	30,120	525	320	112.5	102.6
Q2	52,164	31,808	552	337	110.2	102.0
July	53,417	32,553	573	349	110.7	102.4

Source: SORS. Footnotes:
1) Data for 2008 are adjusted on the basis of the expanded data sample to calculate the average wage, which now includes the salaries of entrepreneurs.
2) Y-o-y wage indices of average monthly gross earnings for 2008 are calculated from the average earnings for 2007 and 2008 based on the old sample that does not include entrepreneurs. However, these indices are comparable with the indices for 2009, given the fact that the expansion of the sample of earnings preserved their growth dynamics, while their nominal value was reduced by about 12%.
3) Total labour costs include empoloyer's total average expense per worker, including all taxes and social security contributions. TLCs amount to around 164.5% of the average net wage. Gross wage indices are equal to total labour cost indices, because the average TLC is larger than the average gross wage by a fixed 17.9% of employer based social security contributions.

Public sector posts a fall in real wages. The biggest decline took place in the public administration

Real wages have fallen across all activities in the public sector. The biggest year-on-year decline in real wages was reported by the public administration, of around 5.4%, which came as no surprise considering the fact that nominal wages have been frozen in an attempt to cut administration costs in response to the economic crisis and the fall in budget revenues. This is a typical example of the labour market adjustment through wage correction, instead of job cuts.

Wages in the real sector continue to rise, but nominal wages are still below those in the public sector

Wages in the real sector showed a positive 4.8% growth in real terms in the course of Q2 2009, but the rate of growth was lower compared with the previous quarter (Table 3-5, column 6). Nominal wages in the real sector are still lower than those in the public sector (Table P-8 in Analytical Appendix). The average year-on-year wage growth in Serbia was roughly around 2%, just like in Q1 2009 (0.5 percentage points lower).

Following a significant decline in unit labour costs in Q1, those costs fell back in Q2, due to the market adjustment to recession

Following a significant increase in unit labour costs in Q1 2009, those costs fell back in Q2, even though there was no economic recovery. Those movements indicate that in Q2 the labour market went through a more significant adjustment to recession than in Q1, both in terms of lower wages and the falling number of employed workers[6].

Table T3-5. Serbia: Gross Wages in Public Sector 2004-2009, Y-o-y Real Indices

	From the budget			Public enterprises		Other[1]	Serbia average
	Administration - all levels	Education and culture	Health and social work	National public	Local public		
	1	2	3	4	5	6	7
2004	107.4	107.7	110.9	107.9	113.4	113.7	111.4
2005	105.9	106.0	100.8	100.5	103.0	106.9	107.1
2006	109.1	107.2	109.4	110.8	102.9	113.7	111.3
2007	111.1	114.7	123.8	116.7	105.0	114.1	114.6
2008	100.7	105.7	101.3	101.2	95.9	105.7	105.5
2007							
Q1	111.5	112.6	125.4	129.8	113.8	117.3	118.5
Q2	118.6	119.2	131.5	118.9	104.5	117.4	118.6
Q3	114.1	116.7	127.5	112.5	104.1	112.5	114.1
Q4	100.1	110.3	111.0	105.8	97.4	109.0	108.2
2008							
Q1	99.2	109.5	105.6	94.3	98.5	107.3	105.2
Q2	99.6	104.8	99.4	103.0	89.0	104.2	103.1
Q3	100.8	104.7	101.1	103.6	91.7	106.3	105.0
Q4	103.3	103.7	99.2	103.9	104.4	105.1	104.1
2009							
Q1	100.1	98.3	99.7	98.8	101.1	105.1	102.5
Q2	94.6	98.0	98.8	99.7	99.9	104.8	102.0

Source: SORS. Footnotes:
1) Column 6 includes private, socially-owned and mixed ownership enterprises (excluding entrepreneurs).
2) Column 6 shows an assessed size calculated by deducting the wage bill in the public sector from the total wage bill. The difference is divided by the number of workers employed in the real sector (column 7, Table T3-3).
3) Real Y-o-y wage indices in columns 6 and 7 for 2008 and 2009 are calculated on the basis of the expanded sample for calculation of average earnings, which now includes entrepreneurs.

6 For more detail, see section 2. Economic Activity of this *QM* issue.

4. Balance of Payments and Foreign Trade

The second quarter of 2009 saw an exceptionally low current account deficit of €162 mn (2.1% of GDP). This improvement is primarily a consequence of a year-on-year fall in imports, which dropped by more than exports did over the same period, as well as high remittance inflows. The Q2 goods deficit amounted to €1.1 bn (13.9% of GDP), substantially below quarterly values seen thus far. The IMF loan arrangement has resulted in a major increase in foreign currency reserves held by the National Bank of Serbia (by €880 mn in Q2), but has also substantially increased long-term foreign debt. Improvements to the current and foreign trade accounts are, on the other hand, merely a reflection of issues raised by domestic recession; obviously, any recovery in production could again lead to a large deficit. Seasonally-adjusted exports figures indicated a halt to the negative trend in Q2 2009, but July data again show a drop in exports. Imports continued their downward trend in Q2 2009; the fact that raw materials and capital goods were the main components that recorded falls confirms the fact that Serbia's economy is in recession.

The current account deficit was uncharacteristically low in Q2, standing at -2.1% of GDP, or €162 mn

Although effects of the global economic downturn have been reflecting on the balance of payments ever since the end of the last year (the deficit dropped to 15.0% of GDP in Q4 2008 and 11.6% of GDP in Q1 2009), their impact became very pronounced in Q2 2009. This quarter saw a markedly low current account deficit of €162 mn, as opposed to all quarterly values recorded since early 2007,[1] which were substantially higher. The very low value of the deficit further borne out by the fact that it amounted to a mere 2.1% of GDP in Q2 – 18.7 percentage points less than in the same period the previous year. The 2% share of the deficit in GDP in Q2 2009, as well as the current account surplus seen for the first time in May, were caused by the major drop in imports as well as high current transfers, for the most part remittances (Table T4-1). This state of the current account over this quarter is a reflection primarily of how much domestic demand and production have slumped, or, to put it another way, how deep the crisis in Serbia is.

High remittances in a time of crisis

Current transfer inflows were very high in Q2 2009, standing at €978 mn, mainly on account of high remittance inflows (Table T4-1). Remittances – the most important component of current transfers – amounted to €769 mn over the observed quarter. If the entire period since the beginning of the crisis is taken under consideration (Q4 2008, Q1 and Q2 2009), remittance inflows – contrary to the expectations of many – recorded very high values. Average quarterly values of remittance income during the crisis stood at €660 mn (average of the three quarters mentioned above), as opposed to average quarterly values of the preceding three quarters – Q1, Q2 and Q3 2008, the period immediately before the crisis) had amounted to €400 mn. Even with the caveat that remittance data are not completely accurate, we can note that remittance inflows have risen during the crisis – or, rather, that they certainly have not fallen.

Q2 saw a significantly lower share of the goods deficit in the gross domestic product

The goods deficit amounted to 13.9% of GDP in Q2 2009, which is also substantially lower in relation to values seen in previous quarters (23.2% in Q2, 21.3% in Q3, 22.1% in Q4 2008, and 18.5% in Q1 2009). The decreased share of the goods deficit in GDP was primarily the consequence of a major fall in imports – these stood at 33.8% of GDP, a value 12.5 percentage points lower than that seen in Q2 last year. Exports amounted to 20.0% of GDP, 3.1 percentage points down on last year's figure. Imports worth €2.6 bn, along with exports totalling €1.5 bn, meant a goods deficit of €1.1 bn was recorded (Table T4-1), which was, even nominally, substantially lower than quarterly values seen thus far.

The ratio of exports to imports has grown

The global crisis has, during the quarter under consideration, especially affected foreign trade. Exports were down 22.1% on Q2 2008.[2] This is nearly identical to the y-o-y drop seen in the preceding quarter (when exports slumped by 22.8%). The drop in the value of imported goods

1 Since balance of payments data calculated using new NBS methodology first became available.

2 Corrected NBS data on imports and exports (f.o.b.) calculated in accordance with IMF methodology were used in the analysis of the balance of payments (Balance of Payments Manual, Fifth Edition, IMF: http://www.imf.org/external/np/sta/bop/BOPman.pdf, whereas SORS data was used for the analysis of imports and exports. The SORS data differs methodologically from NBS data; hence the discrepancies in the imports and exports figures and growth rates.

is substantially greater, standing at a y-o-y level of 34.3%. This downward trend in imports and exports has led to a rise in the ratio of exports to imports, which stood at 59% in Q2 (and even peaked at 66.1% in May).

The current account deficit was lower by 90% at the y-o-y level

The second quarter was marked by a fall of imports faster than that of exports, a slight surplus in the services account, somewhat lower outlays due to interest payments, and very high inflows of current transfers. Taken together, these led to an improvement in the current account, which in Q2 stood at a mere 10% of the deficit seen in the same period one year previously.

Foreign currency reserves were up in Q2 2009 by €880 mn…

This quarter saw the current account deficit being met from capital inflows amounting to €1,043.4 mn. These inflows represented the sum of a substantial amount recorded in the other investment account, a positive balance of FDIs and a negative one in the portfolio investment account.[3] NBS foreign currency reserves were thus up €880 mn (Table T4-1).

…due to the low current account deficit, the IMF loan and a rise in foreign currency deposits

Most of total capital inflows in Q2 was made up by other investments, totalling €921.1 mn. At the same time, FDIs were low (€250.7 mn), while portfolio investment languished in the red (-€57.7 mn). Financial loans accounted for most of other investment inflows, standing at €708.8 in Q2. High financial loan inflows were caused by the drawing of the first tranche under the IMF stand-by arrangement. During these three months the government borrowed €99 mn net, of which €146 mn was additional borrowing, while €47 mn was spent on repayments of old loans. Banks' financial balance was negative but very close to zero, which indicates that net repayments by this sector were down in Q2 (Table T4-1). Businesses have been repaying foreign loans since the beginning of the year, after following a trend of large-scale direct foreign borrowing for nearly two years. Net repayment of long-term loans by businesses amounted to €167.1 mn in Q2. Additional long-term borrowing and a positive net amount of short-term borrowing by business were unable to offset the amount repaid, leaving business' balance negative. Net trade credits stood at a low €22.4 mn.

Financial loans accounted for most of other investment inflows…

…with trade credits low

Inflows of currency and deposits amounted to €190 mn

The balance of currency and deposits recorded a net inflow of €190 mn in Q2. The greatest part of this was accounted for by an increase in deposits with domestic banks, most likely due to repayments of frozen foreign currency deposits.

May saw a very high increase in foreign currency reserves due to the drawing of the first tranche of the IMF loan

Foreign currency reserves were up by €26.4 mn in April, only to rise by €865.9 mn in May (when part of the money granted under the IMF arrangement was drawn). June saw a slight dip in NBS reserves, to the tune of €11.8 mn. Foreign currency reserves thus stood higher by €880 mn at the end of the first half of 2009 in relation to three months before.[4] According to data published on the NBS web site, July saw a substantial increase in foreign currency reserves, primarily caused to inflows due to banks' reserve requirements and the funds drawn under World Bank and European Investment Bank loan arrangements.[5]

3 Adjusted for the balance of errors and omissions.

4 The balance of payments shows gross NBS currency reserves, with no inter-currency fluctuations indicated. Section 7, Monetary Flows and Policy, deals with changes to net own reserves (the difference between NBS gross foreign currency reserves and the sum of liabilities, both with the IMF and other, foreign currency deposits with commercial banks, and government foreign currency deposits). NBS own reserves, excluding the IMF loan, thus went down over Q2 2009 (see Table T7-9 in Monetary Flows and Policy).

5 See http://www.nbs.rs/internet/cirilica/scripts/showContent.html?id=3587&konverzija=no (in Serbian).

Table T4-1. Serbia: Balance of Payments

	2007	2008	2008				2009	
			Q1	Q2	Q3	Q4	Q1	Q2
			in millions of euros					
CURRENT ACCOUNT	-4,605	-5,873	-1,279	-1,780	-1,524	-1,290	-818	-162
Goods	-6,629	-7,629	-1,806	-1,981	-1,947	-1,894	-1,305	-1,066
Export f.o.b[1)]	6,373	7,428	1,672	1,972	2,061	1,723	1,291	1,535
Import f.o.b	-13,001	-15,057	-3,479	-3,953	-4,008	-3,617	-2,596	-2,601
Services	-254	-148	36	-53	-107	-23	-37	21
Export	2,304	2,770	688	658	733	692	568	599
Import	-2,558	-2,918	-652	-711	-840	-715	-605	-577
Income, net	-600	-926	-138	-306	-125	-357	-123	-95
Receipts	517	561	145	137	158	121	117	149
Payments	-1,116	-1,487	-282	-444	-283	-479	-240	-245
Current transfers, net	2,877	2,830	629	561	655	985	648	978
o/w grants	166	187	34	50	52	50	39	37
o/w private remittances, net	2,065	1,941	434	327	430	750	456	769
CAPITAL ACCOUNT	-314	11	5	8	-2	-1	-1	-1
FINANCIAL ACCOUNT	4,742	6,060	1,385	1,769	1,430	1,476	806	234
Direct investment, net	1,821	1,830	831	656	133	210	643	251
Portfolio investment, net	678	-91	-48	-38	26	-31	-4	-58
Other investments	2,977	2,566	635	842	1,528	-439	-74	921
Trade credits	328	44	78	-82	-167	216	90	22
Loans	3,403	3,231	221	920	1,362	728	-732	709
NBS	-92	0	0	0	0	0	0	783
Government	121	64	2	25	11	26	11	99
Commercial banks	167	136	-542	-43	334	387	-521	-6
Long-term	-130	-294	-162	-45	27	-114	11	23
Short-term	297	430	-379	1	307	501	-532	-28
Other (enterprises)	3,206	3,031	760	939	1,017	316	-222	-167
Currency and deposits	-652	-680	349	21	333	-1,383	569	190
Other assets and liabilities	-102	-30	-13	-17	0	0	0	0
Reserves Assets (- increase)	-734	1,755	-32	309	-257	1,736	240	-880
ERRORS AND OMISSIONS, net	177	-197	-111	3	96	-185	13	-71
OVERALL BALANCE	734	-1,755	32	-309	257	-1,736	-240	880
PRO MEMORIA								
			in % of GDP					
Current account	-15.9	-17.4	-17.1	-20.8	-16.7	-15.0	-11.6	-2.1
Balance of goods	-22.9	-22.6	-24.2	-23.2	-21.3	-22.1	-18.5	-13.9
Exports of goods	22.1	22.0	22.4	23.1	22.6	20.1	18.2	20.0
Imports of goods	-45.0	-44.7	-46.6	-46.3	-43.9	-42.1	-36.7	-33.8
Balance of goods and services	-23.8	-23.1	-23.7	-23.8	-22.5	-22.3	-19.0	-13.6
Current transfers, net	10.0	8.4	8.4	6.6	7.2	11.5	9.2	12.7
GDP in euros[2)]	28,895	33,719	7,467	8,537	9,127	8,588	7,073	7,692

Source: NBS.

1) Exports f.o.b. using NBS methodology adjusted to IMF BOPM-5.

2) Quarterly values. Annual GDP converted into euros using the average annual exchange rate (average of official NBS daily mid rates).

Foreign Debt

Total debt in late June amounted to over 70% of GDP…

Serbia's foreign debt amounted to €21,749 mn at the end of June 2009, which made up 71.3% of GDP (Table T4-2). Such an increase in the share of foreign debt in GDP was partly caused by additional borrowing, but also reflects the effect of falling GDP due to recession and a major depreciation of the dinar. Although Serbia is a currently a moderately indebted country if one considers this indicator (foreign debt/GDP), the speed at which indebtedness is growing, as well as the high ratio of foreign debt to exports (especially in comparison with other economies in the region) make for a different picture (see Box 1, Foreign debt in Serbia and the region).

…while its structure shifted in favor of public sector debt

Serbia's overall public foreign debt amounted to €7,262 mn at the end of June,[6] up by €875 mn on year-end 2008. The public debt was up by €1.2 bn relative to June last year. Although the share of state foreign debt in GDP is, at 23.8%, relatively low in comparison with figures found across the world, additional foreign borrowing by the public sector planned for this year and early 2010 would result in a substantial increase in the public debt, which could in the medium term bring Serbia into the category of highly-indebted countries.

6 The amount of public debt given in the analysis of public debt in Section 6, Fiscal Flows and Policy, is substantially different from this figure, and amounts to €5.8 bn. The discrepancy of nearly €1.5 bn is caused by the different reach of NBS and Ministry of Finance data used by QM (Section 6 uses Ministry of Finance data, while this section uses data provided by the NBS). The discrepancy, therefore, is partly caused by the drawing of the first tranche of the IMF loan, amounting to €883 mn, which was not included in the total amount of public debt under Ministry of Finance data (as this is formally not public debt), but is considered public debt under NBS data. The remaining difference is accounted for by the fact that Ministry of Finance data include neither unregulated public debt with Kuwait, Libya and the London Club nor part of the debt with the EBRD, EUROFIMA etc. (see Analysis of Movements in Public Debt in Part 6, Fiscal Flows and Policy).

Table T4-2. Serbia: Foreign Debt by Structure, 2006-2009

	2006	2007	2008				2009	
			Mar	Jun	Sep	Dec	Mar	Jun
	stocks, in EUR millions, end of the period							
Total foreign debt	14,884	17,789	17,957	18,647	20,530	21,800	21,445	21,749
(in % of GDP) 2)	*61.6*	*61.6*	*53.3*	*55.3*	*60.9*	*64.7*	*70.3*	*71.3*
Public debt	6,420	6,130	6,035	6,047	6,282	6,386	6,528	7,262
(in % of GDP) 2)	*26.6*	*21.2*	*17.9*	*17.9*	*18.6*	*18.9*	*21.4*	*23.8*
Long term	6,363	6,096	6,003	6,016	6,247	6,369	6,509	7,244
o/w: to IMF	185	0	0	0	0	0	0	833
Short term	57	34	32	32	35	18	19	18
Private debt	8,464	11,659	11,922	12,599	14,248	15,414	14,917	14,488
(in % of GDP) 2)	*35.0*	*40.4*	*35.4*	*37.4*	*42.3*	*45.7*	*48.9*	*47.5*
Long term	7,263	10,372	10,883	11,482	12,366	13,006	12,970	12,785
o/w: Banks debt	2,929	2,801	2,660	2,333	2,357	2,301	2,270	2,267
o/w: Enterprises debt	4,334	7,571	8,223	9,149	10,009	10,705	10,700	10,518
Short term	1,201	1,287	1,039	1,118	1,882	2,408	1,948	1,703
o/w: Banks debt	942	1,163	770	769	1,118	1,605	1,154	1,029
o/w: Enterprises debt	259	124	269	349	764	803	794	674
Foreign debt, net 1), (in% of GDP)2)	24.2	28.2	24.9	28.3	32.1	40.5	43.7	42.2

Source: NBS.
1) Total foreign debt less NBS currency reserves.
2) Data for 2008 is annual actual GDP in euros for that year. Due to depreciation, new, lower GDP values are used for March and June 2009 (*QM* estimates).

Foreign borrowing by the private sector remained high at the end of June 2009, standing at €14.5 bn. Private foreign debt amounted to 47.5% of GDP at the end of June; when viewed thus, private foreign debt was up by 1.8 percentage points on the beginning of 2009. In comparison with June 2008, private foreign debt grew by as much as 10.1 percentage points of GDP, influenced both by additional borrowing (an increase in private foreign debt of 15% at the y-o-y level) and the drop in GDP (due to recession and depreciation of the dinar). The observed period (June 2008 – June 2009) is characterized by large-scale long-term foreign borrowing by businesses. Additionally, in late 2008, insolvency (due to the inability to repay old loans and the appearance of the global downturn)[7] led to widespread short-term borrowing by the private sector (see Table T4-2). Since the start of the year the private sector has slightly reduced the net amount of long-term loans, by €221 mn, of which €187 mn is accounted for by net repayments of long-term liabilities by businesses, with banks repaying €34 mn net. Another favorable indicator is the fact that short-term borrowing by the private sector was down over the first six months of this year (Table T4-2).

Bearing in mind the fact that the private sector repaid €430 mn in liabilities over Q2 2009, and that state debt rose by €733 mn, the structure of foreign debt has changed somewhat. At the end of Q1 public foreign debt made up 30% of overall foreign debt, while the remainder, or 70%, was accounted for by private debt; at the end of Q2 state debt was up to 33%, with private debt down to 67% of Serbia's overall foreign debt.

Box 1. Foreign debt in Serbia and the region

Data for 2008 provided by the European Bank for Reconstruction and Development indicate that Serbia is a moderately indebted country, judging by its share of foreign debt in GDP of 60.6%. However, the high ratio of foreign debt to exports of goods and services leads to the conclusion that Serbia is in a significantly worse position (see Table T4-3).

According to the first observed indicator of indebtedness (foreign debt to GDP, see Table T4-3), countries in the region that may be categorized as moderately-indebted, in addition to Serbia, are Romania, Bosnia-Herzegovina and Macedonia, while Hungary, Bulgaria and Croatia are highly-indebted. A slightly different picture of foreign debt can be seen from the second indicator (ratio of foreign debt to exports of goods and services):[1] Serbia and Croatia have a high ratio,

1 It is standard practice to take 80% as the critical value in separating moderately- and highly-indebted countries using the first indicator, the share of foreign debt in GDP. The second indicator, foreign debt to exports of goods and services, employs varying criteria as critical values, which is why it is more appropriate to employ a comparative approach when considering country data.

7 See previous issues of *QM*.

with foreign debt more than twice as high as exports of goods and services, as does Bulgaria, whose debt is 1.7 times greater than exports. Countries whose indebtedness appears somewhat lower when this indicator are used are Hungary, Romania, Macedonia and Bosnia-Herzegovina (Table T4-3).

Table T4-3. Serbia and the Region: Ratio of Overall Foreign Debt to GDP and Exports of Goods and Services, 2008

	Hungary	Romania	Bulgaria	Croatia	Bosnia and Herzegovina	FYR Macedonia	Serbia
				in %			
External debt/GDP	113.5	35.4	103.5	82.7	43.6	49.1	60.6
External debt/exports of goods and services	138.7	136.1	168.8	214.5	113.5	102.4	204.9

Source: EBRD.

Since these data are for 2008, it should be borne in mind that the period since the beginning of the crisis is characterized by further foreign borrowing in both Serbia and the region, as well as a simultaneous fall in GDP and exports. This situation of falling domestic demand and additional borrowing will certainly result in substantially less favorable values being recorded for both (i.e. the former will fall while the latter will rise). Since September (when the crisis began) Serbia's debt grew by €1.2 bn, or 10.4 percentage points of GDP. This suggests that risks facing the Serbian economy in this respect are growing quickly.[2]

2 According to IMF forecasts for Serbia (as of May 2009) very high values of both indebtedness indicators are expected over the coming several years. The share of foreign debt in GDP will stand at 76.3% by the end of 2009 and is to rise to 85.6% one year later, peaking at 90.4% in 2011 and gradually declining afterwards. Similarly, the IMF's forecasts for Serbia with respect to the other indicator, the ratio of foreign debt to exports of goods and services, are as follows – 282.2% in 2009; 302.8% in 2010; and 306.3% in 2011, after which a gradual decline is expected (see http://www.imf.org/external/pubs/ft/scr/2009/cr09158.pdf).

Exports

Table T4-4. Serbia: Exports, Y-o-y Growth Rates, 2008-2009

	Exports share in 2008	2009		2008				2009	
		Q1	Q2	Q1	Q2	Q3	Q4	Q1	Q2
	%	mil.euros		y-o-y growth rate (%)					
Total	100.0	1,276	1,529	20.5	23.8	19.6	1.7	-23.8	-22.5
Bulky exports	27.1	296	350	1.9	13.8	8.0	-0.2	-36.0	-36.1
Iron and steel	13.0	101	85	3.6	40.6	36.0	-10.7	-54.0	-72.7
Non ferrous metals	6.4	65	76	4.5	-0.9	-1.2	-25.7	-48.4	-41.1
Fruits and vegetables	4.4	62	84	13.9	-14.5	-8.0	-0.9	-5.2	30.0
Cereal and cereal products	3.4	68	106	-19.1	-20.3	-29.6	93.4	30.3	141.6
Underlying exports	72.9	980	1,179	29.6	28.0	25.0	2.3	-19.2	-17.3
Core	30.5	429	467	23.5	13.7	9.3	-9.8	-21.8	-20.3
Clothes	4.9	115	109	15.5	12.0	2.4	22.1	29.5	32.5
Miscellaneous manufactured articles, n.e.s.	4.2	50	61	50.7	25.4	9.1	-13.5	-35.2	-24.0
Manufactures of metals, n.e.s.	4.3	48	65	26.9	1.3	-0.5	-10.3	-36.4	-20.7
Rubber products	2.9	44	39	3.3	5.5	27.8	-19.2	-22.5	-32.2
Electrical machinery, apparatus and appliances	3.9	62	74	50.9	21.7	30.3	2.8	-1.0	4.0
Organic chemicals	2.3	8	6	7.9	25.7	-5.3	-50.3	-83.1	-88.0
Plastics in primary forms	1.9	20	19	34.4	10.1	6.7	-41.9	-49.9	-53.1
Footwear	2.2	37	33	15.8	8.4	9.0	3.8	-8.4	-19.5
Paper, paperboard and articles of paper pulp	1.9	32	38	21.4	13.5	1.9	-7.2	-2.0	-3.3
Non-metal mineral produce	2.0	13	24	10.3	19.9	16.7	-4.9	-54.7	-46.1
Other	42.3	551	712	35.0	40.4	39.4	12.2	-17.0	-15.1

Source: SORS.

Exports amounted to €1.5 bn…

…22.5% down on Q2 last year

The y-o-y downward trend exhibited by exports since early 2009 continued in Q2 due to effects of the global crisis. According to data published by the Statistical Office of the Republic of Serbia, the second quarter saw Serbia export €1,529 mn worth of goods, a reduction of 22.5% in relation to Q2 20008. After major y-o-y falls in exports in February (of 29.5%) and March (18.5% at the y-o-y level), April again saw a sharp y-o-y slump in the value of exported goods of 25.4%. Exports fell throughout May and June by 24.1% and 18.2%, respectively. This slowdown

in the negative trend was primarily caused by the much higher value of this year's exports of cereals in relation to the preceding year, as well as greater exports of fruit and vegetables and clothing (Table T4-4).

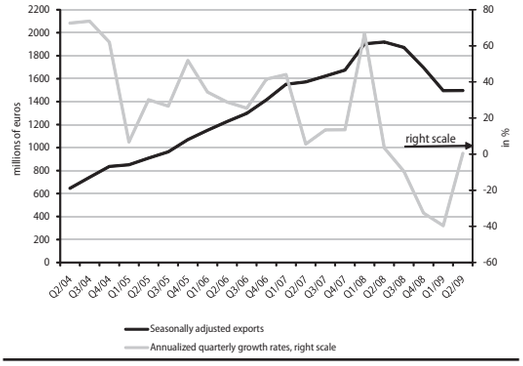
…seasonally-adjusted exports in Q2 remained at levels seen in the preceding quarter…

Second quarter exports, when adjusted for seasonal factors, exhibit modest growth in relation to Q1, amounting to 0.1% (see Graph T4-5). Seasonally-adjusted quarterly exports values shown in the graph seem to suggest that exports have bottomed out and that their fall has been arrested, but July data do not bear this out. The modest q-o-q change to overall exports, standing as it does at 0.1% (Q2 in relation to Q1 2009) would, when annualized, indicate growth of 0.4%. Overall exports data for July 2009 show values as much as 5.4% below seasonally-adjusted figures for one month before.

…while July again saw deterioration

In Q2 2009 bulky and underlying exports stood at below Q2 2008 values, yet above those recorded in Q1 2009

Graph T4-5. Serbia: Seasonally-Adjusted Exports, by Quarter, 2004-2009



Source: SORS, *QM*.

Original data for exports by component (*bulky* and *underlying exports*) seem to show that the export sector was in substantially worse shape in Q2 2009 than before the crisis – the values here are significantly lower than last year's. With the already mentioned exception of July, seasonally-adjusted quarterly data by component indicate an increase relative to the beginning of the year.

Bulky exports saw a y-o-y drop…

The second quarter recorded a drop in *bulky exports* of 36.1% at the y-o-y level (Table T4-4). When considered by group, this quarter saw a sudden drop in exports of *iron and steel* (72.7% at the y-o-y level). The value of *non-ferrous metals* exported in Q2 was also substantially lower (-41.1%) in relation to the same period one year before. On the other hand, *fruit and vegetables* and, especially, *cereals and cereal products* saw very high y-o-y growth. Exports of fruit and vegetables recorded were up 30% on last year's values, while Q2 saw exports of *cereals and cereal products* worth €106 mn, up 141.6% on one year before. Such high growth can mainly be ascribed to last year's low base as a ban on exports of these products was in force at the time.

…with exports of iron and steel declining, on the one hand, and those of cereals and fruit and vegetables growing substantially, on the other

…in Q2 2009 bulky exports stood at 3.5% above values seen in the preceding quarter

Although the y-o-y decline seen by *bulky exports* in Q2 2009 was nearly identical to that recorded in the preceding quarter, seasonally-adjusted data indicate that the value of this export component was up 3.5% in Q2 on Q1. Such q-o-q recovery (Q2 relative to Q1 2009) in *bulky exports* adjusted for seasonal factors represents annualized growth of 14.6%.

Underlying exports saw a drop of 17.3% at the y-o-y level in Q2 2009, as well as an increase of 1.1% relative to Q1

Underlying exports were down 17.3% at the y-o-y level. As part of this component the *core* group again recorded a major y-o-y fall of 20.3%, while exports of the *other* group were 15.1% below last year's values. Only two *core* product groups recorded positive growth rates – *electrical machinery, apparatus and appliances* (with y-o-y growth of 4.0%) and *clothing* (32.5%). The fall recorded by all other *core* product groups is similar to that seen over the preceding quarter (Table T4-4). Products from the *other* group saw very high growth over the first three quarters of last year, making a major contribution to overall export growth. In spite of their consistent growth and outstanding performance seen in 2008, the global fall in demand has had an adverse impact on these exports since early 2009, causing y-o-y falls of 17.0% in Q1 and 15.1% in Q2.

If seasonally-adjusted data are considered, *underlying exports* recorded growth of 1.1% in Q2 in relation to Q1, an increase of 4.6% when annualized. To see just what contributed to this recovery in *underlying exports* in Q2 relative to the preceding quarter, we observed fluctuations in seasonally-adjusted values of its two components, *core* and *other exports*. Seasonally-adjusted data indicate that the *core* component has been recording a fall for the past five consecutive quarters. Thus this component was down 1.8% on Q1 in Q2, a fall of 6.9% when annualized. Although *core exports* remain on a downward slope, the fall in Q2 was much lower in relation to previously-recorded q-o-q rates. The recovery in *underlying* exports is, therefore, solely a consequence of

the recovery in *other* exports. Seasonally-adjusted exports of the *other* component were up 3.0% in Q2 on export value recorded in Q1. If such q-o-q growth of *other exports* were to continue over the next three quarters, this would prove to be a substantial recovery in this component, amounting to 12.5% at the annual level. When the substantial fall in overall exports seen in July in relation to June 2009 is taken into account (after adjustments are made for seasonal factors), movements to seasonally-adjusted export figures will need to be monitored and analyzed, both overall and by component.

Imports

Table T4-6. Serbia: Imports, Y-o-y Growth Rates, 2008-2009

	Imports share (2008)	2009		2008				2009	
		Q1	Q2	Q1	Q2	Q3	Q4	Q1	Q2
	in %	mil.euros		y-o-y growth (%)					
Total	100.0	2,683	2,716	22.8	27.5	19.1	-2.8	-25.7	-33.8
Energy	20.0	565	384	32.5	53.2	51.2	5.7	-28.3	-49.8
Intermediate products	34.4	831	956	16.2	16.0	12.8	-5.9	-30.8	-33.6
Capital products	24.8	612	683	19.5	32.6	10.4	-11.9	-28.0	-38.2
Capital products excluding road vehicles	16.8	438	439	9.3	29.3	13.1	-6.0	-21.3	-39.2
Durable consumer goods	3.9	112	99	31.3	34.8	13.5	2.6	-15.8	-37.1
Non-durable consumer goods	14.3	463	495	26.6	21.1	19.5	4.2	-10.4	-8.7
Other	2.7	100	99	32.4	16.6	12.3	21.2	-19.5	1.9
Imports excluding energy	80.0	2,118	2,332	20.3	22.8	13.1	-4.7	-25.0	-30.2

Source: SORS.

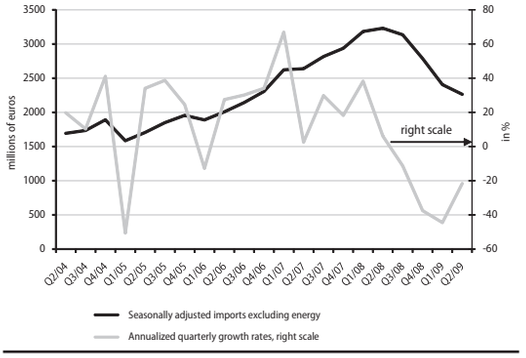
Imports were down a third in Q2 2009 in relation to Q2 last year

Imports declined by a third in Q2 relative to the same period one year before. High negative rates for all imports components observed (Table T4-6) – especially *capital* and *intermediate goods* – seem to suggest that the fall in overall imports was to a great extent caused by the decline in domestic production. The recession currently faced by Serbia again impacted on the fall in demand for imported goods in Q2. In addition, the fall in the value of *energy* imports – due to a major drop in prices in evidence in 2009 – also contributed to the reduced overall figure. Thus overall imports in Q2 2009 amounted to €2.7 bn, which was nearly €1.4 bn less than one year before.

Imports continued a downward trend in Q2 in relation to Q1

As most of the decline in overall imports can be accounted for by exogenous factors (such as fluctuations in energy prices), an insight can be gained into true movements in imports by considering them after excluding energy imports. In Q2 2009 the seasonally-adjusted value of imports less energy was down 5.9% on Q1 2009. This represents a fall of 21.7% at the annual level (Graph T4-7). The 5.9% quarter-on-quarter drop in Q2 relative to Q1 was substantially lower than previous q-o-q drops (of 11.1% in Q4 2008 relative to Q3 2008, and 13.7% in Q1 2009 in relation to Q4 2008). Such import trends (excluding seasonal and exogenous factors in energy prices) indicate that the trend has not turned, but that a gradual recovery can be expected (as q-o-q rates of decline are slowing). In addition, if there were to be a repeat of the Q2 trend (where seasonally-adjusted imports declined, while seasonally-adjusted exports stagnated or even saw slight q-o-q growth), the trade balance would improve further as the exports to imports ratio would rise.

Graph T4-7. Serbia: Seasonally-Adjusted Imports Less Energy, by Quarter, 2004-2009



Source: SORS, *QM*.

Energy imports declined in quantity by 12% at the y-o-y level in Q2 2009… …at the same time losing 50% in value relative to the same period last year, due to this year's substantially lower energy prices

Energy imports were down by a substantial margin on last year. Imports of *energy* declined by 28.3% at the y-o-y level in Q1 in consequence of January's gas crisis[8] and last year's higher energy prices. The second quarter saw energy imports drop to a half of what they had been in Q2 2008, for the most part due to fluctuations in global energy prices. The cost of energy in the global market reached extremely high levels in 2008 (the primary energy price index published by the International Monetary Fund shows that energy prices in dollars fell by 50.3% in Q2 2009 relative to the same quarter one year before), which is why last year's high base led to the high y-o-y fall.

In an attempt to estimate the fall in energy imports caused by domestic recession, we embarked on an analysis into which part of the overall decline in the value of *energy imports* is owed to fluctuations in market prices, and which part was caused by the drop in the quantity actually imported. Energy prices in euros were down 42.9% at the y-o-y level (with the euro depreciating against the dollar from Q2 2008 to Q2 2009 by 14.8%, which somewhat dampened the drop in dollar prices of 50.3% referred to above). After effects of price changes are excluded, it becomes apparent that the fall in the quantity of energy imports stands at 12.1% at the y-o-y level. This decline in the quantity of energy imported reflects the true effect of the drop in domestic demand for these products.

Imports of intermediate and capital goods continued to slide in relation to the pre-crisis period (Q2 2008)

The second quarter saw imports of *intermediate goods* slump by a third in relation to Q2 last year. When viewed by month, imports fell at y-o-y rates of 33.7% in April, 34.4% in May, and 32.7% in June. At the same time, Q2 2009 saw a drop in imports of *capital goods* of 38.2% relative to one year before. The value of imported *capital goods* less motor vehicles fell by 39.2%. Viewed by month, imports dropped by 40.0% at the y-o-y level in April, then recorded their greatest y-o-y fall in May (48.2%), only to recover slightly in June with a y-o-y drop of 32.8%. The consistently large falls in imports of *capital goods* bear out how dire the straits faced by Serbia's economy are, as it implies a cut in production investment. This trend of intermediary and capital goods still does not bode well for a recovery of production in Serbia.

When viewed at the y-o-y level, imports of durable consumer goods recorded a major fall (-37.1%), with non-durable consumer goods saw the smallest drop (-8.7%), while others recorded growth (1.9%)

Imports of *durable consumer goods* recorded a substantial fall (-37.1%) that was not presaged by any developments over the previous quarter. One of the possible reasons behind the fall is decreased demand for these products due to lower personal spending. The lowest y-o-y drop was recorded by *non-durable consumer goods* (-8.7%), while the *other* component saw y-o-y growth of 1.9% (Table T4-6). As these three groups of imported products together have a small share in overall imports, their y-o-y fluctuations had only a minor impact on the quarterly drop in imports.

Imports recorded a drop when viewed by SITC sections

When viewed by SITC sections, *beverages and tobacco* make the only exception. This sector is the only one to have seen an increase in the value of imports (17.8%), in consequence of the major hike in prices of alcoholic beverages seen in early 2009 due to the rise in excise duties.[9] *Food and live animals* was the sector with the lowest drop in the value of imported goods (-4.5%), while *crude materials* and *fuels* recorded the highest fall (due to the fall in production and global fuel prices). Imports of *machinery and transport equipment* (the most heavily weighted of all sectors making up overall imports) fell by 37.7% at the y-o-y level, and contributed 32.6% to the fall of Serbia's overall imports. The greatest rise in the value of imports in Q2 was recorded by the following sections: *oil seeds and oleaginous fruits* (164.0%), *live animals* (118.4%) and *tobacco and tobacco products* (63.8%). The greatest y-o-y falls, conversely, were seen by *coal, coke and briquettes* (-87.7%), *mineral ores and scrap metal* (-79.5), and *natural rubber* (-74.5%).

8 See the previous issue of *QM*.
9 See Section 5, Prices and the Exchange Rate.

5. Prices and the Exchange Rate

Inflation remained high in Q2 (the rise in the Consumer Price Index amounted to 3.0%, or 12.6% at the annual level), but was nonetheless lower than in Q1. The second quarter again saw oil products make the greatest contribution to the increase in prices – primarily due to the price of crude oil in the global market – while products with prices that are formed freely in the domestic market saw substantially lower price growth. If the underlying inflation trend is taken into account (CPI less prices of food, alcoholic beverage, tobacco and energy), it becomes apparent that June and July saw a somewhat more pronounced slowdown in inflation. August data confirm that the price growth trend over the past several months was rather lower than in the first half of the year. Inflation over the first half of the year as measured using the CPI amounted to 7.0%, or as much as 14.4% when annualized. We expect to see a much lower inflation rate in the second half of the year, which could stand at between 1.5% and 2.0%, or some 3% to 4% when annualized. It seems that such a low inflation rate, along with a stable exchange rate of the dinar, may make it possible to relax monetary policy to a certain extent.

Consumer Price Index (CPI)

Price growth remained high in Q2…

After very high inflation in Q1, price growth in the second quarter was somewhat lower, but nonetheless remained quite high. The increase in the Consumer Price Index in Q2 amounted to 3.0%, or 12.6% at the annual level (Table T5-1). This represents a mild slowdown in relation to the preceding quarter. By way of a reminder, the Q1 rise in the CPI had amounted to 3.8%, or 16.2% when annualized. The Consumer Price Index was higher by 7.0% in June relative end-of-year 2008. If year-on-year price growth is taken into account, it will be seen that the CPI has risen by 8.3% in June relative to the same month the previous year; the figure for March was 9.4%.

Table T5-1. Serbia: Consumer Price Index, 2007-2009

	Consumer price index				
	Base index (avg. 2006 =100)	y-o-y growth	cumulative index	monthly growth	3m moving average, annualized1)
2007					
Mar	102.5	4.1	0.7	0.6	2.8
Jun	105.5	4.0	3.7	0.4	12.7
Sep	109.5	8.0	7.6	1.6	16.8
Dec	113.0	11.0	11.0	1.2	13.1
2008					
Mar	116.4	13.6	3.0	1.6	12.7
Jun	121.2	14.8	7.2	0.7	17.4
Sep	121.4	10.9	7.5	1.0	0.9
Oct	123.7	12.3	9.5	1.8	13.5
Nov	123.9	10.9	9.6	0.2	12.6
Dec	122.7	8.6	8.6	-0.9	4.4
2009					
Jan	125.4	10.0	2.1	2.1	5.6
Feb	126.9	10.7	3.4	1.2	10.2
Mar	127.4	9.4	3.8	0.4	16.3
Apr	128.6	8.8	4.8	0.9	10.9
May	131.3	9.1	7.0	2.1	14.5
Jun	131.3	8.3	7.0	0.0	12.6
Jul	130.0	8.5	6.0	-0.9	4.7

Source: SORS.
* Moving averages of monthly price increases for three months, annualized.

…with the greatest contribution to this growth made by oil products and fruit and vegetables

The greatest impact on price growth was made by increases in the prices of oil products. Although they make up a mere 4.7% of the Consumer Price Index, they account for as much as 25% of its growth (Table T5-2). A more realistic picture of the CPI trend can thus be obtained by excluding oil products, which yields a CPI growth rate of 2.3%, or 9.5% at the annual level. This figure is still relatively high, but is nonetheless lower than the upper limit of the NBS target band (between 6% and 10% for overall CPI). Over the previous quarter, the CPI excluding

oil products rose by 3.2%, or 13.4% when annualized. In addition to the rise in prices of oil products, Q2 also saw substantial growth of prices of fresh fruit and vegetables. These foodstuffs make up as little as 5% of the CPI, but account for as much as 28% of its growth.

Table T5-2. Serbia: Consumer Price Index, Contribution to Growth by Selected Components, 2009

	Share in CPI	Price increase in Q1	Contribution to overall CPI increase in Q1	Price increase in Q2	Contribution to overall CPI increase in Q2
			in %		
Total	100.0	3.8	100.0	3.0	100.0
Food and non – alcoholic beverages	34.3	1.8	15.6	3.5	40.0
Alcoholic beverages and tobacco	4.8	14.4	17.7	0.2	0.3
Clothing and footwear	6.5	0.9	1.5	1.6	3.4
Housing, water, electricity, gas and other fuels	16.5	4.0	16.8	0.6	3.5
Heat energy	0.9	25.2	5.7	0.6	0.2
Furniture, household equipment, routine maintenance	5.5	1.0	1.3	2.4	4.4
Health	4.6	7.6	8.9	7.4	11.5
Pharmaceutical products	3.0	10.3	7.9	10.7	10.7
Transport	11.5	10.0	29.1	6.8	26.0
Fuels and lubricants	4.7	15.6	18.5	16.6	26.0
Other items	16.3		9.0		9.8

Source: SORS and *QM* estimates.

If oil products and fruit and vegetables are excluded, making up as they do a mere 10% of the index, the remainder of the CPI grew at a rate of 1.8%, or 7.5% when annualized. This represents a substantial slowdown relative to the preceding quarter, when CPI growth with these product groups excluded stood at 4.4%, or 18.8% when annualized. (By way of a reminder, Q1 saw the greatest contribution to price growth made not only by oil products, but also by certain administratively controlled products and services, such as medicines, excise duties on alcoholic beverages and tobacco, and district heating. When these products and services are excluded, CPI growth in Q1 is seen to have been similar to that recorded in Q2, i.e. 2.4%, or 8.8% when annualized.)

The CPI grew throughout April and May, while June and July recorded stagnation and a drop in prices

Although CPI growth over the entire quarter amounted to 3.0%, total growth occurred over the first two months (April, with monthly price growth of 0.9%, and May, with 2.1%), while the CPI remained unchanged in June. These monthly movements were to a significant extent linked to trends in prices of fresh fruit and vegetables. Prices of these foodstuffs initially saw major increases in April and May – thereby contributing to the relatively high inflation rate over these two months – and then dropped substantially in June.

July saw a major drop in inflation as measured by the CPI. This index was lower by 0.9% in relation to June. The drop was primarily caused by the fall in prices of fresh fruit and vegetables, as well as stagnation of prices of oil products – which had all made substantial contributions to the growth of the CPI over the preceding several months.

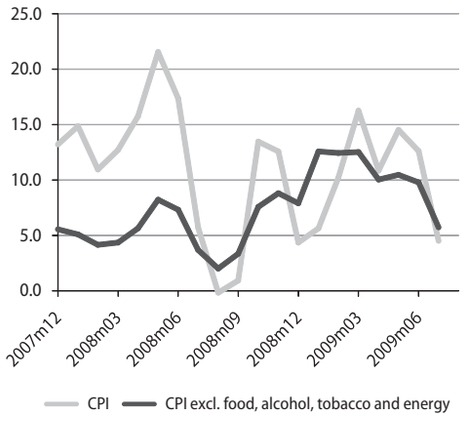
Deflation was recorded in June and July, primarily due to high volatility of fruit and vegetable prices

Therefore, if June and July are taken into account, a deflationary trend is becoming apparent, as these two months had initially seen price stagnation followed by price drops. It should be noted, however, that these movements are to a large extent determined by the high volatility of prices of fresh fruit and vegetables (which had first recorded major growth in April and May, only to drop significantly in June and July), as well as the halting of the rise in prices of oil products, whose movements depend on exogenous factors (the price of oil in the global market). In addition, movements in the CPI in Q1 were primarily determined by administrative measures that affected the prices of certain goods and services (such as the raising of the excise duty on tobacco and some alcoholic beverages, and the increase in the price of heating).

The "underlying" inflation trend has also slowed

We can obtain a more accurate picture of the real price movement trend by observing movements in the CPI with food, alcoholic beverages, tobacco and energy excluded. When viewed in this manner, the CPI is more precise when it comes to ascertaining the "underlying" inflation trend. The CPI less prices of food, tobacco and energy ("underlying CPI") rose by 3.0% in Q1, or 12.5% at the annual level, while the Q2 underlying CPI grew by 2.4%, or 10.5% at the annual level (Table

Graph T5-3. Serbia: Consumer Price Index, Selected Components, 2007-2009



Source: SORS and *QM* estimates.
Note: Graph rates represent monthly moving averages for three months, annualized.

T5-3). The slowdown in the inflation trend is all the more apparent when one also considers July data. The growth of the underlying CPI over the three months to July (May, June, July) stood at some 1.4%, or slightly under 6% when annualized.

It is interesting to compare movements in the underlying CPI in Serbia and other Eastern European economies since the beginning of the economic crisis. Table T5-4 shows growth in the underlying CPI from September 2008 to July 2009 for selected countries. The table makes it apparent that the underlying inflation trend has been higher in Serbia than in any of the observed countries since the beginning of the crisis.[1] The lowest inflation rate in this period was seen by the Baltic States, which also recorded the greatest fall in economic activity. The same table also shows changes to the nominal local currency/euro exchange rate for countries with flexible exchange rates. Serbia's currency can be seen to have depreciated to a degree comparable to other countries. In addition, the table shows simple pass-through from exchange rate to inflation, where two groups of countries can be observed: Hungary, Romania and Serbia recorded greater pass-through, which was, on the other hand, minor in Poland and the Czech Republic.

Still, underlying inflation in Serbia remains higher than in other comparable economies

Table T5-4. Selected Countries: Underlying Inflation Trend and Nominal Exchange Rate Depreciation Since Beginning of Economic Crisis, September 2008 – July 2009

	increase in CPI excl. food, alcohol, tobacco and energy	nominal exch. rate depreciation	pass-through from nominal exch.rate to prices
		in %	
Bulgaria	2.9	…	…
Czech Rep.	0.6	5.3	10.6
Hungary	5.5	13.0	42.4
Poland	2.7	27.3	9.8
Romania	6.0	16.4	36.8
Slovakia	1.2	…	…
Slovenia	0.9	…	…
Estonia	-0.4	…	…
Latvia	0.0	…	…
Lithuania	0.8	…	…
Serbia	7.7	21.9	35.1

Source: Eurostat, SORS and *QM* estimates.

We expect to see much lower inflation in the second half of the year…

We can expect inflation to be substantially lower over the second half of the year than in the first semester; this forecast is based on the following set of assumptions. Administratively controlled prices, as well as those of oil products, proved to be the main driver of inflation over the first half of 2009. However, authorities have repeatedly assured the public that administratively controlled prices will not be raised significantly (or even at all) until the end of the year. On the other hand, we can expect further increases in the prices of oil products, as futures prices from August indicate that the cost of crude oil could rise by some 10% to 15% by the end of the year. As for prices that are not administratively controlled, we have already said that a slight slowdown in

1 Although we have excluded most products and services whose prices are under the direct impact of exogenous factors (e.g. the movement of oil prices in the global markets, or administrative measures imposed to directly establish certain prices), this group still includes services whose prices are not formed in the free market – telecommunications services and the TV license fee. Administrative measures were imposed in Serbia in Q1 that drove the cost of these up, which is yet another reason for underlying inflation being higher in Serbia than in other countries under consideration.

their trend has been recorded in June and July, and that it is likely that they will continue rising at a rate similar to that seen over these two months. Bearing these assumptions in mind, we can expect to see inflation, as measured using the Consumer Price Index, reach a level of between 8% and 9%. The risks inherent in this forecast are mainly associated with a possibly greater increase in oil prices, an unexpected rise in any of the administratively controlled prices, or an increase in the VAT (although, all things considered, this will not after all occur in 2009).

…which will create conditions for a possible relaxation of monetary policy

A rate of inflation of 8% to 9% at year-end 2009 implies that inflation will amount to a mere 1% to 2% over the second half of the year, or some 2% to 4% when annualized. When one considers that inflation stood at 7% in the first half of the year, or as much as 14.4% when annualized, it becomes apparent that the second semester will see a major slowdown in prices. Taking into account such a major deceleration in inflation and the stable exchange rate of the dinar seen over the past several months, it appears that room may be made for relaxing monetary policy to a certain extent.

Retail Price Index (RPI)

RPI growth remained high in Q2…

The rise of the Retail Price Index in Q2 amounted to 3.1%, or as much as 13.0% at the annual level (Table T5-5). By way of a reminder, the preceding quarter had seen much higher inflation, of 5.8%, or a high 25.6% when annualized. RPI growth in 2009 to June thus reached 9.8%.

Table T5-5. Serbia: Retail Price Index and Core Inflation, 2006-2009

	Retail Price Index					Core Inflation				
	base index (avg. 2005 =100)	y-o-y growth	cumulative index	monthly growth	3m moving average, annualized[1)]	base index (avg. 2005 =100)	y-o-y growth	cumulative index1)	monthly growth	3m moving average, annualized[1)]
2006										
Mar	110.0	14.4	2.2	0.3	9.1	108.1	11.7	1.7	0.8	7.0
Jun	113.7	15.1	5.7	0.0	14.4	110.4	11.3	3.9	0.6	8.7
Sep	114.1	11.6	6.1	-0.2	1.4	112.1	10.1	5.5	0.6	6.6
Dec	114.7	6.6	6.6	0.1	2.1	112.5	5.8	5.8	0.0	1.2
2007										
Mar	116.1	5.6	1.2	0.8	5.1	112.4	4.0	-0.1	0.1	-0.4
Jun	119.5	5.1	4.2	0.6	12.0	113.4	2.7	0.8	0.5	3.7
Sep	122.6	7.4	6.9	0.8	10.9	115.9	3.4	3.1	1.0	9.4
Dec	126.3	10.1	10.1	1.3	12.6	118.6	5.4	5.4	0.9	9.5
2008										
Mar	129.8	11.8	2.8	1.2	11.6	120.3	7.0	1.4	0.6	5.8
Jun	134.0	12.1	6.1	1.0	13.4	124.7	10.0	5.2	1.4	15.7
Sep	134.8	9.9	6.7	0.2	2.4	127.7	10.2	7.7	0.9	9.9
Oct	136.4	10.6	8.0	1.2	6.8	129.2	10.7	8.9	1.1	12.7
Nov	136.2	9.2	7.8	-0.1	5.2	130.1	10.7	9.7	0.7	11.4
Dec	134.8	6.8	6.7	-1.0	0.2	130.6	10.1	10.1	0.4	9.2
2009										
Jan[2)]	138.8	8.9	3.0	3.0	7.9	131.9	10.9	1.0	1.0	8.8
Feb	142.0	10.7	5.3	2.3	18.6	133.5	11.6	2.2	1.2	10.9
Mar	142.7	9.9	5.8	0.5	25.6	134.0	11.4	2.6	0.4	10.8
Apr	144.3	10.0	7.0	1.1	16.7	134.4	10.5	2.9	0.4	7.9
May	146.4	10.4	8.6	1.5	13.1	135.4	10.1	3.7	0.7	5.9
Jun	147.1	9.8	9.1	0.4	13.0	136.3	9.3	4.4	0.7	7.3
Jul	146.8	9.5	8.9	-0.2	7.3	137.1	9.4	5.0	0.5	8.1

Source: SORS and *QM* estimates.
1) Monthly moving averages for three months, annualized.
2) SORS discontinued the practice of publishing core inflation data in January 2009. Core inflation data for the period since January 2009 are thus QM estimates based on available information.

…due to rising "non-core" prices…

As in the preceding quarter, the greatest contribution to the growth of the RPI was made by "non-core" prices, which account for some 70% of RPI growth. On the other hand, the contribution made by non-core inflation[2] to RPI growth amounted to some 30%. The contribution of core inflation rose slightly in relation to the previous quarter, when core prices accounted for 20% of the rise in the RPI.

2 Core inflation measures price movements of products and services that are not under administrative control but are rather freely traded on the market. Thus, the prices of electricity, oil products, utilities etc. are excluded from core inflation figures. In addition, core inflation does not include agricultural products as their prices are heavily influenced by seasonal factors. We must underline that this section treats core inflation as a part of the Retail Price Index. SORS has not published core inflation figures since 2008, meaning that analysis of core inflation has since 2009 been based on QM estimates using available information.

…or, rather, primarily due to rising prices of oil products

When individual products and services are taken into consideration, it can be concluded that (as for the CPI) the greatest contribution to overall price growth was made by oil products: these account for nearly 50% of the increase in the Retail Price Index (Table T5-6). Let us mention that oil products' share in the Retail Price Index is approximately twice as great as in the Consumer Price Index.[3] Thus any rise in the prices of oil products is reflected to a much greater extent in the RPI than in the CPI.

If oil products are excluded, the rise in the Retail Price Index in Q2 appears much lower, standing at 1.7%, or 7.1% when annualized. In addition to the rise in oil prices, a somewhat greater contribution to RPI growth was made by public utility services, which accounted for 10% of overall price growth, and medicines, which contributed slightly over 7%. The contribution of other products and services was relatively minor.

Table T5-6. Serbia: Retail Price Index, Contribution to Growth by Selected Components, 2009

	Share in RPI	Price growth in Q2	Annualized price growth in Q2	Contribution to RPI growth in Q2
			in %	
Total RPI	100.0	3.1	13.0	100.0
Core inflation	46.7	1.8	7.3	28.5
"Non-core" inflation	53.3	4.2	17.7	71.5
Agricultural products	4.1	5.3	22.8	6.9
Liquid fuels and lubricants	9.3	16.6	84.8	49.4
Medicines	2.2	10.5	49.2	7.5
Public utility services	8.6	3.5	14.6	9.6

Source: SORS and QM estimates.
Note: SORS has not published core inflation figures since January 2009, meaning that analysis of core inflation has since January 2009 been based on QM estimates using available information.

Core inflation was somewhat lower in Q2 than in Q1…

Core inflation (calculated as component of the RPI) stood at some 1.8% in Q2, or 7.3% at the annual level (Table T5-5). This represents a slowdown in relation to the previous quarter, when core inflation amounted to about 2.6%, or a relatively high 10.8% when annualized.

…but no major change in the inflation trend has thus far become apparent in Q2

However, the relatively high core inflation rate seen in the preceding quarter was to a great extent the consequence of increased excise duties on certain alcoholic beverages (that make up core inflation). The hike in excise duties is, nonetheless, an administrative measure and as such does not reflect market trends. Thus a more accurate picture of core inflation movements can be obtained by excluding prices of alcoholic beverages.

When these are therefore excluded, core inflation is seen to have remained virtually unchanged from Q1 in Q2: in both quarters it stood at about 2%, or some 8% at the annual level. Thus, the core inflation trend in Q2 remained at a level of some 8% annually. This is somewhat unexpected, as it shows that the fall in economic activity has failed to bring about a more substantial slowdown in core inflation. Let us note that we had, in the previous issue of *QM*, ventured our view that the fall in economic activity could lead to a drop in the core inflation trend to some 5% at the annual level.

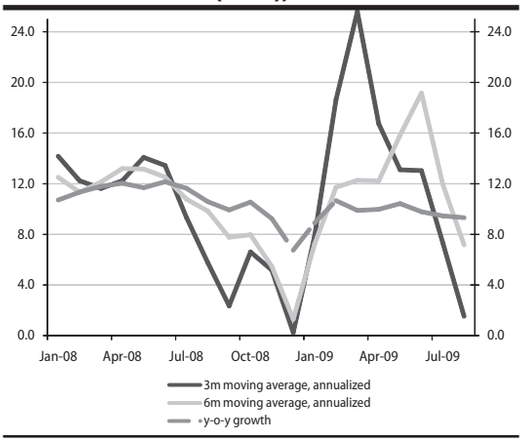
Contributions made by individual groups of products and services to core inflation in Q2 were, generally, in line with their share in core inflation. The share of foodstuffs in core inflation is some 36%, while their contribution amounted to 35%; the figures for beverages were 9% and 7%, respectively; for industrial non-food products, 41% and 42%, respectively; and for services, 14% and 16%, respectively.

Both overall and core inflation showed signs of a substantial slowdown in July…

Both overall and core inflation showed signs of slowing down in July (Table T5-5). Overall inflation entered negative territory (with the rate standing at -0.2%), primarily due to a major drop in prices of agricultural produce. Although seasonal in nature, this dip was nonetheless greater than usual (prices of agricultural produce dropped by as much as 16.5% in July). Core inflation was lower in July than in either May or June, standing at 0.5%. This month also saw

3 To be precise, oil products make up 9.25% of the RPI and 4.66% of the CPI.

Graph T5-7. Serbia: Movements in the Retail Price Index (in %), 2008-2009



Source: SORS.

…while August data confirm that a change in the trend is in the offing, with price growth slowing

greater contribution to core inflation made by foodstuffs, mainly on account of the rise in prices of edible oils, while those of construction products, conversely, went down.

August data confirm that the price growth trend is slowing. The RPI growth rate amounted to just 0.1% in August. Thus, when the three last months for which data are available (June, July and August) are taken under consideration, the RPI growth rate stands at under 0.4%, or a mere 1.5% when annualized (Graph T5-7). This is a major drop relative to the preceding three months (March, April and May), where RPI growth amounted to 3.1%, or 13.1% when annualized.

RPI growth will be substantially lower over the second half of the year than in the first semester

The remainder of 2009 will in all likelihood see a major slowdown of RPI growth in relation to the first half of the year. Overall inflation, as measured using the Retail Price Index, could stand at between 10% and 13% at the end of the year, depending on which initial assumptions are used. Inflation is, however, more likely to reach the upper limit of this band, i.e. between 12% and 13%. These estimates are based on assumptions similar to those employed in forecasting further CPI trends. The greatest uncertainty is the further movement of crude oil prices in the global market. If year-end oil prices were to reach levels indicated by current futures prices, inflation as measured using the RPI would stand at about 12%.

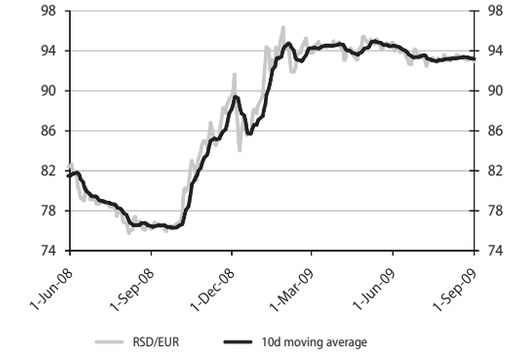
This forecast implies that the second half of the year will see a major slowdown in the RPI growth rate: RPI growth over the second half of the year will stand at between 1% and 4% (in all probability from 2.5% to 3.5%). This corresponds to an annualized inflation rate of between 2% and 8%, with the most likely rate being some 5% to 7% at the annual level. By way of a reminder, inflation as measured using the Retail Price Index stood at 9%, or 18% when annualized, over the first part of the year.

Exchange Rate

The nominal dinar exchange rate remained stable both in Q2 and throughout July and August…

The nominal dinar/euro exchange rate was stable (Table T5-8). In Q2, as well as throughout July and August, the exchange rate mainly fluctuated within the relatively narrow band of between 93 and 95 dinars to €1 (Graph T5-9). Exchange rate stability was achieved even in the absence of virtually any NBS intervention throughout this period.

Graph T5-8. Serbia: Daily RSD/EUR Exchange Rate, 2008-2009



Source: NBS.

The dinar appreciated in relation to the euro in Q2 by 3.2% in real terms. As the nominal exchange rate was stable, while Serbia's inflation was higher than that of the eurozone, the real exchange rate has been appreciating. From the beginning of the financial crisis (i.e. from September 2008) to July 2009 the real exchange rate appreciated by 11.0% (Graph T5-10). After major nominal depreciation recorded in late 2008, real depreciation bottomed out in January, with the dinar sliding by 16.3% in real terms in relation to the euro. Renewed real appreciation began in January, slowly at first, and then picked up pace in March. Overall real appreciation of the dinar in relation to the euro amounted to 4.6% from January to July.

…but the real exchange rate has been appreciating

Real appreciation cannot be desirable, given the high current account deficit recorded before the crisis. Although the current account deficit fell dramatically in Q2, this improvement reflects a substantial fall in economic activity rather than any fundamental changes to the foreign trade balance. As economic activity recovers, the foreign trade balance is likely to deteriorate again, which is why no further real appreciation of the dinar would be desirable in the near future.

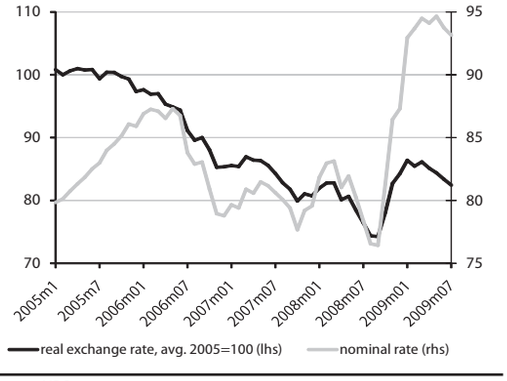
Comparative movements in the nominal exchange rate of the other currencies to the euro in Serbia and selected Eastern European countries with flexible foreign exchange rates are shown in Graph T5-11. It can be seen that the dinar depreciated from the start of the crisis to an extent similar to that recorded by other currencies. However, since mid-Q1 Central European currencies have been seeing nominal appreciation, while the dinar and the Romanian leu have remained approximately at March levels.

Table T5-9. Serbia: RSD/EUR Exchange Rate, 2005-2009

	Nominal				Real			
	exchange rate (FX)[1]	base index[2] (avg.2005 = 100)	y-o-y index[3]	cumulative index[4]	real FX[5] (avg.2005 = 100)	y-o-y index[3]	cumulative index[4]	USD/EUR Rate[6]
	monthly exchange rate							
2005								
December	85.9073	103.6	109.3	109.3	97.4	94.9	94.9	1.1861
2006								
December	78.7812	95.0	91.7	91.7	85.4	87.7	87.7	1.3210
2007								
December	79.5669	96.0	101.0	101.0	80.7	94.6	94.6	1.4563
2008								
March	83.1319	100.3	102.8	104.5	82.8	95.2	102.6	1.5516
April	81.0287	97.7	100.6	101.8	80.1	92.7	99.2	1.5770
May	81.9403	98.8	100.6	103.0	80.6	93.4	99.9	1.5569
June	80.2460	96.8	98.9	100.9	78.5	91.7	97.2	1.5556
July	78.3728	94.5	97.2	98.5	76.4	90.7	94.7	1.5773
August	76.5517	92.3	95.6	96.2	74.4	89.8	92.2	1.4987
September	76.4226	92.2	96.3	96.0	74.2	90.8	92.0	1.4387
October	81.2956	98.0	104.7	102.2	78.1	97.7	96.7	1.3309
November	86.4508	104.3	109.2	108.7	82.7	102.0	102.5	1.2726
December	87.3002	105.3	109.7	109.7	84.3	104.4	104.4	1.3482
2009								
January	92.9458	112.1	113.6	106.5	86.4	105.4	102.5	1.3327
February	93.6865	113.0	112.9	107.3	85.5	103.2	101.4	1.2797
March	94.4951	114.0	113.7	108.2	86.1	104.0	102.2	1.3041
April	94.1074	113.5	116.1	107.8	85.1	106.3	101.0	1.3204
May	94.6553	114.2	115.5	108.4	84.4	104.7	100.2	1.3640
June	93.7408	113.1	116.8	107.4	83.4	106.3	99.0	1.4027
July	93.1547	112.3	118.9	106.7	82.4	107.9	97.8	...

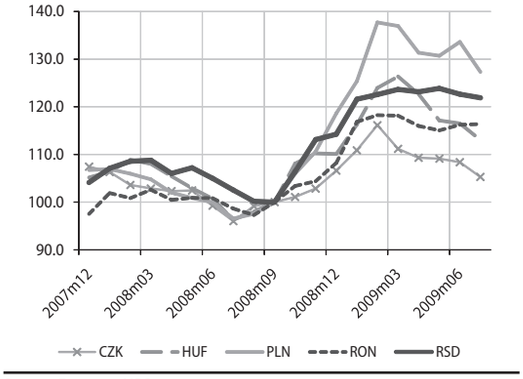
Source: NBS, SORS, Eurostat. 1) Monthly average, official daily NBS mid rate. 2) Ratio of fx in Column 1 and average fx in December 2002. 3) Ratio of fx in Column 1 and fx for the same period in previous year. 4) Cumulative is the ratio of given month and December of previous year. 5) The calculation of the real exchange rate takes into account Eurozone inflation. Index calculation: RE = (NE/p) x p*, where: RE - real fx index; NE -nominal fx index; p - Serbia RPI index; p* - Euro area CPI index. 6) Period average.

Graph T5-10. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2005-2009



Source: NBS.

Graph T5-11. Selected currencies: Nominal Exchange Rates/Euro (September 2008 = 100), 2007-2009



Source: Eurostat, NBS.

6. Fiscal Flows and Policy

A trend of a real decline in public revenues against the same period last year, as well as against a planned amount (which started already in Q4 2008), continued in Q2 2009. A real decline in public revenues of 13.4 percent in Q2 2009 is somewhat bigger than the decline in Q1. Such a significant decline in public revenues largely stems from a significant decline in revenues from taxes on consumption (VAT and customs duties, most of all), which speaks of continued recessionary trends in the Serbian economy. However, in the course of Q2 there was a significantly accelerated decline in collection of taxes on production factors (personal income tax, mandatory social security contributions and corporate income tax). At the same time, due to abovementioned limits on the revenue side, as well as because of the implementation of the programme agreed with the IMF, public expenditures fell by 6% in real terms against the same period last year. Since the trend of an accelerated decline in real revenues against real spending continued in the course of Q2, a consolidated fiscal deficit in Q2 2009 reached 44.3 billion dinars or almost four times more than in Q1 2009. The total consolidated fiscal deficit in Q1 and Q2 2009, of 56 billion dinars, was 60% higher than the amount agreed with the IMF for that period. Data on public revenues in July indicate a recovery in public revenues, and there are also indications that the same trend extended into August. In the period between March and end-July 2009, Serbia's total public debt rose by around 770 million euros (i.e. around 2.5 percent of GDP) to 9.69 billion euros (around 31.4% of GDP).

General Trends and Macroeconomic Implications

A strong real decline in public revenues continues. Although steeper than in the previous quarter, the fall in real public expenditures is still slower than the revenue decline and the deficit expands significantly

In the course of Q2 2009, there was a further significant decline in public revenues in real terms by 13.4% compared with the same period last year, exceeding the decline in Q1 2009 (12.6%). Consolidated public revenues in Q2 are around 9% lower than planned (agreed with the IMF). Considering that taxes on consumption (indirect taxes) dominate the Serbian fiscal system, the abovementioned decline in public revenues in real terms in Q2 2009 mostly resulted from a significant real decline in indirect tax revenues, which speaks of strong recessionary trends in the Serbian economy.

Looking at the first two quarters of 2009 – consolidated revenues of the state fell by 13% in real terms against the first half of 2008, and they were at the same time around 4% below plan.

Speaking of particular tax revenues, one can see that all tax revenues fell in Q2 in real terms, except for revenues from excise duties, which posted a 4.9% growth due to an increase in excise duty' rates[1]. Tax forms which saw a decline in real revenue collection, the biggest decline was in the category of taxes on consumption (customs duties and VAT), but at the same time there emerged a strong decline in real revenues from corporate income tax, social security contributions and personal income tax.

In the course of Q2 2009, real consolidated revenues of the general government fell by 6% against Q2 2008. At the same time, consolidated expenditures in Q2 were 2% below plan (agreed with the IMF). Looking at individual public spending categories, one sees that a steep decline against Q2 2008 was posted in spending on wages, subsidies, other current expenditures and capital expenditures, while spending on purchases of goods and services, interest rate repayments and social transfers (dominated by transfers to the Pension fund) rose in real terms. It is important to stress that growth in transfers to the Pension fund somewhat slowed in Q2 2009. But looking at the first two quarters of 2009, those transfers were still 11.2% higher (in real terms) compared with the first six months of 2008.

1 It is interesting to remind of many economists assessments that an increase in excise duties would not lead to an increase in revenues. They assessed that an increase in excise duties will lower consumption of the goods subject to excise duties that following an increase in excise duties the government will have lower revenues than before their increase.

Looking at the first six months of 2009, real expenditures fell by a cumulative 4.8% against the first half of 2008. The total consolidated spending of the general government in the first two quarters approximately matched the volume of expenditures agreed with the IMF.

As a result of a steeper real decline in public revenues versus public expenditures, the consolidated fiscal deficit in Q2 2009 reached 44.3 billion dinars, or almost four times the deficit from Q1 this year, when the deficit stood at 11.7 billion dinars. Such a high consolidated fiscal deficit of the general government was mostly financed through Treasury bill issues.

Table T6-1. Serbia: Consolidated General Government Fiscal Operations[1], 2006-2009

	2006	2007	2008					2009		
	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q1-Q2
I TOTAL REVENUE	865.8	1,000.7	269.4	281.4	283.3	311.8	1,145.9	258.8	268.1	526.9
II TOTAL EXPENDITURE	-888.4	-1,031.5	-254.0	-295.8	-286.6	-359.3	-1,195.7	-269.6	-306.1	-575.6
III "OLD" DEBT REPAYMENT, NET LENDING AND RECAPITALIZATIONS	-10.9	-15.3	-4.4	-5.2	-1.2	0.6	-10.1	-0.9	-6.3	-7.2
o/w Net lending [2]	*-10.9*	-15.3	-4.4	-5.2	-1.2	0.6	-10.1	-0.9	-6.3	-7.2
IV TOTAL EXPENDITURE, GFS (II+III)	-899.3	-1,046.8	-258.4	-301.0	-287.8	-358.7	-1,205.8	-270.5	-312.4	-582.9
V CONSOLIDATED BALANCE (I+IV), GFS definition[3]	-33.5	-46.1	11.0	-19.6	-4.4	-46.9	-59.9	-11.7	-44.3	-56.0
VI FINANCING (FREN's definition)	119.6	24.2	5.0	-12.2	-1.3	11.4	2.9	45.4	40.0	68.9
VII ACCOUNT BALANCE CHANGE (V+VI)	86.2	-21.9	16.0	-31.8	-5.7	-35.4	-57.0	33.7	-4.3	12.9
VIII TOTAL REVENUE/GDP (%)	42.4	41.9	43.5	40.7	40.3	42.7	41.7	39.1	37.0	38.0
IX TOTAL EXPENDITURE/GDP (%)	(44.0)	(43.7)	(42.2)	(43.5)	(41.1)	(49.7)	(44.3)	(40.8)	(43.1)	(42.0)
X CONSOLIDATED DEFICIT/GDP (%)	(1.6)	(1.9)	(1.3)	(2.8)	(0.8)	(7.0)	(2.5)	(1.8)	(6.1)	(4.0)

Source: Table P-10 in Analitical Appendix

1) Includes all levels of government (central, provincial and municipal) and their budget beneficiaries and social security organizations (Serbian Pension and Disability Insurance Funds, Health Insurance Funds, National Employment Service, but not public enterprises and the NBS.

2) The item corresponds to the item "Net acquisition of financial assets for policy purposes" in the PFB (in accordance to GFS 2001), i.e. to the item "net lending" or "lending minus repayment" in the IMF presentation (i.e. GFS 1986). It comprises loans to students, financing of the National Corporation for Housing Loan Insurance and the like.

3) See Table P-10 in Analytical appendix.

Consolidated deficit of the general government in Q1 and Q2 was 56 billion dinars or 60% more than the deficit for the first two quarters agreed with the IMF

Looking at the entire first half of 2009, the consolidated fiscal deficit of the general government stood at 56 billion dinars (around 4% of GDP in the first half of the year), while the deficit for Q1 and Q2 2009 agreed with the IMF was 35 billion dinars (90 billion dinars for the whole of 2009). Accordingly, the consolidated fiscal deficit of 56 billion dinars was 60% higher than the agreed deficit for the first two quarters. This deviation mainly resulted from underperforming current revenues. On the revenue side, the biggest deviations from the plan were in the collection of VAT and non-tax revenues. Deviations from the plan for VAT can partially be explained with a further decline in domestic consumption, particularly import demand. For non-tax revenues, the significant deviation from the plan can be contributed to a delayed implementation of measures agreed with the IMF, such as the payment in full of accumulated profits of public companies and the payment of 40% of own revenues of state institutions to the central government budget.

The biggest part of the deficit was financed through domestic borrowing, with a Treasury bill issue

The 56 billion dinar deficit in the first half of 2009 was largely financed through domestic borrowing, through a Treasury bill issue, and to a far lesser degree from privatization revenues.

Since it is not possible to further lower public expenditures and considering an unambiguous resistance in public to an increase of the most important taxes (VAT, personal income tax) and at the time of extended strong recessionary trends in the Serbian economy (mainly caused by disturbances on the demand side), an increase of the fiscal deficit is the least unfavorable solution, along with the strengthening of the fiscal discipline and the beginning of preparation of systemic measures designed to lower public spending over the medium and long term.

Central budget revenues significantly rise in July, so that the budget deficit stood at only 860 million dinars

Serbia's government budget revenues posted a significant increase in July 2009 against the previous month of the current year. Total budget revenues in July 2009 -- 6% below July 2008 (in real terms) -- were for the first time higher in nominal terms than in the same month last year. The amount of budget revenues in July was by more than 10 billion dinars higher than in June 2009. In contrast, Serbia's government budget spending in July this year, was approximately the same as in June 2009, but at the same time 11 % higher in real terms compared with the

spending in July 2008[2]. As a result of the mentioned trends, the Serbian budget deficit was only 862 million dinars, which is significantly less than in Q2, when the average monthly budget deficit stood at around 14 billion dinars. As the narrowing budget deficit resulted from a steep revenue increase compared with previous months, the explanation for the mentioned shrinking of the deficit should be sought on the revenue side of the budget.

The most significant revenue increase in July against June 2009 was in VAT, customs duties, excise duties and non-tax revenues. The VAT tax increase was partially seasonal, resulting from the fact that small tax payers, who pay VAT on a quarterly basis, made their VAT payments for Q2 in July. The revenue increase in July is also partially the result of the start of implementation of some measures agreed with the IMF, such as the payment of the part of own revenues by budget recipients[3] and a collection of a part of profit of public companies. Those two measures will be generating revenues through the end of 2009. Besides, an increase in revenues from VAT, customs duties, as well as non-tax revenues, is partially the result of one-off factors, such as the re-registration of motor vehicles with Montenegrin license plates. It is believed that budget revenues rose in July 2009 also because of an improved liquidity of the economy (e.g. the government paid its debts to road companies and retail chains paid debts to their suppliers).

…it is still unclear whether positive results in July are an incidental oscillation of the tax collection or represent a turnaround of the trend

The July revenue increase, and according to some indications in August as well, is greater than what would have been warranted by one-off factors (car re-registration), seasonal factors (quarterly payment of VAT) and the implementation of new measures (partial payment of own revenues, payment of profits). However, it is still unclear whether this is an incidental oscillation of the tax collection or it could be a turnaround of the trend, resulting from emerging economic recovery.

The Analysis of Individual Tax Forms and Individual Public Spending

A steep real decline in revenues from VAT and customs duties has continued, while real revenues from excise duties rise, first of all due to higher tax rates

Trends in real revenues from taxes on consumption in Q2 2009 were divergent. Real revenues from VAT and customs duties continued in the course of Q2 2009 their steep decline, which started in Q1, with the decline accelerating in Q2. In the course of Q2, VAT revenues fell by 19.9% in ear terms against Q2 2008, while revenues from customs duties fell by 37.4%. At the same time, revenues from excise duties rose by 4.9% in real terms against the same period last year, mainly owing to higher excise duty' rates, raised in February and May 2009. Excise duties represent a single tax form, which posted an increase in tax collection in Q2 2009. A steep decline in VAT and customs duty revenues against Q2 2008 is a consequence and an indicator, of the depth of recessionary trends in the Serbian economy, because those taxes are paid on the consumption of domestic and imported goods and services. It is necessary to mention that VAT revenues in Q2 were significantly below plan (12%), while revenues from excise duties were only 1% below and customs revenues were around 6% above planned.

Decline in collection of taxes on production factors strongly accelerates

In the course of Q2 2009, there was a significant acceleration of the fall of revenues in real terms from taxes on production factors. Revenues from the personal income tax fell in Q2 2009 by 10.8 % (in real terms) against the same period last year (this was twice as deep a decline compared with Q1), while revenues from social security contributions fell by 16.7% (four times as deep as in Q1). Considering that the wages (which represent the major source of revenues for individuals in Serbia) paid in Q2 2009 were 2% higher compared with the same period 2009, and in the meantime there was no significant increase in unemployment, it can be concluded that the reasons for the mentioned fall in revenues from personal income tax collection and social security contributions, were weaker fiscal discipline and a growing delay in payment of wages to the workers (because the income tax and social security contributions are being paid at the time of salary payments). The amount of income tax in Q2 was 4% below plan, while revenues from social security contributions were in line with the plan.

2 The low level of spending in July last year was partially the result of the fact that it was the first month of the new government, and therefore the discretionary revenues (public investment, purchases of goods and services, state interventions in the economy, etc.) were at a low level.

3 Instead of initially planned rate of 40%, a reduced rate of 12.5% is being implemented.

In the course of Q2 2009, just like in the previous two quarters, revenues from corporate income tax fell in real terms, with the decline in Q2 2009 against Q2 2008 (of 37.2%) significantly higher than the decline in the previous two quarters. At the same time, the amount of revenues from the corporate income tax in Q2 was 38% below the plan. Possible reasons for such a steep decline in corporate income tax revenue, beside weaker fiscal discipline, are also shrinking liquidity of the economy in the course of 2009 and a lower profitability in 2008 against 2007, because the results in 2008 serve as a basis for advanced payment of taxes in 2009 (pre-tax profit for the whole of the economy in 2008 fell by 7% against 2007).

The fall in real spending accelerates, mainly the spending for wages, subsidies, capital spending…

The real decline in consolidated expenditures of the general government in Q2 2009 of 6% against Q2 2008 resulted from a significant decline in real expenditures on wages, subsidies, other current expenditures and capital expenditures. At the same time, spending on the purchase of goods and services, payment of interest rates and social transfers posted real growth.

Expenditures on wages in Q2 2009 posted a 10.3% decline in real terms compared with the same period last year (in comparison, the fall in spending on wages in Q1 stood at 3.8%). The mentioned decline in real spending on wages is a result of the decision to freeze nominal wages of the public sector workers, a wage cut for those working in the state administration who earn more than 40,000 dinars as well as the reduction in the number of free-lance workers and persons with temporary or occasional contracts in the public sector. It is also necessary to mention that the amount of expenditures on wages in Q2 was 5% below plan.

Following a real decline in expenditures on purchases of goods and services in Q1 2009 by 16.8 %, this spending rose in Q2 2009 by 4% in real terms against the same period last year, because of which the total spending on purchases of goods and services in Q2 2009 was 10% above plan. This increase can partially be explained by the fact that a postponement in payments of deferrable spending items, and which were not fulfilled in Q1 due to lack of funds, were fully paid in Q2.

At the same time, expenditures on subsidies, in line with budget plans, had a relatively biggest decline in real terms compared with Q2 2008, of 39.8%. Total spending on subsidies in Q2 was 2% below plan, because it was possible to defer this spending item.

…while spending on pensions continues to rise in real terms compared with the same period last year

Social transfers in Q2 2009 were 3.3% higher in real terms compared with the same period last year, while transfers to the Pension fund, which represent the biggest item within social transfers, rose by 7.7% in real terms compared with Q2 2008, which indicates that other categories of social transfers posted a significant decline in real terms. Even though the transfers to the Pension fund individually posted the strongest growth compared with other spending items, it is necessary to mention that the growth rate was single-digit for the first time since Q1 2008. But, even though it was lower than in the previous quarters, the 7.7% growth rate in real terms is significant because spending of the Pension fund accounted for 31.6% of consolidated spending of the general government in Q2 2009. It is necessary to mention that spending based on transfers to the Pension fund in Q2 were within the planned framework.

Following the real growth in capital expenditures in Q1 2009 (14,7%), capital spending fell by 24.2% in real terms in Q2. That is why the total volume of capital expenditures in Q2 was 16% below plan. The mentioned decline in capital expenditures (equally against the previous year and the plan) resulted from a delay in implementation of some projects, due to unprepared project documentation, unresolved ownership issues, etc. Those public expenditures trends at the same time bring into question the capacity of the central government to implement numerous infrastructure projects within planned timeframe.

Table T6-2. Serbia: Consolidated General Government Fiscal Operations[1], 2006-2009

	2006	2007	2008					2009		12-m									Comparing to previous period
	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	2006 Q1-Q4	2007 Q1-Q4	2008 Q1	2008 Q2	2008 Q3	2008 Q4	2008 Q1-Q4	2009 Q1	2009 Q2	2009 Q1-Q2	Q2/Q1
	in bn. dinars									real growth, in %										
I PUBLIC REVENUES	**865.8**	**1,000.7**	**269.4**	**281.4**	**283.3**	**311.8**	**1,145.9**	**258.8**	**268.1**	**6.8**	**8.4**	**7.6**	**5.2**	**2.8**	**-0.7**	**3.4**	**-12.6**	**-13.4**	**-13.0**	**0.2**
o/w: Public revenues excluding VAT liabilities to enterprises and offsets with SDF[2], [3]	*855.6*	*995.2*	*269.4*	*281.4*	*283.3*	*311.8*	*1,145.9*	*258.8*	*268.1*	*8.9*	*9.1*	*8.3*	*6.5*	*3.3*	*-0.6*	*4.0*	-12.6	-13.4	13.0	*0.2*
1. Current revenues	855.5	995.4	268.9	280.3	282.6	311.3	1,143.1	258.3	267.2	6.7	7.9	7.7	5.0	3.7	0.1	3.7	-12.6	-13.4	-13.0	0.1
Tax revenue	756.0	870.0	234.4	247.4	248.3	270.2	1,000.4	229.8	237.5	5.4	8.0	7.6	5.2	3.6	0.1	3.9	-10.8	-12.8	-11.8	0.0
Personal income taxes	118.6	115.8	29.7	34.1	33.6	39.0	136.5	30.9	33.5	11.9	-8.4	7.1	8.1	4.5	6.5	6.5	-5.3	-10.8	-8.3	4.9
Corporate income taxes	18.3	29.7	15.0	8.1	7.4	8.5	39.0	12.8	5.6	58.0	52.1	15.2	30.0	45.3	-0.2	18.7	-22.2	-37.2	-27.5	-57.6
VAT and retail sales tax	225.1	265.5	73.2	77.0	73.8	77.7	301.7	69.4	67.9	-7.3	10.6	8.7	5.7	-0.3	-2.3	2.7	-13.6	-19.9	-16.8	-5.5
o/w: Net VAT and retail sales tax[2]	*224.5*	*260.3*	*73.2*	*77.0*	73.8	77.7	301.7	69.4	67.9	*0.3*	8.8	*11.3*	*10.3*	*1.3*	*-2.3*	*4.7*	-13.6	-19.9	-16.8	-5.5
Excises	86.9	98.6	23.7	26.6	29.5	30.3	110.1	24.4	30.7	8.3	6.5	5.7	-1.5	2.4	-1.7	0.9	-6.2	4.9	-0.3	21.4
Custom duties	45.4	57.4	14.8	16.9	16.3	16.8	64.8	11.5	11.7	3.9	18.6	10.5	8.8	0.9	-8.7	2.0	-29.4	-37.4	-33.6	-1.5
Social contributions	231.4	270.3	69.7	75.9	78.7	88.5	312.7	73.4	80.1	12.5	9.6	6.9	4.4	5.2	2.5	4.5	-4.1	-16.7	-18.6	6.0
o/w: contributions excluding offsets with SDF[3]	*221.9*	*269.8*	*69.7*	*75.9*	78.7	88.5	312.7	73.4	80.1	*11.3*	*14.1*	*7.0*	*4.6*	*5.2*	*2.8*	*4.7*	*-4.1*	*-4.1*	*-4.1*	5.6
Other taxes	30.3	32.8	8.4	8.8	8.8	9.5	35.6	7.4	8.1	11.1	1.7	-4.5	-5.8	4.0	-1.6	-2.1	-20.5	-4.1	-4.1	5.6
Non-tax revenue	109.6	125.4	34.4	32.9	34.3	41.1	142.7	28.5	29.7	17.1	7.4	8.5	3.3	4.5	-2.7	2.8	-24.6	-17.9	-21.3	0.7
2. Capital revenues	0.3	5.3	0.3	0.5	0.3	0.2	1.4	0.3	0.5	56.3	1,703.2	-55.6	81.3	-89.6	-87.7	-76.8	-20.3	-1.6	-9.0	82.4
II TOTAL EXPENDITURE	**-888.4**	**-1,031.5**	**-254.0**	**-295.8**	**-286.6**	**-359.3**	**-1,195.7**	**-269.6**	**-306.1**	**13.7**	**8.9**	**2.4**	**20.1**	**1.8**	**-1.4**	**4.7**	**-3.4**	**-6.0**	**-4.8**	**9.8**
1. Current expenditures	-807.0	-919.5	-242.0	-272.7	-260.5	-314.4	-1,089.6	-254.4	-286.8	10.6	6.9	6.9	19.5	2.3	2.3	7.1	-4.3	-4.4	-4.4	9.1
Wages and salaries	-204.4	-238.3	-66.5	-74.0	-71.3	-81.4	-293.2	-70.3	-73.0	7.0	9.4	12.7	15.0	9.2	8.5	11.1	-3.8	-10.3	-7.2	0.4
Expenditure on goods and services	-135.9	-168.1	-34.0	-44.2	-45.2	-57.9	-181.2	-31.1	-50.5	12.9	16.1	0.8	8.1	-1.3	-11.4	-2.6	-16.8	4.0	-5.0	57.3
Interest payment	-30.2	-17.9	-6.0	-2.6	-5.1	-3.4	-17.2	-5.8	-4.5	52.6	-44.4	-12.2	-31.4	-3.1	-10.6	-13.2	-13.4	55.9	7.7	-23.6
Subsidies	-55.6	-63.7	-13.3	-22.2	-13.9	-28.3	-77.8	-11.0	-14.7	-10.0	7.6	27.5	88.2	-29.7	0.5	10.3	-24.7	-39.8	-34.1	29.3
Social transfers	-360.4	-409.3	-117.9	-122.4	-120.4	-136.0	-496.8	-132.8	-139.1	13.7	6.5	6.0	19.0	6.8	8.1	9.7	2.5	3.3	2.9	1.4
o/w: pensions[5]	*-227.7*	*-259.9*	*-74.8*	*-81.5*	*-83.6*	*-91.1*	*-331.0*	*-94.5*	*-96.6*	*11.1*	*7.1*	*8.5*	*14.9*	*16.4*	*20.1*	*15.1*	*15.0*	*7.7*	*11.2*	*-1.2*
Other current expenditures	-20.5	-22.1	-4.2	-7.3	-4.6	-7.3	-23.5	-3.4	-4.9	2.9	1.1	-15.7	62.5	-18.9	-20.6	-4.1	-25.8	-39.6	-34.4	36.1
2. Capital expenditures[6]	-81.3	-112.1	-12.0	-23.1	-26.1	-44.9	-106.0	-15.1	-19.2	57.7	29.3	-44.5	28.1	-3.2	-21.0	-14.5	14.7	-24.2	-10.9	23.1
III "OLD" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	**-10.9**	**-15.3**	**-4.4**	**-5.2**	**-1.2**	**0.6**	**-10.1**	**-0.9**	**-6.3**	**47.6**	**-53.9**	**346.5**	**338.0**	**-83.8**	**-108.6**	**-40.3**	**-88.6**	**10.3**	**-47.6**	**561.1**
IV TOTAL EXPENDITURE, GFS (II+III)	**-899.3**	**-1,046.8**	**-258.4**	**-301.0**	**-287.8**	**-358.7**	**-1,205.8**	**-270.5**	**-312.4**	**13.0**	**9.2**	**3.8**	**21.7**	**-0.4**	**-3.5**	**4.1**	**-5.8**	**-5.7**	**-5.7**	**11.7**

Source: Table P-10 in Analytical Appendix.
1) See footnote 1) in Table T6-1.
2) Retail sales tax/VAT minus new tax credits to enterprises.
3) Social contributions reduced by refunds between Pension Fund, Serbian Development Fund and enterprises that are debtors of the Pension Fund.
4) QM's estimate, for details see Table P-10 in Analytical Appendix.
5) Refers to the current expenditures on pensions.
6) Capital expenditures exclude projects financed from abroad (apart in 2004, see footnote 16 in Table P-10).
7) See footnote 2) in Table T6-1.
Note: Real growth is obtained comparing 2003 constant prices quarterly data. Public Debt Analysis

The total public debt at the end of July stood at 9.7 billion euros (around 31.4% of GDP), which is 770 million euros more than at the end of March

The total public debt of the Republic of Serbia as of July 31, 2009 (according to the Ministry of Finance figures) stood at 9.7 billion euros, or 770 million euros more than at the end of Q1 2009 and almost 900 million euros more than at the end of 2009. At the same time it is estimated that the share of public debt in Serbia's GDP at the end of July stood at 31.4 % versus 28.9% at the end of the first quarter (compared with the end 2008, Serbia's public debt rose by 5.5% of GDP).

Of the mentioned 9.7 billion euros of the total public debt, 8.5 billion are direct liabilities and 1.2 billion are indirect liabilities. Of the mentioned 770 million euros in net growth of the public debt between the end of March and end of July 2009, around 520 million are additional direct liabilities, while the remaining 250 million euros are additional indirect liabilities.

The growth in public debt in Q2 mainly refers to the state borrowing through Treasury bill issues, as well as to the borrowing with commercial banks to repay debt to road companies

The structure of additional direct liabilities shows that the majority, or almost 500 million euros, is net borrowing by the state in the local market, while only 20 million euros refers to new external borrowing. Based on that, one can conclude that the mentioned increase in direct public debt in the period April-July 2009, can first of all be contributed to additional state borrowing through the issue of short-term (three-month) Treasury bills. Considering that this represents a significant volume of short-term securities (dominated by three-month maturities), any negative information on the functioning and sustainability of the fiscal system (e.g. a failure to agree with the IMF the continued implementation of the agree loan deal) could lead to an abrupt flight of institutional investors (first of all banks) from the Treasury bill market. Such developments would additionally destabilize the liquidity of the general government and damage its ability to service current liabilities (including those resulting from issued Treasury bills). Besides, if the significant state borrowing in the local market extends into the coming period that would have as a consequence a significant crowding out of the corporate sector from the local financial market.

The government continues to regularly service its liabilities related to public debt

Speaking of direct liabilities, it is worth mentioning that in the course of Q2 2009 the state paid 180 million euros worth of "Old savings", as well as regularly serviced debts to other domestic and foreign creditors.

An increase in indirect public debt in the period April-July 2009 by around 250 million euros, mostly refers to the Serbian state guarantees to three commercial banks for the borrowing raised by Putevi Srbije public road company. Those were three loans which Putevi Srbije agreed with Marfin Bank, Societe Generale Bank and Unicredit Bank, totaling 235 million euros, for which the government issued guarantees.

Table 6-3. Serbia: Public Debt, 2000-2009

	in billions of EUR						
	31.12.2000.	31.12.2005.	31.12.2006.	31.12.2007.	31.12.2008.	31.03.2009.	31.07.2009.
I. Total direct debt	14.2	9.6	8.6	8.0	7.9	8.0	8.5
Domestic debt	4.1	4.3	3.8	3.4	3.2	3.2	3.7
Foreign debt	10.1	5.4	4.7	4.6	4.7	4.8	4.8
II. Indirect debt	-	0.66	0.80	0.85	0.93	0.96	1.2
III. Total debt (I+II)	**14.2**	**10.3**	**9.4**	**8.9**	**8.78**	**8.93**	**9.70**
Public debt / GDP	**169.3%**	**50.2%**	**36.2%**	**29.4%**	**25.9%**	**28.9%**	**31,4%[1]**

Source: Ministry of Finance of the Republic of Serbia.
The Ministry of Finance GDP estimates for 2009 were used to calculate the share of the public debt in Serbia's GDP, as of July 31, 2009.

Public debt figures by the National Bank of Serbia and the Ministry of Finance significantly differ because they include different items, causing confusion in the public. According to NBS figures, the total foreign debt of the public sector, including the guaranteed debt, as of June 30, 2009, stood at 7.3 billion euros, while it stood at 5.8 billion euros according the Ministry of Finance figures. As part of it, 4.8 billion euros was direct foreign debt and just a little above one billion euros was indirect debt.

The mentioned difference in the public debt, according to NBS and the Ministry of Finance figures, can partially be explained by the fact that the drawing of the first tranche of the IMF loan, totaling 833 million euros was not included in the total public debt shown by the Ministry of Finance, because formally this does not constitute the public debt. The remaining difference of around 670 million euros stems from the fact that the Ministry of Finance figures exclude non-regulated public debt[4] to Kuwait, Libya and the London Club of creditors, part of the debt to the EBRD, as well as the debt to EUROFIMA (European Company for the Financing of Railroad Rolling Stock), etc.

Significant additional state borrowing in the coming period and potential, new, indirect debt resulting from de-nationalization could have a negative impact on public debt sustainability

Even though Serbia ranks[5] among moderately indebted countries, measured by the share of public debt in GDP of 31.4%, significant new borrowing from international financial institutions (the World Bank, EIB, EBRD, etc) and other countries by 2011 for an estimated 2-3 billion euros (7-10% of GDP) will certainly change this ranking and have a negative impact on Serbia's public debt sustainability.

New possible liabilities could be created in the process of de-nationalization and significantly increase Serbia's indebtedness. For example, according to the draft law adopted by the Government of the Republic of Serbia in 2006, it was envisaged that the government repays its debt for nationalized property through a bond issue worth four billion euros[6], which could result in a public debt increase by 13% of 2009 GDP. However, even a lot lower growth of the public debt, which would include compensation for nationalized property of e.g. 1.5 billion euros, would boost Serbia's indebtedness up by around 5% of GDP. This means that Serbia's capacity to borrow and compensate the victims of nationalizations is utterly limited.

4 Due to a failure by the Ministry of Finance to update its figures, those do not include a part of the public debt to China, which was regulated at the start of 2009.
5 The share of public debt in GDP will not change significantly after a half of the Kosovo's debt is written off on one side, and on the other hand when it includes the regulated debt to China and non-regulated foreign debt, because those amounts are approximately the same and have opposing effects on the size of the public debt.
6 The stated amount represents the principal of the debt, while the total costs of debt servicing would be much higher, depending on the level of interest rates and maturities.

7. Monetary Flows and Policy

Money supply (M2) posts low year-on-year growth in real terms of 2.1 % following a 3.2 % decline in Q1. The biggest contribution to M2 growth came from hard currency deposits which rose by 8.38 %. In Q2, the share of non-performing loans amounted to 12 % of all extended loans, which could have a negative impact on the banking sector liquidity. Such a situation may lead to a necessity for some banks to recapitalize, if they cannot meet a minimum capital adequacy ratio, which will be determined based on stress tests in line with the agreement with the IMF. In Q2, deposits continued to rise. Corporate sector deposits rose by 343 million euros following their decline at the start of the year, while household deposits rose by 230 million euros. Despite the growth of this source of new lending, banks continued to reduce new lending both to corporates and households which in Q2 amounted to 158 million euros (223 million euros in Q1), while net lending to the government rose by 525 million euros. Considering that the corporate sector continued to repay their debts to foreign creditors, with the repayment of 167 million euros, the overall amount of extended loans in Q2 was negative (minus 10 million euros). The decline in lending activity and a negative growth in cross border credits speak of both the banking sector and the corporate sector refraining from new credit arrangements. Banks' purchases of REPOs rose in Q2 by 216 million euros even though the benchmark interest rate had been reduced to 13 %. Despite a new rate cut in July to 12 %, banks purchases of REPOs expanded by another 280 million euros. REPO purchases have also led to a decline in reserve money by 5.7 % against the starting H, (in Q1 it fell by 15.4 %). The decline was additionally fuelled by a fall in net own reserves of the NBS, which sank in Q2 by 69 million euros despite net hard currency purchases from foreign exchange offices. However, the first tranche of the IMF loan was drawn at the end of May, leading gross reserves up by 780 million euros.

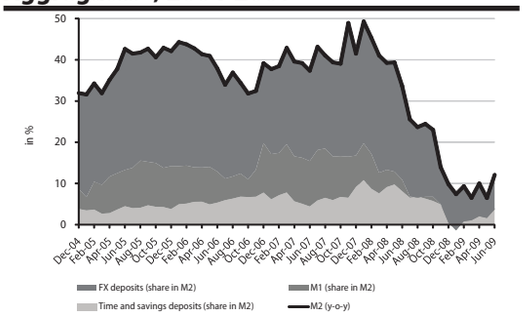
Monetary System: Money Supply Structure and Flows

Modest growth of real M2 following decline in Q1…

In Q2, there was a modest year-on-year growth of M2 in real terms of 2.1 %, which represents a return to the trend of modest growth, following the first year-on-year decline of – 3.2 % posted[1] in Q1, (Table T7-2). However, a sharp slowdown in credit growth to the non-state sector still causes concern, because it slowed to 2.7 %[2] following a 9.4 % modest growth in Q1. The slowing growth in lending activity was fuelled by a decline in lending to the retail sector to -8.6 % year-on-year in Q2 (- 2.8 % in Q1), while the rate of growth in lending to the corporate sector almost halved to 9 % in Q2 (from 16.5 % in Q1). M2 was most probably led up by liquidity loans which amounted to 660 million euros[3] by the end of August. At the same time, a more regular payments by the state (for the road company Putevi Srbije a 235 million euro loan was taken to repay debts to other road companies). As well as an increase in debt collection in the retail trade sector, contributed to an improved liquidity of the real sector and to an M2 growth in the second quarter.

…despite slowing growth of lending to corporates and households

Graph. T7-1. Serbia: Money and Component Aggregates[1)], 2004-2009



Source: Table P-11 in Analytical Appendix.
1) The share of money components was obtained as their ratio against the value of M2 in the same period of the preceding year, whereby the sum of obtained ratios is equal to the y-o-y growth of total money (M2).

1 Data for year-on-year M2 growth have been comparable since 2002.
2 Calculations based on our growth rate adjustment methodology take into account changes in the exchange rate (our assumption is that at least 70 percent of approved credits is linked to a foreign currency).
3 Of this amount, 24 million euros were dinar-denominated liquidity loans; www.merr.sr.gov.yu/aktivnosti/vesti.php?vestid=583&lang=lat.

An analysis of individual elements in M2 structure (Graph T7-1) shows that M1 continued to negatively contribute to the growth. The M1 decline slowed to – 0.24 % in Q2 from – 1.78 % in Q1, while savings and time deposits continued to positively contribute to growth of 3.97 %. Just like in Q1 (5.42 %), foreign exchange deposits again gave the biggest contribution to M2 (8.38 %), the increase partially owed to the repayment of 165 million euros of old frozen savings in Q2, most of which remained in bank deposits. The increase in M2 in Q2 speaks of an improved liquidity of the real economy, which could herald a stabilization of the business activity in the second half of the year.

Money supply rose by 4.7 % in real terms in Q2…

…despite the fall in NFA…

…thanks to an increase in NDA based on growing net lending to the state

In Q2 2009, the money supply growth amounted to 4.7 % since the start of the year (cumulative growth in Q2 minus growth in Q1, Table T7-2). The growth was mainly fuelled by the increase in Net Domestic Assets (NDA), which in Q2 posted a cumulative growth of 6.4 % of initial M2 at the start of the year (in Q1 growth of 0.2 %). The NDA growth mostly resulted from an increase in lending to the state by 6.1 % of initial M2 at the start of the year (-2 % in Q1). Lending to the non-state sector also rose by 1.5 % of initial M2 at the start of the year. On the negative side, the impact on NDA growth came from a capital increase of the monetary sector of – 6.2 % of the initial M2 at the start of the year (0.7 % in Q1). In Q2, Net Foreign Assets (NFA) fell by a cumulative 1.8 % of initial M2 at the start of the year. Hard currency denominated NFA fell by 1 % in Q2, the decline additionally aggravated by a further decline of - 0.8 % of M2 stock at the start of the year, due to negative exchange rate differentials as a result of the dinar appreciation (3.3 % in Q1).

Table T7-2. Serbia: Monetary Survey, Selected Indicators, 2006-2009

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
					y-o-y, in%					
M2[1]	42.9	37.4	39.4	41.5	41.0	33.7	24.5	9.8	6.5	12.1
Credit to the non-government sector[2]	21.6	23.9	28.0	38.3	36.4	30.3	29.4	33.7	33.8	27.7
Credit to the non-government sector[2], adjusted [3]	26.3	30.2	31.2	38.4	35.3	30.7	32.2	23.6	20.9	13.9
Households	58.4	54.7	53.6	50.6	43.3	35.5	19.5	15.7	7.4	1.5
Enterprises	14.2	20.2	21.1	32.2	31.0	28.1	39.5	28.1	28.8	20.9
					real y-o-y, in %					
M2[1]	35.3	30.7	29.7	28.6	26.2	19.2	12.2	2.9	-3.2	2.1
Credit to the non-government sector[2]	15.2	17.8	19.1	25.6	22.0	16.2	16.6	25.2	21.7	16.4
Credit to the non-government sector[2], adjusted[3]	19.8	24.1	22.2	25.6	21.1	16.4	19.0	15.7	9.4	2.7
Households	50.1	47.4	43.1	36.7	28.2	20.7	7.6	8.3	-2.8	-8.6
Enterprises	8.3	14.5	12.8	20.1	17.3	14.1	25.6	19.9	16.5	9.0
					cumulative, in % of opening M2[4]					
M2[1]	5.9	11.0	23.9	41.5	5.5	4.8	9.0	9.8	2.3	7.0
M2 dinar[1]	-0.1	0.8	6.8	16.8	-2.5	-2.7	-1.1	0.5	-1.9	0.6
Foreign deposits (households and enterprises)[5]	4.0	10.1	17.3	24.5	5.6	7.7	12.5	2.3	-0.1	2.9
Valuation adjustments[6]	1.9	0.0	-0.1	0.2	2.4	-0.2	-2.3	7.0	4.4	3.4
NFA, dinar increase	5.2	12.0	14.5	24.4	3.6	-3.2	-3.0	-8.8	2.2	0.4
NFA, fx increase	3.1	12.0	14.7	24.2	1.2	-3.0	-1.0	-14.5	-1.1	-2.1
Valuation adjustments[6]	2.2	0.0	-0.1	0.3	2.5	-0.2	-2.0	5.7	3.3	2.5
NDA	0.6	-1.1	9.4	17.1	1.9	8.0	12.0	18.7	0.2	6.6
o/w: credit to the non-government sector[2], adjusted[3]	6.6	19.6	28.3	36.6	4.8	12.8	22.2	22.0	3.6	5.1
o/w: net credit to government[7]	-4.1	-7.7	-7.0	-1.9	-0.6	1.0	1.9	7.0	-2.0	4.1
o/w: NBS and com. banks capital and reserves	-2.2	-7.4	-11.6	-17.9	-3.5	-4.6	-6.3	-16.4	0.7	-5.5
					cumulative, in % of GDP[8]					
Net credit to government[7]	-1.3	-2.1	-1.9	-0.5	-0.3	0.3	0.7	2.2	-0.9	1.4
o/w: dinar credits	-1.2	-2.3	-2.1	-1.1	-0.8	-1.3	-1.0	0.8	-0.5	1.7
Credit to the non-government sector[2], adjusted[3]	2.6	5.4	7.7	9.8	2.7	4.4	6.6	10.7	3.4	3.5

Source: Table P-11 in Analytical Appendix.

1) Definitions of M2, M2 dinar, NFA and NDA - see Analytical and Notation Conventions.

2) Credits to the non-government sector: credits to households and enterprises (including cities and municipalities, non-profit and other non-government entities).

3) Flows are adjusted for exchange rate changes. Adjustments are applied under the assumption that 70% of credit to the non-government sector (both households and enterprises) are euro-indexed.

4) "Opening M2" refers to the stock of M2 from the beginning of stated year (i.e. end of previous year).

5) The contribution of fx deposits to the growth of M2 measures only the contribution of the increase in fx-denominated fx deposits so that their revalorization produces the exchange differentials.

6) Valuation adjustments refer to the difference in NFA contribution to M2 growth calculated in dinars and NFA contribution to M2 growth calculated in euros.

7) Net credit to government: difference between government credits (dinar and fx) and deposits (dinar and fx). Government does not include cities and municipalities which are considered within the non-government sector.

8) The GDP used in the calculations is annually centered.

Non-performing loans continue to rise in Q2…

An increase in non-performing loans, which we first draw attention to in the previous issue of QM (9.1 % in Q1) continued in Q2, rising to 12.1 % of all credits (Table T7-3). Of all credits in arrears, loans to corporate clients have the biggest individual share of 14 %[4], while non-performing loans to households and entrepreneurs stood at 4-5 %. Data issued by the Credit Bureau for the first month in Q3 show an improvement in both indicators, since the volume of non-performing loans exceeding 90 days fell to 10.6 %. This is in line with a definition of non-performing loans, which in essence, but also in bookkeeping sense, are a delayed variable and their growth continues even after the rest of the economy stabilizes. Considering that the level of non-performing loans of 10-12 percent of all credits can be considered risky, it is realistic to expect individual cases of problems and insolvencies, at least in the case of some banks, but a deeper crisis of the banking sector can take place only if a strong growth in non-performing loans, like the one in Q1, continues after Q3. This negative occurrence in the Serbian banking sector can represent a latent danger for banks with large individual share in non-performing loans and will lead to an increase in pressure by the NBS on those banks to boost capital, but this will be elaborated further in the Framework on the Vienna Accord.

…forcing some banks to boost capital

Money multiplier is still below an average…

The level of the money multiplier, which in the past stood at an average 2.2 %, maintains a low level of 1.6 in Q2 (in Q1 it stood at 1.4). Such low level of the money multiplier speaks of continued abstinence of the banking sector from granting new credits to the corporate sector at acceptable conditions. In support of this is the fact that despite the reduction in the benchmark interest rate of the NBS to 12 % in July, banks' REPO purchases continued to expand. The share of hard currency deposits of the corporate and household sectors in relation to M2 is still high – at a level of 62.2 % (in Q1 it was 62.8%), which ranks Serbia at the top of the countries in the region with high euroization levels.

…due to big REPO purchases

Table T7-3. Serbia: Monetary Survey, 2006-2009

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
STOCK	in millions of dinars, end of period									
NFA	441,048	484,388	500,302	563,524	596,215	534,403	536,102	483,707	504,072	486,784
o/w: NBS gross reserves	719,381	730,668	751,920	765,615	788,296	720,967	745,070	724,755	772,902	832,817
o/w: commercial bank foreign liabilities	-318,598	-286,848	-290,860	-299,659	-264,865	-251,182	-279,131	-349,703	-345,733	-351,420
NDA	234,991	224,279	291,193	340,174	357,307	412,802	448,498	508,826	511,535	575,119
Net credit to government [1]	-128,909	-149,081	-144,385	-112,290	-120,644	-103,539	-94,156	-53,042	-76,033	-14,887
Net dinar credit	-35,782	-62,290	-56,369	-34,251	-53,126	-67,826	-60,934	-14,199	-27,201	31,692
Net fx credit	-93,127	-86,791	-88,016	-78,039	-67,518	-35,713	-33,222	-38,843	-48,832	-46,579
Credit to the non-government sector [2]	666,007	732,402	786,873	842,512	908,598	953,977	1,018,307	1,126,111	1,215,843	1,218,702
Other items, net	-302,107	-359,042	-351,295	-390,048	-430,647	-437,636	-475,653	-564,243	-628,275	-628,696
M2 [3]	676,039	708,667	791495	903,698	953,522	947,205	985,134	992,533	1,015,607	1,061,903
M2 dinar [3]	282,299	288,329	326,341	390,307	367,648	365,834	380,015	395,088	378,094	401,120
Fx deposits (households and economy)	393,740	420,338	465,154	513,391	585,874	581,371	605,119	597,445	637,513	660,783
STRUCTURAL INDICATORS										
Currency outside banks/Dinar deposits (households and economy), in %	26.2	29.1	25.1	24.6	23.7	23.5	23.2	29.5	26.0	25.3
Fx deposits (households and economy) / M2 (%)	58.2	59.3	58.8	56.8	61.4	61.4	61.4	60.2	62.8	62.2
Velocity (GDP [4] / M2)	3.3	3.2	2.9	2.6	2.6	2.7	2.7	2.7	2.6	2.5
M2 / GDP [4]	0.31	0.3	0.3	0.38	0.39	0.37	0.37	0.38	0.4	0.4
Credits to the non-government sector / GDP [4]	0.30	0.32	0.34	0.35	0.37	0.37	0.38	0.43	0.5	0.5
Non-perofrming loans [5] (in % of total loans)	4.9	4.69	5.20	5.1	4.4	5.3	6.0	5.8	9.1	12.1
Money multiplier (dinar M2/H)	2.4	2.0	2.3	2.3	2.6	2.0	2.3	1.2	1.4	1.6

Source: Table P-11 in Analytical Appendix.
1) See footnote 7) in Table T7-2.
2) See footnote 1) in Table T7-2.
3) Definitions of M2, M2 dinar, NFA and NDA - see Analytical and Notation Conventions.
4) See footnote 8) in Table T7-2.
5) The figure for December 2006 relates to January, 31 2007 and represents the ratio of loans with overdue payments of 90 days and more to total outstanding loans. The source for data in this row is The Credit bureau, Association of Serbian banks. For details, see QM6, Spotlight on No.1.

Banking Sector: Lending and Sources of Financing

New credit growth to the corporate sectors declines…
…while new lending to households is minimal

In the course of Q2, the growth in new bank lending to the corporate and household sectors slowed down to 158 million euros (223 million euros in Q1). Around 140 million euros worth of new lending was granted to the corporate sector, which is less than a half of all credits granted in the previous quarter (328 million euros in Q1). Lending to household clients stood at 20 million euros, but the total lending to the retail sector in 2009 remains negative following massive debt repayments at the start of the year (In Q1 – 104 million euros). In the course of Q2, net lending

4 The Credit Bureau of the Serbian Bank Association: "The status of debt based on bank loans and matured, overdue liabilities, as at 31.06.2009".

Due to a negative cross-border credit growth…

to the state sector rose by 525 million euros based on credits the government raised to plug budget holes and through the sale of treasury bills (in Q1 it stood at – 105 million euros). The trend of falling foreign borrowing, which started in the middle of the last year, continued in the second quarter. Companies continued to repay debts to foreign creditors and repaid additional 167 million euros. With the negative growth in *cross-border* credits[5] which exceed the total borrowing of companies and households from domestic banks, the total credit growth in the course of Q2 is negative at minus 10 million euros versus 79 million euros in Q1. Despite efforts by the Serbian government and the NBS to kick-start credit financing of the corporate and household sectors with a set of measures in the first quarter[6], this figure does not speak of any great success and calls for caution over possible problems in the Serbian banking sector.

…the total credit growth in Q2 is negative

Table T7-4. Serbia: Funding, Credit and Investment Activity, Adjusted[1] Flows, 2006-2009

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
	in millions of euros, cumulative from the beginning of the year									
Funding(-, increase in liabilities)	-325	-1,061	-2,574	-4,582	258	-717	-2,140	-833	958	61
Domestic deposits	-339	-757	-1,819	-3,254	-162	-464	-1,134	-95	235	-336
Households deposits	-329	-652	-1,059	-1,652	-192	-518	-842	84	-40	-270
dinar deposits	-35	-57	-97	-135	-18	-19	-28	-63	46	-2
fx deposits	-295	-595	-963	-1,518	-174	-499	-813	147	-87	-268
Enterprise deposits	-10	-105	-760	-1,602	29	54	-292	-180	276	-67
dinar deposits	23	112	-324	-1,138	365	394	261	198	171	5
fx deposits	-33	-218	-437	-464	-336	-340	-554	-378	105	-72
Foreign liabilities	-10	266	207	114	564	601	138	-165	299	186
Capital and reserves	25	-569	-962	-1,441	-144	-855	-1,144	-572	424	212
Gross foreign reserves(-,decline in assets)	-14	5	-17	695	-333	-386	-316	-18	-407	-449
Credits and Investment[1]	687	1,294	2,488	3,626	697	1,175	2,888	700	156	1,057
Credit to the non-government sector, total	575	1,508	2,315	2,945	614	1,402	2,595	2,022	226	381
Enterprises	313	865	1,271	1,660	406	915	2,099	1,574	331	465
Households	263	644	1,044	1,285	207	487	496	448	-104	-84
Placements with NBS (Repo transactions and treasury	200	-11	438	849	116	-126	361	-1,419	40	256
Government, net[2]	-89	-203	-264	-168	-33	-101	-68	98	-110	421
MEMORANDUM ITEMS										
Required reserves and deposits	-146	242	349	441	-369	-275	-97	-225	-191	-225
Other net claims on NBS[3]	13	-44	-104	-44	6	246	28	422	-385	-380
o/w: Excess reserves	20	-56	-103	-92	0	207	-13	443	-409	-394
Other items[4]	-110	-464	-57	-78	-202	-192	-490	-330	-166	-158
Effective required reserves (in %)[5]	34	37	34	31	30	29	28	30	30	28

Source: Table P-12 in Analytical Appendix.

1) The increases in credits were obtained on the assumption that 70% of total credits are euro-indexed The increases in the original dinar values of deposits were calculated at the average exchange rate in the period, and in fx deposits as the difference in balances calculated at the exchange rates at ends of periods. Capital and reserves were calculated at the exchange rates at the ends of periods and do not include the effects of exchange rate differentials from revaluation of all previous items.

2) Credits to government, net: difference between credits to the government and government deposits held in commercial banks; negative sign means that deposits increase is larger that the growth of credits. Government include: Republic level and cities and municipalities.

3) Other net claims on NBS: difference between claims on NBS (cash and excess reserves) and liabilities to NBS.

4) Includes: Other assets; Deposits of enterprises undergoing liquidation; Interbank, net; and Other liabilities, excluding Capital and reserves.

5) Effective required reserve: refers to share of required reserves and deposits in total deposits (households and enterprises) and banks' foreign liabilities. The base for calculating required reserves does not include subordinated debt owing to unavailability of data.

Banks continue to invest in REPO…

…despite the cut in the NBS benchmark interest rate

The total volume of funds invested in REPOs and treasury bills since the start of the year exceeds one billion euros

In the course of Q2, banks continued investing in REPOs, adding another 216 million euros to those purchases despite the reduction in the NBS repo rate from 14% to 13% in June. In July, despite a further reduction in the repo rate to 12 % REPO purchases continued to rise, the growth reaching 535 million euros since the start of the year. Together with treasury bills issued by the Finance Ministry, which at the end of July rose to around 490 million euros[7], we saw a total outflow of around one billion euros from the banking sector to the state. This speaks of high and rising liquidity of the banking sector, which even after the reduction of the benchmark interest rate of the NBS continues to invest any spare funds in treasury bills of the Finance Ministry and REPO papers of the NBS rather than lend to the corporate and household sectors. In the course of Q2, the erosion of the capital base in the banking sector ground to a halt (in Q4 2008 the decline was 572 million euros, in Q1 2009 the decline was 424 million euros) and the capital of banks rose by 212 million euros in Q2.

5 Cross-border credits include only companies' borrowing abroad, so that the 240 million euro credit to the road company, guaranteed by the state, is not included.

6 The government of the Republic of Serbia and NBS have therefore adopted a set of measures in early February, enabling lending to households and companies at interest rates ranging between 5% and 6% for euro-indexed loans, after which the banking sector's credit activity somewhat improved.

7 The assumption is that all three-month treasury bills of the Ministry of Finance, sold in auctions by the end of April, have been paid.

In Q2, deposits of the corporate and household sectors grow…

Among new financing sources, deposits by the corporate sector showed signs of improvement (Table T7-4), rising in Q2 by 343 million euros following a 276 million euro decline in Q1, representing a growth in deposits since the start of the year by 67 million euros. Similar trend has been noticed in the household sector, where the growth in deposits stood at 230 million euros (in Q1 the growth was 40 million euros). Two thirds of growth is owed to hard currency denominated deposits, while the rest of growth came from dinar denominated deposits. In the corporate sector, the ratio of those deposits was 50:50. Despite the growth in domestic savings, banks continue to use a possibility to free some funds from central bank accounts based on subsidized loans. In the course of Q2, banks withdrew 34 million euros (in Q1 banks withdrew 191 million euros). Following a repayment of some credits at the start of the year, which were taken at the end of 2008, banks borrowed abroad an additional 113 million euros in Q2 (they repaid 300 million euros in Q1).

…both hard currency and dinar denominated…

…speaking of an improved liquidity of the real sector

Table T7-5. Serbia: Credit to Enterprises and to Households - Impact on Aggregate Demand, 2006-2008

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
	quarterly growth of stock, in millions of euros									
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	1,053	2,157	1,537	1,542	1,333	1,624	2,174	468	82	-10
Loans to enterprises and households from domestic banking sector[1)]	575	933	807	630	614	789	1,157	152	226	158
Loans to enterprises	313	552	406	389	406	509	1,162	135	331	138
Loans to households	263	381	400	241	207	280	-6	17	-104	20
Direct foreign liabilities of enterprises	478	1,224	730	912	719	835	1,017	316	-144	-167
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	791	1,776	1,137	1,301	1,125	1,344	2,179	451	187	114
	quarterly growth of stock, in % of quarterly GDP									
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	16.3	30.1	20.0	18.0	17.4	18.3	23.8	5.5	1.2	-0.1
Loans to enterprises and households from domestic banking sector	8.9	13.0	10.5	7.4	8.0	8.9	12.7	1.8	3.3	2.3
Loans to enterprises	4.8	7.7	5.3	4.5	5.3	5.7	12.7	1.6	4.8	2.0
Loans to households	4.1	5.3	5.2	2.8	2.7	3.1	-0.1	0.2	-1.5	0.3
Direct foreign liabilities of enterprises	7.4	17.0[2)]	9.5	10.7	9.4	9.4	11.1	3.7	-2.1	-2.4
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	12.3	24.8	14.8	15.2	14.7	15.1	23.9	5.3	2.7	1.7

Source: FREN.
1) See footnote 1 in table T7-4.
2) 9,1% of GDP relates to one loan to Telekom for the purpose of acquisition of Telekom Republika Srpska.

The ratio of corporate lending to GDP is still high

In comparison to Q1, when the ratio of corporate lending to GDP rose, this ratio fell in Q2 and currently stands at 69.8%. It needs to be emphasized that the ratio of credits to GDP, which rose in Q1 and then fell in Q2, resulted primarily from an oscillating dinar exchange rate rather than real changes in the overall credit stock. This ratio stood at 71.4% of GDP in Q1, which does not represent a significant change, but does not significantly improve the capacity of the Serbian companies to expand their market borrowing in the future.

Table T7-6. Serbia: Stock Loans to Enterprises and Households in % of GDP[1)]

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	48.2	52.5	55.5	60.0	65.3	66.3	70.2	80.6	86.3	84.5
Loans to enterprises and households from domestic banking sector	29.5	31.7	33.0	34.4	36.7	36.9	38.5	42.0	45.2	45.2
Loans to enterprises	19.0	20.3	20.6	21.6	23.0	23.4	25.7	27.6	30.3	30.5
Loans to households	10.5	11.3	12.3	12.8	13.7	13.5	12.8	14.5	14.9	14.8
Direct foreign liabilities of enterprises	18.7	20.8	22.6	25.6	28.7	29.4	31.7	38.6	41.1	39.3
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	37.7	41.2	43.2	47.1	51.7	52.8	57.4	66.2	71.4	69.8

Source: FREN, NBS - Statistical Bulletin.
1) GDP (Gross Domestic Product) used in calculations centered on annual level.

The Central Bank: Balances and Monetary Policy

Reserve money continues to shrink in Q2 as a result of a fall in net own reserves and a strong expansion in REPO purchases

The level of the *reserve money* continued to shrink in this quarter. In the course of Q2, the reserve money shrank by 5.7 % of initial H, continuing the trend from Q1 (when the reserve money shrank by 15.8 %), Table T7-7. The decline was caused by falling net own reserves of NBS, which in Q2 stood at 2.1 % of initial H. Also, the decline in Net Domestic Assets (NDA) continued. In Q2, the decline in NDA stood at 3.6 % of initial H, mainly caused by an increase in REPO

purchases (6.7% of initial H). Due to such an increase in REPO purchases, a decline in the state dinar deposits if 2.9% of initial H in Q2 caused no increase in reserve money. Due to a still attractive repo rate, banks opt for this form of investment over lending, which additionally increases the money supply sterilization.

Table T7-7. Serbia: NBS - Foreign Exchange Purchases and Dinar Sterilization, 2006-2008[1)]

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
FLOW	**in millions of dinars, cumulative from the beginning of the year**									
NBS own resreves[2)]	15,066	46,140	60,267	97,636	4,695	19,115	56,373	27,211	-5,590	-12,043
NBS own reserves (in euros)	*188*	*577*	*756*	*1,218*	*58*	*237*	*706*	*312*	*-59*	-128
NDA	-46,278	-57,938	-72,100	-72,440	-39,752	-13,347	-66,941	122,232	43,117	-54,266
Government, dinar credits	-710	-735	-735	-5,639	267	618	0	81	-308	-310
Government, dinar deposits	-30,939	-56,748	-44,985	-10,107	-28,386	-41,088	-36,706	8,638	-17,155	-8,376
o/w: municipalities	*-6,768*	*-13,485*	*-11,933*	*-516*	*-8,329*	*-7,405*	*-5,073*	*-909*	*-4,415*	-2,026
Repo transactions[3)]	-16,675	-2,094	-34,961	-67,950	-11,243	8,014	-28,597	127,517	-8,455	-29,024
Other items , net[4)]	2,046	1,639	8,581	11,256	-390	19,109	-1,638	-14,004	-17,199	-16,556
H	-31,212	-11,798	-11,833	25,196	-35,057	5,768	-10,568	149,443	-48,707	-66,309
o/w: currency in circulation	-9,792	-3,395	-3,088	8,488	-6,613	-7,454	-5,388	13,007	-11,856	-9,009
o/w: excess liquidity	-13,061	-3,309	-6,293	20,605	-39,840	-22,293	-39,483	1,602	41,330	-41578
INCREASE	**cumulative, in % of opening H[5)]**									
NBS own resreves[2)]	11.2	34.5	45.0	72.9	3.5	14.3	42.1	20.3	-1.8	-3.9
NDA	-34.6	-43.3	-53.8	-54.1	-29.7	-10.0	-50.0	91.3	-14.0	-17.6
Government, dinar deposits	-23.1	-42.4	-33.6	-7.5	-21.2	-30.7	-27.4	6.4	-5.6	-2.7
Repo transactions[3)]	-12.5	-1.6	-26.1	-50.7	-8.4	6.0	-21.4	95.2	-2.7	-9.4
Other items , net[4)]	1.5	1.2	6.4	8.4	-0.3	14.3	-1.2	-10.5	-5.6	-5.4
H	-23.3	-8.8	-8.8	18.8	-26.2	4.3	-7.9	111.6	-15.8	-21.5
o/w: currency in circulation	-7.3	-2.5	-2.3	6.3	-4.9	-5.6	-4.0	9.7	-3.8	-2.9
o/w: excess liquidity	-9.8	-2.5	-4.7	15.4	-29.7	-16.6	-29.5	1.2	-13.4	-13.5

Source: Table P-13 in Analytical Appendix.
1) Government include: Republic level and cities and municipalities.
2) Net own reserves definition - see Box 4 in QM5.
3) This category included NBS bills, and repo transactions.
4) Other domestic assets, net, include domestic credits (net claims on banks excluding NBS bills and repo transactions; net claims on enterprises together with other assets (capital, reserves and balance items; other assets and liabilities corrected by exchange rate differentials.
5) "Opening H" refers to stock of primary money (H) at the beginning of stated year (i.e. end of previous year).

Box 1. The Effects of the Vienna Agreement Between the National Bank of Serbia, the International Monetary Fund and 10 Biggest Bank Creditors

The liquidity improvement of the real sector, visible since May, is a result of rescheduled five billion euros worth of maturing debt against cross-border credits, which constituted the single most important element of the Vienna Agreement (27.03.3009) and the real reason to call the meeting. Under the same agreement, the NBS responded with significant relaxation of its bank supervision policy, and with a partial relaxation of its monetary policy designed to offer banks some kind of an incentive to make agreement with the NBS and the IMF.

Regarding the Vienna meeting, the public paid least attention to so-called stress-tests which are also part of the agreement. Those tests have been prepared and undertaken based on tests conducted by the Federal Reserves – FED (The American central bank) as well as by some European central banks (Austrian for example), and the essence of the tests is to determine whether there are banks which could accumulate sufficiently high losses in the case of an extremely unfavourable outcome of the economic crisis so that they no longer meet the minimum capital adequacy ratio of 12%. Even though this topic had been neglected, it turned out that just like in the case of tests conducted by the FED, there exist serious moral dilemmas over the announcement of the test results and reaction to the result announcements, as well as over a danger to cause a new round of depositors' run on banks. Therefore, in the course of summer, the NBS and the IMF together with 10 commercial banks held technical talks on a concrete methodology to be implemented during stress tests. This eliminated the majority of outstanding issues. The essence of stress tests is to assess an increase in non-performing loans due to a slowdown in economic activity and the fall of the dinar value, as well as an impact of such an estimated increase of non-performing loans on capital adequacy ratios. NBS then conducted stress tests based on figures submitted by banks and central bank governor Radovan Jelasic announced that domestic banks were adequately capitalized and that they could endure an even worse

recession. Thus, the governor put an end to the issue of stress tests, which in the United States and other countries caused many shocks after the results were announced showing a massive shortage of capital faced by banks in those countries, mainly in the United States (the example of the Bank of America, which had to increase its capital by 34 billion USD after the tests).

recession. Thus, the governor put an end to the issue of stress tests, which in the United States and other countries caused many shocks after the results were announced showing a massive shortage of capital faced by banks in those countries, mainly in the United States (the example of the Bank of America, which had to increase its capital by 34 billion USD after the tests).

Table T7-8. Banks' Reserve Requirements with NBS[1)], 12/ 2004 -5/ 2008

	12/2004	05/2005	07/2005	10/2005	11/2005	03/2006	04/2006	05/2006	11/2006	12/2006	10/2007	10/2008	12/2008
Rate on:													
DINAR DENOMINATED BASE	21	20	20	18	18	18	18	18	15	10	10	10	10
more then 1 month dinar time deposits											5	5	5
non-resident accounts with maturity up to 2 years:								60	60				
non-resident accounts with maturity over 2 years:								40	40				
FX DENOMINATED BASE	21	26	29	35	38	40	40	40	40	45	45	45	45
thereof: new external bank borrowings after septmeber 2008[4)]												0	
NEW FX SAVINGS DEPOSITS[3)]	47	47	45	41	38	40	40	40	40	40	40	40	
SUBORDINATED CAPITAL						20	20	20	20	20	20	20	
thereof: new external bank borrowings after septmeber 2008[4)]												0	

Source: NBS.

1) Applied to average daily book value of the base from the previous calendar month. Effective from the 17th of the next month. Bank is obliged to hold average daily reserve balance at the level of the accounted reserve during the entire accounting period.

2) Up to April 2006 and since December 2006, banks' foreign borrowing was treated equally, irrespective of the repayment period. This sub-category therefore is invalid until March 2006, i.e. the uniform fx base was applied to all foreign inflows on the basis of commercial banks' borrowing.

3) Up to December 2005, reserve requirements on new fx savings of households (fx deposits collected after 30 June 2001) were regulated by a special NBS decision. In December 2005, the regulation became uniform since the NBS introduced a unique reserve requirement rate for all commercial banks' fx accounts.

4) Since October 2008. new foreign borrowing of banks is not subject of obligatory reserve requirements, while old borrowing are still subject to obligatory reserve requriments.

5) Since 17th of December, the base for calculation of obligatory reserve is set at the level equal to the level on 30th of September, this measure is aplicable starting from 17th of December 2008 until 17th of June 2009.

6) From 17th of May 2008, 10% of calculated fx based reserve is required to be held in dinars countervalue. From 17th of November 2008, 20% of calculated fx based reserve is required to be held in dinars countervalue. From 17th of December 2008, 40% of calculated fx based reserve is required to be held in dinars countervalue. From 18th July, 2008, 30% of the calculated fx based reserve is required to be held in dinars countervalue.

Note: Under current regulations, banks' reserve requirements with the NBS include:

- dinar base: dinar deposits (including the government), dinar credits (including the government), securities and other dinar liabilities;
- fx base: fx deposits (including the government), fx-indexed dinar deposits, fx credits (including the government), subordinated capital, securities, other fx liabilities and other fx funds received from abroad for bank services on behalf and for the account of third persons.

Excluded from the dinar/fx-denominated base are: liabilities to the NBS; up to December 2005 – liabilities arising from household fx savings deposited after 30 June 2001; the amounts generated with the settlement of debts for FFCDs, and those arising in the rescheduling of debt to creditors from the Paris and London Clubs. Amount of long-term housing mortgage credits insured with the National Corporation for Housing Loan Insurance is deducted from the required reserves base.

Gross reserves of NBS rose in Q2…

In the course of Q2, NBS gross reserves rose by 758 million euros, the growth owed to the disbursement of the first tranche of the credit from the IMF at the end of May (Table T7-9). The level of NBS net own reserves which exclude the IMF loan, fell in Q2 by additional 69 million euros[8] (decline in Q1 was 59 million euros, decline in Q4 2008 – 394 million euros). Despite an increase resulting from transactions in the foreign exchange market (primarily due to currency purchases from foreign exchange offices, because NBS had not intervened in interbank forex market since mid-February) of around 46 million euros, net own reserves fell mainly because of the repayment of the annual installment of 165 million euros for old savings. In the course of July, NBS adopted a new measure related to the dinar part of the reserve requirements, based on which banks could hold 30% of calculated mandatory reserves on hard currency assets in dinars. Thus, unlike its previous measure when NBS raised the dinar part of the reserve requirements – it now tries to increase the amount of dinars in the banking system to improve liquidity.

…owing to an IMF credit

But even so, net own reserves continued to decline…

8 In the section "Monetary Flows and Policy" we monitor changes to net own reserves (which represent a difference between gross foreign exchange reserves of NBS and the sum of liabilities: to the IMF and other liabilities), hard currency deposits of commercial banks and hard currency deposits of the government, while in the section "Balance of Payments and Foreign Trade" we monitor changes to NBS gross reserves.

Table T7-9.Serbia: Foreign Exchange Reserves, Stock and Flow, 2006-2008

	2007				2008				2009	
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun
					stock, in millions of euros					
NFA of Serbia	5,413	6,130	6,347	7,116	7,246	6,768	7,000	5,451	5,305	5,211
Commercial banks, net	-3,213	-2,918	-2,998	-2,379	-2,147	-2,163	-2,557	-2,562	-2,670	-2,824
Gross foreign reserves	693	712	690	1,403	1,070	1,017	1,087	1,385	978	936
Foreign liabilities	-3,906	-3,630	-3,688	-3,782	-3,218	-3,180	-3,644	-3,947	-3,648	-3,761
NBS, net	8,626	9,048	9,345	9,495	9,394	8,931	9,557	8,013	7,975	8,036
Gross foreign reserves	8,819	9,246	9,535	9,662	9,577	9,129	9,727	8,180	8,155	8,913
Foreign liabilities	-193	-198	-190	-168	-183	-198	-170	-167	-180	-877
IMF	6	1	3	4	3	1	1	-9	-14	-769
Other liabilities	-200	-199	-193	-171	-186	-199	-171	-159	-166	-108
NBS, NET RESERVES-STRUCTURE										
1. NBS, net	8,626	9,048	9,345	9,495	9,394	8,931	9,557	8,013	7,975	8,036
1.1 Commercial banks deposits	-3,358	-3,478	-3,584	-3,409	-3,411	-3,166	-3,343	-2,191	-2,136	-2,281
1.2 Government deposits	-1,247	-1,160	-1,172	-1,034	-874	-478	-457	-459	-536	-521
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	4,021	4,410	4,589	5,051	5,109	5,287	5,757	5,362	5,303	5,234
					in millions of euros, cumulative from the beginning of the year					
NFA of Serbia	249	967	1,183	1,952	131	-348	-116	-1,665	-146	-239
Commercial banks, net	-24	270	190	809	232	216	-178	-183	-108	-263
Gross foreign reserves	-14	5	-17	695	-333	-386	-316	-18	-407	-449
Foreign liabilities	-10	266	207	114	564	601	138	-165	299	186
NBS, net	274	696	993	1,143	-101	-563	62	-1,482	-38	23
Gross foreign reserves	-233	194	483	610	-86	-534	65	-1,482	-25	733
Foreign liabilities	507	502	510	532	-15	-30	-2	1	-13	-710
IMF	187	182	184	185	0	-2	-3	-12	-5	-761
Other liabilities	320	320	327	348	-15	-28	1	13	-7	51
NBS, NET RESERVES-STRUCTURE										
1. NBS, net	274	696	993	1,143	-101	-563	62	-1,482	-38	23
1.1 Commercial banks deposits	-148	-269	-374	-200	-2	243	66	1,219	55	-90
1.2 Government deposits	63	149	137	275	161	557	578	575	-76	-61
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	188	577	756	1,218	58	237	706	312	-59	-128

Source: NBS.

Note: NBS fx liabilities are treated differently in the monetary survey and in NBS balance sheet. In the monetary survey, this category includes IMF credits and other foreign liabilities. In the NBS balance sheet, however, it also includes commercial bank's fx deposits (reserve requirements funds and other fx deposits).

Table T7-10. Net Monthly Transactions on Foreign Exchange Market, NBS, Banks and Exchange Offices, Nov 2006 - Sept 2008

	Interbank fx market (NBS-commercial banks)	Exchange offices	Total	
(-, net sale of foreign currency by NBS)				
		in millions of euros		
Monthly average January-October 2006	-64	151	87	
November 2006	260	131	391	
December 2006	154	86	240	
January 2007	-412	42	-370	
February 2007	-14.8	86	72	-238 in Q1 2007
March 2007	-54.1	114	60	
April 2007	0	137	137	
May 2007	-75.9	160.1	84	+288 in Q2 2007
June 2007	-19	85.7	67	
July 2007	-22	93.9	72	
August 2007	-23	106	83	+195 in Q3 2007
September 2007	-20	60	40	
October 2007	-4	72	68	
November 2007	-20	76	56	+212 in Q4 2007
December 2007	-40	128	88	
January 2008	-57	63	6	
February 2008	-129	39.6	-89	-168 in Q1 2008
March 2008	-105	20.6	-84	
April 2008	-64	31.2	-33	
May 2008	-38	54.3	16	+29 in Q2 2008
June 2008	0	45.3	45	
July 2008	0	26.8	27	
August 2008	3	33	36	+88 in Q3 2008
September 2008	0	24.7	25	
October 2008	-269	55	-214	
November 2008	-357	16.9	-340	-746 u Q4 2008.
December 2008	-288	96.3	-192	
January 2009	-381.3	23.6	358	
February 2009	-175.1	12.6	-163	-513 u Q1 2009.
March 2009	0	7.6	7.6	
April 2009	0	17.8	17.8	
May 2009	0	12.2	12.2	+46 u Q2 2009.
June 2009	0	16.6	16.6	

Source: NBS.

8. Financial Markets

After a long period of decreased activity on the Belgrade Stock Exchange, Q2 2009 again saw growth. Belgrade Stock Exchange (BSE) indices in Q2 continued rising; this upward trend, first seen in late Q1 and continuing into Q3, is now clearly in evidence. BELEX15 – the blue chip index – rose by some 82% from the beginning of Q2 to the end of August, while the overall index, BELEXline, saw growth of about 56%. The rise in Belgrade Stock Exchange indices was paralleled by the growth of both regional and global indices. The NBS reference interest rate was cut by 350bp in Q2, from 16.50% to 13%, with an additional 100bp cut following in late August that brought the rate down to 12%. Real yields on repo operations measured relative to inflation followed the drop in the nominal rate, but real yields measured relative to the dinar/euro exchange rate rose due to the Serbian currency's appreciation. The FFCD bond market stagnated in relation to the previous quarter, with yields lower for all maturity periods.

Q2 saw a rise in activity on the Belgrade Stock Exchange after a long downward spell

After a long period of decreasing activity, the Belgrade Stock Exchange saw a gradual recovery in Q2 2009 (Graph T8-1). A rise in activity was apparent relative to the preceding quarter, both measured by the number of transactions and by their dinar value. The second quarter saw some 17.8 thousand transactions, an increase of 39% on Q1 2009, while the total value of transactions involving shares in the Belgrade Stock Exchange amounted to some 5.2 bn dinars, 22% more than over the preceding quarter.

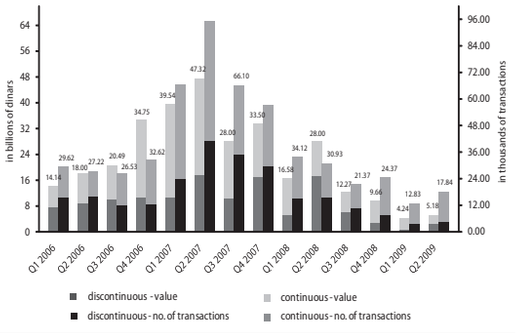
The discontinuous segment was responsible for the rise in the value of trading in the stock market

The structure of trading in the Stock Exchange makes it apparent that transactions in the discontinuous segment were responsible for the growth in the value of trading. The value of these transactions more than tripled, while the dinar value of trading in the continuous segment fell by 28.6%. The number of transactions, on the other hand, rose in both market segments – by 48% in the continuous and by 17% in the discontinuous segment.

The average transaction value stood at about 290,000 dinars, 12.2% less than in Q1. This drop was affected by the greater number of transactions in the continuous market, whose value fell in relation to the preceding month – indicating a rise in the share of small investors. On the other hand, the substantial increase in the value of trading in the discontinuous market, accompanied by a slight rise in the number of transactions, means that some larger investors were in all likelihood more active throughout Q2.

Over the second quarter Belgrade Stock Exchange indices continued the upward trend begun in late Q1

Graph T8-1. Volume and Structure of Share Trading, 2006-2009



Source: www.belex.rs.
Legend: SPA – single price auction; MPMQ – minimum price, minimum quantity; BLOCK – block transaction.

The rise in the value of BSE indices first seen towards the end of the preceding quarter continued into Q2 (Graph T8-2). The BELEX15 index[1] rose by some 50%, BELEXline[2] grew by 39%, while SRX[3] EUR rose by 56.5% in Q2. Indices peaked at the end of the first third of June, which was followed by a mild slide to the middle of June. Indices again rose from mid-July, with BELEX15, BELEXline and SRX EUR growing by 82%, 56% and 93%, respectively from the start of Q2 to late August. This brought BSE indices back to levels recorded in November 2008.

Regional stock market indices also recorded growth in Q2

The upward trend of BSE indices matched those seen by both global and regional stock markets. The growth of regional indices in Q2 fluctuated between 8.16% seen by the Banja Luka BIRS,

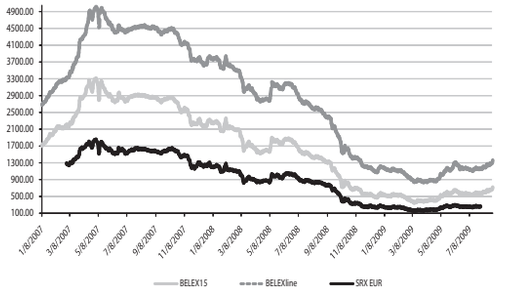
1 Index of the most liquid shares listed on the Belgrade Stock Exchange.
2 Overall stock index of the Belgrade Stock Exchange.
3 Index of the 8 most liquid shares on the BSE calculated by the Vienna Stock Exchange (Wiener Börse).

and 77.5%, recorded by Montenegro's MOSTE. The Croatian Crobex, the Sarajevo SASX-10 and the Macedonian MBI-10 grew by 30.7%, 18.6% and 32.9%, respectively. This growth was lower than that recorded by BELEX15, which rose by about 50% over the same period. Montenegro's NEX20 rose by 59.2% in Q2, while the Bulgarian SOFIX and the Romanian BET saw growth of 28.2% and 45%, respectively.

The upward correction in the domestic stock market beginning in Q1 continued into Q2 and Q3, which in all probability marks a new trend

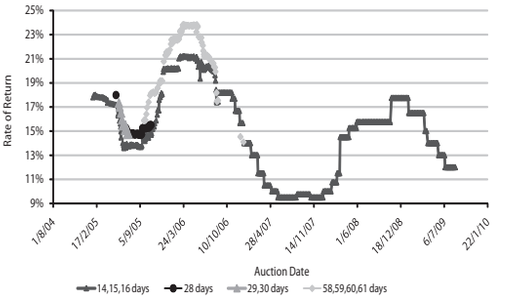
The rise in the value of BSE indices – accompanied by expanding activity in the stock market as well as by rising indices across Europe and the world – indicates a recovery in the domestic capital market. The upward correction in the domestic stock market beginning in Q1 continued into Q2 and Q3, which is why this is likely to mark a new trend in the domestic stock market, one that is in line with global tendencies.

Graph T8-2. BELEXfm, BELEX15 and SRX EUR Indices, 2007-2009



Source: www.belex.rs, www.wienerborse.at.

Graph T8-3. Repo Yields by Maturity, 2004-2009



Source: NBS.

NBS cut its reference interest rate by 350bp to 13% in Q2 2009 only to further bring it down by 100bp to 12%

In Q2 2009 the National Bank of Serbia continued its policy of reducing the reference interest rate in evidence since Q1 2009 (Graph T8-3). At the start of Q2 the 2w repo rate amounted to 16.5%. The NBS Monetary Board cut the reference interest rate in Q2 by a total of 350bp, bringing it down to 13%. In mid-July the NBS again reduced the rate, this time by another 100bp, to 12%, 50bp above the level recorded in March 2008. In late 2007, before the NBS embarked on a cycle of raising the reference interest rate, the 2w repo rate had stood at 9.5%.

Real yields on repo operations measured relative to fluctuations in the euro/dinar exchange rate rose in Q2

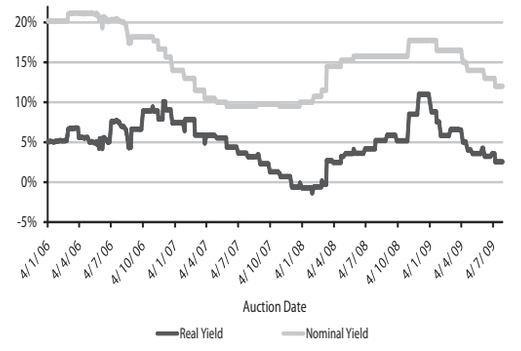
In spite of the cut in the reference rate by the NBS, the second quarter saw rising real yields on 2w repo operations measured relative to movements in the euro/dinar exchange rate. This increase was caused by the appreciation of the Serbian currency seen since January and continuing into Q2 (Graph T8-5). At the start of Q2 real yields calculated using this method amounted to some 21%, then dipped to 9% due to a short-lived depreciation of the dinar, only to recover in late Q2 to levels of between 15% and 22%. This trend carried over into July and August, when real yields measured relative to exchange rate fluctuations stood at between 18% and 22%.

Real yields on repo operations measured relative to inflation fell in Q2

When real yields measured relative to the rate of inflation are considered, they are seen to have continued their downward trend in Q2 2009 (Graph T8-4). Although the inflation rate fell in June and July, NBS policy of additionally cutting the reference rate drove real yields on repo operations down from 6.5% in early Q2 to 3.25% late in the quarter and even lower, to 2.55%, in mid-July.

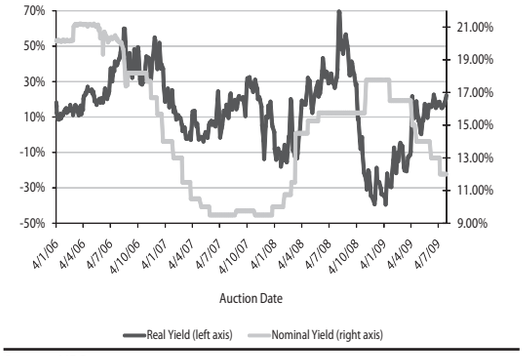
Q2 saw a fall in yields on Republic of Serbia treasury bills; 6m T-bills were issued once again after a long absence

Graph T8-4. Real (with regard to inflation as measured using RPI) and Nominal Repo Yields, 2006-2009



Source: NBS.

Graph T8-5. Real(with regard to exchange rate) and Nominal REPO Yields, 2006 - 2009

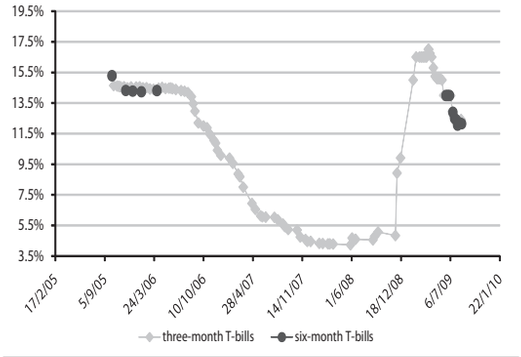


Source: NBS.

Q2 saw a fall in yields on Republic of Serbia treasury bills; 6m T-bills were issued once again after a long absence

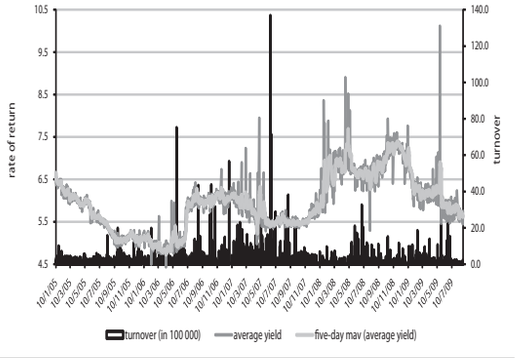
Following a period of rising yields on Republic of Serbia T-bills, Q2 2009 saw a drop (Graph T8-6). The start Q2 saw a yield of 17% recorded in auctions; this fell to some 14% by late in the quarter. The second quarter also saw increased activity on the part of the Serbian Treasury, with as many as 18 T-bill auctions held; treasury bills with 6-month maturity were even offered at two of these. The value of 3-month issues varied between 7.5 bn and 2 bn dinars, while the 6-month issue was worth 2 bn dinars. The realization rate at all auctions was rather high, in excess of 80%. A further reduction in yields took place in July and August, bringing them down to some 12% in late August.

Graph T8-6. Yields in T-bill Market, 2005-2009



Source: Serbian Ministry of Finance.

Graph T8-7. Average Yield on FFCD Bonds



Source: www.belex.rs.
1) The graph does not depict extraordinary yield of A2006 bond of 42% on 10 March 2006.
Note: The graph was derived as the weighted average yield on securities from A2006 to A2016. Turnover values for each of the securities were used as weights.

Volume and turnover of trading in the FFCD bond market stagnated in relation to the previous quarter

Both the volume and the turnover in the market in frozen foreign currency deposit bonds stagnated throughout Q2 2009 with a mild upward trend (Graph T8-7). The volume amounted to some €22.4 mn, while turnover stood at €17.6 mn, 2.2% and 10.6% more, respectively, than in the preceding quarter. As Q1 had seen a slight drop in the volume of trading, Q2 values were nearly identical to those seen in Q4 2008. Activity was nonetheless down on Q2 2008 (volume and turnover were lower by 18% and 13.5%, respectively), indicating that a recovery to pre-crisis levels has yet to occur.

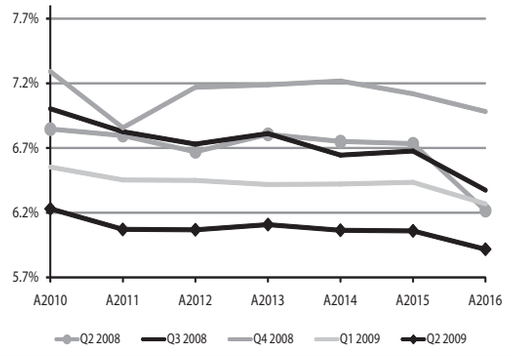
Q2 2009 saw a fall in average yields of FFCD bonds of all maturities

Average yields on bonds of all maturities continued trending downward in Q2 2009 (Graph T8-8). After a drop in yields of between 40bp and 80bp recorded in Q1, the second quarter saw a virtually parallel downward shift in the average yield curve – in other words, yields fell

by between 31bp and 38bp depending on bond maturity. The average yield curve is nearly flat, with minor variations between yields of various maturities. Average yield on A2010 amounted to 6.23% in Q1, while yield on A2016 stood at 5.92%, a difference of 31bp.

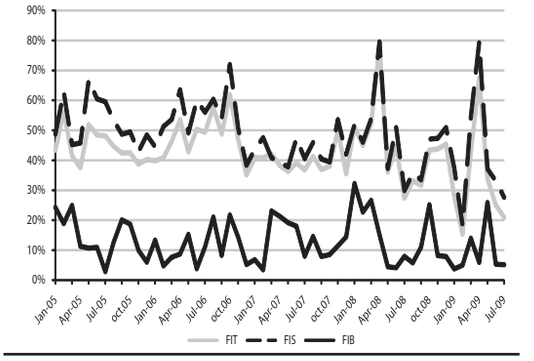
The average yield curve for FFCD bonds remained flat in Q2 2009

Graph T8-8. Average Yield Curves on FFCD Bonds



Source: www.belex.rs.

Graph T8-9. Foreign Investor Share in BSE Turnover, 2005-2009



Source: www.belex.rs
Legend: FIT- Foreign Investor Share in Total Turnover, FIS - Foreign Investors in Equity Market, FIB- Foreign Investors in Bond Market.

Foreign investors' share in turnover approached historic highs in April, both for the stock market and overall turnover, and spiked in May in the bond market, likely due to A2009 bonds maturing

The relative share of foreign investors in turnover in the bond market (FIB curve, Graph T8-9) saw a major increase in May, rocketing from 5.9% recorded in April to as much as 25.9%. This spike can probably be accounted for by the maturing of A2009 bonds, which resulted in investors shifting to longer maturity bonds. The stock market (FIS curve, Graph T8-9) recorded foreign investor share of 79.3%, very close to the historic high seen in April 2008. A drop in share ensued thereafter to July's level of 27.6%, probably caused by seasonal factors.

9. International Environment

World economy has probably begun bottoming out from the worst recession since WWII, but the recovery will not be uniform in regions and countries. The halt in growth rate decline is predominantly the consequence of state interventionism in the recent months. The real sector still is not showing signs of long-term recovery, wherefore the recession is not definitely over yet. The deepening crisis in Central and Eastern Europe has led the International Monetary Fund to considerably adjust the growth rates of the countries in the region. Although the price of oil has "recovered", there is no threat of inflation for now.

World

World economy is probably pulling out of recession

The International Monetary Fund has published new growth rates for 2009 and 2010. They indicate that recovery in regions and countries will not be uniform. Growth will not be explosive in the latter half of 2009; rather, slow growth can be expected at the global level. This is why the world growth rate in 2009 was reduced by 0.1 percentage points, to -1.4%. The prognosis for developed countries remained unchanged: -3.8%, and was reduced by 0.1%, to 1.5% for developing countries. Interestingly, the rate for the Central and Eastern European region was adjusted the most, by as many as -1.3 percentage points and growth in 2009 was projected to -5.0%. Recovery can for now be ascribed to lower interest rates, fiscal packages, aid to the financial sector and increased liquidity. The real sector has not fully regenerated yet, wherefore the curve recovery will take remains uncertain. Most real estate markets that collapsed during the current crisis have not hit rock bottom yet, bank balance sheets have not been fully 'cleaned up' and the financial sector is yet to undergo deep restructuring, as is the system of its regulation. The panic in the financial markets has, however, subsided, the collapse of economic activity has ended, wherefore world growth rate for 2010 was raised by 0.6 percentage points – to 2.5%. Despite lower financial market risks, corporate crediting is still at a low level and this bottleneck constrains the recovery of employment and personal spending. The increase in demand for oil has led to an increase in its price but inflation has remained low. The inflation rate has been dropping more rapidly in China and the Middle East than in the rest of the world.

Table T9-1. World: Economic Growth and Inflation, 2006-2009

	Realni BDP							Inflacija		
	Realni rast (%)			Realni rast, (%)				Troškovi života u odnosu na prethodnu godinu (%)		
	2006	2007	2008	Q3 2008	Q4 2008	Q1 2009	Q2 2009	Q4 2008	Q1 2009	Q2 2009
SAD [1)]	3,0	2,2	1,3	-0,5	-6,3	-6,4	-1,0	1,5	-0,2	-0,9
Kanada	2,8	2,5	0,6	0,1	-0,9	-1,6	-0,9	1,9	1,2	0,0
Japan	2,2	2,1	-0,4	-1,0	-3,5	-3,1	0,9	1,0	0,2	-1,0
Kina	11,1	11,4	9,0	9,0	6,8	6,1	7,9	2,5	-0,6	-1,5
Evrozona	2,9	2,7	0,7	-0,3	-1,8	-2,5	-0,1	2,3	1,0	0,2
Nemačka	3,1	2,6	1,0	-0,3	-2,4	-3,5	0,3	1,7	0,8	0,2
Francuska	2,2	1,9	0,7	-0,2	-1,4	-1,3	0,3	2,0	0,7	-0,2
Velika Britanija	2,8	3,1	0,7	-0,7	-1,8	-2,4	-0,7	3,9	3,0	2,1
Italija	1,9	1,7	-0,9	-0,8	-2,1	-2,7	-0,5	2,9	1,4	0,9
Ruska Federacija	6,7	8,1	5,6	6,0	1,2	-9,8	-10,9	13,8	13,9	12,6
Bugarska	6,0	6,1	6,0	6,8	3,5	-3,5	-4,8	9,3	5,1	4,1
Rumunija	6,9	6,0	7,1	9,2	2,9	-6,2	-8,8	6,9	6,8	5,9
Mađarska	3,8	1,3	0,6	0,3	-2,2	-5,6	-7,4	4,2	3,0	3,6
Hrvatska	5,0	5,6	2,4	1,6	0,2	-6,7	-6,3	4,5	3,8	2,8
Makedonija	4,0	5,9	4,9	5,8	2,0	-0,9	…	5,5	0,9	-0,6
BIH	6,9	6,0	5,9	…	…	...	…	5,5	1,6	-0,9
Srbija	*5,6*	*7,1*	*5,4*	*4,9*	*2,8*	*-3,5*	*-4,4*	*10,6*	*10,0*	*8,7*

Source: Eurostat, OECD, National Bank of Bulgaria, National Bank of Romania, National Bank of the Republic of Macedonia, Russtat, Central Bureau of Statistics of the Republic of Croatia, National Statistical Institute of Bulgaria, State Statistical Office of the Republic of Macedonia, National Bureau of Statistics of China.
1) The GDP growth rate for the USA is the seasonally adjusted annual rate, the growth rate for other OECD countries is seasonally adjusted quarter on quarter, while the rate for the other countries is adjusted quarterly year-on-year.

Given the ongoing risk of economic growth contraction, states are advised to maintain policy rates at a low level, which simultaneously provides protection against deflation. Investors'

concerns about expansive monetary policy effects also need to be alleviated by clear, transparent exit strategies. The following unpopular measures are proposed to address fiscal expansion: to raise the age of retirement and rationalize costs in state health institutions. Given that these measures are painful, introduction of customs duties, tariffs, restrictions on circulation of capital and a halt in reforms in public companies could result in the recurrence of decadent populism, which would lead to a decline in productivity at the world level. Implementing efficient exit strategies after the hitherto expansive macroeconomic policies and balancing social discontent will be a complicated and difficult task for the governments of both developed and developing countries.

The response to the current recession is totally different from responses to similar crises in the past. This time round, supply will probably fail to recover sufficiently for various countries to achieve their potential economic growth rates. Not only are investments falling and companies going under; labor supply is very likely to drop as well. A portion of cyclical unemployment will in that case easily turn into structural unemployment. Growth of supply will therefore be unable to stimulate demand.

Surplus countries ought to be "engines" of recovery

This is why the solution lies in demand. It will be impossible to maintain public demand at the present level, wherefore recovery ought to be driven by another element - personal spending. Countries with large current deficits cannot substantially increase personal spending, wherefore the US will not be the "engine" of recovery this time round. This task will befall countries with current account surpluses, net exporters, e.g. China and Japan. It remains to be seen whether such a change will actually ensue and how rapidly.

United States of America

US growth likely to be positive in the latter half of the year

This is the first time that US economy recorded a fall for the fourth consecutive quarter since the GDP growth series has been monitored in accordance with the current methodology (1947). The fall is, however, much milder than in the previous quarters, standing at merely -1% q/q[1], which is an improvement over Q1 2009 (-6.4%) and Q4 2008 (-6.3%). The recession abated and surveys indicate positive growth in the latter half of the year. Industrial output is still slow and capacity utilization reached record low 68.3% in Q2. Stocks fell substantially in Q2 and manufacturers will probably have to replenish them in Q3, which will positively affect economic growth.

Spending still low

Spending was low, with only state spending recording positive growth over the previous quarter. Exports fell less than imports. Although disposable income was significantly stimulated by the fiscal packages, real spending recorded a q/q fall of 1.2% in Q2. Lower taxes stimulated savings, not the purchase of USD. Spending was limited by lay-offs, the negative impact of the effects of the decline in household wealth and the modest growth of household credits.

Investments are still undergoing a bad spell. Investment in nonresidential facilities recorded negative growth for the fourth consecutive quarter (-8.9 q/q), but was not as low as in Q1 (-39.2% q/q). Purchase of consumer goods grew, but the record low capacity utilization, low profits and small volume of corporate credits indicate that spending on investments will remain at an unsatisfactory level in the near future.

Residential construction dropped for the 14th straight quarter, by as much as 29.3% q/q. Investments in this sector have nearly halved since the climax in construction activity in 2007. Recent indicators may be indicating recovery: the sale of new housing has increased, as has the construction of new housing.

Total annual inflation is negative above all due to the high base, because fuel prices were higher last year. As the year draws to an end, the effect of the base will weaken and total inflation will be positive in November because the price of oil recovered in the previous months. The trend of base inflation is altogether different because it above all depends on the state of the economy. Low capacity utilization, the lowest in history, and the highest unemployment in the past 25

1 The GDP growth rates for the USA are seasonally adjusted annual rates unless specified otherwise.

years have limited the negotiating powers of workers for higher wages. Although base inflation is stable at slightly below 2% per annum, it is expected to fall in the ensuing quarters. Divergence between demand and capacities may result in deflation in 2011.

The US central bank (FED) maintained a low policy rate (0.125%) and will keep it at that level unless there are clear signals that the recession is definitely over and that a boom period has begun. Inflation is expected to stay low until 2011 and a restrictive monetary policy is not on the horizon yet.

Growth in unemployment is calming

A decline in the unemployment growth rate was recorded in the labor market which is, as usual, lagging behind other markets in recession. Although 467,000 people lost their jobs in June and another 322,000 in May, these figures are much smaller than the monthly average of 645,000 in the first half of 2009. The unemployment rate rose by only 0.1% in June and then fell to 9.4% in July, which came as a surprise to economists. Many unemployment indicators have been recording better results than expected.

The balance of payments deficit in Q2 stood at 81.8 billion USD. The deficit increased by one billion in June over May; this is not a sign of export weakness, but above all the result of the circa 20% rise in fuel prices. The chief conclusion is that exports are stabilizing and that their head-on plunge has ceased. A survey of exporters[2] shows that the index rose from the rock bottom 35.5 in December 2008 to 50.5 in July and entered the positive sphere, given that values exceeding 50 indicate expansion. Imports are expected to grow more sharply if domestic demand recovers.

Spending is limited by the mentioned factors, but the situation ought to improve to an extent by the end of the year. Consumers are under pressure from fuel prices and high mortgage credit rates but the growth of the unemployment rate is increasingly falling, the situation in the real estate market is improving, disposable income is growing and the stock market is recovering at a rapid rate. Savings may pose an obstacle to the recovery of spending. US households used most revenues from tax cuts and state transfers to increase savings and the rate of savings rose from 4% in late 2008 to nearly 7% in May 2009, the highest increase since 1994. Had the savings rate remained at the December 2008 level, the rate of real spending would have increased to around 5%.[3] The increase in savings has thus largely proven wrong economists, who had predicted that spending would increase due to fiscal package effects. Although growth in savings is desirable in the medium term, it may impede the recovery of economic growth. There are several reasons why the personal savings rate trend may continue: unemployment will not drop substantially until the latter half of 2010, taxes will not increase before 2011, while problems with private loans will not disappear in the near future. Nearly 13.8 trillion USD of household capital was destroyed by the plunge in prices of stocks in the market and people are wary of increasing spending in fear of another crash. However, if the stock market continues to skyrocket, citizens will feel richer, safer and increase spending.

Stock market indices skyrocketing

The situation in the financial market has been improving and the S&P 500 index grew sharply in the past few months, whilst aversion to risk amongst investors has been falling. The spread between the three-month LIBOR and the FED policy rate dropped to 40 base points, after averaging 100 base points in Q1. Stock market growth and the halt in the decline of economic activity led to two changes that may negatively affect economic growth in the future. The first regards the increase in the long-term interest rate and the second the higher price of oil. The rate on ten-year maturity bonds increased by one percentage point over Q1 although the FED decided to buy this type of bond in the market to prevent the growth of the long-term interest rate and thus facilitate residential mortgage borrowing. A high interest rate is a disincentive to long-term corporate and private borrowing and may lead to the protraction of the crisis in the real estate market and thus increased losses of financial institutions. The halt in the growth of the long-term interest rate is good news for now. Expensive oil reduces the purchasing power of the population and company profits because oil is an input in production. Higher oil prices cost US

2 ISM manufacturing export order index.
3 Three-month rate, 3m/3m.

citizens around 1.5 billion USD in the January-May 2009 period. Expensive oil indirectly cuts population demand and economic supply.

Professor Roubini of the New York Stern School of Business was the economist who gave the most precise prediction of the timing, causes and gravity of the current recession. These predictions brought him world acclaim and we shall now focus on his article4 in which he gives his opinion on the future course of the recession. He asks three questions – When will the global recession be over? What will be the shape of the economic recovery? Are there risks of a relapse?

Roubini is of the opinion that Japan, China and Germany have already begun recovering from recession, while the US, Italy, the UK and East European countries will not enter that stage before the end of the year.

Economy will probably not have a V-shaped recovery

Recovery will follow the U rather than the V curve as many have hoped. Roubini corroborates his view by listing the following seven factors. 1. Unemployment is rising, which is bad news for demand and productivity; 2. Bank balance sheets have not been cleaned up yet, which prevents these institutions from effecting the desirable increase in credit activity; 3. Personal spending will have a hard time recovering in countries running current account deficits because the savings rate is increasing; 4. The financial system is still severely damaged and the banks are still seriously undercapitalized; 5. Weak profitability constrains companies' willingness to produce, hire new workers and invest; 6. Large fiscal deficit risks have a crowding out effect on private investment; 7. Finally, like IMF experts, Roubini stresses that world economy cannot recover unless domestic demand grows fast enough in surplus countries.

Whether recession will double dip depends on the exit strategy of the economic policy makers. If they raise taxes to decrease fiscal deficits, they will increase the risk of stagflation. If they maintain expansive policies, inflationary expectations and long-term bond yields will rise, which, too, may lead to stagflation. Another threat to future growth is the scenario under which the price of oil would again exceed 100 USD and cause a contractionary shock to global growth in the recovery stage. Whichever exit strategy they come up with, they will face problems in implementing it.

Fewer and fewer articles on "the collapse of capitalism" have been published by the media since the appearance of positive economic news. The truth is that some changes are occurring and we may even be witnessing the onset of a more intensive evolution of capitalism, but definitely not an "abdication" of the neo-liberal concept. The US Administration is about to launch the long-awaited health reform and has increasingly been focusing on the environment, education and sustainable development. However, apart from a few exceptions, those responsible for the recent collapse - directors of financial institutions – have merely been "named and shamed" but have not felt the announced measures limiting their earnings. Payment of back bonuses from liquidity loans is not rare. France was the only country to amend the law regulating these relations, but it remains to be seen whether other countries will follow suit. It also remains to be seen to what extent the financial markets system will transform itself and whether major capital lobbyists will succeed in defending their interests and maintaining the status quo with cosmetic changes.

Eurozone

Growth still was not positive in Q2 although it definitely improved over the previous quarters. According to Eurostat's flash estimates, the GDP contracted by a minimal 0.1% q/q in Q2 after the -2.5% q/q plunge in Q1. Near zero growth is partly the consequence of the low base, because annual growth stood at -4.6% y-o-y in Q2. As opposed to the preceding quarters, personal spending recorded low positive growth of 0.2%. The program subsidizing new car buyers was a very successful measure and the sale of vehicles increased significantly. The registration of new vehicles rose by over 12% q/q in the EU. The situation was not as auspicious in terms of investments, because demand remained low and as did capacity utilization. This is why they negatively affected growth in Q2. Due to weak domestic demand, imports have fallen more than exports. Stocks also declined.

4 Nouriel Roubini, "The risk of a double-dip recession is rising", Financial Times, 23 August 2009.

Highest unemployment since May 1999

The unemployment rate rose to 9.4% in Q2. It will probably go up to 11% by the end of the year and further increase in 2010. The current unemployment rate is the highest since May 1999. Consumer confidence is low due to high unemployment and the situation is further undermined by the impact of wealth effects. The financial wealth of European households was 14% lower in Q4 2008 than a year earlier due to the fall in stock prices on the European bourses. Given the deterioration of the ratio of household debts to disposable income from 0.73 in 1999 to 0.93 in late 2008, consumer confidence and spending propensities can hardly expect to change significantly until next year.

Total inflation was negative, standing at -0.1% y-o-y in June, much less than in April (0.6%). The fall in the inflation rate continued in July (-0.7%), but halted in August (-0.2%). Low inflation can above all be ascribed to the high price of oil last year. It is expected to increase at the end of 2009. Base inflation will probably continue to calm down until the end of the year because prices are under pressure from unused production capacities and unfavorable labor market circumstances. Senior ECB officials stressed more than once that the Bank decisions would not be significantly affected by the overall negative inflation caused by the high base inflation last year. They are for now monitoring the effects of the hitherto conventional and unconventional monetary policy measures, which have had some extraordinary effects. Private financial institutions have been taking short term loans in the capital market and buying securities with longer maturity. It is therefore expected that liquidity loans will be granted at a premium to avoid such manipulations. The policy rate is still 1% and its impact on economic growth and inflationary expectations is being analyzed. Medium-term inflationary expectations, expressed by the rate obtained via interest rates at the indexed securities market, are in keeping with the monetary policy, i.e. hovering at around 2%, which is the official target.

Export rate plunge halted

The trade surplus was negligible in Q2 (2.4 billion euro). More importantly, seasonally adjusted exports in June fell by only 0.1% over May. This means that the export rate plunge has halted and that exports are stabilizing. Surveys indicate growth, above all due to the recovery of German exports. A sizable part of German exports ended up in intra-European trade. Eurozone exports to the US declined but exports to East Asia recorded mild growth. The rapid increase in imports of goods by China early in the year halted, stagnated in Q2 and is expected to fall in Q3. The demand in other Asian countries still positively affects eurozone exports.

France recorded 0.3% positive growth in Q2, for the first time since Q1 2008. This is a good sign as there were doubts that France may enter recession with a delay due to its specific labor market policy and thus bottom out from recession later. Positive growth belies such a scenario. Demand improved mildly in all segments apart from private investments and stocks. Imports fell considerably and net exports positively affected growth. Surveys indicate that the momentum of recession is abating, but anemic demand may be a problem. The capacity surplus has prevented manufacturers from maintaining prices and lay-offs have exerted downward pressure on wages. The continuation of this trend may undermine recovery. Household spending grew by 0.3% q/q in Q2, above all due to the leap in food consumption and the purchase of new cars. Disposable income increased due to cuts in income taxes levied on low earners. According to surveys, private investments will not record positive growth soon notwithstanding the slowdown in its rate of decline.

Growth in Germany stood at 0.3% q/q, and was positive for the first time since Q1 2008. The fall of industrial output slowed down from -12% in Q1 to only 0.18% in Q2 this year. The decline in exports slowed from -14% to -2.9% in the same period. The fall in imports also slowed down, but not to the same extent, and net exports positively affected growth. Stocks have been reduced and growth is supported by public spending. Car production considerably contributed to growth.

Italy could make use of low household and corporate indebtedness

GDP in Italy decreased by 0.5% in Q2. Industrial output has been falling since spring 2008 because of its hypersensitivity to changes in external demand. As opposed to Germany, exports have been falling faster than imports. The metal and electrical equipment production sectors recorded the greatest decline in industry. Disposable income has been falling, while savings

have been growing due to the population's apprehensions about when recession will really end. Unfortunately, lower inflation cannot sufficiently neutralize the negative effects on personal spending either. Unemployment has been rising and will exceed 8% in the upcoming period. Investments declined sharply and a manufacturing industry survey indicates that producers have on average curtailed their 2009 investment plans by 20%. Exports to all major trade partners apart from China have been falling. The hidden advantages of the Italian economy need to be made use of to step up recovery. As opposed to other countries, toxic assets account for only 2% of Italian bank portfolios. On the other hand, corporate credits are far below the eurozone average. Italian households are less indebted than households in Europe. A credit policy stimulating personal and corporate loans needs to be implemented although the delayed effect of the fall in external demand will still deter corporate borrowing for some time. The GDP will not record positive annual growth before 2011 despite fewer losses by Italian banks and the possibilities to boost household loans.

Japan

As expected, Japanese economy recorded growth in Q2 (0.9% q/q) after four negative quarters. This was partly an adjustment of extremely low growth in the preceding two quarters. Exports recovered, increasing the most in the past seven years, by 6.3% q/q. The rise in exports was chiefly driven by demand in China and the developing countries.

Liberal Party loses power after several decades

Growth was stimulated also by the Japanese government's fiscal package. Encouraged by tax transfers and the purchase of eco cars, personal spending grew by 0.8% in Q2. Household spending increased due to favorable energy prices, while public investments rose by as much as 8.1% q/q. The construction sector is still undergoing a crisis. The future of economic growth depends on the recovery of domestic demand as the effects of the stimulus packages lapse and political uncertainty increases the danger of recovery not taking a sharp V curve. After ruling the country for decades, the Liberal Party lost the elections and investors are alertly following the moves of the new government.

Stocks have been falling and their replenishment will boost growth in the near future but SMEs have problems with borrowing; low capacity utilization does not encourage companies to invest. Growth is thus expected to continue until the end of the year, but will then probably stagnate for a while.

Exports recovered in April, after a plunge in Q1 2009 and Q4 2008. Export growth was caused by demand from China, while demand from the US and the eurozone continues its mild decline. Chinese fiscal packages stimulating demand will continue positively affecting the growth of Japanese exports.

Deflation may again be knocking at Japan's doors. The national inflation rate (the most frequently used measure of the Japanese central bank, which does not include prices of fresh produce) fell by 1.1% y-o-y in May.

The Japanese central bank has been vigilantly monitoring the well-known risk of deflation in Japan and looking out for other possible problems. The policy rate, now standing at 0.10%, has remained unchanged since December 2008. Given that the policy rate is extremely low, the Bank of Japan resorted to unconventional measures. It announced that it would begin accepting US, German, French and UK bonds as collateral for loans to banks. Moreover, given the growth of public debt, the Bank will purchase long-term Japanese bonds to keep the interest rate at a lower level. The FED had already taken this move but the expected effects did not materialize and it will be interesting to see whether the Japanese central bank will be more successful.

Unemployment continued growing in Q2 and reached quite a high level by Japanese standards in July (5.5%). Indicators of future labor demand, which usually grow rapidly when recession ends, are slowly recovering this time round. This may be ascribed to the fact that companies still appear to be oversized i.e. Japanese firms did not aggressively downsize like the US companies

because of the different employer-employee culture in Japan. Surveys of business managers also indicate that companies still have surplus labor.

East Europe and Neighboring Countries

East European countries will pull out of recession later than developed countries

There has been a series of positive news of economic growth in most developed countries, but such tidings are relatively rare in East European countries. The reason lies in the fact that, as opposed to developed countries, most of the countries in the region recorded quite high growth rates until Q3 2008. Recession entered this part of Europe with a delay. Given that inflation currently is not a problem in the region, East European countries are expected to continue cutting their policy rates to stimulate their economies. Lower policy rates on East European currencies are not expected to yield any negative effects. An internal financial or currency crisis in an East European country will probably not have any contagion effects on other economies in the region.

Bulgaria

Bulgaria recorded a 4.8% y-o-y fall in Q2, after a 3.5% negative growth in Q1. The decline in GDP growth was above all caused by the fall in industrial output (value added), which was nearly 10% lower y-o-y in Q2 2009. The services sector proved quite resistant in the same period, recording a fall of merely 0.3%. Agricultural production underwent a sharper decline in activity (6.6%). There is a high risk of the recession deepening due to the weak external demand of the chief importers of Bulgarian products and lower capital inflows. Given the difficult economic situation, EU authorities decided to release 1.25 billion euros allocated for improving the Bulgarian road network. These funds had been frozen after accusations of corruption in the appropriation of European funds.

The Baltic states still face the greatest risk from the financial crisis in East Europe. Bulgaria's economic indicators resemble those of the Baltic states a lot. The chief factors of risk in Bulgaria include: the fixed exchange rate, a high current account deficit, and high bank debts. Bulgaria, however, has high foreign currency reserves, which proved quite stable during the climax of the economic crisis. On the other hand, the weakening of the lev resulted in the greater competitiveness of Bulgarian exporters. Stability has been reinforced also by broad political consensus that the currency board would be maintained until the euro becomes the official currency. The EU has expressed resolve to help out its members with economic problems. The IMF, the World Bank and the EU have targeted funds and programs at East European economies within the EU and have thus raised investor confidence.

Romania

Romania recorded a higher than expected drop in Q2 reaching 8.8% y-o-y. Investments and personal spending fell rapidly. Surveys and latest data indicate weak economic activity in Q3; growth will also contract due to the high base last year, when growth exceeded 9% in Q3 2008. Delayed infrastructure investments and the low level of bank credits to companies additionally pressure growth. Moreover, poor climate conditions have cut agricultural output, which still constitutes an important element of economic growth. The situation would be alleviated by a state stimulus package, but the high budget deficit and the decline in tax revenues have prevented the government from opting for this measure.

According to the Stand-By Arrangement (SBA) with the IMF, the government committed itself to the budget deficit quarterly targets but the economy has been slowing down more rapidly than initially projected and tax revenue collection is low. It was thus impossible to fulfill the agreed budget deficit targets. As in other countries, the IMF showed understanding for increases in the deficit targets as long as the governments continue cutting administration costs and pursuing

their rationalization plans. It approved a 7.3% deficit in 2009, which is considerably higher than the initially agreed 4.6% deficit. Deficit may not exceed 6% next year and the IMF will monitor the structural changes and the reduction of bureaucracy. Nine international banks vowed not to decrease their capital in Romania until the arrangement expires.

Leu stabilizes

Foreign financial aid and lesser pessimism amongst Western investors have helped the leu stabilize since March. After the Central Bank stopped intervening in the foreign currency market in March, fluctuations of the leu have been quite correlated with the currencies of the neighboring countries. The trend should continue unless the targets agreed with the IMF are seriously exceeded. The leu may, however, start weakening again if the targets are seriously exceeded.

The risk premium fell and bets on the further depreciation of the leu abated after the SBA was clinched in March. The Central Bank thus got the opportunity to implement the monetary policy more efficiently. The policy rate was cut and the average bank credit rate consequently fell. Interest rates on state securities were also cut. As inflation is relatively low and economic activity weak, the National Bank is likely to further slash the policy rate to "revive" the economy. Consequently, one may expect a further drop in interest rates on state securities and bank credits, like the one in the preceding period, but to a lesser extent. Local banks are the chief buyers of state securities and they get most of the funds from the Central Bank, wherefore the Central Bank is indirectly investing in state securities. International private investors have not shown interest in investing in Romanian state securities for now.

Poland

Poland avoided recession

Poland is an example proving that an East European country can avoid the current crisis. GDP growth in Q2 was higher than expected, standing at 1.4%. Poland has not recorded negative quarterly growth since the onset of the crisis. The main reason for the positive result is strong personal spending, which reversed the negative effects of the drop in investment demand. Retail data indicate that citizens of Poland will continue spending and thus help cushion the negative effects of the crisis. Also, exports are more competitive because the zloty has weakened. Germany's recovery is an additional factor that will step up Polish exports. GDP growth in 2009 will be positive and the Polish central bank will stop cutting the policy rate. The policy rate is predicted to remain at 3.5% in 2010.

VAT rates changed to fill budget holes

The problem of filling the budget hole appeared as the crisis in East Europe deepened. Croatia and Hungary therefore took measures to raise the necessary funds. Croatia upped the VAT rate from 22% to 23% and voted in a crisis Salary Law, which will be in force until end 2010. Under the Law, salaries, pensions, dividends and other incomes exceeding 3,000 kunas will be subject to an additional 2% and incomes exceeding 6,000 kunas to an additional 6% tax. These states have found it increasingly difficult to fill their budget holes. Hungary similarly increased the VAT rate from 20% to 25%, but cut it to 18% on hotel services and basic foodstuffs. Excise taxes on gas, alcohol and tobacco have also been increased.

Currencies and Commodities

The US dollar has for several months now been weakening against the basket of the leading world currencies and the euro. Now that the panic in the markets has passed, investors have begun to abandon the dollar as the "safe haven" and to invest in the currencies of developing countries and the euro. The state of public finance may be the chief factor of weak demand for US bonds and the dollar. There is a possibility of the USA recovering faster than Europe and having a lower inflation, in which case US bonds will regain their appeal amongst investors.

The current consolidation trend of the euro due to the change in economic climate will most probably change at the end of the year. Several factors may affect it. The US economy will probably overcome recession before the eurozone whereas risks in Central and East Europe

negatively affect the strength of the euro in the medium term. This is why the euro is expected to weaken in late 2009 and early 2010 and the exchange rate is projected at 1.25 EUR/USD[5] in Q2 2010.

Price of oil "recovers" as opposed to the price of natural gas

The price of oil has recovered but there has recently been a visible divergence between it and the price of natural gas. The price of oil rose by nearly 70% this year on speculation of Chinese demand, whereas the price of natural gas nearly halved due to lower demand from companies in developed countries and the new fields activated in the USA. The oil/natural gas price ratio, standing at record high 26.4:1 in August, more than tripled this year. The ratio will undoubtedly change and approximate its average historical value, because long-term data indicate that the current ratio is unsustainable[6]. However, the question is when this will happen because speculative elements and the specificity of demand due to recession affect the setting of the price.

5 BNP Paribas.
6 Wall Street Journal, "Record gap in natural gas-oil prices", 21 August 2009.

HIGHLIGHTS

Highlight 1. World Bank Support to Serbia on Its Way to EU

The World Bank has two types of lending operations: 1) investment projects focusing on longer term financing of works, goods and services supporting economic and social development projects in various sectors such as infrastructure, education, health, agriculture and so forth (the World Bank's most recent investment project being financing for sections of the Corridor 10 highway); and 2) development policy operations, providing budget support aimed at assisting governments with implementing structural reforms which will ensure medium to long term economic development, such as those related to the transition from a socialist to market economy.

There are two ongoing series of World Bank Development Policy Loans – a Private and Financial Development Policy Loan (PFDPL) and a Public Expenditure Development Policy Loan (PEDPL) aimed at supporting the Government of Serbia in strengthening both the private and public sectors in a way that promotes EU integration. From a public finance point of view the need for these budget support operations has become even greater due to the severity of the international financial crisis and its impact on Serbia. Both of these operations are programmatic – in other words they represent a series of operations aimed at gradually supporting structural reforms over a period of two to three years.

The PFDPL series commenced first. The first and second PFDPLs (in a series of three) were negotiated in January and August respectively. The first operation was approved by the World Bank's Board of Directors in March, while the second one will be submitted to the Board this fall.

Under the auspices of first and second Private and Financial Development Policy Loans the World Bank has, in coordination with a number of other donors, provided the Government with support critical to implementing reforms in: 1) enhancing the business environment; 2) strengthening financial discipline; and 3) building a more efficient and stable financial sector. The third PFDPL will bring to a close the reform program in 2010.

In the area of business environment, Government has successfully implemented a one-stop-shop for business registration, introduced a new competition framework and made substantial progress in developing a structure for improving enforcement of contracts and simplifying the process of obtaining construction permits. Moreover, the Government has embarked upon a comprehensive regulatory review exercise - the so-called regulatory guillotine - aimed at reviewing, eliminating, and streamlining unnecessary and outdated regulations.

As regards financial discipline GoS has continued with a restructuring and privatization of socially owned enterprises, along with the enforcement of hard budget constraints. An improved bankruptcy framework was developed, as well as a new Law on State Aid in line with EU standards. Reforms continued in the energy sector, including an invitation to the private sector to participate in power generation.

Finally, substantial progress has been made in implementing a program of restructuring and privatization of state owned banks and insurance companies. Additional measures were implemented for strengthening insurance sector regulation, including the development of a new Third Party Motor Liability Law. Enhancement of prudential supervision of the banking sector and the strengthening of capital markets is also progressing. The second PFDPL has paid particular attention to crisis preparedness in the financial sector. This included strengthening the liquidity framework, assessment of capital adequacy, the bank resolution framework and deposit insurance payout functions.

The Public Expenditure DPL series is designed to support the government in the creation of a smaller and more efficient public sector while at the same time providing for well targeted social programs. The level of public spending in Serbia is high relative to other countries in the region. Both current and capital spending have been increasing between 2005 and 2009. Within current transfers, wages and pensions account for most of the increases. The increase in the wage bill reflects both increases in employment levels and wages. The substantial increase in pension payments is due to past indexation of pensions to sharply growing wages and one large exceptional pension increase in late 2008.

The PEDPL supports measures structured in three pillars: (i) cross-sectoral public sector and public financial management reforms to address excessive and poorly managed fiscal spending with a particular focus on fiduciary issues; (ii) sectoral reforms in the largest spending programs (pensions and public sector wages) where crisis-related nominal freezes are in place in the short-term

* Country Manager, World Bank country office for Serbia.

and the design of the medium-term reforms package is currently particularly critical; and (iii) strengthening of social assistance to cushion the impact of the current crisis and to enhance the coverage of the programs going forward.

The first pillar - *Public Expenditure Management Reforms* – aims to put in place a more comprehensive, integrated medium-term planning and budgeting framework; improving public expenditure monitoring and control through more effective internal and external audit of the public finances; public procurement legislation compatible with the EU standards; and strengthening debt management in the establishment of a distinct public debt management administration with a clearly defined scope of responsibilities.

The second pillar of PEDPL - *Public Expenditure Allocation Reforms* - includes measures aimed at containing the public sector wage bill and improving public administration, as well as making the pensions system fiscally sustainable. The first area focuses on public administration reforms. In the coming period a more systematic and sustainable approach to employment is needed, affecting both civil servants and front-line staff. This will include a comprehensive pay and grading exercise and a review of staffing needs throughout the public administration. Another very important area of reform under this pillar is pensions. The World Bank is supporting GoS in developing a new pension strategy which will address issues of financial sustainability while ensuring the pension system provides adequate benefits into the future. Some of the measures being discussed include reducing pensions for early retirees and raising the retirement age for women. Successful pension reform will, however, depend on the phasing in of the new system of indexing pensions. The operation is supporting a group working on legislative changes under the leadership of the deputy prime minister.

Finally, the third pillar of this operation - *Strengthening social assistance and protecting the most vulnerable* - includes activities aimed at improving the tracking of demand for social assistance and social program performance and impact, and promoting access to more adequate means-tested cash benefits and social services.

While the focus of the first PEDPL is on the improved management, transparency, and accountability of public finances, the second operation will focus more on pensions and the public sector wage bill, while the third PEDPL will target reforms in social sectors - health and education.

The total amount of budget support operations is approximately USD 450 million, equally split on two streams of DPLs - PFDPL and PEDPL.

The World Bank works in close cooperation with the IMF. The Bank focuses on structural change to ensure that a competitive market based economy emerges, compatible with the structures of the EU, while the IMF pays close attention to goals of macroeconomic stability through the adoption of sound fiscal and monetary policy.

Highlights 2. How Much Has Economic Activity Really Declined in 2009?

Danko Brčerević[*]

Experts were quite surprised in late June when the Statistical Office of the Republic of Serbia (SORS) announced that the GDP had fallen by 3.5% y-o-y in real terms in Q1. Although a 3.5% decline in economic activity signifies deep recession, relevant estimates and indirect indicators had pointed to an even greater drop of economic activity (around 6%). A more detailed analysis indicates that the real decline in economic activity in Q1 was nevertheless higher than the official 3.5% and that official data will probably continue "underestimating" the real drop in economic activity until the end of the year. Given that imprecisions in GDP estimates may have far-reaching consequences on overall economic policy, this text aims to raise the issue of quarterly GDP monitoring also by *use*, not only by the *production principle*, because monitoring economic activity also from another perspective will help increase the reliability of official estimates to a great extent.

The section entitled "Economic Activity" includes *QM*'s estimate of y-o-y GDP growth given that official data on Q2 were not available yet. The SORS methodology was used as the basis for the estimate. The SORS estimates the GDP according to the *production principle* – GDP growth by sector is estimated on the basis of standardized growth indicators for each sector of the economy, sectoral GVA growth is estimated, and overall GDP growth is then estimated on the basis of growth in individual sectors plus the tax component.

Estimating GDP growth is a challenge every edition of *QM* faces. Why? The problem arises from the fact that a large number of indicators, on the basis of which economic activity in specific sectors is estimated, are not available by the time the *QM* is published. This is why *QM* authors use some other available indicators, which are not part of official methodology, to estimate GDP

* *Quarterly Monitor*, FREN.

growth. Also, calculations and analyses of domestic and export demand by quarter provide insight in trends initiating GDP growth and, thus, additional information on the scope within which the GDP level is expected to range.

QM estimates are in most cases very similar to those of the SORS. This does not come as a surprise given that the bases of both methodologies are very similar. Estimates of year on year real GDP decline in Q1, however, differed by as many as three percentage points: *QM* estimated it at -6.5% and SORS at -3.5%. Notwithstanding the undisputed fact that *QM* estimates can never be fully reliable because *QM* has fewer available indicators at its disposal, Q1 estimates revealed the weaknesses of the official estimate system, leading the authors to trust more *QM*'s estimate of the economic activity trend than the official estimate.

The Transport, Storage and Communications sector contributed to the unreliability of the official GDP estimate the most, as noted in several previous issues of *QM*.[1] The Transport, Storage and Communications sector has been recording very high growth in the past few years, mostly due to the growth in telecommunications, notably mobile telephony. Official statistics, however, does not take into account the changes in the relative prices of mobile telephone calls over the past seven years and still applies the 2002 constant prices (weights).

Increased competition has led to a substantial fall in prices of mobile telephone services since 2002; this is why their contribution to sectoral growth and overall GDP growth is much lesser than indicated by official statistics. According to official data, the heterogeneous Transport, Storage and Communications sector recorded 10.7% growth in Q1! *QM* is of the view that such high growth could hardly have been achieved in a macro-environment in which the overall GDP declined by (at least) 3.5% and domestic demand fell by 4.3% year on year.

The unreliability of official statistics is also reflected in the estimates of economic activity in sectors using as the basic indicator the y-o-y employment index and not the production indicators. The *employment index* is used an indicator to estimate activity in a number of sectors, notably the Real Estate and Renting Activities, Other Community, Social and Personal Service Activities, Health and Social Work sectors et al.

The employment index is not a good indicator in cases characterized by abrupt changes in economic activity given that the speed and intensity of decline in employment as a rule does not mirror those of economic activity. The correlation between the decline in economic activity and the drop in employment is discussed in Section 2 "Economic Activity" and Section 3 "Employment and Wages" of this issue. It should also be noted that employment statistics has over the past few years undergone substantial methodological improvements entailing frequent changes in methodology. This is another reason why data on y-o-y changes in employment are not reliable enough to serve as an indicator of economic activity growth in specific sectors. Specifically, official data show that renting within the Real Estate and Renting Activities sector recorded 0.9% real growth in Q1, while *QM* estimated that this sector actually recorded a significant decline in activity year on year.

There are specific methodological problems also in estimating economic activity in the Construction sector. Namely, there is statistic 'bias' reflected in greater focus on monitoring activities of large companies building road and industrial infrastructure; the part of the construction sector, which is much more dynamic but is dominated by small and medium-sized private companies – residential construction – is however, monitored much less and its importance is somewhat underestimated.[2] This is why official statistics on construction shows an extremely unusual breakdown of construction activity in Serbia – the construction of road infrastructure accounts for around 50% of all construction work. This is precisely the reason why *QM* chose not to base the estimate of construction activity on official statistical data on construction, but on the index of cement production, because cement is used in all kinds of construction work. Cement production declined by as many as 65% y-o-y in Q1; on the other hand, official data showed a mere 14.4% GVA decline in construction.

Estimating activity in the Financial Intermediation sector is another interesting example of methodological difficulties encountered in estimating GDP, as *QM* already noted.[3] Year-on-year growth of deposits and credits in *dinars* is taken as the main indicator although most business in this sector is conducted in *euros*. Depreciation of the dinar against the euro is registered as apparent growth of activity in this sector.

1 See Box 1. "Assessment of the Real Economic Activity Trend in 2007" in Section 5 "Economic Activity", *QM* 12.

2 Official statistics overestimates the effect of road infrastructure construction on overall construction activity because the state is the chief employer in this field of construction and more data on it are available. It simultaneously underestimates the effect of residential construction on overall construction, because this area is dominated by private investors and companies which do not submit regular reports to the SORS. When the state, for instance, decides to boost road infrastructure construction activities, official data can show much higher growth (lesser decline) of overall construction activity than it really is because the weight for this type of construction activity is excessive.

3 See Sections "Economic Activity", *QM* 15 and *QM* 16.

It should, however, be noted that the mentioned methodological problems most often do not bring into question the reliability of official GDP growth estimates. These errors ensue only on rare occasions, when the usual indicators fail to describe well the economic activity in specific sectors due to specific circumstances. The year 2009, marked by major changes in the macro-environment brought on by the economic crisis, is an illustration of the effects of such genuinely specific circumstances. SORS' quite rigid methodology failed to adjust to these changes in a short while; what is especially interesting is that all errors in Q1 led solely to assuaging GDP decline wherefore the total error cumulated.

The reliability of official GDP estimates would be much improved if the SORS were to begin monitoring quarterly GDP changes *by use* as well. Additional independent insight in economic activity would undoubtedly help eliminate many of the problems arising when only one methodology is applied. *QM* also uses the analysis of domestic and export demand to estimate GDP - although this approach does not ultimately provide us with a foolproof datum on the quarterly value of the GDP, it defines the scope within which the GDP may range.

The analysis of domestic and export demand relies the most on two major macroeconomic aggregates: imports and exports. Imports recorded an extremely great decline y-o-y in Q1 – of 22.5%, while the drop in exports in the same period stood at 21.2%. Both indicators point to a great fall in both domestic and export demand.

Domestic demand is monitored also by analyzing the fluctuations in aggregates affecting its funding the most, notably credits, the wage bill and fiscal policy.[4] Retail turnover, which in Q1 fell by 11.7% in real terms y-o-y, provides additional useful information on domestic trade trends.

In addition, tax revenues, which are highly correlated with domestic demand, are also a good indicator of fluctuations in domestic demand. Tax revenues fell by 12.6% y-o-y in real terms in Q1 2009. Even on the assumption that there was a substantial increase in tax evasion in Q1, such a big drop in tax revenues, as well as all other monitored indicators, corroborate that the fall in domestic demand could not have been lesser than 6.5%.

If one has the main guidelines on fluctuations in domestic trade, one can define the scope of GDP value. Namely, the GDP can be viewed also as:

$$(1) \qquad \text{GDP} = (C + G + I) + X - M$$

Where the sum of private and state spending and investments (C+G+I) denotes domestic demand, X signifies export value and M import value. When this equation is applied to the defined parameters, the real GDP decline in Q1 stood at minimum 5.5%. The officially estimated 3.5% GDP decline is already beyond the limit, while *QM*'s -6.5% estimate, arrived at by applying indicators somewhat different from those used by the SORS, falls within it.

Finally, an indication of the fluctuations in the GDP is also arrived at by monitoring and analyzing the fluctuations in economic activity in similar neighboring countries which publish their official data before Serbia. For instance, real y-o-y GDP decline in Croatia stood at 6.7% in Q1; its industrial production dropped by 10.9%, exports by 13.4%, imports by 24% and retail trade by 17% in the same period. Given that Serbia had similar, even somewhat inferior indicators[5] in Q1, its GDP is expected to record a fall similar to that of Croatia's.

The decline in economic activity in Q1 was therefore probably greater than the one published by the SORS, presumably by around two percentage points. Bearing in mind the far-reaching consequences that may ensue if economic policy is based on unreliable data on fluctuations in the GDP, *QM* is of the view that the system of quarterly monitoring of national accounts must be improved as soon as possible. The following two changes would substantially improve the system: (1) to update the base used to estimate sectoral growth of economic activity. The 2002 constant prices are no longer reliable enough for estimating the GDP after seven years of use; and (2) to introduce quarterly monitoring and use of the GDP to ensure another perspective on economic activity and dispel numerous doubts regarding economic growth estimates.

4 See Section 2. "Economic Activity" in this issue of *QM* and *QM* 16.

5 See Section 2. "Economic Activity", *QM* 16.

Highlights 3. Poverty in Serbia: the Impact of Food Prices and the Economic Crisis

Sonja Avlijaš[*]

This article assesses the impact of two consecutive shocks on the consumption of the poor in Serbia: the rise of food prices between 2007 and 2008, and the impact of the global economic crisis which started in the second half of 2008. After an increase of food prices in Serbia significantly reduced the purchasing power of the poorest, the world economic crisis began, which has continued to directly affect the standards of living of the Serbian citizens, particularly of the most vulnerable groups, mostly through shrinking income and declining employment. Considering that the latest statistical data on poverty in Serbia refer to 2008[1], we will predominantly analyze the impact of higher food prices on the poor, and only gauge the impact of the global economic crisis in 2009.

Years of declining poverty trends in Serbia ground to a halt for the first time in 2008 and the percentage of the poor[2] remained unchanged compared with 2007 (around 7.9% of the total population)[3]. Looking at poverty by regions, we see that the number of the poor in Belgrade unexpectedly rose from 2% to 4.2% between 2007 and 2008. In central Serbia, at the same time, poverty rose by 0.6 percentage points (from 8.3% to 8.9%), falling only in Vojvodina from 11.3% to 9.2 %. Such a trend in 2008 represents a significant stagnation in poverty alleviation, considering that major progress had been made in the previous period[4].

The halt in the positive trend of poverty alleviation can be contributed first of all to a high increase in food and fuel prices, which started in the middle of 2007 and lasted through mid-2008. Namely, prices of agricultural produce and food products rose by almost 20% in Serbia during the period of strong food price increases, mostly hitting the poorest population groups, who spend most of their income on food (food accounts for 56.1% of their total spending). Such high food prices in Serbia can partially be attributed to the global food and energy price hikes, and partially to a weak farming season in 2007 as well as to monopolistic structures and weak competition both in food production and food retail in the local market[5]. Even though the price hikes slowed down in Q3 2008, it is important to stress that the most vulnerable population groups met the global economic crisis at a time when their budgets had already been weakened, and their coping mechanisms in times of crisis already "eroded". Figures for Q4 2008[6] show further decline in consumption against the previous three quarters of 2008 and indicate that the economic crisis began to negatively affect the consumption of the poorest already in Q4, thus extending on the negative impact of food price rises from the previous year.

Looking at the poverty profile, it has remained unchanged since 2002, so that the most vulnerable persons are still those with "elementary school or less", then the rural population, particularly from south eastern Serbia, and the unemployed. In 2008, for example, 19.3% of households, whose "head of household" was unemployed, had their consumption below the absolute poverty line. The Roma population persons above 65 years of age without pension income and multi-member households with children[7] were particularly vulnerable.

There was a surprising increase in poverty in urban areas since 2007, while the number of the poor in rural areas continued to decline, which reduced the poverty gap between rural and urban areas. We assume that the observed trend can be explained with a fact that the growth of food prices mostly affect consumption in cities, while rural households can frequently rely on natural production, or maybe to more favourable prices of agricultural produce in rural areas.

If we analyse in greater detail how the food price hikes could have affected household budgets in Serbia, we arrive to following conclusions. The impact of food and fuel price hikes can be looked at from two aspects: (a) income effect and (b) substitution effect. The income effect shows that price increases of at least one item make the total disposable income lower (there is a change to purchasing power of the population), while the substitution effect shows that by shifting to cheaper goods, which replaces the goods we usually buy, we keep satisfying our needs at an approximately same level.

The worst case scenario that can take place during the time of food prices hikes in relation to other products is that the household income does not expand and that at

[*] Deputy Prime Minister's Poverty Reduction Strategy Implementation Focal Point and FREN.

1 Data on poverty trends are collected annually.

2 The poor are considered to be all the persons living below the absolute poverty line, which based on the basic consumer basket for 2008 stood at 7,937 dinars per person, i.e. 18,652 dinars for a three-member household. The absolute poverty line is adjusted each year based on changes in consumer prices.

3 Household Budget Survey, 2008, the Republic Statistical Office.

4 According to the Living Standards Measurement Survey, which represents the sole source of data on poverty for 2002, the number of the poor in Serbia between 2002 and 2007 was halved – while almost one million people was poor in 2002, that number fell to 500,000 in 2007.

5 We analysed in detail the increase of prices of food and agricultural produce in the section 5 "Prices and the Exchange Rate", QM 13.

6 Assessments based on annual sub-sample of the Household Budget Survey.

7 The Government of the Republic of Serbia, Poverty Reduction Strategy, 2007, "Who are the poor citizens in Serbia", page: http://www.prsp.gov.rs/engleski/kosu.jsp [accessed August 17, 2009].

the same time the household has no capacity to substitute. This is most frequently the case with the poorest social groups, considering that poor households buy the most affordable food products anyway and have no capability to shift to even cheaper food products. In that case, when it comes to the decline in their purchasing power, they start giving up their basic needs, including schooling (e.g. school books for children), health (e.g. medicaments and preventive care), utility services and similar, to make sure they can afford food, and after a period of time the diminishing purchasing power can start affecting the quantity of food they consume.

For the households where this worst case scenario is a reality, the impact of a 20% food price hike in Serbia was roughly the same as the impact of an 11.2% income decline. This impact is assessed by taking as a weighting factor the share of food and beverage prices in overall consumption of the poorest population groups, i.e. the first population decile. As already mentioned, the share of food in overall consumption of the poorest decile of population, according to the 2007 Household Budget Survey is around 56.1%. So, any food price increase of 10% has an impact on revenue decline by around 5.6%, therefore the 20% increase cuts the total consumption by 11.2%. We are aware that this calculation is only approximate, because the ratio between price increases and the purchasing power in fact depends on the increase of prices for particular foods against the foods used by the observed household, but we still consider this illustrative. Also, to simplify the analysis, we use an equation mark between household revenues and consumption, assuming that poor groups of population have no savings.

We are not exactly capable of quantifying the substitution effect like the income effect, because we do not have sufficient data to calculate the elasticity of substitution between basic food and non-food products and services. We hope that we will be able to partially shed some light on this effect after the Republic Statistical Office processes the data from its financial crisis module of the April 2009 Labour Force Survey, which contains information on what households had to give up to maintain their basic needs and what mechanisms they used to protect consumption.

Even though the figures on poverty in 2009 are not yet available, it makes sense to expect that preventing any further poverty creation will represent a major challenge in the coming period. Based on figures on the labour market in the first half of 2009, we came to conclusion that employment in Serbia declined mostly due to the decline in vulnerable forms of employment (e.g. self-employed, youth, etc.), and therefore we expect the impact of the economic crisis to disproportionately affect the poorest population cohorts[8].

Therefore the major challenge in 2009 and 2010 is to prevent the creation of new poverty, while it is almost impossible to expect that the trend of poverty reduction will be continued under current economic conditions. Central and local governments, as well as the civil society and employers need to make great efforts to make sure that poverty does not deepen within the most vulnerable social groups, who have suffered an above-average consecutive consumption shocks for two years. An increase in expenditures for the poor is not an easy challenge at a time when the state budget is weakened due to shrinking tax revenue and foreign donations and when at the same time the standards of living of the middle class, which constitutes the majority of the electorate, also deteriorate.

For decision-makers, it is particularly important to bear in mind the behaviour of households during crisis situations, particularly when they try to extend a consumption smoothing period, either by borrowing from friends and relatives or other forms of borrowing, and then by selling durables they own, such as furniture, jewellery, or cattle in the case of rural households. This form of consumption smoothing is particularly dangerous because it is not sustainable even in the medium term becauleading to irreversible consequences for those people. This means that dropping out of school, selling durables and property, or even malnourishment and deteriorating health, as extreme outcomes, represent the biggest threats to the poor during this period. It is therefore vital to constantly keep on reminding decision makers that around half a million people in Serbia live in absolute poverty and that their strategies to satisfy their basic needs have been exhausted following two years of strong negative pressures on their spending.

Methodological Appendix: Poverty Sstatistics in Serbia

For the sake of easier interpretation of poverty data in Serbia, this appendix reviews methodologies used to measure poverty in Serbia since 2002. We emphasise, however, that the Household Budget Survey is currently the main official, reference survey to follow poverty trends in Serbia and that for the purpose of this article we have used exclusively the data from the Household Budget Survey.

There are two sources of data, which can be used to calculate poverty development in Serbia on an annually:

8 For more information on labor market developments see section 3. "Employment and Wages" in Trends of this issue of the *QM*.

1) The Living Standards Measurement Survey (LSMS), which introduced statistical monitoring of poverty in Serbia according to internationally comparable methodology, with World Bank's technical and expert support. The Living Standards Measurement Survey was first conducted in 2002 and 2003, laying the grounds for the development of the Poverty Reduction Strategy, and then in 2007, which enabled the assessment of poverty trends during the implementation of the Poverty Reduction Strategy. After 2007, the Living Standards Measurement Survey will no longer be conducted in Serbia.

2) The Household Budget Survey (HBS) has been the official survey of the Republic Statistical Office for the needs of poverty monitoring, which ensured national ownership of the data and annual reporting. The Household Budget Survey at this period represents an optimal solution to officially follow poverty trends at the national level, taking into account the ratio of costs and reporting regularity. The methodology of the Household Budget Survey was significantly improved in 2006, so that it presents a reliable source for following poverty trends, and we now have the annual poverty rates based on the Household Budget Survey for the period 2006-2008.

The Household Budget Survey and the Living Standards Measurement Survey are not comparable surveys, because of significantly different methodologies. There are differences between the two surveys which affect the construction of the expenditure aggregate, and the poverty line itself. Data for the Household Budget Survey are being collected throughout the year, while data for the Living Standards Measurement Survey are collected in the course of one month (June) only. Even though both surveys are based on a diary with registered spending on food, the diary for the Household Budget Survey is kept for 15, i.e. 17 days, while the diary for the Living Standards Measurement Survey is kept for seven days. For the Household Budget Survey, a household enters daily purchases, but we have no data on what they really consumed. For the Living Standards Measurement Survey, households do not report on the purchased but rather on consumed goods on a daily basis (over a seven day period)[9].

Furthermore, in contrast to the Household Budget Survey, the Living Standards Measurement Survey gives more detailed data on the use of health services, social programmes, educational services and working activity. Another significant methodological difference is in the measurement of the flow of services related to the ownership of property and consumer durables. Unlike the Living Standards Measurement Survey, the Household Budget Survey gathers insufficient data to assess the value of imputed property rent for apartment/house owners, as well as the usage of consumer durables. That is why those two consumption categories have been excluded from the aggregate consumption presented in the Household Budget Survey.

Based on the listed methodological differences, the percentage of population living below the absolute poverty line at the national level in 2007 according to the Living Standards Measurement Survey stood at 6.6%[10] and at 7.9%[11] according to the Household Budget Survey. Even though the resulting percentages differ due to methodological differences, their poverty trends move in the same direction, and we saw a significant decline in poverty by 2007.

It is necessary to stress that the poverty line is used for analytical purposes exclusively and that criteria for social assistance such as family benefits or child allowance are neither based on those surveys nor on the resulting minimum consumer basket of goods. Under the Law on Social Protection, based on which one exercises the right to material assistance, the level of social safety is determined as a percentage of the average wage[12] per employed worker in a given municipality, or city, in the previous quarter, and the base cannot be higher than the average wage per worker in the Republic of Serbia during the same period. The percentage of the average wage which triggers the right to material assistance is 16% for an individual, 22% for a family of two members, and then gradually rising to a maximum of 32% for a family of five and more members. Apart from assessing the income of the recipient of material assistance, one of the criteria to exercise this right is property ownership of the applicant. The right to child allowance is regulated by the Law on Financial Assistance to Families with Children, according to which material jeopardy to families with children is assessed against their wages and other income, cadastre revenue and pensions, all revenues and payments based on social programmes and the overall property ownership of the family. The right to child benefits can apply to a maximum of four children in a family as long as they regularly attend school.

9 The Government of the Republic of Serbia, Poverty Reduction Strategy, 2007, "Poverty measurement instruments", page: : http://www.prsp.gov.rs/engleski/instrumenti.jsp [accessed on August 17, 2009].

10 Vukmirović D, Smith Govoni, R, 2007, the Living Standards Measurement Survey, Serbia 2002-2007, the Republic Statistical Office, Belgrade.

11 The Government of the Republic of Serbia, Poverty Reduction Strategy, 2007, "How many people are poor in Serbia", page: http://www.prsp.gov.rs/engleski/kolikoje.jsp [accessed August 17, 2009].

12 The Republic Statistical Office announces the average wage based on RAD research.

Highlights 4. New Law on Competition: New Chapter in Fighting Monopolies

Emil Džudžević[*]

The adoption of a new Law on Competition in July 2009[1] should represent Serbia's readiness to fulfil the liability of any country which seeks to become a European Union member state – i.e. to establish an effectively independent institution capable of implementing necessary policies designed to protect competition.

The necessity for changes in the area of protecting the competition became clear even before the European Commission in its Progress Report in 2008 made negative comments on the situation in this area[2]. It became obvious that the situation was very worrying after the Commission for the Protection of Competition, in charge of ensuring competition protecting principles in the Serbian market, made its assessments of the situation, already seen by the general public as disturbing. In its 2008 annual report, the Commission implicitly unveiled inefficiencies in fighting to protect competition in the Serbian market, noting that the previous period was marked by its efforts to implement measures to protect competition mainly to make sure that general public and some expert groups[3] recognize the importance of this issue. Following the adoption of the law, the Chairwoman of the Commission's Council made an even harsher assessment referring to the results in fighting monopolies in the previous period[4].

The aim of this Review is to point out the key reasons for inefficient fight against monopolies, and those are (1) inadequate process solution in respect to procedures which protect the rights of competition and (2) inadequate resources and the use of the resources within the Commission. Both reasons are the consequence of inadequate solutions in the 2005 Law on Competition and therefore we point out to aspects improved in the July 2009 Law, as well as to legal solutions that may pose obstacles in the future. Eventually, we list recommendations to avoid possible implementation problems.

Previous Practice: Good Will and the Lack of Results

The assessment that protection of competition has yielded no effective results appears to have been targeted at the Commission, whose duty is to protect competition. Analyzing the past period, since the Commission was set up in 2006 to date, we would need to emphasize that the results lacked despite and not thanks to the work of the Commission and that an inadequate procedure in which the competition is being protected and insufficient organizational and human resources were the two key causes to the problem.

Over the past period, the Commission obviously made efforts to perform its role, which can be seen in examples of several activities we can use as benchmark.

1. *Prevention of banned concentration.* Several times in the course of 2006 and in order to prevent the creation of a dominant position in the retail trade market for non-specific goods – mainly foods, drinks and tobacco in Belgrade – the Commission banned the merger of C-market and Primer C, i.e. the retail chain Delta maxi. Contrary to the Commission's decision, the merger had already been completed before the Commission issued its ruling. Participants in the merger have not been sanctioned to date.

2. *Banned agreements.* In 2008, the Commission found out the existence of banned agreements which prevent, limit and distort competition among pharmaceuticals producers for the products being purchased under public procurement tenders[5] as well as among pharmaceuticals wholesalers in respect to trade which is not part of public procurement tenders[6]. Sanctions have not been imposed to date.

3. *Abuse of the dominant position.* In the course of 2008, the Commission uncovered the abuse of the dominant position by the dairies owned by the Danube Foods Group b.v., the Subotica Dairy, the Industry of milk and dairy products a.d. Novi Sad, in the relevant market for raw milk[7] purchases. In line with previously mentioned examples, sanctions have not been imposed to market participants who had abused their dominant market position.

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* Associate of the Center for Advanced Economic Studies (CEVES).

1 Official Gazette RS 51/09.

2 "The functioning of market mechanisms needed for more efficient allocation of resources has been hampered by a strong government influence on the private production of goods, as well as by a lack of competition," Serbia 2008 Progress Report.

3 The annual report on the work of the Commission for the protection of competition, Concluding remarks, page 43, the Commission for the protection of competition, Belgrade, 2009.

4 Commenting the fact that not a single punishment was declared despite findings confirming the violation of the rules which protect competition, in a number of cases, Mrs. Dijana Markovic-Bajalovic said that it could be said that the Commission works in vain ("The government is insincere in its fight against corruption." I.Radisavljevic and A.Rodic Blic no 4581, August 23, 2009.

5 Agreement in the meeting of the grouping of pharmaceuticals producers on January 22, 2008, established by Hemofarm a.d., Galenika a.d., FHI Zdravlje a.d., Jugoremedija Fabrika Lekova a.d., Habitfarm a.d., Slaviamed d.o.o. and Srbolek a.d. The annual report on the work of Commission for the protection of competition for 2008, page 5.

6 The agreement reached on February 28. 2009 by pharmaceuticals wholesalers, members of the grouping: The Serbian Chamber of Commerce department for trade: Velefarm a.d., Vetfarm a.d., Farmalogist d.o.o., Jugohemija-Farmacija d.o.o., Vetprom Hemikalije a.d. Farmanova Veleprodaja d.o.o. and Unihemkom
The annual report on the work of Commission for the protection of competition for 2008, page 5.

7 Ibid, page 10.

Beside those cases, the Commission was also processing cases in the insurance market, tobacco industry, television programme distribution, providing of the taxi transportation services, veterinary services and other. The effects of its activities were mainly limited to the prevention of uncovered illegal behaviours.

Considering the importance of the mentioned cases (retail trade of food, drinks and tobacco, food products, medicaments and other pharmaceutical products, tobacco products, insurance, taxi services) for consumers' interest, as well as the social power which those involved in the activities have by nature, the Commission had expressed readiness to react in situations in which it believed that competition rights had been threatened, regardless of potential political and/or social pressures.

Speaking of inefficiencies, it is primarily about the fact that sanctions have not been imposed in any of the cases in which the Commission established in line with article 70. of the 2005 Law on Competition that market participants had acted against the law, preventing, limiting or violating competition. Thus, the Commission's activities have been limited. It could determine measures to re-establish competition in relevant markets and perhaps prevent illegal concentration, but without any punishment for the perpetrators, and therefore acting without general prevention as one of the key reasons for legal sanctioning.

Having in mind the mentioned situation, the key reason for inefficient sanctioning of illegal behaviours of market participants who had violated competition rules is in the procedures, divided in two parts under the 2005 law – one led before the Commission which establishes the existence of the prevention, limiting or violation of competition, and then the legal proceedings in which the authorities should decide about sanctions. Having in mind the scope of activities of legal institutions, there had been no grounds for any rational expectation that they would be able to efficiently act on such complex issues as those relating to the protection of competition.

Beside the abovementioned, we also point out another, undoubtedly important aspect in the protection of competition under the 2005 law. Under that law, the Commission was mainly burdened with resolving demands for concentration, and had issued a conditional approval for concentrations in four cases (Robne Kuce Beograd, Philip Morris and two cases of Delta Agrar). It also approved concentration in 129 other cases. Thus, due to a very low limit imposed as a threshold to report concentration under article 23. of the Law on Competition in 2005, the Commission was burdened by cases which deserved no attention, and the very same processes had been slowed down. Considering a relative underdevelopment of organisational and staff capacities of the Commission, this unjustifiable burden disabled any optimisation of resources and the necessary attention had not been paid to following and analysing competition in individual markets and individual sectors[8], thus disabling the Commission to be pro-active in its work based on its independent market assessments.

New Law on Competition: Positive Changes in Important Aspects

The new Law on Competition[9], which took effect in July this year, and the implementation of which will start on November 1, introduces important novelties related to the protection of competition. We will list the ones we believe are the most important.

1. *Changed procedure to protect competition.* The new law introduces in article 57. the first precondition for more efficient protection of competition – a single procedure to establish any form of violation of competition rules and measures to eliminate the violation, i.e. measures to protect competition, as well as other legal measures to punish the violation. This has integrated the administrative procedures to be held before the Commission, discarding a very unusual solution contained in the 2005 law. The court controls of the rulings under which the Commission establishes a violation of competition and adequate sanctions is secured under article 71 of the Law, which envisages a possibility of launching administrative proceedings before the Administrative Court, and until such court is established, before the Higher Commercial Court, according to article 77. At the request of a plaintiff in administrative proceedings, the Commission can decide to postpone the execution of the punishment until the court ruling goes into effect, if postponing of the punishment is not contrary to public interest. This has established the administrative and legal court procedure, and a framework which enables efficiency and ensures an adequate court control of the rulings.

2. *Changes to potential measures to eliminate violation of competition.* Beside measures designed to eliminate the violation of competition previously at its disposal, the Commission can now, under article 59 of the new law, decide a structural measure, to change the structure of participants in the market. This measure can be ruled under rigorous conditions when no other measure is adequate, which is natural having in mind its harshness. This measure is also compatible with measures to

8 Ibid, page 34.
9 Official Gazette, RS 51/09.

protect competition under article 68 of the law, which sees a fine of up to 10% of annual revenue. With this legal solution, the Commission is equipped to cancel, in most difficult situations, any economic structures which can be created to generate violation of competition, thus eliminating obstacles to efficient functioning of market mechanisms. Having in mind the fact that the Commission was set up in 2006, at the time when new economic structures in various relevant markets had been established through privatisations and take-overs, this possibility appears to be potentially extremely important in the process of establishing anti-monopoly rules in the market burdened with various competition violating principles.

3. *Raising the bar for reporting concentration*. In its article 61, the new law introduces a liability to report concentration if the following conditions had been met alternatively: (1) Total annual revenue of participants in concentration in world markets exceeds 100 million euros, with at least one participant in concentration having a revenue in the Serbian market of more than 10 million euros. Previously, under article 23 of the old law, the level was for the total revenue of 50 million euros, with a liability that one of the participants is registered in Serbia. This avoids a situation in which permission is sought for concentration in the global markets, without any significant role of the participants in Serbia. (2) Total annual revenue in the Serbian market exceeds 20 million euros, with at least two participants having revenue above one million euros. Previously, reporting concentration was necessary in cases when revenues in the Serbian markets were above 10 million euros. This avoids a situation in which the Commission would be addressing a request to approve concentration involving extremely small market participants, regardless of the size of participants who are conducting a take-over. This also means that the Commission will not be dealing with cases which strengthen a dominant position, if that dominance is of little importance for the market.

The main result of those changes should be to relax the Commission from the cases which by their nature do not disturb the markets. This relaxation is of supreme importance, having in mind the necessity for the Commission to additionally devote its resources to other aspects, which had not been in focus, such as analysing competition in relevant markets.

4. *Authorisations of Commission members in legal proceedings*. For the sake of protecting the competition, articles 47 and 56 of the new law envisage instruments that provide more efficient control of market participants (sudden investigations, entry to business premises, temporary confiscation of things and documents, authorisations to conduct investigations), as well as the obligation of state institutions to cooperate with the Commission in the cases it investigates. This eliminates potential obstructions of proceedings and strengthens the authority of the Commission and in the market, which had been affected by negative practices of letting the violators go unpunished.

New Law on Competition: Remaining and New Challenges

Following the adoption of the new Law on Competition, it is worth noting that some problems related to the 2005 law remained, but also that conditions have been created for some new potential challenges in the future. The essence of those articles is in a problematic position of the Commission in relation to the Serbian Government.

1. *Article 32 regulates the issue of financing of the Commission, raising the issue of its independence related to the Government of the Republic of Serbia*. The Commission will by November 1 of the current year submit to the government for approval its financial plan for the next year, in line with which it gets its financing. This solution had existed before, also representing a serious challenge to the independence of the Commission from the executive authorities, considering that it does not submit its budget to parliament but to the government. However, this solution has been kept in the new law, while article 51 of the old law had been scrapped, according to which the financial plan of the Commission beside planned revenues and spending also envisages the forming of reserves, to be used in the years when revenues exceed spending. Also, an important negative novelty is that in a situation when spending exceeds revenues, under the new law the Commission turns to the government with proposed measures to balance revenues and spending. Under the previous law, in a situation when it lacked revenue, the Commission would have been directly financed from the budget, without prior government's approval. The measures, introduced in the new law, and which make a stable functioning of the Commission impossible by cancelling the reserves, also deny a right to direct budget financing if the Commission faces financial problems. This should be viewed in the light of strengthened financial responsibility of the Commission under article 57 of the law, under which the Commission is held responsible for costs and missed profit in the case of cutting down the fines or cancelling administrative measures ruled in the process of protecting the competition. By doing so, the responsibility has been transferred for potentially high compensations, which could happen, taking into consideration the size of the

fines. Such restrictive financing of the Commission puts into question not only its regular work, but also the necessary strengthening of its analytical activities, focused on researching individual relevant markets, which is impossible without adequate resources. Also, one must keep in mind a significant reduction of revenues which could result from a lower number of requests to approve concentration, following the increase of the mandatory reporting limits.

2. *Item 3), paragraph 4 of article 24 of the Law puts into question the stability of the functions of the president of the Commission and members of the board, which is one of the key precondition for independent work.* Beside the usual reasons, this item also envisages a possibility for parliament to release from duty the chairman of the Commission or members of the board who "grossly violate the articles of the law and the reputation of the Commission in the public". This establishes the potential influence on the president of the Commission and members of the board, considering that their replacement is fully under the authority of parliament, and which in a political process establishes the violation of the law or of the reputation of the Commission, which are very wide terms, leaving decision makers a vast space for arbitrariness.

3. *Article 11 of the law sets condition under which restrictive agreements, which restrict, violate or prevent market competition, can be exempt from the Commission's action.* The conditions are very general and refer to ensuring improved production, trade, technical or economic progress, to the benefit of consumers, with narrowly defined restrictiveness of measures needed to achieve a socially acceptable goal of an agreement. Just like the old law, individual exemptions from the ban (article 12) and exemptions by categories (article 13) are possible. In respect to exemptions by forms, criteria are set by the government of the Republic of Serbia. The main difference is in the framework left for the government to act, with the new law eliminating a set of conditions imposed for various agreements to be exempted, significantly narrowing the scope for the government to act. There is also a difference in regard to the Commission's activities, which unlike the old law[10] can no longer decide that a contract can be exempted from a ban if it does not fulfil a socially desirable effect. Beside exemptions based on the forms of restrictive agreements, the new law also introduces exemptions based on the size of the agreement and sets criteria to determine agreements of lesser importance, widening the area of exemptions, cutting down the scope for the Commission to react in some inadequate cases. Those changes leave the scope to the government to significantly widen the area for exemptions of certain agreements, without leaving the Commission a possibility to later react and correct certain negative consequences which can affect market competition.

4. *Article 65 sets a one month deadline for the Commission to respond to reported concentration, and contrary to the law regulating administrative procedure, this article states that the Commission's failure to respond will be treated as its approval of concentration.* This article exerts additional and unnecessary pressure on the Commission, which already has limited capacity for its work. The general rule for administrative procedures leaves a 60 day deadline for more complex cases assuming that a failure to respond implies a negative ruling.

Conclusion

The new Law on Competition, adopted in July 2009, sets a clear progress in respect to creating the conditions for a more efficient work of the Commission for the protection of competition. Beside some good changes in respect to better defining some key terms, changes in the organisation of the Commission and other which we did not explicitly point out, new authorities of the Commission and changes to the procedures for the Commission to act – represent a good framework which creates grounds for more efficient work of the Commission in the coming period.

Changes which we pointed out in regard to the financial situation of the Commission are part of an important complex of the Commission's independence issues and we point them out as potentially the biggest obstacle in the future.

In respect to legal solution which we would suggest in order to eliminate potential obstacles for an efficient fight against monopolies, we would like to list the following:

1. *The necessity to change the legal solutions, which have remained from the 2005 law, and which refer to determining the financial plan of the Commission.* We believe that the plan should be submitted to parliament of the Republic of Serbia, and not to the Government of the Republic of Serbia, as is the case now. Thus, the control of the work of the commission would be fully transferred to parliament, ensuring its independence from the executive authorities.

2. *Changes to the legal solutions in order to restore an article of establishing financial reserves of the Commission, as per article 51 of the 2005 Competition Law.* This would allow a more efficient management of the Commission's funds in the course of the year, which we believe is the key condition for the necessary strengthening of the

10 Article 12, paragraph 2 of the Law on Competition, Official Gazette RS 79/05.

Commission's technical and human resource capacities, needed for the real protection of competition in our market.

3. *Changes to the legal solutions in the new law in order to restore articles on direct budget financing in case of imbalanced revenues and spending, as per article 51 of the 2005 Competition law.* This would also ensure the independence of the Commission from the government, considering that now, according to article 32 of the Law on Competition, the Official Gazette RS 51/09, the Commission can only propose to the government of the Republic of Serbia a possibility of budget financing[11].

4. *Scrapping from item 3), paragraph 4, article 24, words related to relieving from duty of the president or member of the Commission's board and regulating the issue similarly to solutions in article 42 in relation to article 38 of the Law on Competition (the Official Gazette 79/05).* Such a change would be in line with solutions in the previous law ensuring effective court rulings for certain criminal acts (in case of violations of the law) avoiding the existence of wide ranging basis that open up space for arbitrary decision making. This is one of the issues crucial for the Commission's independent work.

5. *It should be ensured that the Commission, in line with solutions envisaged by article 12, paragraph 2 of the 2005 Competition Law, can determine a lack of grounds for exemption from a ban of a restrictive agreement based on the category of agreement (article 13 of the Law on Competition, the Official Gazette RS 51/09).* We believe that it is necessary for the Commission, which is and must be the dominant representative of the Serbian government in the area of the protection of competition rights, to protect its authorities, at least to correctively react in case when one restrictive agreement is exempt from a ban, even if it meets formal conditions regulated by the government by-laws. This corrective action would be a possibility, which existed in the previous law, for the Commission to determine that an agreement in essence does not meet material conditions for the exemption from the ban, which is imposed as an imperative by article 11 of the law and secures public interests and interests of consumers and the market.

6. *The assumption of a positive solution in case that the Commission fails to act within the deadlines as per article 65 should be scrapped and the one month deadline extended in line with previous legal solutions.* We believe that the assessment of activities of some market concentrations on competition which the Commission is called to make, are of exceptional legal and economic complexity. Therefore, it is necessary that such cases get a longer, not a shorter deadline than the one envisaged by the law regulating the administrative procedures. We also remind of the previous solution in article 66 of the 2005 law, which had deadlines of four and six months, which we see as more adequate, particularly considering the problems the Commission has with its resources against the duties it has to perform.

In the coming period, and particularly considering the fact that changes to this law are unlikely to take place in a near future, we must pay attention to aspects we see as important and which constitute significant challenges to an efficient protection of competition in the Serbian market and which leave vast area for the government to act. Among those aspects, we would like to point out the following: efficient strengthening of the Commission's resources, particularly resources required to analyse competition in relevant markets; to relationship with the Government of the Republic of Serbia in respect to financing of the Commission; to the status of the president of the Commission and members of the board; and to regulations which the government uses to regulate exemptions from restrictive agreements. In the absence of clear legal protection, the attention and reaction of the public, both expert and general, will be the best guarantee that political decisions in the future will be in favour, not at the expense of the development of the protection of competition rights in the Serbian market.

11 We also point out to an absurd of the existing solution. If the overnment would reject such a proposal, the Commission would be exposed to a danger and its work blocked due to a lack of resources, which is unacceptable even if it remains only a theoretical possibility.

SPOTLIGHT ON:

Fiscal Consolidation and Public Sector Reform

Milojko Arsić *

The public sector in Serbia has for quite some time now been characterized by high spending and a low quality of services. The public sector has been generating a relatively high fiscal deficit over the past three years which has after the completion of privatization been funded from loans, thus implicating the fast growth of the public debt to GDP ratio. Moreover, the structure of public spending is characterized by high current expenditures and low public investments, which runs counter to the state's development ambitions. Public sector reform and its fiscal consolidation are thus prerequisite for improving state efficiency and pre-empting a debt crisis. This paper analyzes various modalities of fiscal consolidation, such as (a) fiscal consolidation entailing exclusively a cut in current public spending and (b) fiscal consolidation entailing both a cut in current public spending and an increase in tax rates.

Introduction

There are two key reasons for reforming Serbia's public sector. The first is low public sector efficiency, i.e. the relatively high level of costs vis-à-vis the quality and volume of services this sector provides. The priority goal of the reforms thus involves cutting public sector costs and improving or at least maintaining the current quality of public services. The second key reason for the reform, closely related to the first reason, regards ensuring the long-term sustainability of public finance. Fiscal deficit will be high and public debt will grow rapidly if the current tax system and level of public spending are maintained. Fiscal (financial) consolidation of the public sector is necessary to prevent this negative scenario.

The below analysis mostly addresses issues related to the fiscal consolidation of the public sector and points out the problems regarding its efficiency only in passing. The following issues are especially relevant with respect to fiscal consolidation:

• Is the fiscal capacity of the tax system in Serbia falling and, if it is, at which level will it stabilize?

• What fiscal deficit can be sustained over the following years without resulting in the excessive expansion of public debt?

• What level of public expenditure corresponds to fiscal capacity and a sustainable fiscal deficit level, what is its composition and how can it be achieved?

• Is it economically optimal to achieve fiscal consolidation solely by cutting public spending or would it be justified to achieve part of the adjustment by increasing taxes as well?

Fiscal Capacity

Serbia's consolidated public revenues stood at around 43.5% GDP in 2005 and 2006. The question is whether a similar level of public revenues can be realized in the years to come. The answer to this question is negative given the recent cuts in some important tax rates and the ongoing reduction of customs duties on EU products. In addition, cutting the spending to GDP ratio will result in a permanent decline in the VAT/GDP ratio. Herewith an overview of the chief changes in tax policy and the economy of Serbia that led to a fall in fiscal capacity:

• The cut in the wage tax rate and the introduction of the tax-free wage threshold in early 2007 permanently cut public revenue by around 1% GDP;

* Faculty of Economics, University of Belgrade and FREN.

• Permanent losses were increased by another 0.7% GDP by the cut in other taxes (on transfer of absolute rights from 5% to 2.5%, by the transfer of specific products from the higher to the lower VAT rate category, the exemption from VAT for first-home buyers et al) in mid-2007;

• The cut in customs duties on imports from the EU led to a 0.4% GDP fall in revenues from customs in 2009 and the abolition of customs duties on EU products will result in the cumulative drop in customs revenues of at least 1.5% GDP. VAT revenues will fall by another 0.3% GDP due to the abolition of customs duties on imports from the EU;

• The drop in the domestic demand to GDP ratio will directly lead to a decline in VAT revenues by another 1% GDP. In the next few years, domestic demand is expected to exceed the GDP by 10-15% instead of by 20-25%;

• The fall in employment risks to cut revenues from wage taxes and social insurance contributions by around 0.5% GDP;

• The increase in excise on cigarettes could bring around 0.5% GDP of additional revenue.

A summary of the lasting effects of the above measures leads to the assessment that the public revenues may stand at 39% GDP in Serbia in the medium term given the valid tax rates, planned cuts in customs duties on imports from the EU and the expected drop in the domestic demand to GDP ratio.

Stricter fiscal discipline could, of course, bring in additional revenues but spectacular results should not be expected. Comparison of the tax rates and other tax elements (tax bases, tax exemptions et al) and revenues expressed in percent of GDP in Serbia with those in neighboring countries leads to the assessment that there is room, albeit moderate, for improving tax collection.

Table L1-1. Serbia: Public Revenues – Realization and Projections (in % GDP)

	2005	2006	2007	2008	2009	2010	2011	2012	2013-2018
Public revenues	42.9	43.8	42.4	41.1	38.8	38.0	38.5	38.8	38.8
Income tax	5.6	6.0	4.9	4.9	4.9	4.7	4.8	4.9	4.9
Profit tax	0.6	0.9	1.3	1.4	1.0	1	1.2	1.4	1.5
VAT	12.8	11.4	11.2	10.8	9.9	9.8	9.7	9.6	9.5
Accises	4.2	4.4	4.2	3.9	4.3	4.4	4.6	4.8	5
Customs	2.3	2.3	2.4	2.3	1.5	1.3	1.1	0.9	0.7
Other taxes	1.4	1.5	1.4	1.3	1.3	1.2	1.2	1.2	1.2
Contributions	10.8	11.7	11.4	11.2	11.2	11	11.1	11.2	11.2
Non-tax and other	4.9	5.5	5.3	5.2	4.6	4.6	4.8	4.8	4.8

Source: Ministry of Finance for the 2005-2008 period, author's estimates and projections for the 2009-2018 period.

Estimates of a Sustainable Fiscal Deficit and Public Spending if Taxes Remain Unchanged

Given the current tax revenues, the question arises as to what fiscal deficit level would be sustainable in the next decade or so without its funding leading to state over-indebtedness. The answer depends on a large number of factors, such as the GDP growth rate, the real interest rate levels, fluctuations in the real exchange rate of the dinar, et al, and on the level of state indebtedness which will be sustainable in the long term.

The estimate of a sustainable fiscal deficit level departed from the optimistic assumption that the GDP would grow at a 3% rate in 2010 and at an average 5% afterwards. On the assumption that the inflow of foreign savings will be lower than it has been in the preceding years, the projected GDP growth rate is somewhat lower than the rate achieved in the 2001-2008 period.

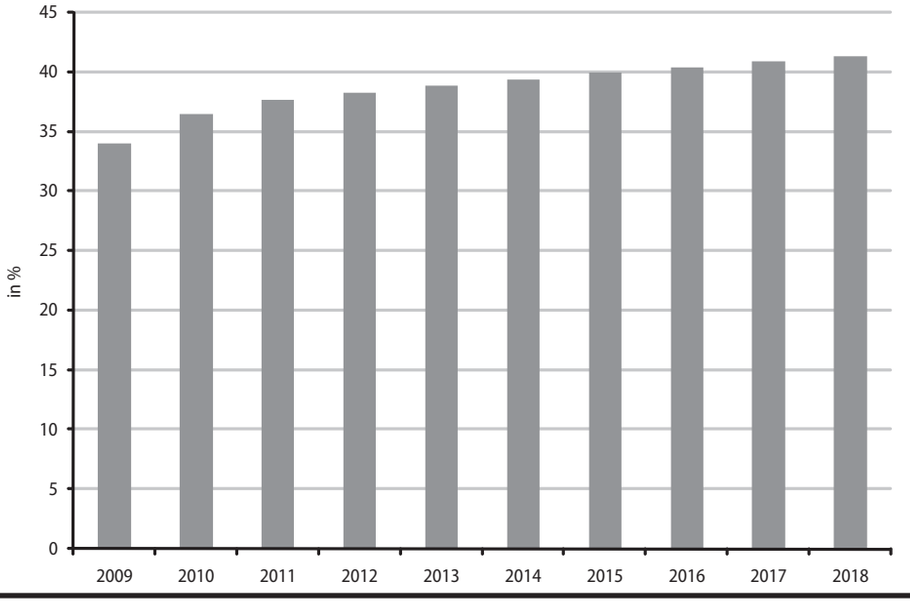
The assumption is that the real interest rate on public debt will stand at 3.5% in 2010, at 4% in 2011, at 4.5% in 2012 and 5% thereinafter – thus equalling the GDP growth rate. The rise in real interest rates on state debt is the result of a large number of factors, notably: a lower share of foreign currency savings in public debt – interest rates on savings reduced the overall interest rate average; the period in which Serbia repaid debts to international organizations at extremely low interest rates has ended; the increase in the share of the new debt – characterized by relatively high interest rates – in the total public debt.

For simplicity purposes, the assumption is that the dinar's real exchange rate will remain unchanged – its depreciation would increase and its appreciation would decrease the debt level and the debt servicing burden.

The assessment is that the sustainable level of public debt[1] in Serbia ranges in the 40%- 45% GDP interval. The sustainable[2] level of public debt was calculated on the basis of the estimate that costs of interest rates on public debt should not exceed 2% GDP by much.

Based on these assumptions, the estimate is that the consolidated deficit, standing at 4.5% GDP this year, will in a few years stabilize at the 2.5% GDP level, while the primary deficit (total deficit minus interest rate costs) will drop from 3.6% GDP in 2009 to 2.3% in 2010 and stabilize at 0.5% GDP as of 2012. This means that spending on interest rates will be negligibly lower than the fiscal deficit in the coming years, due to the increase in public debt and interest rates.

Graph L1-2. Public Debt to GDP Ratio in Serbia (estimate)



These public revenue and fiscal deficit levels lead to the conclusion that the sustainable consolidated level of public expenditures will stand at around 41.5% GDP in the years to come. This share of public expenditures is 2.5% lower than in the 2006-2009 period.

The first way to achieve fiscal consolidation entails cutting public spending down to the level set by the current tax system and sustainable fiscal deficit. The second way to achieve fiscal consolidation entails predominantly cutting public expenditure and simultaneously boosting fiscal capacity by increasing specific tax rates. The second option would provide for a more moderate decrease in the public spending to GDP ratio, while the fiscal deficit and public debt would remain at a sustainable level.

Achieving Fiscal Consolidation by Cutting Current Public Spending

If fiscal consolidation is achieved exclusively by reducing public expenditure – consolidated public expenditures would decrease by 2.5% GDP over the 2006-2009 period. Fluctuations in the ratio of specific public expenditure components to the GDP – current expenditure minus interest rates (hereinafter: current expenditure), interest rate and public investment expenditures – are particularly relevant from the economic point of view.

In the 2006-2008 period, current expenditure minus interest rate expenditures stood at around 39% GDP, interest rate expenditures stood at around 1% GDP, while public investments stood at around 4% GDP. Estimates are that interest rate expenditures will amount to 1% GDP and that the public investment to GDP ratio will fall to 3.5% in

1 The assumption is that public debt changes solely due to the existence of fiscal deficit. It is, however, possible that Serbia's public debt increases above that level, e.g. in the event the state assumes financial obligations related to denationalization. This analysis does not take into account either this possibility or potential revenues from the privatization of public companies.

2 The fluctuations in the public debt to GDP ratio were modeled by using the following formula: $\frac{B_t}{Y_t} - \frac{B_{t-1}}{Y_{t-1}} = (r-g)\frac{B_{t-1}}{Y_{t-1}} + \frac{(G_t - T_t)}{Y_t}$, where Bt is the public debt level, Yt is the Gross Domestic Product, r is the real interest rate, g is the GDP growth rate, Gt is public expenditure without interest rates and Tt is public revenue. V. Blanchard (2003).

2009. The structure of public spending over the following years can be estimated by treating interest rate and public investment expenditures as a given and calculating current expenditure by subtracting the two from the overall expenditure.

The above assumptions on the fluctuations in the GDP, fiscal deficit, public debt and interest rates lead to the conclusion that the share of interest rate expenditures will grow steadily over the next few years, rise to 1.5% GDP in 2011 and soon afterwards stabilize at around 2% GDP. Moreover, the realization of major infrastructure projects[3] calls for increasing public investments to a 5-6% GDP level[4]. Assuming that the Government genuinely intends to implement the projects at the announced pace, the share of public investments will have to rise to around 5.5% GDP. Given the estimated interest rate and public investment expenditures, 34% GDP will remain to fund current public spending.

The realization of the described sustainable fiscal framework therefore entails a circa 5% GDP cut in current public expenditure in the coming years over the 2006-2008 period (and similarly over 2009). The drop in the current public spending to GDP ratio can be expressed as the sum of the 2.5% GDP fall in the share of overall public spending, the 1% GDP increase in interest rate expenditures and the 1.5% GDP increase in public investments expenditures. Assessments of the possibilities of cutting current public spending by 5% must not lose sight of the strong rigidity this very component of public spending has exhibited in the preceding years. Public investments accounted the most for the variations in overall public spending.

The high rigidity of current public spending can be understood better if one takes its structure into account. Current public expenditure comprises heterogeneous items, notably:

• Outlays for wages of around 460,000 public sector staff (breakdown of public sector employees is given in Table L1-2);

• Outlays for pensions of around 1.6 million pensioners;

• Purchase of goods and services for the state sector (public utility, telecommunication and similar services for schools, hospitals, state institutions et al, office supplies, medications for state hospitals, fuel for the army, police et al, consumables, et al);

• Subsidies for agriculture, the railroad company, tourism et al and various programs for stimulating the economy;

• Social aid for the poor, unemployed, women on maternity leave, et al.

Table L1-3: Breakdown of Public Sector Employees

	Employees, in thousands	Structure in %
Education	126.5	28.8
Health	107.7	24.5
Municipalities and towns	60.8	13.8
Police and SIA	46.9	10.7
Defense	36.0	8.2
Republican authorities	29.0	6.6
Justice system	13.0	3.0
Culture and sports	9.0	2.0
Other state authorities	11.1	2.5
Total	440	100

Source: Ministry of Finance.

Slashing current public expenditure obviously cannot bypass any of the listed major items in the current public spending framework. For instance, a nominal freeze of wages and pensions in 2010, an inflation of e.g. 7% and a 3% GDP growth rate would generate savings of around 2% GDP. From the fiscal point of view, this measure constitutes a considerable and necessary cutback, but it must be borne in mind that freezing wages and pensions in 2009-2010

3 Herewith a list of merely some of the ongoing or announced major infrastructure projects: completion of the highway and modernisation of the railway on Corridor X, construction of regional roads (Batočina–Kragujevac highway, the Kragujevac beltway, highway towards Romania, et al), the beginning of the construction of the highway towards southern Adriatic, the construction of several bridges in Belgrade and its vicinity, the reconstruction of Corridor VII, the modernisation of the clinical centers, et al.

4 If minor investments are slashed, major infrastructure projects could be implemented even with 5% GDP total investments. If the realization of minor projects is not cut and the infrastructure projects are implemented as planned, total public investments would stand at around 6% GDP.

would reduce their real value by over 15%, resulting in growing pressures (strikes et al) to increase the wages as soon as the economy starts recovering and salaries in the private sector grow. Forty percent of the necessary cut in current public spending would be achieved by a two-year freeze of salaries and pensions. This is why the state must take measures to further slash current public spending.

Hypothetical downsizing[5] of public sector staff by around 50,000 would result in around 1% GDP permanent net savings. Such downsizing would have to encompass all state levels (republican, Vojvodina and municipal authorities) and all sectors (state administration, schools and health institutions). Such relatively abrupt downsizing could, however, result in lower quality and lower access to state sector services.

Substantial public sector downsizing could also generate additional savings by cutting the running state costs. This effect would be particularly strong if downsizing were accompanied by reducing the network of state institutions (schools, hospitals, administration buildings, the abolition of some agencies et al). Therefore, freezing salaries and pensions in 2010 and downsizing the public sector by 50,000 would result in direct savings of over 3% GDP, or 60% of the necessary cut in current public expenditure.

The above adjustment would be insufficient and it would be necessary to additionally cut other current expenditure items, such as various forms of state intervention in the economy. State interventions in Serbia's economy now mostly take the form of subsidies and other incentives (state credits, joint venture with FIAT et al). Various forms of state intervention, now amounting to slightly over 2% GDP, probably have to be halved. While cuts in some items (e.g. cutting subsidies to the railway company after closing unprofitable track, the suspension of subsidies to coal mines following their privatization or slashing incentive credits), would not have negative social and economic effects, a reduction of agricultural subsidies would be extremely problematic.

The ultimate cut in current public spending to these proportions could not bypass the social protection program either. Cutbacks in this area would probably be achieved by a nominal freeze of allowances and by setting stricter social assistance eligibility criteria (i.e. by lowering the accessibility of social protection).

Table L1-4. Consolidated Revenues, Expenditures and Deficit (% GDP)

	2005	2006	2007	2008	2009	2010	2011	2012	2013-2018
Public revenues	42.9	43.8	42.4	41.1	38.8	38.0	38.5	38.8	38.8
Public expenditures	41.9	45.4	44.3	43.5	43.3	41.5	41.5	41.3	41.3
- current expenditures w/o interests	38.1	39.8	38.8	39.1	39.0	35.8	34.5	34.1	34.0
- expenditures on interests	1.0	1.5	0.8	0.6	1.0	1.2	1.5	1.7	2.0
- public investments	2.7	4.1	4.7	3.8	3.4	4.5	5.5	5.5	5.3
Deficit/surplus	1.0	-1.6	-1.9	-2.5	-4.5	-3.5	-3.0	-2.5	-2.5
Primary deficit	2.1	-0.1	-1.1	-1.8	-3.6	-2.3	-1.5	-0.8	-0.5

Source: Ministry of Finance for the 2005-2008 period, author's estimates and projections for the 2009-2018 period.

Economic and Social Effects of a Substantial Cut in Current Public Spending

Given the above conclusion that adjustment of public spending to the current fiscal capacity and the given fiscal deficit level calls for a circa 5% cut in the share of current public spending in the GDP, the question is whether the above decrease in public spending is economically optimal[6]. "Every cut in public spending is optimal" would be the superficial answer to this question. This is in general the wrong answer because it does not take into account the benefits the citizens and the economy have from the public sector. The public sector provides important services every developed democratic society must have. The services provided by the public sector in Serbia are varied, starting from classical state functions such as maintaining law and order, internal and foreign security, to newer services such as public education, public health care, protection of the elderly within the pension system, protection of the poor, subsidizing agriculture, construction of infrastructure, stimulating scientific research and numerous other activities.

5 From the point of view of economic activity, the dismissal of 50,000 public sector employees would lead to lower domestic demand and thus to a slowdown in economic recovery. Moreover, laying off 50,000 people, who realistically have little chance of finding a new job, would further increase social discontent. Any larger-scale resort to early retirement as a way of downsizing the public sector would cut public spending only to the extent to which their pensions would be lower than their salaries.

6 Like in the private sector, it is optimal to reduce spending in the public sector until the marginal costs and marginal benefits of providing a public service are equated. Social, civilizational, security and other factors, leading to continued public spending on items even when such spending is not economically optimal, are, however, taken into account in practice.

Cuts in public spending can clearly result in lower quality of service provided by the public sector or the reduction of such services to a suboptimal level. Given that this topic is almost entirely ignored in public and expert debates on public sector reform, we shall now list some cases in which the cuts in public expenditure could do society more harm than good:

• Downsizing Tax Administration staff or a considerable cut in the real value of their salaries could result in lesser staff commitment and the growth of grey economy;

• Cutting the number of staff and real level of salaries in the public health care system may lead to the flight of the best staff to the private sector and thus to lower quality of services and the transfer of part of the costs on to the beneficiaries of health services;

• Lower quality services in public education that may ensue due to the insufficient number of teachers, insufficient investments in their training and modern equipment would permanently reduce the state's competitive ability;

• Cutting agricultural subsidies may result in lower agricultural production and exports;

• Downsizing the police may lead to lesser security, as may cutting the real wages of policemen or the failure to provide them with the necessary equipment;

• Cutting the number of civil servants or the real value of their wages may lead to a fall in the quality of the regulations they enact, extension of the deadlines within which they issue decisions, longer queues, greater corruption, et al.

This does not necessarily imply that savings in the above areas are impossible or unnecessary, only that they must be implemented carefully so that the economic damage arising from the lower level and quality of public services does not exceed the benefits of the savings made within the public sector reforms. It is therefore necessary to apply utmost care when weighing the advantages and disadvantages of cutting a public spending item during the implementation of the reforms. Achieving economic optimum calls for a differentiated approach to specific public sector segments. It is extremely likely that some services, sectors, institutions, agencies et al. need to be considerably trimmed down or even abolished while others need to be strengthened by increasing the number of their staff and investing additional resources in them.

Additional Possibilities of Achieving Fiscal Consolidation

Although there is no doubt that cutting current public spending needs to be at the heart of public sector reforms, the state can also take some other measures complementary with public spending reduction. There are three possibilities: (a) to increase tax rates, (b) to further increase the fiscal deficit, and (c) to reduce public investments.

The first option entails increasing the fiscal capacity of the tax system by e.g. 1% GDP whereby public revenues would stand at around 40% GDP, public expenditure at around 42.5% GDP and the fiscal deficit would remain at the level of around 2.5% GDP. As the fiscal deficit would amount to 2.5% GDP, public debt would stabilize at 40-45% GDP. Under this option, public investments would remain at around 5.5% GDP. This option would still call for strong fiscal adjustment: a freeze of wages and pensions in 2010 and their slower growth in the subsequent years, downsizing of public sector staff by 20-30 thousand, rationalization of the network of public institutions, cuts in state interventions in the economy (but to a smaller extent than in the first scenario discussed above).

The second option entails a further increase in the fiscal deficit. Given the circumstances in Serbia, the deficit can be only moderately increased over the main scenario. Specifically, the assumption is that fiscal deficit will increase to 4% in 2010 and to 3.5% in 2011 and then remain at the 3% GDP level. Under this option, the debt would amount to nearly 50% GDP in several years' time. A deficit increasing in the described manner would provide additional funds to the amount of 1% GDP for financing current public spending the first year, but the volume of additional funds would soon stabilize at 0.7% GDP. The increase in deficit could only partly be used to fund current public spending, because part of the deficit increase would have to be used to cover interest rate expenditures, which would increase due to public debt growth.

The third option entails changing the structure of expenditure in the framework of the given consolidated revenues, expenditures and deficit by transferring part of the funds allocated for public investments to current spending. Transferring funds amounting to 1% GDP would result in the public spending to GDP ratio of around 35% but would

simultaneously imply slower implementation or postponement of some infrastructure projects. Assessments are that it is highly unlikely that such reallocation of funds is planned in advance, but such reallocation should not be ruled out if it is impossible to cut current public expenditure.

To sum up, the assessment is that only the first option would yield economically and socially desirable results. This option is compatible with the fundamental public sector reforms equally valuing the improvement of the volume and quality of public services and the reduction of public spending. It is also more equitable from the viewpoint of inter-generational distribution because the increase in taxes would transfer the greater part of the burden of current public spending on to the current generations. The other two options would have weaker balancing impact and produce less favorable results in the long term. An increase in fiscal deficit would provide substantial additional means for funding public spending only temporarily, for two or three years. Afterwards, most or even the whole deficit would be used to pay public debt interest. Also, making room for a more moderate reduction of current public spending by cutting public investments is economically unjustified given that public investments improve infrastructure, which is crucial for creating favorable private investment conditions.

Conclusion

Boosting public sector efficiency and fiscal consolidation are prerequisite for Serbia's sustainable economic and social progress in the long term. A more efficient public sector entails increasing the volume and quality of its services at the same or lower level of cost. Efficiency can in general be improved by multi-annual reforms of the pension system, the state administration and public services (education, health et al), improving budget procedures et al. Fiscal consolidation ought to ensure long-term sustainable funding of the reformed public sector, i.e. to ensure the stabilization of the public debt to GDP ratio at a sustainable level by maintaining the fiscal deficit at an appropriate level.

Cutting fiscal potential from around 42.5% GDP to around 39% GDP with a fiscal deficit of 2.5% GDP implies the reduction of consolidated public spending by around 2.5% GDP. Also, additional room within the reduced public spending framework must be made for public investments – around 1.5% GDP and for interest rates – around 1% GDP. If tax rates remain unchanged, the share of current public spending in the GDP must therefore be cut by 5%. Given that a very big cut in public spending is at issue, the question is whether such a reduction is economically justified and socially feasible. This cut in current public spending could lower the level and quality of public services, which would negatively impact on the citizens and the economy, and even generate widespread social resistance to reforms – for only broadly accepted reforms can be successful.

It is therefore necessary to also take into consideration additional measures, such as raising tax rates, further increasing the fiscal deficit or abandoning a substantial increase in public investments. A considerable cut in current public spending (by 3-4% GDP) and an increase in tax revenues (by 1-2% GDP) are assessed to be the best option. An increase in tax rates would mean greater fiscal policy consistency as well. Maintaining a low tax rate policy on the one hand, and a high ratio of pensions to wages, quality accessible health and education services accessible to all, good infrastructure, high subsidies, incentive credits et al on the other, is unsustainable in the long term. The implementation of the other two additional measures would have negative impact on the economy in the long term. The further increase in fiscal deficit would accelerate the growth of public debt and increase its servicing costs, which is unsustainable in the long term. Also, abandoning a substantial increase in public investments would negatively impact on economic growth rate in the long term.

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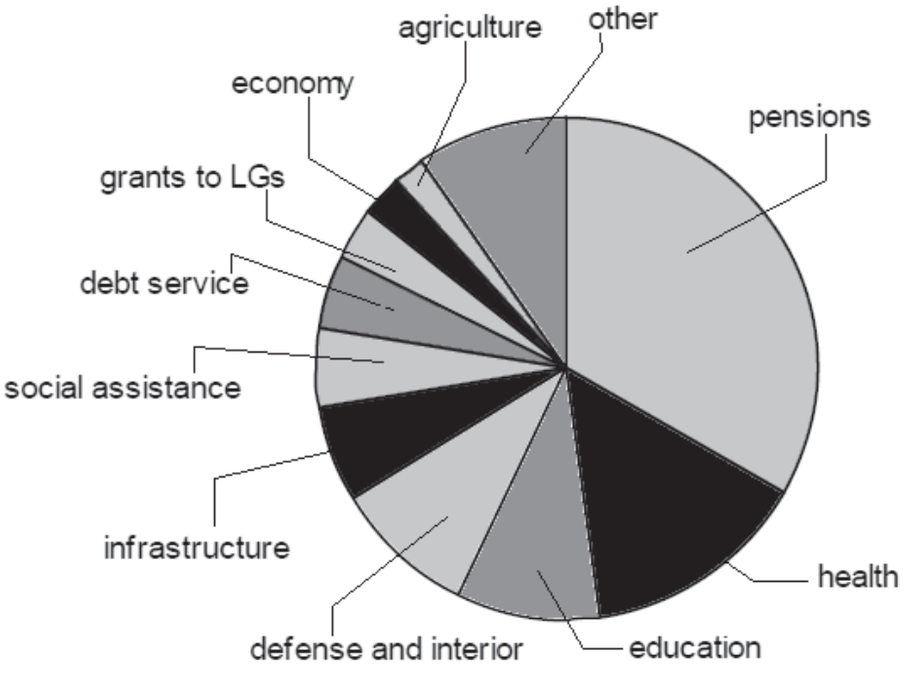
Doing More With Less

William Dillinger*

The Serbian Government faces tight budget constraints for several years to come. It has already responded by freezing wages and pension benefits and making cuts in capital works. These measures, while essential responses to the immediate fiscal situation, are not sustainable over time. This text looks at more fundamental reforms in six key sectors of public expenditure--pensions, health, education, social protection, subsidies to agriculture and enterprises, roads, and railroads--in order to identify opportunities to improve the effectiveness of expenditure in these sectors while restraining growth in their costs.

With its economy disrupted by the global economic crisis, the Serbian government faces tight budget constraints for several years to come. The Government has already responded by freezing wages and pension benefits and making cuts in capital works and other discretionary spending. These measures, while effective in the short term, are not necessarily sustainable over time. A new World Bank report, *Doing More with Less: Addressing the Fiscal Crisis by Increasing Public Sector Productivity* looks at more fundamental reforms in key public services, in order to identify opportunities for constraining expenditures through improvements in productivity.

Graph L2-1. Composition of Consolidated Central Government Expenditure, 2008



Graph L2-1 demonstrates the sectoral distribution of consolidated central government expenditures.[1] As shown, the largest single item of consolidated central government expenditure consists of pensions. Spending on pensions consumed one third of public expenditures in 2008. Spending on health (largely financed from social contributions to the HIF) is the second largest item of consolidated central government expenditure, accounting for 15 percent of the total in 2008. Spending on education consumed another ten percent. Spending on security--defense and police--also consumed about ten percent. Spending on transport infrastructure (including foreign financed-spending) and social assistance each consumed about five percent of the total. Taken together, these six major items of expenditure accounted for 78 percent of total consolidated expenditure in 2008.

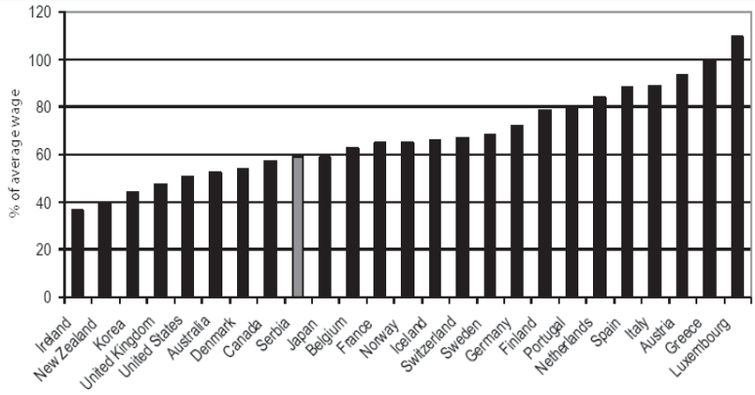
* Lead Public Sector Specialist for Europe and Central Asia, World Bank.

1 Consolidated, as defined here, includes the expenditures of the pension and health funds and the road agency that are financed from their respective own-source revenues.

Pensions. The Government's pension commitments are the primary threat to its fiscal equilibrium. Although pension reform laws in 2001, 2003, and 2005 have substantially restricted pension benefits (raising the normal age of retirement, imposing stronger eligibility criteria for access to disability pensions, instituting a point system linking contributions to benefits, and changing the basis of post-retirement indexation) pension benefits are still high by EU standards.

The current pension system—even after the 2001 and 2005 reforms are fully in effect—is, and will remain, unaffordable. This is, in part, because pension benefits are too high. The pension due to a new retiree in Serbia is equal to nearly 60 percent of the net average wage. As shown in Graph L2-2, this is equivalent to the norm for high income OECD countries and is higher than the rate paid in more than one-third of them.

Graph L2-2. Benefit Rates for Full Career Old Age Workers Retirering at Age 65



The high cost of the current level of Serbian pensions is exacerbated by two characteristics that distinguish Serbia, to varying degrees, from the high income OECD countries. First, it is an older country. Fourteen percent of the Serbia's population is age 65 or above. Serbia also has a lower percentage of population in working age, typically defined as people between the ages of 15 and 64: 67 percent. As a result, there are fewer workers to support larger numbers of retirees than in many countries.

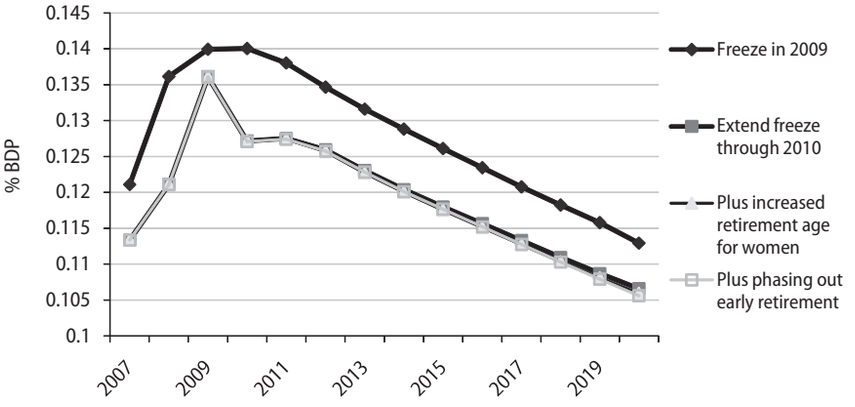
Second, the process of economic transition has left Serbia with a relatively high proportion of the older population receiving benefits from the pension system and a relatively low proportion of the working age population contributing to it. Typically, socialist countries had relatively high formal labor force participation rates. These high formal labor force participation rates of the past translate into high coverage rates among the current elderly, which translate into relatively higher pension expenditures regardless of the particular demographics of the country. At the same time, the transition process itself dramatically changed the formal labor markets as large state-owned enterprises which offered lifetime employment were privatized, downsized, and split into smaller enterprises, which needed to respond flexibly to an evolving economic environment. This led to rising unemployment and the growth of an informal labor market. While new privately owned enterprises have sprung up, enforcing pension contributions legislation against them has been difficult. The fall in the number of formal sector workers has led to low coverage among the working age population which translates into low revenue collection.

Pension eligibility criteria are also too generous. This is largely due to a variety of arrangements that allow a person to receive benefits before reaching the age of 65. Only 60 percent of the beneficiaries of the employee pension fund are aged 65 or older. Of the remaining 40 percent, 45 percent are receiving old age pensions, 32 percent disability pensions, and 23 percent survivor pensions. The large number of underage pensioners arises, first, from the low retirement age that prevailed in the past. But it also reflects the prevalence of provisions that allow those with 45 years of contributions to the pension system to retire at any age and to credit granted to persons working in particular occupations.

To address these problems, the Serbian government has a variety of options. First, in order to lower the average pension level to a level more in keeping with Serbia's resources, the Government would be well advised to maintain the planned freeze on pension levels in 2009 and 2010 and thereafter revert to the indexation method specified in the 2005 pension law. The 2009 and 2010 freeze will have a dramatic impact on pension expenditures. Thereafter, imposing an inflation-only index on both the general point and subsequent pension payments will slow the rate of growth

in the average pension level in nominal terms and reduce the aggregate level of pension spending as a percentage of GDP. As shown in Graph L2-3, the 2009 freeze combined with a reversion to inflation-only indexation thereafter would reduce aggregate pension expenditures from 14 percent of GDP in 2010 to 12.6 percent of GDP by 2015 and 11.3 percent of GDP in 2020. Extending the freeze through 2010 would further reduce pension costs to 12.7 percent of GDP in 2010, 11.8 percent in 2015 and 10.7 percent in 2020.

Graph L2-3. Projected Trends in Pension Expenditures



Over the longer term, however, indexation based solely on inflation will reduce pension levels to socially unacceptable levels. Employees and employers would be asked to contribute 22 percent of wage over a lifetime of employment to support a pension equal to only 9 percent of the average wage. The system would not be providing value added for the worker and would be insufficient to prevent poverty in old age. Over the longer term, Serbia should therefore consider moving to a mixed inflation and wage based system, in which the value of the general point would be indexed to wages (permitting new retirees to retire with a pension that reflects prevailing wages at the time they retire) while subsequent pension payouts would be indexed to inflation.

Second, the Government could change the parameters of pension benefits. It could, for example, reduce the level of pension benefits for those taking early retirement, *even if they meet the years of contribution criteria.* Most countries reduce the pension for early retirees, imposing an actuarial reduction on the pension related to the number of years that a person retires early. The Government could also limit the number of years a worker can retire early. Most European countries limit the number of years that a worker can retire early to 5 years or less and many do not permit any early retirement at all. Hungary and the Czech Republic, for example, limit early retirement to three years. Poland does not allow it at all.

In the longer term, the Serbian pension system is projected to turn around completely. From a deficit-generating moderately generous system, it is projected to turn into a surplus-generating system which pays very low benefits. This would be unsustainable from the social point of view with employees and employers being asked to contribute 22 percent of wage over a lifetime of employment to support a pension equal to only 9 percent of wage for a limited retirement period. The system would not be providing value added for the worker and would be insufficient to prevent poverty in old age.

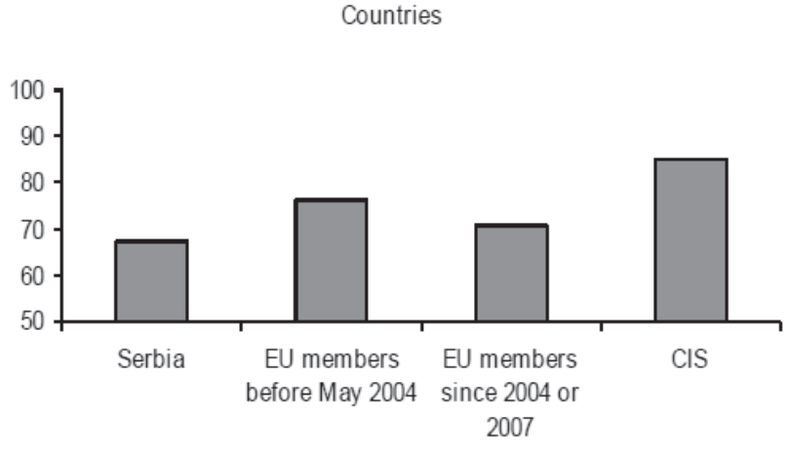
Moving to a mixed inflation/wage-based indexation system for both the general point and the pensions after retirement will improve the long run benefits somewhat, but not sufficiently to make them worthwhile. A more comprehensive reform will be required. A number of approaches could be taken. The simplest would be to de-link the indexation of the general point from the pensions after retirement and allow the general point to be linked to average wage growth while the pensions after retirement are linked to inflation. The starting value of the general point would need to be determined such that pensions would be adequate while being fiscally sustainable and affordable.

Health. The Serbian health system has made significant progress over the last 15 years. Outcomes have improved and more services are delivered at a level of spending comparable to other countries in the region. Some measures to regulate medical practices and improve quality of care have also been implemented. At the same time the system faces major challenges. As in many health systems in Europe, Serbia confronts pressures for increased health spending, due to the aging of the population, the introduction of new (and expensive) pharmaceuticals, and the development

of new technologies. These exacerbate the fiscal pressures already confronting the system as a consequence of the global economic crisis. Lower growth will most likely be accompanied by an increase in unemployment and poverty, potentially reducing the Health Insurance Fund's (HIF) revenue base and increasing the pool of vulnerable groups who must be subsidized from the general budget. Under this scenario the Government will need to find ways to use resources more efficiently, by improving management and furthering the reforms that will create incentives to use resources more productively.

Significant progress has been made over time in improving productivity of health services, but there is still a gap when compared to EU countries. For example inpatient care admissions increased from 11 per 100 to almost 15 per 100 in the period 1999-2006, but it still fell below the 17 per 100 value in EU members before 2004 and almost 21 per 100 in EU members joining after 2004. As shown in Graph L2-4, the hospital bed occupancy rate (69 percent) is below the level of the new EU members and considerably below the level the older EU member states. By the same token, average lengths of stay (ALOS) are longer in Serbia that in either group of comparator countries. If occupancy rates were to increase to levels observed in Europe, the same level of discharges could be achieved with significantly lower bed numbers.

Graph L2-4. Hospital Bed Occupancy Rates



In the short run, there are several immediate targets for efficiency improvements. The MoH currently plans to reduce the number of beds by 3,000. As the level of funding for health care facilities is based on the number of authorized beds, this could imply a significant reduction in costs. The HIF could also consider targeted staff reductions. This will require careful preparation, however. The HIF's previous experience with downsizing suggests that relying on voluntary buy-outs alone can result in adverse selection (only the most qualified staff leave) or inadvertent shortages in certain types of staff (anesthesiologists leave but non-medical staff stay on). Right sizing staff will therefore require a careful review of staffing needs in different types of facilities.

There may also be potential savings in evaluating the cost effectiveness of the benefits package. The package of benefits offered by the HIF is not excessively generous. Nevertheless, to economize on the use of expensive technology, Serbia might consider the example of many EU countries and use a formal medical technology assessment and pharma-economics methods to evaluate the cost-effectiveness of new technologies before including them in the basic benefits package. This could occur in conjunction with rules that reserve the most sophisticated medical technology for tertiary and specialized hospitals, with appropriate referral systems to ensure that patients, who need it, receive it.

The key to fundamental improvements in health care productivity, however, is a change in the way it is financed. The present system of financing encourages inefficiency in the use of resources and provides no incentive for improved service volumes or quality. At present, the budgets of health care providers, at both the primary and secondary level, are based on the costs of inputs. The health insurance fund pays providers on the basis of annual contracts, which specify the amounts to be spent on wages and salaries, utilities, medicines and other supplies. Allocations for staff are based on the number of authorized staff and salary coefficients. Payments for other recurrent costs are largely based on number of beds. As a result, health care providers have a strong incentive to maximize the number of staff and the number of beds in their facilities. While the contracts may require reports on performance, there are typically no penalties associated with poor performance. Nor are the overall contract amounts related to the number and the

severity of the cases treated. Consequently, providers have no incentive to economize on the use of inputs or to increase the quantity of services they provide.

To create incentives for more efficient provision at both the primary and secondary level, the Government of Serbia has initiated a reform in payment mechanisms. For primary care, the Government proposes to adopt a capitation based payment system. Under this approach, patients typically register with an individual doctor of their choice who becomes the primary point of contact in the healthcare system. These doctors receive training in a broad range of primary healthcare fields, limiting the need for referrals. To encourage physicians to register patients, the paying agent—in this case the HIF--would pay providers a standard rate for each patient on their roster. To encourage physicians to actually serve these clients, they often provide additional funding on a fee-for-service basis.

Design of this reform is well underway. At present, the MoH and HIF are devising the specific formula, with assistance from the European Commission. The formula is expected to include adjustments for age, gender, and additional incentives to provide preventive services. To prepare for the introduction of the formula, the MoH and HIF are also providing support to DZ managers to respond to the change in incentives associated with the new payment mechanism and improve data systems and reporting in the DZs and the HIF.

For higher level (hospitals) care, the Ministry of Health and the HIF intend to move to an output-based (DRG or prospective hospital payment) system care. Under this approach, hospitals are paid on a per-case basis, i.e. the average cost of treating a patient during an entire episode. The payment can be adjusted to reflect variations across regions, hospital characteristics, and levels of complexity. (By paying the *average* cost, the DRG system creates an incentive to minimize cost of treating a certain case.) In preparation for this move, the MoH is planning to invest in hospital management software in at least nine hospitals; and provide capacity building for health sector managers to adapt to the new payment mechanism. A pilot for DRG costing has already started and full implementation of the pilot is expected to take one or two years.

International experience shows that implementing such reforms can generate substantial savings. But it can also be a very difficult and lengthy process, however. Output-based systems can encourage providers to fraudulently inflate the quantity of services they provide and may lead to declines in service quality.

Education. Serbia spends about five percent of GDP on public education. This is similar to the average level in the Baltic countries and somewhat more than the level in Bulgaria and Romania. Despite this level of spending, the performance of Serbia's education system has been disappointing. Serbia took part in the Programme for International Student Assessment (PISA) in 2003 and 2006. On both occasions, Serbia's 15-year-olds failed to demonstrate an adequate level of achievement in reading, Under PISA standards, about 43 percent of students in Serbia are functionally illiterate in mathematics, 38 percent are functionally illiterate in science, and half of all 15-year olds are functionally illiterate when it comes to reading. Overall, the results per dinar invested in the system are far lower than what the country should achieve, judging from the performance of comparable countries.

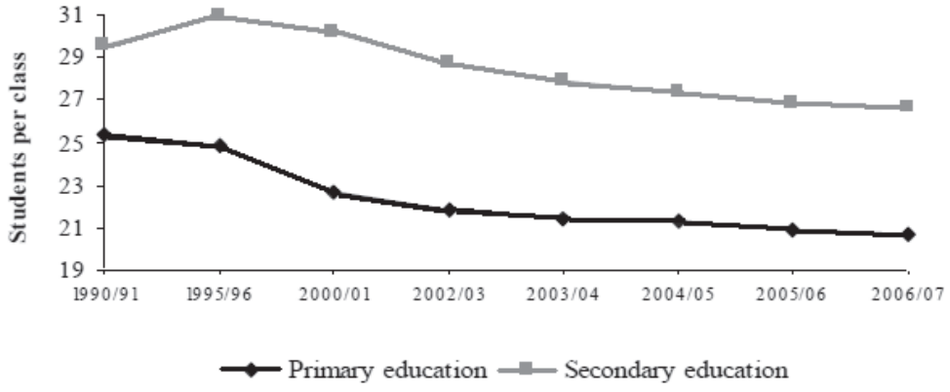
As in most other countries, the lion's share of public education expenditure in Serbia is consumed by the salaries of the education staff. There appear to be opportunities for significant cost savings by reducing the number of education staff, particularly at the primary level. Serbia has too many teachers, given its present student population. As a result, many classes are inefficiently small. Education of equivalent quality could be provided with a smaller number of teachers. The cost savings would be substantial and could be spent on improving education quality.

Primary school enrollment levels have declined dramatically over the last fifteen years, largely due to falling birth rates. The decline in the school age population is expected to continue. The number of primary-school-age students is expected to decline by another 4 percent over the next 15 years. A 13 percent reduction in the number of secondary school age children is projected. But Serbia has been unable to reduce the number of classes proportionately, resulting in very high teacher/pupil ratios in some areas. Similarly, while the number of secondary school students has fallen sharply, with the number of secondary school classes has actually increased.

The result has been a steady fall in the size of the average class, at both the primary and secondary level. While the number of students (grades 1 through 8) has been steadily decreasing across time (23.4 percent between 1990/91 and 2006/07), the number of classes has not fallen in similar proportions. In the case of secondary education, the trend in enrollment has been more complicated, with a sharp increase in the 1990's, followed by a steep decline. The number of classes has, nevertheless, continued to increase. In both cases, the average number of students per class has steadily declined. As shown in Graph L2-5, the reduction amounted to 18.4 percent for primary and to 10 percent for

secondary education, comparing the year 1990/91 to the year 2006/07. If this decrease in the average size of classes had led to a concomitant improvement in quality, this might have been a desirable outcome. Unfortunately, data on the trends in the performance of Serbian students suggests otherwise.

Graph L2-5. Evolution of the Average Class Size, by Level of Education



The failure of the system to adjust is in part a result of its own regulations. The configuration of the system of primary and secondary schools in Serbia is based on an extensive system of by-laws and ministerial decrees. The current set of rules fixes the key parameters that determine, inter alia: a) the type of institutions allowed; b) the number of positions authorized per institution; and c) the teaching norms or maximum number of hours expected for full-time equivalent positions. With respect to the key factor in determining class size, however, it is ambiguous. Current regulations fix a *maximum* class size of 30 students for both primary and secondary schools. The regulations do not, however, fix a *minimum* class size for classes of any kind. Thus 30 sixth-graders could be taught in a single class of 30 students or divided into three classes of ten students, without violating the regulations. By the same token, small satellite schools *are not required* to combine grades, no matter how few pupils each grade may have. Multi-grade classrooms—a highly efficient way of organizing education in sparsely populated areas—are permitted but not required. The absence of minimum class size regulations is not the whole explanation for the persistence of undersized classes, however. School administrators are free to consolidate classrooms up to the maximum size. Their failure to do so is explained by the perverse financial incentives under which they work. Serbian schools are financed on the basis of inputs. Funding for salaries—the largest single item of educational expenditure--is provided on the basis of authorized teaching hours. Although the current allocation of teaching hours may have reflected enrollment at some time in the past, school administrators have no incentive to reduce teaching hours when enrollment declines. In fact, they have good reason not to do so. Fewer teaching hours mean smaller budgets and the unpleasant task of dismissing staff.

The savings that could result from closing under-enrolled classes can be estimated by calculating the number of classes Serbia would require if all classes were optimally sized. This can be determined by dividing the number of students in a given grade in a given municipality by a proposed minimum class size (say, 30); adding one, and summing the result for all municipalities in Serbia. If a minimum class size of 30 is chosen, for example, the calculation would show that Serbia has 11,000 more classes than it needs at the primary level; or roughly 37 percent of the total actual number. A similar calculation for secondary education yields a significantly smaller oversupply, with about 1,300 excess classes, or about 13 percent of the total.

An immediate, nationwide, implementation of a minimum class size rule is not feasible. The calculation above assumes that all students can be reallocated among schools anywhere within a given municipality in order to achieve optimum-sized classes. This is clearly unrealistic in the short run. It could imply that schools in remote and sparsely populated parts of a municipality would be closed and their students transported to other, perhaps distant, parts of the jurisdiction. It would also imply large scale reductions in staff. These are reforms that could be implemented over the course of a few years but not over a few months.

More immediate efficiency gains could be achieved by rationalizing class sizes *within individual schools;* i.e., leaving the total number of students in a given grade and school unchanged, but consolidating classes within the school where the opportunity exists. It is estimated that this measure could reduce the number of classrooms by about 2,900 or ten percent, based on a minimum class size of 30.

School rationalization implies a considerable rearrangement of facilities and students along with a considerable reduction in staff. Staffing reductions would fall more heavily on some schools than others, due to different rates of demographic decline in different jurisdictions and current variations in class/pupil ratios. The Ministry of Education has devised a proposal for rationalizing the school network, which may involve, in addition to staff reductions, the closing of schools (particularly satellite schools), the consolidation of classes, and reductions in non-teaching staff. In principle, the Ministry's rationalization plan is to be implemented over three years, starting in the school year 2009/10. Implementation is to begin in Belgrade and the other largest cities of Serbia and gradually move towards the periphery. This focus on Belgrade and other large cities is likely to be most cost effective, according to the analysis prepared for this report.

The Ministry also has to resolve a somewhat thornier implementation issue: who will do the rationalizing? One approach would be to proceed on a top-down basis, with the Ministry deciding which facilities to close and which classes to consolidate, and reassigning or dismissing teaching staff accordingly. An alternative, recently used in Lithuania and Bulgaria, is to decentralize such decisions to local governments. Under the approaches adopted in those countries, funding for most of the recurrent costs of education (including salaries) is provided to each municipality as a lump sum on the basis of enrollment. As a result, municipalities with sparsely enrolled classes experience a drop in funding and are forced to undertake the difficult downsizing decisions the Ministry might prefer to avoid.

Changes in financial arrangements, however, would not be sufficient. Local governments must also have the authority to respond to declining levels of funding, by consolidating classrooms, closing schools, and dismissing teachers. Some Eastern European countries, including Bulgaria and Lithuania, have resolved this problem by conceding considerable autonomy over the determinants of education costs to their local governments. While salary scales are set nationally, local governments have the authority to consolidate classrooms, dismiss teachers and--subject to certain limitations--close schools. Some central governments also provide funding for severance payments and assistance in transportation. Serbia would be well advised to learn from these examples.

Social Assistance. Serbia spends relatively little on social assistance. Spending as a whole averaged less than two percent of GDP in the 2005-2009 period. As a share of GDP, this is lower than the average spending in the OECD (2.5 percent, 2006) and in the EU countries (2.5 percent, 2006), and comparable with the spending of ECA countries with similar level of economic development. Spending on programs targeted to the poor is particularly low. As of 2008, only 7 percent of social spending was allocated to the MOP, with another close to 16 percent allocated to the child allowance program. Together, spending on the two programs equaled only 0.44 percent of GDP, a Graph L2-far below the level of the majority of ECA countries.

There are two reasons for this. First, Serbia's rapid economic growth over the last decade has reduced poverty levels significantly--from 13.4 percent in 2002 to 6.6 percent in 2007--thereby reducing the number of potential beneficiaries. Second, legislative changes restrained the scope of social assistance benefits and the number of eligible beneficiaries. This was accomplished through two major items of legislation: the Law on Financial Support for Families with Children, enacted in mid-2002 and amended in 2005, and the Law on Social Protection and Provision of Social Safety to Citizens, amended in September 2004. The laws consolidated and rationalized the existing range of social programs, abolishing regional differences in benefit levels and strengthening means testing. Several provisions, nevertheless, tended to reduce benefit levels.

As a whole, Serbia's non-contributory social programs appear to be fairly well targeted, in the sense that the majority of benefits go to the poor. Over 54 percent of all benefits go to those in the poorest quintile of Serbia's population. By the same token, 46 percent of the beneficiaries of these programs belong to the poorest 20 percent of the population, and close to 70 percent of them, to the bottom 40 percent of the population. The targeting of the MOP program is particularly good, with over 60 percent of benefits going to families in the poorest quintile and to the extreme poor. This compares favorably with child allowances, for which the poorest quintile receives 48 percent of total benefits and the poor receive 50 percent. Coverage is an issue, however: only 7.5 percent of the poorest quintile and 27 percent of the extreme poor receive benefits from the MOP program. Coverage of the child allowance is slightly better: 22 percent of the poorest quintile and 36 percent of the extreme poor receive it.

With the projected slowdown in Serbia's economy, levels of poverty are likely to increase, adding to the number of beneficiaries eligible for the MOP increasing demands for wider coverage. In responding to these demands, the Government would be well advised to focus any increases in spending on programs that are most effective in targeting the poor, and freezing or limiting spending on other programs. Two programs, in particular, are candidates for expansion.

The first is the MOP. The MOP is a last resort poverty gap program activated only when all other social protection mechanisms are 'exhausted' but the individual or household remains poor. Eligibility for MOP is determined by a means test taking into consideration all earnings of the household except those from other social benefit programs. The MOP eligibility threshold is determined as a percentage of the average wage and adjusted for household size with a steeply declining and same for children and adults equivalence scale.

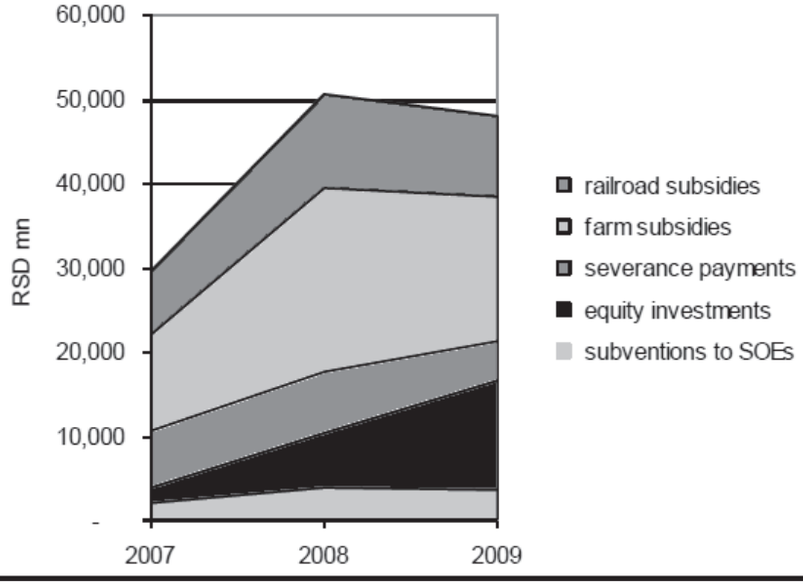
As an anti-poverty program, the MOP is well targeted, in the sense that most benefits go to poor households. There is a strong case for scaling up the MOP and expanding the number of households eligible to receive it. In relative terms the spending on MOP is lower than similar spending in benchmark countries as the new EU member states. Even the 'low spenders' on targeted social assistance Poland, Latvia and Estonia spend more than Serbia.

Expanding the number of beneficiaries could be accomplished in part by raising the income threshold for eligibility and/or relaxing the asset test. It can also be accomplished by simplifying application procedures and through more aggressive outreach. At present, the Centers for Social Work, which implement the MOP, are making efforts to reach potential beneficiaries and make sure that they understand how to apply for and receive assistance. These efforts should be supported. Finally, the MOP equivalence scale can be aligned with the good OECD practices to eliminate the bias towards single-member and small families and households.

The second is the child allowance program. The child allowance program is the social protection program for children from low- and low middle income families. It is means-tested and limited to the first four children in the family, aged 0-19. It is also conditional to school enrollment for those after age 7. As is the case with the MOP, the level of benefits is low. Eligibility is limited to families in which the income per family member is less than 20 percent of the average monthly wage, i.e. only marginally higher than the access threshold for the MOP. The average amount of the child allowances is quite low: around 5 percent of the average wage.

As in the case of the MOP, there is a strong case for maintaining the child allowance at least its existing level of funding and for addressing administrative barriers that prevent eligible households from accessing it. According to MLSP administrative data, around 20 percent of the children of MOP beneficiaries (i.e., the poorest households) do not receive the child allowance, partly due to a lack of evidence of enrollment in school. Verifying regularly school attendance might help identify the barriers which poor children face and thus increase the number of eligible beneficiaries.

Graph L2-6. Trends in Major Subsidy Programs



Enterprise Subsidies. Subsidies to enterprises (including farms) constitute a significant proportion of government expenditure in the current period. As shown in Graph L2-6, the five largest central government programs consumed about four percent the 2008 central government consolidated spending in 2008, based on 2008 budget execution data. But the subsidy regime is in transition. A large proportion of subsidies have been used to facilitate the process of privatization, financing severance payments for workers in state owned enterprises. With some exceptions, the privatization process has been largely completed, and the level of these subsidies can be expected to decline. Under the revised 2009 budget, a considerable volume of resources are committed to new equity investments. These represent part of the Government's economic stimulus efforts, and might be expected to decline. What will remain are of subsidies to SOEs that have been slow to privatize--particularly in the mining sector—subsidies to the railroad and to agriculture, and subsidies to certain classes of private firms---such as SMEs. In the current economic climate, there is also pressure to make soft loans to private firms in order to stimulate the economy.

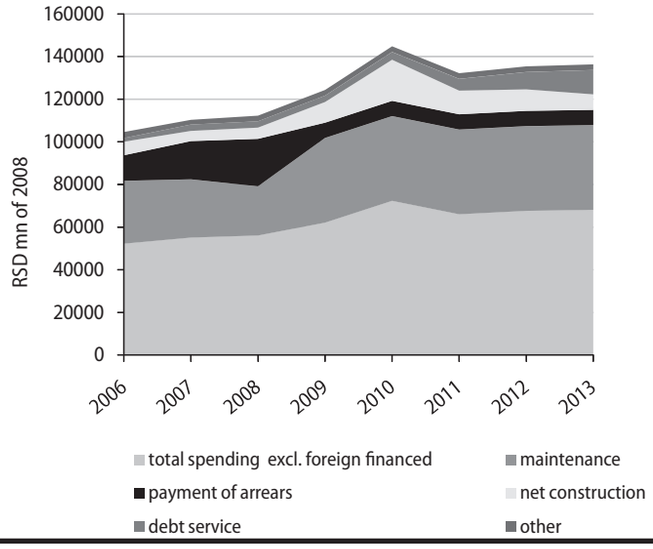
In sectoral terms, the largest program of subsidies consists of subsidies to agriculture. In 2008, these accounted for about 40 percent of total central government subsidies. Since 2004, Serbia has been phasing out price supports for specific crops. Sugar and tobacco subsidies have been eliminated, although support to the dairying industry remains. But the largest form of agricultural subsidies consists of the so-called 'de-coupled area payment'. This was introduced in 2007 to replace former input subsidies and reflects the structure of subsidies under the EU's Common Agricultural Policy (CAP). It consists of a standard payment (equal to € 120 per hectare) to every registered farmer, up to a maximum of 100 hectares. As of 2008, only full time farmers who contribute to the pension system are eligible to receive the subsidy. As an alternative to input subsidies or price supports, the decoupled area payment is relatively efficient. It does not distort prices. But it is also expensive and –in the current Serbian context—difficult to justify. In effect, it functions as a poorly targeted form of social assistance for the rural population. In principle, there is a strong case for eliminating the decoupled area payment--at least until Serbia joins the EU. At that time, the costs of the program will be paid by Brussels. The program's role in supporting the incomes of poor farm families could be replaced by a scaled-up MOP or by transforming the program into an income-support program for small farms, with the area payment subject to means testing.

Support to state- and socially-owned enterprises (SOEs) that are due to be privatized constituted about 22 percent of central government subsidies in 2008. These include severance payments financed from the Development Fund, the Transition Fund and the Solidarity Fund, and credit lines to socially owned enterprises for restructuring. Overall, the level of enterprise subsidies (excluding subsidies to railroads) has increased in nominal terms over the last four years, due to increased funding for severance. Costs are expected to decline however, as privatization proceeds. The Government nevertheless confronts the costs of subsidizing or privatizing the more intractable state enterprises.

Looking forward, Serbia's enterprise subsidies have been justly criticized for distorting markets, undermining the country's long term competitiveness, and wasting money on non-economic enterprises. Serbia's EU ambitions, if not the force of these arguments, will eventually force it to scale back its remaining sector specific subsidies. The European Commission (EC) has adopted a "State Aid Action Plan for 2005-2009" which seeks a relative reduction of the overall state aid in GDP and reorientation of aid to address market failures, rather than supporting specific industries. In the new EU member states, subsidy reform has been a key component of the pre-accession and post-accession reform agenda. If Serbia is to follow this example, enterprise subsidies would have to be limited to development aid, R&D, closures, and staff reductions.

Roads. Spending on roads--including spending financed from tolls and earmarked tax revenues by the state road enterprises (PEPS)--accounted for about five percent of consolidated central government expenditure in 2008. The overall level of PEPS' reported expenditure has increased only modestly in real terms in recent years. Total expenditures increased only fourteen percent between 2005 and 2008. Expenditures on new construction have remained constant, despite additional financing from the National Investment Plan (NIP). Spending on maintenance appears to have fallen, although the Graph L2-s are distorted by payments on arrears to contractors for work carried out in 2006 and 2007. For 2009, PEPS' proposed business plan assumed a substantial increase in maintenance, rehabilitation, upgrading, and construction expenditures. This would be accompanied by increased spending on Corridor X, which will be carried out by the road agency's daughter company, Koridor 10 D.O.O.

Graph L2-7. Recent and Projected Spending on Roads (excluding foreign financed spending)



Taken together, the immediate budgetary implications of the proposed maintenance and rehabilitation program, the construction of Corridor X, and the resolution of PEPS' existing arrears are fairly significant. As shown, in Graph L2-7, total Government spending in 2009 on roads, including PEPS expenditures financed from own source revenues and Government counterpart contributions to Corridor X, would be about ten percent higher, in real terms, than in 2008. Spending would spike in 2010 with the increase in spending on Corridor X, and would revert to its previous trajectory, gradually increasing as debt service on Corridor X works comes due.

The financial situation of the road sector would nevertheless remain precarious. Revenues from tolls and earmarked taxes would be insufficient to cover projected expenditures, even under the somewhat optimistic assumption used in the projection. In principle, one way of covering the immediate gap would be to raise additional road-related revenues. PEPS' non-investment expenditures are financed by fuel excise tax, toll revenues, and annual vehicle registration charges, as is the practice in other European countries. The rate of the excise tax on petroleum derivatives is set by the Ministry of Finance. A percentage of the revenues are earmarked for PEPS for the maintenance of state roads. PEPS' share has been increasing over time, from 10 percent in 2006, to 15 percent in 2008, to 20 percent in 2009.

A recent report on road financing in Serbia noted that increasing fuel tax revenues was not a very promising source of new revenue, however. Prices for both diesel and petrol were relatively high, compared to other Balkan countries, even before the increases after 2006. The Government's April 2009 fiscal package calls for a further increase in fuel tax revenues of about ten percent, which implies yet another price increase. Any increases on top of this would need careful consideration in terms of affordability.

The possibility of raising tolls also appears limited in Serbia at this time. In the first half of 2006 toll rates for domestic vehicles were raised by 20 percent and a further 18 percent in February 2008. On February 22, 2009 the government decided to equalize the price of highway tolls for local and foreign vehicles, meeting a commitment it took on nearly seven years ago. The harmonization does away with the practice of charging foreign vehicles nearly twice as much as those registered in Serbia. As of February 2009 Serbia's toll rates are in line with those of neighboring countries with similar levels of GDP per capita.

PEPS can, nevertheless, take administrative steps to reduce costs and revenue leakage at tollbooths. A recent study of electronic toll collection (ETC) systems, funded by the Public-Private Infrastructure Advisory Facility (PPIAF), reviewed the existing toll collection system and made an assessment of reform options. It found that ETC was little used, so that the advantages of such a system have not been exploited. Over the medium-term, the study recommends that a private sector organization take over toll operations using the concessionaire model. In the short term, it recommends several more immediate measures. These include including equipping 'old-style' toll lanes with ETC and offering discounts to drivers who use them; making better use of video surveillance systems to reduce the extent of fraud; and reducing the number of vehicles eligible for exemptions. It is estimated that these measures could increase net toll revenues by ten percent. The report also finds that there is a relatively large number of vehicles which are exempt from paying tolls and recommends that in the short-term there should be a more detailed investigation

of these exemptions. The prospects for increasing annual vehicle registration fees are good. Vehicle registration fees have not been raised since 2000 and appear low compared to other countries in the region.

Another option is to achieve better outcomes for the same amount of money. The lack of a professional approach to asset management, limited use of formal techniques of economic appraisal in project identification and prioritization, weakness in financial planning and the under-use of performance contracting all contribute to inefficient resource use and the waste of budgetary funds. The establishment and use of an asset management system is a prerequisite to better maintenance planning. This involves regularly collecting and computerizing data on pavement conditions and traffic counts. An economic decision model such as the Highway Design and Management Model (HDM-4) can then be used to identify priorities for maintenance, taking into account overall budget constraints. An ongoing World Bank project is financing improvements to the computerized road database. This is expected to be operational by the first half of 2009. PEPS should use the new database and the Highway Development and Management Model to identify those priorities for funding with the highest returns in order to ensure that only the highest priorities are supported with public money.

Second, PEPS should expand the use and the scope of performance-based maintenance contracts. Such contracts, in hybrid form, have been tested on a pilot basis in two regions, Mačva and Kolubara. The two pilot contracts, involving both winter maintenance and routine maintenance for 1,200 km of roads, were signed in August 2004 and ran through August 31 2008. The experience was very encouraging, with results suggesting significant reductions in costs. Unit costs for winter maintenance, for example, declined by 24 percent. This approach is now being extended to all twenty-five districts of Serbia, but there is significant opposition from the regional maintenance companies. In addition, the opportunity to extend the original pilot schemes in the two regions, in terms of the scope of activities that are subject to output based approaches, has been missed, with PEPS management opposing testing an extension within the World Bank financed project, that could realize further savings.

Railways. Subsidies to the state railway company Zeleznice Srbije (ŽS) cost the central government budget about RSD11.12 billion in 2008. Even this level is insufficient to cover the operating losses of the railway or to permit an adequate level of maintenance of the railway infrastructure or rolling stock. While freight traffic has been growing, passenger traffic has been declining, and the financial performance of both has continued to suffer. The company's operating losses are covered, in part, by Government subsidies, which now exceed its revenues from operations. The budget subsidy covers 54 percent of working costs and totaled SDN11.126 billion.

One reason is that passenger tariffs are low. In 2007 the Government approved a price increase in passenger tariffs of about 20 percent, the first such rise since 2004. Tariff levels nevertheless remain considerably below those of neighboring countries. Average revenue per passenger km, without adjusting for relative purchasing power, in Serbia are 9.3 percent lower than in Croatia and 37.6 percent lower than in Bulgaria. One of the factors affecting passenger revenue in ŽS are the number of passengers who are not paying for tickets and the low level of fines and limited fine revenue collected as well as the large number of individuals possessing discount cards. Railway passenger tariffs also remain lower than alternative transport modes, in particular buses. ŽS calculates that bus transport prices, when compared to regular second class train prices are about 70 to 150 percent higher, although the quality of bus service is considerably higher. This suggests that, within the limits imposed by differences in reliability and quality, passenger tariffs could be raised without a significant loss in passenger volumes.

Most of the immediate opportunities for improving ŽS's financial situation, however, lie on the expenditure side. To reduce operating unnecessary costs, ŽS should proceed with its target for reducing staff to no more than 19,400 and should ensure that there is adequate funding for severance payments. ŽS will also need to define and implement a network rationalization program. This will enable the company to reduce its excess railway track and concentrate on the segments of the network where rail performs the most useful transport role. This rationalization is expected to bring its rail traffic density, currently at 1,311,630/TU/1km of network, some way towards levels in the EU countries which average (3,600,000/TU/ 1 km of network). This will also reduce the maintenance backlog and costs considerably. Third, ŽS will have to reduce non-profitable passenger services, as defined in the Plan of Activities Regarding Reduction of Non-Profitable Services. The scope of these cuts will depend upon the Government's desire to continue to provide subsidies for socially necessary services.

The Government should also reconsider the proposed design speed for rail improvements in Corridor X. Despite the precarious physical and financial condition of the existing network, the Government plans to begin a major modernization and reconstruction of the Corridor X railways. The stated objective is to raise speeds in this corridor to

160 km/hr, which will require among other things, electrification and the construction of a second railway track on a number of sections. The total value of the necessary investment is estimated at about €1.7 billion to €2 billion, for total track length 1,016 km.

The Government and ŽS should review the technical specifications for Corridor X, and in particular, the need to raise design speeds to 160 km/h. Project costs could be considerably reduced if speeds were raised to only 120 km/hr. This would be more in line with the composition and level of current and projected traffic. Freight traffic constitutes over 80 percent of total traffic and revenue, traffic which does not need high speeds. It would also be consistent with the design speed of the existing infrastructure. All electrical-technical plants on all lines on Corridor X, with the exception of the Niš-Dimitrovgrad line allow for speeds of 120 km/hr and 55.4 percent of lines were designed with route elements for speeds of 120 km/hr. and would be considerably cheaper.

Another option would be to defer large scale investments in upgrading the rail infrastructure on Corridor X, and focus instead on making only those investment necessary to address current speed restrictions and reduce the physical and institutional impediments at the border crossings. The required measures include: (i) relocation of the change of locomotives for freight trains and the related train technical checks (brake testing) from border crossing points to the nearest marshalling yard; (ii) implementation of information technology solutions to facilitate advance processing by railways and border agencies; (iii) promotion of joint processing of freight trains by Customs administrations at marshalling yards; (iv) improving of scheduling to build on the first three points. The improvement in trade facilitation at the border is likely to have a greater impact on the operating speed of transit traffic for modest cost, than significant investments in upgrading at this time. A program of investment to address all the speed restrictions, investing to return to the current design standard of 100 km/hr and 120 km/hr, and improving border crossing times, would appear to be the more logical choice in the circumstances.

Summing up. Overall, the immediate annual savings yielded by these proposals could be equivalent to about eight percent of consolidated central government expenditures. The proposed increase in the MOP and child benefits, along the with start of debt service on the road company's arrears, would reduce that Graph L2-to 6.7 percent. But this package assumes a fairly radical pace of reforms, including the immediate consolidation of under-enrolled classrooms within schools and among schools and an immediate 50 percent cut in area-based payments to farmers. Social pressures and administrative constraints may slow the pace of reform.

In 2010, the principal expenditure savings will instead continue to come from short term controls over expenditure aggregates: freezes on pensions and wages and cuts in discretionary spending and capital works. The impact of the efficiency measures proposed in this report will take more time to materialize. The Government should, nevertheless, make an immediate start. While the fiscal impact of these reforms will be evident over the medium term, their most important impact will be on the quality of public services. The reforms will stand Serbia in good stead even after economic growth resumes.

Possible Directions of Personal Income Tax Reform in Serbia

Milojko Arsić*
Saša Ranđelović*
Nikola Altiparmakov**

The existing mixed personal income tax system in Serbia must be reformed given that it does not satisfy most of the criteria used to evaluate personal income tax models (such as horizontal and vertical equity, economic efficiency, simplicity, revenue yield, international competitiveness et al). Experience of other countries and analyses of various models of income taxation in the context of Serbia's current performance and development priorities have led to the assessment that Serbia has three solutions at its disposal: to introduce a flat-rate tax system or a simpler version of the dual or synthetic personal income tax models. The below text begins with a theoretical analysis of the advantages and disadvantages of the mentioned models and then discusses a series of income tax simulations to approximately assess the main elements of alternative tax models (tax rates, tax-free income threshold et al) which would generate equal revenue yield. No matter which model is selected, the efficient implementation of the reform of this segment of Serbia's tax system will not be successful unless the general public is informed about the reasons why a given model was selected and its effects.

Introduction

The tax system reform constitutes an important segment of the overall economic reforms launched in Serbia in 2001. New regulations on corporate and property taxes, compulsory social insurance contributions, excise and turnover tax (the VAT since 1 January 2005), adopted in the 2001-2009 period, fundamentally changed the institutional framework of these public revenues. The new Personal Income Tax Law adopted in 2001 did not, however, effect a crucial turnabout in the personal income tax policy; rather, it reaffirmed the so-called mixed taxation system which is still applied in Serbia. This form is, however, rare in contemporary tax systems. The reform of the personal income tax system is thus the chief tax reform Serbia faces in the next few years.

As opposed to some other forms of taxes characterized by a relatively high uniformity of solutions, countries across the world, including the EU member-states, apply very diverse personal income tax models. This diversity is the consequence of numerous and complex effects which this form of taxation has on economic efficiency, the labor market, international competitiveness, income redistribution et al. It must also be underlined that the real economic and social effects of applying a certain form of taxation may vary considerably from the predictions made by economic theory. Attaching different importance to the mentioned effects results in the application of essentially different solutions by various countries. However, the *synthetic*, *flat-rate* and *dual* personal income tax models now predominate in the world; most countries have selected one of them as the main model and subsequently incorporated elements of other tax models.

This is why the selection of a personal income tax model for Serbia needs to be preceded by a detailed analysis of the advantages and disadvantages of each of the models, an analysis which will not only take into account the theoretically expected implications of applying a specific form of taxation, but the practical experience of countries that have applied those forms of taxation as well. Moreover, the selection of a specific tax model must take into consideration the features of Serbia's economy and its development ambitions, the performance of its tax administration and the level of tax ethics.

This paper comprises six sections. *Section 1* gives an overview of the main features of the existing personal income tax system in Serbia. *Section 2* lists the criteria used for evaluating various personal income tax models. These criteria are used for evaluating both the current Serbian personal income tax model and the alternative tax models that may be introduced within the framework of the reforms. *Section 3* gives a detailed analysis of the personal income tax model in Serbia on the basis of the above-mentioned criteria. *Section 4* provides a brief overview of personal income tax models applied in EU member-states. *Section 5* reviews the relevant options from amongst which Serbia can select

* Faculty of Economics, University of Belgrade and FREN.
** USAID Serbia Economic Growth Activity Project.

a personal income tax model. *Section 6* simulates the effects of the hypothetical application of various versions (flat-rate, dual or synthetic) of personal income tax models in Serbia.

1. Personal Income Tax Model Applicable in Serbia

The existing mixed personal income tax model is based on a combination of schedular and complementary (annual) taxation of incomes of natural persons. The schedular component of taxation, which predominates in the Serbian personal income tax system, entails the taxation of income from various sources at the moment of income creation –via withholding or in accordance with the decision of the tax authority. All incomes of natural persons are in that sense categorized in eight classes and each income class is taxed separately (in accordance with specific regulations).

Table L3-1. Serbia: Personal Income Tax Rates

Source of income	Statutory rate	Deductible costs/non-taxable amounts	Effective tax rates
Income from self-employment	10%	-	10%
Salary/wage	12%	non-taxable limit - RSD 5,938	10,35%[1]
Income from africulture and forestry	14%	-	14%
Income from authorship rights, related rightsand intelectual property rights	20%	34%, 43%, 50%	10%, 11,4%, 13,2%
Income from capital	20%	-	0%, 16%, 20%[2]
Income from immovable property	20%	20%	16%
Capital gains	20%	-	0%, 20%[3]
Other income	20%	20%	16%

Source: Personal Income Tax Law, calculated by the authors.
1) Effective tax rate on an average monthly wage in Serbia, May 2009.
2) Income from interest rates on dinar and foreign currency deposits is exempted from taxation (until 31 December 2009); the effective tax rate on dividends amounts to 16% given that the dividend tax base for residents stands at 80% of dividend income.
3) Income from capital gains from selling securities and shares is exempted from taxation until 31 December 2009.

In addition to withholding, natural persons, who are residents of Serbia and whose overall annual income from the above mentioned sources (apart from capital income, capital gains and some other types of income) exceeds the statutory threshold, are liable to pay a so-called annual surtax on income exceeding the tax-free threshold. The tax-free threshold equals three (for residents-citizens of Serbia) i.e. five (for foreign residents) average annual wages in Serbia in the given year. In 2008, the tax-free threshold stood at 1.6 million dinars (approximately 18.5 thousand euros) for residents – citizens of Serbia and at around 2.7 million dinars (approximately 31,000 euros) for foreign residents. Income exceeding the threshold is taxed at progressive tax rates of 10% and 15% by the application of the segmented progression method.[1]

The breakdown of tax revenues by type of income must be borne in mind when analyzing the existing personal income tax system and planning tax reforms. Labor income accounts for 90% and capital income for 10% of the registered taxable personal income in Serbia. Wages account for over 80% of the registered taxable income and thus constitute the most important personal income category in Serbia.

1 The 10% tax rate on taxable income is paid by residents – citizens of Serbia on incomes not exceeding six annual average wages in Serbia (3,288,528 dinars in 2008) and the 15% rate on incomes exceeding this threshold. The latter threshold for foreign residents equals eight average annual wages in Serbia (4,384,704 dinars in 2008).

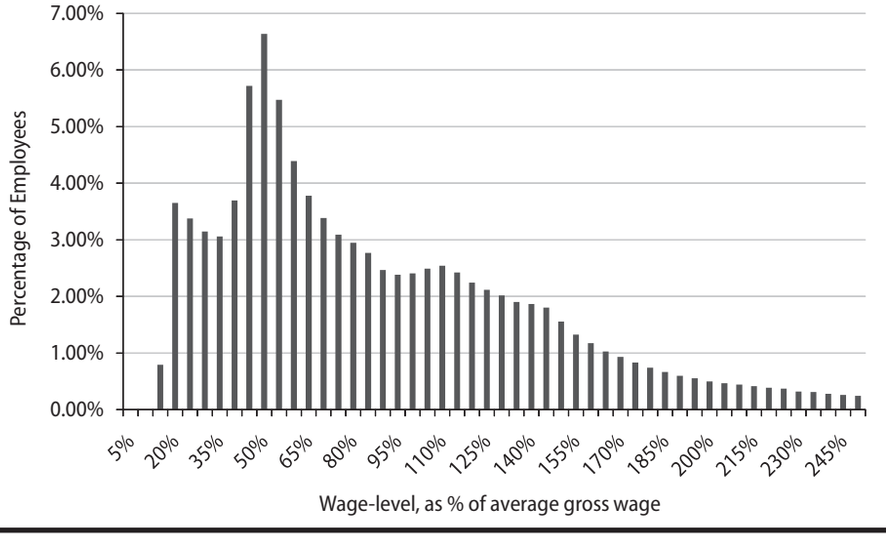
Table L3-2. Breakdown of Taxable Income by Income Class

Source of income	Tax collections (% of GDP)	Taxable income (% of GDP)	Structure of taxable income (%)
Salary/wage	3.7%	37.4%	82.0%
Selfemployment	0.2%	1.5%	3.3%
Authorship fees	0.1%	0.7%	1.4%
Other types of labor income[1]	0.2%	1.6%	3.4%
Dividends	0.3%	2.8%	6.2%
Interest	0.1%	0.6%	1.4%
Immovable/movable property	0.1%	0.7%	1.5%
Capital gains	0.1%	0.3%	0.7%
Games on chance	0.0%	0.1%	0.2%
Total	**4.8%**	**45.6%**	**100.0%**

1) Income from personal service contracts accounts for over half of "other" labor income.

The tax treatment of wages will clearly be the central issue of any reform of the personal income tax system. Hence it is appropriate to closely analyze the wage distribution of nearly two million employees in Serbia – Graph L3-3.

Graph L3-3. Wage Distribution in Serbia (2008 data)



The wage distribution is not symmetric but is instead left-skewed – earnings of nearly 63% of the employees are lower than the average wage, while the median wage equals 75% of the average wage. Only 8% of the employees earn more than double the average wage. Apart from the strong concentration of wages round (and somewhat above) the average wage level, there is a significant concentration - of around 20% workers - round the minimum wage level.

2. Criteria for Analyzing the Current Income Tax System

A personal income tax system can be evaluated on the basis of the following criteria:

- Horizontal (and vertical) equity,
- Economic efficiency,
- Administrative and compliance costs,
- International competitiveness,
- Effects on labor demand,
- Revenue yield.

An important consequence of having a number of criteria for evaluating a personal income tax system is that not one form of tax is "superior" to others under all the criteria (i.e. there is no optimal form in terms of Pareto – a form better than all the others under at least one criterion and not worse than any of the others under any criteria). The absence of a "superior" form of taxing personal income has resulted in the application of very diverse personal income tax models across the world. Moreover, income tax systems applied in developed countries are constantly brought into question and re-examined, which has led to occasional more or less radical changes in the way personal income is taxed. The evaluation of the desirability of various personal income tax forms is strongly influenced by political (ideological) considerations, such as the conviction about the justifiability of income redistribution via taxation (progressive taxation, the justifiability of tax reliefs, different treatment of various forms of income).

A short description of each criterion needs to be given before the Serbian personal income system is evaluated in accordance with them.

Horizontal equity implies that all citizens who earn the same income in one year, regardless of the source of income, will be liable to pay (in absolute and relative terms) the same personal income tax. Horizontal equity is achieved by applying the same effective tax rates to all forms of income. Vertical equity implies that citizens earning higher income have to earmark a higher percentage of their income to pay their taxes. Vertical equity is achieved by applying progressive rates in taxing personal incomes.

Progressive taxation can be direct or indirect. Under direct progressive taxation, incomes above specific thresholds are taxed at higher rates, e.g. an income not exceeding 30,000 dinars is taxed at a 10% and an income exceeding 30,000 dinars at a 15% rate. Indirect progressive taxation is achieved by taxing all revenues at a uniform nominal tax rate (e.g. 15%), but a fixed part of the income is tax-free (e.g. 10,000 dinars). In this case, a tax payer with an income of 20,000 dinars is taxed at a 7.5% effective tax rate, while a tax payer earning 100,000 dinars is taxed at a 13.5% effective tax rate.

Although there is a relatively high degree of agreement that the tax system ought to ensure horizontal equity, there is much less agreement on the economic and social justifiability of vertical equity.

A tax fulfills the prerequisite of economic efficiency if it does not change relative prices in the economy. If a tax changes relative prices, it affects the profitability of specific activities and thus the allocation of resources. Specifically, the existence of different effective tax rates for different types of personal income implies that taxes affect the profitability of various income generation activities. Levying different taxes on specific types of income also encourages taxpayers to falsely classify the generated income. Moreover, progressive taxation affects labor supply and demand and thus the allocation of resources. Economists are of the view that taxes should be as allocatively neutral as possible i.e. that they should not change relative prices or affect the allocation of resources.

The implementation of any tax system causes certain administrative costs to be borne by the tax administration (collection and enforcement costs) and certain compliance costs to be borne by the tax payers (record-keeping, submission of tax returns and the accompanying documentation). In general, more complicated tax systems result in higher administrative and compliance costs. A tax form is more complicated if it envisages the application of a number of tax rates and a greater number of tax holidays and benefits. The costs of personal income tax implementation can be high, as illustrated by the example of Canada, where administrative and compliance costs were estimated at 7% of collected tax revenues. Therefore, when choosing between alternative tax systems, advantage should be given to a tax system with lower administrative and compliance costs, if the other circumstances are the same.

Taxing labor income within the income tax system directly affects the cost of labor and thus labor supply and demand. While developed countries with low unemployment rates analyze in detail how taxation affects people's readiness to work (labor supply), effect of taxation on labor demand is of primary relevance to Serbia, given its very high unemployment rate. As the labor market is extremely heterogeneous, the crucial consideration is how taxation affects demand for less qualified workers (elementary and secondary school graduates) – the labor force segment suffering the most from unemployment. An analysis of the effect of taxation on labor demand must also take into account social insurance contributions, which are also applied to labor income and often considerably exceed taxes.

Personal income tax taxes incomes from factors of production, labor and capital, thus directly affecting the costs and profitability of production. Hence, income tax constitutes a factor of a country's international competitiveness given the high international mobility of capital. Investors are concerned not only by the income tax burden but by the total

fiscal burden of a specific factor of production as well.[2] It must, however, be borne in mind that many other factors, not only income tax, affect the international competitiveness of an economy. Compensating for weaknesses of other elements of the economic environment by cutting income tax is relatively expensive while the scope of such measures is limited.

The revenue yield aspect, measured as the tax revenues to GDP ratio, is especially relevant with respect to macroeconomically important taxes, such as the personal income tax. As per personal income tax, the revenue yield depends on macroeconomic factors, the main tax parameters and the degree of compliance.

The employment rate is the chief macroeconomic factor affecting the personal income tax revenue yield, while the value of the property generating taxable income (the value of the capital and the property, the level of savings, capital and property price flows, et al) has lesser effect on the revenue yield.

The personal income tax revenue yield crucially depends on tax parameters such as: tax rates, the level at which tax progression begins and the intensity of progression (if any), the tax-free threshold, the number and scope of tax exemptions, et al. The personal income tax revenue yield does not depend directly on whether the tax is synthetic, flat-rate or dual; each can achieve the same level of revenue yield if the main tax parameters (tax rates, tax exemptions, et al) are properly selected.

The personal income tax revenue yield also depends on the degree of compliance, which hinges on the performance of the tax administration and the level of tax ethics.

3. Performance of the Serbian Income Tax System and Reasons for its Reform

The personal income tax system in Serbia significantly violates the principle of horizontal equity. The differentiated regimes of taxing income from various sources, i.e. above all the different statutory tax rates and sets of reliefs (deductions), have resulted in different effective income tax rate levels in Serbia. Data in Table L3-1 lead to the conclusion that four different statutory tax rates apply to eight classes of income and that the number of effective tax rates is twice as high (eight) due to the numerous deductions and exemptions. The number of statutory and effective tax rates and their ranges (10%-20% in case of statutory and 0%-20% in case of effective tax rates) indicate the absence of any horizontal equity in taxation. Therefore, under the Serbian personal income tax system, two persons with similar economic power are exposed to quite different tax burdens, depending on the structure of their incomes.

The degree of progressivity and, thus, of vertical equity is extremely modest. Given that incomes from all sources are taxed proportionally, apart from wages where there is a mild indirect progression in taxation (due to the existence of the tax-free threshold), the schedular component of the personal income tax in Serbia does not provide for vertical equity in taxation. The state therefore introduced annual (sur)taxation of income at progressive tax rates to ensure a degree of vertical equity and collect additional tax revenues. The effect of the annual personal income surtax on vertical equity in taxation has been assessed as extremely limited, above all because of the relatively high tax-free threshold. This conclusion is corroborated by the fact that only around 17,000 people, i.e. less than 1% of all tax payers, filed annual personal income tax returns in 2008. The high threshold beyond which the higher, 15% tax rate is applied additionally cushions the effects of annual income tax on the vertical equity of the personal income tax system in Serbia. Furthermore, exempting specific types of income from the annual personal income tax base (although there are economic justifications for some of these exemptions) undermines the horizontal equity in taxation as well.

By unequally treating various types of income, the current personal income tax system changes relative prices and affects the allocation of resources – which is economically inefficient. Different tax burdens on income from different sources may impact the tax payers' economic decisions, which may lead to a sub-optimal level of economic efficiency. The differentiated tax treatment of income from various sources, the great number of exemptions from the general taxation regime (26 types of income, mostly socio-political in character, are exempted from taxation) – undoubtedly negatively affect the allocative neutrality of the tax.

Although personal income tax administrative and compliance costs in Serbia have not been estimated, they may be qualified as moderate on the basis of comparison with similar systems in the world. The costs are relatively low due to the domination of withheld taxes, the small number of tax payers liable to pay the annual income surtax, modest tax exemptions and deductions within the annual income surtax framework et al. On the other hand, tax administration costs are

2 Apart from income tax, labor income is also burdened by social contributions, while profit is burdened by the corporate profit tax.

upped by the differentiated approach to various forms of income and the existence of numerous exemptions from the general taxation regime.

Wage tax in Serbia is low, but the total fiscal burden on labor is moderately high, wherefore the overall fiscal burden on wages has specific negative impact on labor demand. The high fiscal burden on labor is the result of high social insurance contribution rates. Serbia's public finance projections lead to the conclusion that it will not be possible to reduce the average fiscal burden on labor in the foreseeable future. Rather, it may even be necessary to increase the fiscal burden to an extent. The high unemployment rate of the less qualified labor force, however, indicates that there are reasons for reducing the fiscal burden on wages that are considerably lower than the average wage within the reform of the personal income tax system.

Although the total fiscal burden on labor in Serbia is somewhat higher than the Central and Eastern Europe average, given that this difference is slight, its effect on the country's international competitiveness is neutral. It can thus be concluded that although the fiscal burden on labor in Serbia is relatively high, it constitutes neither an advantage nor a disadvantage in terms of competitiveness. As noted in the assessment of the impact of the fiscal burden on labor demand – it may be concluded that there is no room to increase competitiveness by reducing the fiscal burden on labor in Serbia. Reducing the costs of labor to improve international competitiveness can also be achieved by ensuring the slower growth of real wages than of productivity and/or the real depreciation of the national currency. Given the circumstances in Serbia, these mechanisms, rather than the reduction in fiscal burden, appear to be more appropriate for improving the country's competitiveness.

Personal income tax revenue yield is relatively low in Serbia. The 5% income tax revenue yield in Serbia is considerably lower than the EU 27 average (8% in 2007). The data in Table L3-2 show that only five of the 27 EU member-states have smaller income tax revenue yields than Serbia. It can also be noticed that the income tax revenue yield is higher in more developed (old) EU member states than in the less developed states.

Table L3-4. Serbia and the EU: Income Tax Revenue Yield and Top Statutory Personal Income Tax Rates

	Prevailing income tax model[1]	Personal Income Tax (% of GDP)[2]	Top statutory personal income tax rate (%)
Denmark	dual	25.2	59
Sweden	dual	14.6	56.4
Finland	dual	13.0	50.1
Belgium	synthetic/dual	12.0	53.7
Italy	dual/synthetic	11.4	44.9
United Kingdom	synthetic	10.5	40
Austria	synthetic/dual	10.0	50
Germany	synthetic/dual	9.2	47.5
Spain	synthetic	7.7	43
France	synthetic	7.5	45.8
The Netherlands	synthetic	7.4	52
Luxembourg	synthetic	7.4	38
Ireland	synthetic	7.3	41
Hungary	dual/synthetic	7.1	36
Lithuania	flat-rate	6.7	25
Cyprus	synthetic	6.3	30
Estonia	flat-rate	6.1	21
Latvia	flat-rate	6.1	25
Malta	synthetic	5.9	35
Slovenia	dual	5.7	41
Portugal	synthetic	5.7	42
Poland	flat-rate	5.3	40
Serbia	*mixed*	*4.8*	*20*
Greece	synthetic/dual	4.7	40
Czech Republic	flat-rate	4.3	15
Romania	flat-rate	3.3	16
Bulgaria	flat-rate	3.2	10
Slovak Republic	flat-rate	2.6	19
EU 15		10.2	59
EU 12 (new members)		5.2	36
EU 10 (new members excluding Malta and Cyprus)		5.4	36
EU 27		8.0	59

Sources: Taxation Trends in the EU, 2009 Edition, European Commission, Luxembourg, 2009, Public Finance Bulletin, December 2008, Ministry of Finance of the Republic of Serbia and the authors' calculations.
1) Hardly any country applies a pure theoretical synthetic/dual/flat-rate income tax model. This is why the EU states have been categorized by the performance i.e. the predominant features of the models.
2) Data on personal income tax to GDP ratios in the EU refer to 2007, because the appropriate data comparable across all EU states have not been officially published yet.

The low personal income tax revenue yield is the outcome of the negative effects of all three groups of factors: macroeconomic factors, tax factors and the degree of compliance.

The low personal income tax revenue yield in Serbia is the consequence of the very parameters of the tax. The average effective tax rate and the top tax rate in Serbia are low compared with those in other countries. The average effective tax rate on personal income in Serbia, standing at 10.8%, is much lower than in EU states, while the top statutory personal income tax rate in Serbia stands at 20%. Of the 27 EU member-states, as many as 23 apply the top personal income tax rate exceeding 20%, and only four a rate under 20%. The average top statutory rate in the 27 EU member-states stands at 37.8%, nearly double the top personal income tax rate in Serbia.

Widespread grey economy has also contributed to the low personal income tax revenue yield. Full- or part-time work in the grey market reduces labor income tax revenues, whilst resort to various creative bookkeeping measures et al decreases capital income tax revenues. Some types of income, such as personal income from rent of business or residential facilities, mostly go untaxed. Improving the collection of personal income tax calls not only for a reform of the tax regulations but for a radical reform of the Tax Administration as well.

All of the above leads to the conclusion that the current personal income tax system in Serbia does not provide for horizontal (or vertical) equity in taxation, is not allocatively neutral, is relatively complex and yields less revenue, vis-à-vis those applied in EU member states. Hence the assessment that a fundamental reform of the personal income tax system in Serbia is necessary if the radical tax reform is to be completed.

4. Different Personal Income Tax Models in EU States – Lessons for Serbia

Developed countries rarely apply pure, theoretical personal income tax models. Most EU states, however, apply a specific version of one of the three tax models: synthetic, flat-rate and dual income tax (which are modified and adjusted to their individual objectives and circumstances).[3]

The synthetic personal income tax system entails taxing all types of income (labor and capital income) a person or a family earned over a year by one comprehensive tax at progressive tax rates. Progressive taxation begins at a relatively low level – usually at a level exceeding average labor income by 30-50%. Maximum tax rates are relatively high, as shown in Table L3-3. Synthetic tax is characterized by the existence of numerous specific tax expenditures, differing from one country to another. These tax expenditures are meant to stimulate socially desirable behavior (resolution of housing issues, education, cutting energy consumption, humanitarian activities et al). The right to tax exemptions or tax credits on these grounds must be documented and the tax administration checks the submitted documents – which increases administration costs.

The *dual personal income tax* was first introduced in Scandinavian countries in the 1980s in response to the globalization of the capital market. The Scandinavian countries had until then applied the synthetic personal income tax model characterized by extremely high progressive tax rates on all types of income, including capital income. Given the high international mobility of capital, high tax rates on personal income combined with high tax rates on corporate income taxes led to the flight of capital from these countries and, consequently, to lower investments and a slowdown in economic and employment growth. Scandinavian countries addressed these problems by introducing a dual tax characterized by different taxing of labor and capital incomes. The chief idea behind the dual tax model is that labor income is taxed at progressive rates and capital income at a uniform rate equaling the lowest labor income tax rate.[4]

The *flat-rate personal income tax* is characterized by taxing of labor income at a uniform rate and may include a tax-free threshold and minimal tax exemptions on other grounds. The proposed theoretical formulations of this model do not envisage the taxing of capital income at all in order to avoid double taxation. However, most countries in practice tax capital income, chiefly by levying lower tax rates on capital than on labor income.

The synthetic income tax model (a specific form of it) is applied mostly in West European and North American countries, the dual tax model is applied in Scandinavian countries and the flat-rate tax model is applied in Central and

3 Apart from the listed taxes, the so-called negative income tax proposed by Friedman is also relevant. The negative income tax integrates social assistance programs and taxing income whereby persons with incomes below a certain level receive social aid and persons with incomes over a certain level pay taxes. Although no country has based its income taxation on the negative income tax, some developed countries have incorporated some of its elements in their tax systems.

4 This type of taxation does not necessarily mean that capital income is privileged over labor income. Capital income has already been taxed because companies pay profit tax, wherefore taxation of capital income upon payment of dividends is a classical example of double taxation of one and the same income.

East European states (which joined the EU in 2004 and 2007).

A tax model is frequently assessed on the basis of whether it can ensure maximum revenue yield (measured by the collected tax revenues) at a controlled (moderate) tax burden level. Although income tax performance (revenue yield, tax burden level, et al) varies from one country to another, one can notice a specific regularity when observing a group of countries.

Table L3-5. Tax Rates and Personal Income Tax Revenue Yield in EU Member-States, by Tax Model

		personal income tax model		
		flat	dual	synthetic
tax rate	average effective[1]	16.8	35.1	24.1
	average top	22.3	48.5	43.3
personal income tax revenue (% GDP)	average	4.9	13.1	8.2
	minimum	2.6	5.7	4.7
	maximum	6.7	25.2	12.0

Source: Authors' calculations,
1) Effective tax rate on annual labor income of 100,000 USD of a married tax payer without children.

As per the tax burden, data in Table L3-4 indicate that the top (nominal) income tax rate is at an average the highest in states applying the dual income tax model (48.5%), that it is somewhat lower in states applying the synthetic tax model (43.3%) and the lowest in states that opted for the flat-rate tax model (22.3%).

The top nominal income tax rate is obviously directly correlated with the average effective tax rate, which is *per se* a better measure of the tax burden vis-à-vis the nominal tax rates. The average effective income tax rate is thus the highest in states applying the dual tax model (35.1%), it is lower in states applying the synthetic income tax model (24.1%), while the average effective tax burden on personal incomes is the lowest in states applying the flat-rate tax system (16.8%).

The above data also indicate that the difference between the average top statutory and average effective tax rates is relatively the greatest in the synthetic income tax system, smaller in the dual tax model and the smallest in the flat-rate tax system. Assessments are that the described ratio of the average top statutory tax rate and the average effective tax rate arises from the fact that the synthetic tax model provides for numerous reliefs (standard and non-standard deductions, tax credits et al), that the dual tax model also provides for specific reliefs, while the flat-rate model offers the fewest reliefs.

The weight of the effective tax burden obviously coincides with the income tax revenue yield of various income tax models (measured as income tax revenues to GDP ratio). On average, the personal income tax revenue yield is the highest in EU states applying the dual tax model (13.1% GDP), is somewhat lower in states applying the synthetic income tax model (8.2%) and the lowest in states with flat-rate tax models (4.9%). It should be noted here that the difference between the highest and lowest income tax to GDP ratios in EU states is the greatest in countries applying the dual tax system (from 5.7% to as many as 25.2% GDP), that it is smaller in states applying the synthetic income tax model (from 4.7% to 12% GDP) and the smallest in countries with the flat-rate tax system (from 2.6% to 6.7%). Although there is some regularity regarding the relationship between the selected income tax model and its fiscal revenue yield, the above data also indicate that each of the three income tax models can achieve the desired revenue yield effects if they are appropriately designed. This is corroborated by the fact that the income tax yield is greater in Lithuania (6.7%), which applies the flat-rate income tax model, than in Slovenia, which applies a tax model similar to the dual tax model, or in Greece (4.7%) which applies the synthetic tax model.

5. Options for Reforming the Personal Income Tax System in Serbia

Until ten or fifteen years ago, there was broad agreement amongst economists, and even greater consensus amongst politicians and the public at large, that synthetic tax was the most appropriate model for taxing personal income. This is why most transition countries introduced the synthetic personal income tax by inertia when they reformed their economic systems in the early 1990s. It was, however, soon noted that the application of this relatively complicated form of taxation met with major difficulties in countries with insufficiently efficient tax administrations and a relatively low level of tax ethics.

At the same time, developed countries saw growing empirical evidence that synthetic tax was unable to achieve its main objectives in practice, such as the progressive taxation of the richest citizens. Progressive taxation for the most part successfully covers labor income, while tax payers with high capital income find numerous legal avenues to avoid paying taxes at high progressive rates. Empirical research has also shown that the implementation of this tax is relatively costly, both for the tax administration and even more for the tax payers.

A number of alternative forms of personal income taxation were proposed to address the weaknesses and difficulties in applying synthetic tax; the flat rate tax and dual income tax had the greatest effects in practice. The main idea behind flat tax is to apply a flat rate to all labor income (with the possibility of introducing a tax-free threshold and allowing for minimum tax exemptions on other grounds) and not tax capital income. According to the dual personal income tax model, labor income is taxed at progressive rates, while capital income is taxed at a uniform rate equaling the lowest labor income tax rate.

Alternative personal income tax formulations have affected the practice of taxing personal income in two ways. *First*, some of the ideas in the proposals were incorporated in the synthetic tax model in developed countries (duality elements were introduced, progressivity reduced, procedures simplified, et al). *Second*, alternative taxes became the main form of taxing personal income in some countries. For instance, the Scandinavian countries apply a mixed personal income tax system based on the dual tax model.

Various versions of the flat-rate tax are the most widespread in European countries in transition. This form of taxation proved particularly suitable in countries without a modern and efficient tax administration, low tax ethics, countries aiming to attract as many as possible foreign investments with their simple tax systems. The Baltic states and Russia were the first to introduce such tax; they were followed by a wave of countries that abandoned the synthetic tax model and began applying a version of the flat tax: Slovakia in 2004 (19%), The Ukraine in 2004 (13%), Romania in 2005 (16%), Macedonia in 2007 (10%), Montenegro in 2007 (9%), Albania in 2008 (10%), Bulgaria in 2008 (10%), the Czech Republic in 2008 (15%).

6. Assessment of the Main Effects of Applying Different Personal Income Tax Models in Serbia

Given that Serbia is about to launch a reform of the personal income tax system which will entail the introduction of a version of the three above-mentioned personal income tax models (flat-rate, synthetic or dual), this section will review the advantages and disadvantages of each model and give an overview of the results of simulations of selected effects of various approaches to the personal income tax system reform in Serbia.

The first simulation illustrates some of the possible versions of the flat-rate and dual models which can increase personal income tax revenue by 1% - the amount lost by the wage tax cut in 2007. The increase in revenue reflects the assessment that the personal income tax system reform must provide for additional revenue, but should not be perceived as recommendation that the increase be precisely 1%. The estimates were made on the assumption that the average wage[5] amounts to 50,000 dinars, a rounded-off amount of the expected gross wage in 2010.

The assessment of the parameters of the synthetic tax system, which would generate a 1% increase in tax revenues, is relatively complicated because it depends on a large number of factors (number of tax rates and their thresholds, tax-free income threshold, tax rate thresholds, treatment of marital status, types and amounts of standard and non-standard tax holidays et al). The extent to which these factors affect revenues is illustrated by estimates that losses of revenue due to tax expenditures within the synthetic tax model range from 1% GDP in Germany to 5% in the USA. On the assumption that Serbia would allow for relatively modest tax expenditures (like Germany), and that the other elements of the tax would be similar to those in the presented versions of the dual tax model, the application of the synthetic tax model would call for setting 3% to 5% higher rates to achieve the identical revenue increase that would be provided for by the dual tax model.

I. Flat-rate tax:

Scenario 1: 15% flat tax, retention of the 6,000 dinar tax-free monthly wage threshold.

Scenario 2: 18% flat tax and increase in the tax-free wage threshold to 15,000 dinars a month.

5 A wage is the sum of the net wage, tax and contributions paid by the employee.

II. Dual income tax:

Scenario 3: Dual income tax taxing capital income at an (effective) 10% rate, retention of the 6,000 dinar tax-free wage threshold and the application of progressive tax rates to wages – a 10% rate on wages under 23,000 dinars and a 20% rate on wages exceeding this amount.

Scenario 4: Dual income tax taxing capital income at an (effective) 15% rate, increase in the tax-free wage threshold to 16,000 dinars and the application of progressive tax rates to wages – a 15% rate on wages under 50,000 dinars and a 25% rate on wages exceeding this amount.

III. Combined flat and dual tax:

Scenario 5: 10% (nominal and effective) tax rate on capital income, flat nominal 20% tax rate on wages and an increase in the tax-free wage threshold to 15,000 dinars.

Scenario 6: 15% tax rate on capital income, flat nominal wage tax rate of 20% and the increase in the tax-free wage threshold to 17,500 dinars.

IV. Synthetic tax[6]

Scenario 7: The tax-free threshold would stand at 6,000 dinars a month (72,000 dinars a year) and income would be taxed at progressive rates – 13% on income under 23,000 dinars a month (276,000 dinars a year), and 23% on income above that amount.

Scenario 8: The tax-free threshold would stand at 16,000 dinars a month (192,000 a year) and income would be taxed at progressive rates – 20% on income under and 30% on income exceeding 50,000 dinars a month (600,000 dinars a year).

Although all eight scenarios of the personal income tax reform provide the same revenue yield, they differ significantly amongst themselves with respect to their economic implications. The economic implications of each of the versions are assessed on the basis of the criteria used to analyze the current personal income tax system in Section 2 of this paper.

Greatest horizontal[7] and vertical[8] equity would in principle be achieved by the synthetic tax model. The flat rate tax would achieve horizontal equity in the subset of labor income and the subset of capital income, but not in between these two subsets. Depending on the tax-free wage threshold level, this model would achieve vertical equity as well, but not to the degree in which it would be achieved by the synthetic tax model, and it would not cover all capital incomes. The dual tax system would perform similarly as the synthetic tax model in the subset of labor income but would achieve only horizontal equity in the capital income subset. Of course, the dual tax system would not provide for horizontal equity between labor and capital income.

The flat rate tax would be the most appropriate from the viewpoint of economic efficiency. A uniform labor income tax rate causes the least distortion in market prices, and taxes thus affect the allocation of resources the least. The greatest distortions would be achieved within the synthetic tax, characterized both by the existence of progressive rates and numerous tax exemptions and tax expenditures. Dual income tax would cause less distortion than the synthetic tax because capital income would be taxed at a uniform rate and labor income would be taxed similarly as in the synthetic tax model.

The application of the flat tax is expected to generate the lowest administrative and compliance costs, because the simplicity of the model implies small costs both for the tax administration and the tax payers. Synthetic tax would incur the greatest administrative and compliance costs because of its relatively complex structure, while the dual income tax model would generate somewhat lower enforcement costs than the synthetic tax system.

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6 The synthetic tax simulations were conducted on the assumption that the tax expenditures would be relatively modest and amount to 1% GDP. The simulated tax rates in the synthetic system are thus tangibly higher than the equivalent rates in the dual system (which assumes the absence of tax expenditures). The difference in rates between the two systems increases with the increase in the tax-free threshold – which is applied only to wages in the dual system and to all types of income in the synthetic tax system.

7 Horizontal equity is the principled feature of the synthetic tax model; it is deviated from to respect the individual features of the tax payers when setting the amount. Two tax payers with identical earnings may have different tax obligations because they differ in e.g. marital status and the way they spend the earned income (whether they spend money on items subject to tax relief – investments in housing, education, et al - or not).

8 Vertical equity in practice mostly applies to labor income since it is impossible to efficiently tax capital income.

The assessment of the effects of the listed income tax systems on international competitiveness and the labor market departs from the assumption that alternative tax systems are designed to provide the same revenue yield. Thus, the implementation of alternative income tax systems would pose an equal total tax burden on the tax payers. However, the distribution of the tax burden by tax payer would differ considerably. The flat rate would equally burden all incomes, while the synthetic and dual models would pose less of a burden on lower incomes. Thus, lower income would probably be more burdened in case the flat rate is selected; this would negatively affect labor demand and probably international competitiveness.[9] This weakness of the flat rate could be compensated for by increasing the tax-free wage threshold.

On the other hand, tax models which are simpler and cheaper to apply, such as the flat rate, have a major advantage in terms of international competitiveness. To sum up, the introduction of a higher tax-free wage threshold, along with its characteristically low administrative and compliance costs, could substantially compensate for the weaknesses of the flat rate tax with respect to labor demand and international competitiveness.

Although all versions have been designed to provide the same revenue yield, the assessment is that the propensity for tax evasion would be greater if versions, characterized by progressive rates and providing for numerous tax exemptions and deductions, were implemented. This may result in collecting less revenue from such (synthetic and dual) taxes than the above calculations show.

Given that wage income taxes account for 80% of all income tax revenue, we shall now analyze in greater detail how the various reform scenarios, with the given level of tax revenues, impact on the level of fiscal burden on different wage levels. This analysis is relevant from several points of view. It indicates the degrees of income redistribution achieved by the different tax systems; the greater the differences in the burden on various wage levels, the more pronounced the degree of redistribution. The analysis simultaneously indicates the extent to which tax policy affects changes in relative labor costs and thus its effect on labor supply and demand.

The analysis focuses on the flat rate and the dual tax models and their combinations. The synthetic tax model was not included because of the large number of variables (tax-payer's marital status, number of dependants, the extent of tax expenditures, etc) which affect the level of burden on wages and the level of which is unknown. In the reviewed reform scenarios, the total fiscal burden on wages is arrived at by adding up the hypothetical income tax burden on wages and the current social insurance contribution rates. The determination of the total fiscal burden on different wage levels in various reform scenarios is relevant for the analysis of international tax competitiveness.

Scenario 1 implies the lowest degree of progressivity and thus the lowest degree of income redistribution via wage taxation. To generate additional revenue of 1% of GDP,[10] this scenario would imply increasing the current fiscal burden on all two million employees in Serbia. On the other hand, Scenario 4 entails an extremely progressive distribution which would imply the reduction in the fiscal burden on two-thirds of the workforce, while the fiscal burden on the remaining third of the workforce with the highest incomes would increase considerably. Therefore, this scenario implies the strongest income redistribution via tax policy. In Scenario 5, one-fifth of Serbia's workforce earning wages verging on minimal would be protected from the increase in tax, which would befall employees with higher earnings. The degrees of progressivity and thus the degrees of redistribution in the other scenarios (2, 3 and 6) range between those in Scenarios 1 and 4. A higher degree of progressivity implies greater protection of employees with lower incomes but also a higher degree of burden on employees with higher incomes.

9 This assessment departs from the fact that wages in the industrial sector, which manufactures most of the tradables, are lower than the average wages in Serbia. This is why taxes imposing less of a burden on lower wages would have an advantage in terms of the international competitiveness of Serbia's economy. To reiterate, wage competitiveness can be achieved in other ways as well, not only by tax policy.

10 The presumption that the additional 1% GDP revenue is ensured by all scenarios significantly influences the increase in the average degree of burden in each of the six scenarios vis-à-vis the current state of affairs. The six scenarios differ with respect to the distribution of the additional burden amongst tax payers earning different wages.

Table L3-6. Fiscal Burden of Wages (per 100 dinars of net wage) by Scenario

Level of salary	% of employees	Current PIT Law	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
50% of average salary (minimum salary)	20%	61.0	66.1	56.7	58.7	53.1	60.0	54.9
75% of average salary (median)	30%	63.3	69.2	64.8	67.9	60.0	68.8	65.0
average salary	*15%*	*64.5*	*70.7*	*69.2*	*72.9*	*63.6*	*73.6*	*70.6*
150% of average salary	20%	65.7	72.4	73.8	78.2	75.8	78.7	76.6
250% of average salary	10%	66.7	73.7	77.7	82.7	86.9	83.0	81.7
350% of average salary	4%	67.1	74.3	79.5	84.7	92.1	84.9	83.9
500% of average salary	1%	67.4	74.7	80.8	86.2	96.2	86.4	85.7

Conclusion

Numerous shortcomings of the existing mixed income tax model in Serbia indicate the need for its radical reform. As opposed to the worldwide predominance of VAT in levying *consumption tax*, extremely diverse *personal income tax* models are applied in various countries, including EU member-states. The chief tax models applied in developed countries comprise the synthetic tax, the flat rate tax and the dual income tax. Each of these personal income tax models can be evaluated on the basis of a number of criteria and the choice of a specific model depends on the relevance ascribed to the criteria, e.g. whether greater importance is attached to economic efficiency and international competitiveness or tax equity.

A country's choice of a specific tax model does not as a rule mean that this model is applied in its pure theoretical form. The predominant practice in the world, especially in the last two decades, has involved selecting one tax model as the basis and then incorporating various elements of other models. The combination of various tax models is the consequence of the fact that none of the theoretical models are superior to others with respect to the relevant criteria.

Looking at the relevant criteria by which the personal income tax system is evaluated, on the one hand, and the current performance and development priorities of Serbia's economy and the performance of its tax administration, on the other, leads to the assessment that it would be best if Serbia introduced a flat personal income tax rate or a simpler version of the synthetic or dual tax model. The flat rate model is superior with respect to most economic criteria (allocative neutrality, effects on the labor market, low administrative and compliance costs et al); the introduction of a high tax-free wage threshold would ensure its moderate progressivity. In the event the state opts for a version of the synthetic or dual tax model – the assessment is that it would be best to go for the simplest possible model with the fewest tax rates (optimally two tax rates) and the fewest tax exemptions. Selection of a specific tax form as the basis of the personal income tax system does not, of course, rule out the possibility of also applying some elements of other tax models.

No matter which tax model is selected, the authors are of the view that its efficient application calls for a campaign communicating in detail to the public the features of the tax and how its implementation will affect citizens with specific income levels. If the public is not informed in detail, the general lack of understanding, along with lobbying by interest groups, may generate strong resistance to the tax reform and the abandonment of the main ideas of the reform and even the reform itself. The efficient application of a more complex (synthetic or dual) tax model calls also for thorough and relatively long-lasting preparations of the tax administration.

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