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OF ECONOMIC TRENDS AND POLICIES IN SERBIA

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Quarterly Monitor of Economic Trends and Policies in Serbia (*QM*) was created by Kori Udovički, who was the Editor-in-Chief of the first six issues of *QM*. For issues seven to twenty three, the Editor-in. Chief of *QM* was Prof. Pavle Petrović. Since issue twenty four, the Editor-in-Chief of *QM* is Diana Dragutinović.

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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

This column is the right place for the editor of the *Quarterly Monitor* to express her position on the appropriateness of the macroeconomic policy, considering the state of the economy; to identify key challenges and risks faced by economic policy makers; to offer an unbiased evaluation of new initiatives; to suggest a framework economic policy believed to be appropriate in light of the completion of the Program with the International Monetary Fund (IMF) and already initiated negotiations on a new Program.

What did the recently concluded Program bring? It certainly contributed to Serbia not facing the problem of financing its balance of payments and budget deficits. Even though the "glory" of the Vienna Initiative has largely faded, it is owing to it that the capital flight from the domestic banking system was stopped, since foreign banks voluntarily committed themselves not to reduce their exposure to Serbia. This initiative is again being discussed, but as a possible model to solve the Greek debt crisis. Also, through *ad hoc* measures, such as the freezing of wages and pensions or limiting certain expenditures for instance, fiscal adjustments were carried out, while left,room for fiscal stimuli, keeping the deficit at a manageable level as a result. The rules based fiscal responsibility framework is embedded into the Budget System Law to make sure that fiscal adjustment would continue, with necessary changes in the structure of public spending. The Fiscal Council has been established with the role to assess the credibility of fiscal policy in the line with the fiscal rules, and to ensure transparency and accountability in pursuing fiscal policy. The Fiscal Council made its first pronouncement concerning the Government's negotiations with trade unions with the assessment that, except for the increases in wages and pensions prescribed by the Law, there was no room for additional improvements to the material position of employees and pensioners. The changes made to the Pension and Disability Insurance Law represent a move forward in the right direction, but an insufficient one, considering that reform-oriented countries have increased the retirement age to 67, for both genders, while at the same time actuarial penalizing early retirement.

In addition to the successfully concluded Program with the IMF, good news is that economic activity in Serbia is recovering. The pace of recovery, however, is very slow. Exports are the main driver of growth, primarily exports to the EU, which have reached and surpassed the pre-crisis level. On the other hand, Serbia's exports to the member countries of the Central European Free Trade Agreement (CEFTA Region) are significantly below their pre-crisis levels, and that is one of the rare markets in which Serbia has had a continuous trade surplus.

Since employment is a so-called lagging indicator, it was expected that with a six to nine months lag period, the recovery in economic activity would result in increased employment. However, even after five quarters of economic growth, employment is still falling.

Slow economic recovery is accompanied by inflation and high foreign trade deficit. These two problems require very tight fiscal and monetary policies.

Serbia is certainly not the only country where the inflation rate is above the projected target. However, the 14.7% inflation rate is too high, especially in light of the slow economic recovery. Inflation in the preceding period was generated by transmission of the following effects: (1) the depreciation of the dinar and the growth in import prices, and (2) the global growth in energy and food prices. It should be mentioned that except Serbia, Hungary and Romania, all other countries in the region have managed to push down inflation to below 3%.

Serbia has a dual, or "twin", deficit: a balance of payments deficit and a budget deficit. The balance of payments imbalance is exceptionally high, especially its foreign trade part. The foreign trade deficit is around €400 mn per month, even though exports are rising faster than imports, and domestic consumption is falling. Further dynamic growth of exports is possible as a result of improved competitiveness which has a lagged effect on exports, but also as a result of foreign direct investment (FDI). However, we should not underestimate the effects that the appreciation of the dinar and the rise in energy prices on the world market can have on the foreign trade deficit.

The budget deficit is also too high, considering the usually seasonal character of public revenues and expenditures. Revenues were surprisingly low during April, and did not recover significantly in May either. It remains to be seen whether this is a temporary or a permanent trend. Also, expenditures are executed somewhat faster than usual for this period of the year, which can be a result either of the announced budget *revision* and attempts to acquire as good a negotiating position as possible in the new distribution of budget resources, or *payments* which had to be made due to the end of construction of the north section of Corridor 10, but also due to co-funding of FDI (e.g., Fiat).

In its fight against inflation, the NBS has increased its reference rate by 450 basis points since August 2010. That has led to huge portfolio investment inflows, which were sufficient not only to finance the balance of payments and budget deficits, but have also had an effect on the appreciation of the domestic currency.

There are, however, risks that could lead to a sudden stop of capital inflows. Greece is too geographically close and one should analyze closely what is going on in that country. Fitch has recently reduced its credit rating. Yields on 10-year bonds have reached 16.8%, more than double the rate last year. Greece can neither take on new debt under these terms, nor is the market willing to offer it more favorable ones. The Greek government is considering several options: one is to sell assets, which is an attractive way to "clean up" budget balances without further reduction of spending. But, there are justified doubts that Greece can implement its plans. First, there is no ownership register of

all the government assets to be sold. Second, there is strong opposition to the sale of assets, and third, the price that could be achieved is not known. The experience of Serbia with its attempts to sell Telekom could also be useful for Greece. In any case, such sale cannot take place soon enough to cover the financial gap that Greece will face already next year. Additionally, no European politician is ready to write-off a part of Greece's debt, or to transfer tax payers' money to that country, without getting anything in return. The European Central Bank (ECB) strongly opposes the so-called soft debt restructuring, and even if that should happen, Greece would not have access to fresh money in such circumstances. Therefore, the idea about a new Vienna Initiative (that is, a voluntary maintaining of creditor exposure to Greek debt) is beginning to resurface.

A sudden drying up of capital inflows due to the Greek crisis or some other "shock" would give rise to nervousness in the foreign currency market and a depreciation which would transmit to inflation. In such conditions, without privatization proceeds, financing the budget deficit would not be easy. Therefore, the question arises what is the appropriate policy in the current conditions. Certainly, the most important element is fiscal policy, which has to be very cautious. This implies that, at a minimum, fiscal policy needs to be pursued in accordance with set rules. Inflation has created an illusion of higher revenues. And indeed, they are and will be nominally higher by between RSD 15 bn and RSD 18 bn, but this growth can only cover the growth in expenditures which must be adjusted for inflation, such as wages, pensions and social benefits. That means there is no room for additional increases in wages and pensions, and room for other initiatives can only be created from the savings on existing programs. The state must not be a generator of illiquidity, which implies avoiding arrears – delaying payments at all levels of government. Also, economic policy makers must refrain from new promises and initiatives, especially if they are not well prepared. Restrictive fiscal policy must be accompanied by restrictive monetary policy, in which the interest rate should play an ever smaller role, with other instruments taking over. Finally, a new Program with the IMF is necessary for us. It would work as a shock absorber for potentially inappropriate policy, considering the situation and changes in our environment, but also the coming elections. It would be a guarantee that the economy would stay on the right track, but also a guarantee of the continuation of structural reforms, increased efficiency of the public sector and improved conditions of doing business for the private sector. The existence of such a program is always a good sign for investors. However, credibility is not a commodity. It takes years to gain and just a day to lose. What is expected from the Government is a set of well thought-out, coherent (instead of *ad hoc*) measures that will support economic growth. Health care and education reforms in line with World Bank recommendations, as well further reforms of the pension-disability insurance system, are important for the future - not just for the current Government, but for the entire political elite. The long history of the previous IMF Programs does not provide grounds to believe that what is signed to will be achieved, but a new Program will provide a new starting position.

All three *Highlights* are dedicated to the importance of complete, timely and reliable data for macroeconomic policy and macroeconomic management. Economic policy makers must have the capacity to identify all negative trends in the economy and to apply appropriate measures immediately. That is why the data that truly reflect what is happening in the economy are necessary. *Highlights 1* (Dragutinović, D.) show that this is often not the case, especially when it comes to GDP and labor market data. The author of *Highlights 2* (Brčerević, D.) deals with the recent revision of GDP data and its consequences: (1) all economic growth rates for the period 2001-2009 have been changed, (2) it is expected that the 2010 GDP will be revised downwards, (3) the level of GDP has been changed – we are poorer than we thought by almost 6%, (4) the size of our imbalances is greater, measured by the ratio of the budget and balance of payments deficits to GDP, but also by the ratio of the foreign and total public debts to GDP. We, of course, accept the official data as authoritative, and leave aside the ever open question of how big the fall of GDP in 2009 was. The data we have show that the growth rate in the pre-crisis period was around the regional average (and not higher, as we thought), that the drop in GDP was the lowest, and that the adjustment of the external imbalance was the greatest; the smallest drop in economic activity was, however, accompanied by the largest drop in employment. This is hard to explain, just as it is hard to explain the fact that in the period with the biggest capital inflows and a highly expansionary fiscal policy, growth was 1.5 percentage points lower compared to the period with far lower capital inflows and a restrictive fiscal policy. We hope that in the coming period we will be able to explain these developments.

Since the expected privatization proceeds did not materialize, it is necessary for the government to continue to borrow in order to cover the growing deficit. Considering the pace of accumulating debt in Serbia in the preceding three years, it is not surprising that this has become an increasingly common topic in academic circles, but also in the general public. There have been many discussions about the scope of the debt, as well as about the large differences between the debt statistics provided by the National Bank of Serbia and the Ministry of Finance, which was underlined in the State Audit Institution Report. That is why *Highlights 3* (Dragutinović, D.) deal with the conceptual differences between the government and the public sector, the differences between government and public debt, concepts of debt, standard classifications and definitions of debt, relations between public debt and external debt statistics, and with the differences between debt statistics in Serbia and set standards.

For this issue of *QM* a study was conducted, the results of which are presented in the *Spotlight on 1* (Arsić, M). The study deals with the hottest topic at the moment – it is an analysis of the proposal to increase local communities' share of the wage tax, from the standpoint of international experience, quantitative consequences for the central government budget on the one hand and local governments' budgets on the other, as well as the equity of that proposal. *Spotlight on 2* (Altiparmakov, N.) deals with the equity of the main tax forms. These texts warn us that the new Government initiatives, above all the proposed amendments to the Law on Local Government Finance, proposed amendments to the Law on Property Tax, but also the Decree on Incentives for New Jobs, are examples of violations of equity. *Spotlight on 3* (Ranđelović, S. and Ristić, B) presents the results of FREN's research, which was conducted with financial support from the USAID Competitiveness Project. The research objective was to determine the extent of savings from reforms of three tax procedures. Improvement of operating conditions for the private sector was, by the way, an important element of the recently concluded IMF Program, and we can predict with certainty that it will also be present in the new Program.

TRENDS

1. Review

The beginning of 2011 did not bring significant changes to macroeconomic trends. Despite many questions that were opened by the revision of GDP data, it is indisputable that the economy is recovering. Optimists who believed in a strong ***V*** shaped growth were not right (despite solid arguments found in the American recovery after the post-war recession, but also after the 1981-1982 recession). Luckily, pessimists who expected stagnation or an ***L*** shaped recovery were not right either (and they found their arguments in the Japanese banking crisis of the 1990s, which left the Japanese economy in a decade long stagnation); realists believed that the recovery will be ***U*** shaped, which is what is happening.

So, economic activity is recovering in Serbia, but the pace of recovery is very slow. Economic activity has still not returned to pre-crisis levels. It is interesting that the largest EU countries, the economies of Germany and France, have reached and surpassed their pre-crisis levels. Compared to its growth potential, Serbia is growing more slowly than the average economic growth of the economies of East and Central Europe. From the standpoint of supply, growth is primarily generated by industry; on the demand side, growth is generated by investment and exports, while personal consumption is falling. Thus, on the one hand, the speed of recovery is not high enough either to reverse the adverse trends in the labor market, or to increase public revenues which would ensure public finance sustainability. On the other hand, even though recovery has been slow, it has had no significant effect on slowing down inflation, not even in the situation of appreciation, which has been present since the end of last year. A combination of expansive fiscal and restrictive monetary policy is not delivering any results in the area of economic growth either, and not yet in the area of the inflation rate.

Economic activity continued to recover after the crisis, but with a change in structure compared to the period before the crisis. It is estimated that annual GDP growth in Q1 was 2.7%, and that it was triggered by a recovery in exports and investments. Personal consumption, which was disproportionately high before the crisis, continued to shrink in Q1, both in relative terms (compared to all other aggregates and in real terms. This rebalancing of the economy is necessary and desirable, but this balance of "power" hardly makes acceleration of economic recovery possible in the coming period.

Namely, the share of exports in GDP is around 35%, while the share of imports in GDP is over 50%, so the ratio of imports to exports is around 66%. In order for net exports to significantly contribute to GDP growth, exports need to grow at least 1.5 times faster than imports, which was not the case in Q1. Even a strong growth in investments, due to their relatively low share in GDP (around 20%), cannot significantly contribute towards increasing the speed of economic recovery. That is why it can hardly be expected that the growth rates needed to reduce high unemployment and the balance of payments deficit will be achieved relatively quickly.

Year-on-year inflation in April reached 14.7%, which was the highest rate in Europe. Since the beginning of the year, inflation has reached 6.7%, which is above the upper limit of the NBS target band for the entire year (3%-6%). However, high inflation is for the most part a consequence of the growth in food, energy and controlled prices. Since the beginning of the year, the growth in food prices accounted for 57% of the total inflation, the growth in energy prices for around 14%, and the increase in cigarette prices for around 9% of the total growth in prices (see Section 5, "Prices and the Exchange Rate"). In fact, the underlying inflation (which we measure by excluding food, energy, alcoholic beverages and tobacco prices from the total inflation) in 2011 was, for Serbia, at a very low monthly level of 0.4%, or 4.6% annualized. Considering that food prices are stabilizing on the world market (see Graph T5-3), we expect that the currently hidden trend of low market inflation will soon become more visible. However, in order to give a balanced assessment of policy, we need to point out that the transmission of effects from changes in interest rates to changes in the exchange rate and inflation is slow. We expect this transmission channel of monetary policy to begin to give results in June. If our prediction proves to be correct as accurate, this should have a gradual decreasing effect on the reference interest rate of the National Bank of Serbia. In any case, since restrictive monetary policy has an appreciating effect on the dinar, it must be carefully modeled and administered, so that it does not adversely affect the domestic economy.

The current account deficit is at a similar level as in the previous year, but, unlike the previous year, there are no problems with its financing in 2011 (see Section 4, "Balance of Payments and Foreign Trade"). The structure of capital inflows financing the current account is not favorable. The most unstable investments – portfolio investments – predominate amounting to as much as €520 mn (over 7% of Q1 GDP). Foreign direct investment (FDI) are at a similar level as last year (around 4% of the relevant GDP), while the inflow of loans was negative, because *outflows* due to repayments of old debts were higher than *inflows* due to the taking on of new ones. By reducing their debt, firms are reducing their exchange rate risk.

A combination of attractive interest rates offered by the government and reduced country risk led to an increased

interest of investors for government securities and the increase in portfolio investments. EMBI (*Emerging Markets Bond Index*) – an indicator of risk premiums – was significantly reduced for Serbia at the beginning of the year (it fell below 400 basis points), and the rating agency *Standard & Poor's* increased Serbia's rating (from BB- to BB). Large demand for state securities by international investors contributed strongly to the appreciation of the dinar.

The exchange rate of the dinar to the euro appreciated by over 10% in real terms by the end of May, which practically cancelled out the entire effect of the real depreciation of the dinar which started at the beginning of the crisis. The 2011 unit labor costs measured in euros (euro-ULCs), which we use to measure the international price competitiveness of the domestic economy, also responded negatively to the strong real appreciation of the dinar. The price competitiveness of the domestic economy in the first half of 2011 deteriorated after two years of progress (see Graph T2-5).

Relatively favorable trends in foreign trade continued during the first four months of 2011. The year-on-year export of goods in this period rose by 31%, and imports by 21.1%. Due to the low ratio of exports to imports, the trade deficit in the first four months of 2011 rose by around €150 mn, despite faster growth of exports than imports. Considering that the acceleration of imports at the beginning of 2011 was a consequence of a desirable growth in the imports of investment goods (year-on-year growth during the first four months of 38%) and of energy price increases on the world market, we still do not consider the worsening of the trade balance as worrying. We must note that the growth of exports is still high and stable, and that it is the only major macroeconomic aggregate that has already significantly surpassed its pre-crisis level (see Graph T4-4).

After temporary stagnation between April and October 2010, unemployment started to grow slightly again in 2011. Judging by everything, the unemployment rate will exceed 20% in 2011, and the percentage of the working age population that is employed will be reduced to barely a few percent over 45%. The entire burden of employment reduction was borne by the private sector, while the public sector has practically retained the unchanged number of employees (see Table T3-3).

Public revenues at the beginning of the year continued to decline in real terms, at an annual rate of 2.8% (see Section 6, "Fiscal Flows and Policy"). The real drop in tax revenues was caused by: (1) slow economic growth, (2) a fall in employment, (3) changes in the structure of the economy (a reduction in the fiscally important consumption and imports, with a concurrent increase of investment and exports, which are subject to a lower fiscal burden), and (4) a reduction in customs revenue due to two factors (a reduction in tariff rates due to the implementation of the Interim Trade Agreement with the EU and bilateral free trade agreements, but also due to a slower growth in imports). The growth of the excise tax only neutralized the loss of tax revenues from the usage of mobile phones.

Public expenditures continued to decline in real terms at a similar rate as revenues. The deficit during the first four months of 2011 was higher than expected in this part of the year, considering the seasonal character of revenues and expenditures, but it did remain within the planned framework. The real drop in public expenditures is a consequence of very high inflation and the way that the largest categories of current expenditures are indexed: wages, pensions and social benefits. According to the Budget System Law, the biggest items of public expenditures – pensions and wages – are indexed to inflation, but expenditures are indexed occasionally in conditions of continued inflation. Namely, the pensions and wages which were adjusted for the level of inflation from January to April (5.5%) were paid out in May, so this dynamic of indexing is reflected through a somewhat higher real reduction in current expenditures of the state during the period before the January-April indexation.

Even though the size and dynamics of the public sector as a whole should be monitored, we will focus only on the general government debt. According to the definition of general government debt given in the Budget System Law, such debt grew and amounted to €13 bn at the end of April (around 41% of GDP). Since the beginning of the year, the general government debt grew by €850 mn and is approaching the ceiling of 45% of GDP, which is defined by the fiscal rules. Of course, it should be mentioned that the definition given in the Law is "stricter" than the IMF definition, or than the so-called Maastricht debt. In the absence of revenues from privatization of Telekom, regardless of the small reserve left by the stricter definition, maintaining the debt under 45% of GDP will be possible through: (1) strict adherence to fiscal rules (although the necessity of a somewhat faster fiscal adjustment than the rules require is not excluded), and (2) in conditions of stability of the domestic currency (since the ratio of debt to GDP is very much dependent on changes in the exchange rate). The stability of the exchange rate on its part depends on a combination of monetary and fiscal policy.

The fiscal policy needs to persevere in respecting fiscal rules, and resist possible pressures to increase consumption. Even the legal definition of medium-term fiscal rules itself has substantially increased the stability of investor expectations and has had an influence on the reduction of Serbia's country risk. The successfully concluded Program with the IMF has worked in the same direction. In the same way, the credibility of macroeconomic policy would be additionally improved by signing a new agreement with the IMF, and by progress in the process of European integration and the related reduction of country political risk.

The monetary policy in 2011 is becoming increasingly restrictive. By giving the Government the exclusive right and obligation to ensure faster economic growth, the NBS has focused on fighting inflation. The reference interest rate has been raised twice, by a total of 75 basis points, and the March 2010 decision on reserve requirements has been amended . The attractive interest rate margins have led to a growth in demand not only for government

securities, but also for securities that the NBS uses to perform open market operations, so that the growth of investments in the REPO stock since the beginning of the year is approximately EUR 250 million. Although such reduction of the money supply has undoubtedly led to a slow-down in inflation, this has come at a price – reducing liquidity of the economy by making short-term borrowing in dinars more expensive, and by entering into a vicious circle of the high reference interest rate that stimulates carry trade and additionally worsens the unwanted appreciation of the dinar.

The current state of the economy and the unchanged trends show that the combination of monetary and fiscal policy is not delivering the desired results. One of the explanations is that monetary policy is far more efficient in reducing inflation caused by "shocks" on the demand side. The fact is, however, that the rate of inflation in Serbia at present is determined above all by shocks on the supply side – the growth in world prices of food and energy. With world prices of food and energy stabilizing, and the current level of restrictiveness of monetary policy, we expect a fall in the rate of inflation. Consequently, with the first evidence of slowing down, we should start reducing interest rates. The appreciation of the dinar poses a far greater risk, by threatening the already started economic recovery, than the benefits it provides – econometric analysis (Petrović, P. et al.) has shown that allowing the dinar to appreciate in real terms has a limited effect on slowing down inflation, but a negative impact on the trade balance, and, thus, slows down the recovery of production based on the rise in exports. Therefore, the key to success is cautious fiscal policy which will, at a minimum, follow the set fiscal rules and avoid adopting new initiatives that are expensive and further deepen the structural deficit, and also devoid the budget process of meaning.

Serbia: Selected Macroeconomic Indicators, 2004-2011

	Annual Data							Quarterly Data								
								2009				2010				2011
	2004	2005	2006	2007	2008	2009	2010	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Prices and the Exchange Rate										y-o-y[1]						
Consumer Price Index[2]	10.1	16.5	12.7	6.5	11.7	8.4	6.5	10.1	8.7	7.9	5.9	4.4	4.0	6.5	9.6	12.7
Real fx dinar/euro (avg. 2005=100)[3]	100.5	100.0	92.1	83.9	79.7	84.1	86.5	86.0	84.3	82.6	83.5	85.3	86.1	87.2	86.7	83.0
Nominal fx dinar/euro (period average)[3]	72.62	82.92	84.19	79.97	81.46	93.90	102.90	93.71	94.17	93.24	94.47	98.60	101.30	105.15	106.56	104.00
Economic Growth										y-o-y, real growth[1]						
GDP (in billions of dinars)	1,380.7	1,683.5	1,962.1	2,276.9	2,661.4	2,713.2	2,933	..	..	..	..	..	..	..	..	..
GDP	9.3	5.4	3.6	5.4	3.8	-3.5	1.8	-4.3	-4.5	-2.2	-1.7	0.3	2.0	2.7	1.9	2.7
Non-agricultural GVA	6.4	6.8	7.5	8.7	5.7	-2.8	2.2	-3.7	-3.7	-2.2	-1.8	0.5	2.5	3.4	2.1	2.7
Industrial production	6.5	0.6	4.2	4.1	1.4	-12.6	2.5	-16.7	-18.8	-11.0	-4.4	1.1	7.3	4.3	-1.8	6.4
Manufacturing	8.3	-1.0	4.5	4.7	1.1	-16.1	3.9	-21.7	-22.3	-14.7	-5.8	2.5	8.1	5.8	-0.4	5.8
Average net wage (per month, in dinars)[4]	14,108	17,478	21,745	27,785	29,174	31,758	34,159	30,120	31,808	31,737	33,366	31,924	34,192	34,372	36,149	35,108
Registered Employment (in millions)	2.047	2.056	2.028	1.998	1.997	1.901	1.805	1.958	1.901	1.882	1.861	1.838	1.815	1.796	1.773	1.770
Fiscal data				in % of GDP										y-o-y, real growth		
Public Revenues	41.2	42.1	42.4	42.1	41.5	38.6	-1.5	-12.6	-13.4	-4.2	-5.0	-4,0	2.5	-3.6	-1.3	-2.8
Public Expenditures	40.0	39.7	42.7	42.8	43.7	42.7	-1.7	-3.4	-6.0	-0.3	-9.2	-1,4	-3.1	-3.2	0.3	-3.0
										in billions of dinars						
Overall fiscal balance (GFS definition)[5]	17.5	14.8	-33.5	-58.2	-68.9	-121.8	-136.4	-12.4	-45.5	-23.9	-40.0	-24,1	-31.2	-28.8	-52.3	-26.4
Balance of Payments										in millions of euros, flows[1]						
Imports of goods[6]	-8,302	-8,286	-10,093	-12,858	-15,917	-11,096	-12,176	-2,755	-2,680	-2,705	-2,957	-2,659	-3,036	-3,179	-3,303	-3,264
Exports of goods[6]	2,991	4,006	5,111	6,444	7,416	5,978	7,403	1,291	1,538	1,547	1,602	1,473	1,870	1,931	2,130	1,951
Current account[7]	-2,197	-1,805	-3,137	-4,994	-7,054	-2,084	-2,082	-978	-246	-344	-516	-760	-610	-523	-189	-839
in % GDP [7]	*-11.6*	*-8.6*	*-12.9*	*-17.2*	*-21.6*	*-7.2*	*-7.3*	*-14.9*	*-3.4*	*-4.6*	*-6.8*	*-11.5*	*-8.5*	*-7.2*	*-2.6*	*-11.6*
Capital account[7]	2,377	3,863	7,635	6,126	7,133	2,207	2,032	991	275	371	570	698	599	493	241	560
Foreign direct investments	773	1,248	4,348	1,942	1,824	1,372	860	643	251	113	366	284	136	176	265	307
NBS gross reserves (increase +)	349	1,675	4,240	941	-1,687	2,363	-929	-240	880	716	1,007	-367	-321	-313	73	168
Monetary data										in millions of dinars, e.o.p. stock[1]						
NBS net own reserves[8]	103,158	175,288	302,783	400,195	475,110	578,791	490,534	502,606	489,062	528,439	578,791	563,529	547,249	493,899	489,847	460,348
NBS net own reserves[8], in mn of euros	1,291	2,050	3,833	5,051	5,362	6,030	4,616	5,303	5,234	5,681	6,030	5,652	5,287	4,684	4,609	4,455
Credit to the non-government sector	342,666	518,298	609,171	842,512	1,126,111	1,306,224	1,660,870	1,215,843	1,218,702	1,245,735	1,306,224	1,389,783	1,523,040	1,583,687	1,656,905	1,658,603
FX deposits of households	110,713	190,136	260,661	381,687	413,766	565,294	730,846	450,852	461,401	482,827	565,294	604,783	651,132	681,704	732,066	730,892
M2 (y-o-y, real growth, in %)	10.4	20.8	30.6	27.8	2.9	9.8	1.3	-2.7	3.5	2.9	13.8	14.5	17.1	11.4	2.4	-5.4
Credit to the non-government sector (y-o-y, real growth, in %)	27.3	28.6	10.3	24.9	25.2	5,2	13.9	22.2	17.9	14.0	9.0	9.1	19.9	17.9	15.0	4.5
Credit to the non-government sector, in % GDP	23.9	29.6	28.6	35.0	42.0	45.8	53.8	44.6	44.1	44.4	45.7	47.7	51.3	52.3	53.7	53.2
Financial Markets																
BELEXline (in index points)[9]	1,161	1,954	2,658	3,831	1,198	1,312	1,283	844	1,173	1,548	1,312	1,307	1,238	1,226	1,283	1,425
Turnover on BSE (in mil. euros)[10]	423.7	498.8	1,166.4	2,004.4	884.0	443.7	222.0	61.2	72.6	55.8	254.0	49.4	46.3	39.5	86.8	89.3

Source: FREN

1) Unless indicated otherwise.

2) Data for 2004, 2005 and 2006 are based on the Retail Price Index. SORS switched to using the Consumer Price Index to calculate inflation in 2007.

3) The calculations are based on 12-month averages for annual data, and three-month averages for quarterly data.

4) Data for 2008 represent adjusted figures based on a wider sample for calculating the average wage. Thus, the nominal wages for 2008 are comparable with nominal wages for 2009 and 2010, but are not comparable with previous years.

5) We monitor the overall fiscal result (overall fiscal balance according to GFS 2001) – Consolidated surplus/deficit adjusted for "budgetary lending" (lending minus repayment according to the old GFS).

6) The Statistical Office of the Republic of Serbia has changed its methodology for calculating foreign trade. As from 01/01/2010, in line with recommendations from the UN Statistics Department, Serbia started applying the general system of trade, which is a broader concept that the previous one, in order to better adjust to criteria given in the Balance of Payments and the System of National Accounts. A more detailed explanation is given in *QM* no. 20, Section 4, "Balance of Payments and Foreign Trade".

7) The National Bank of Serbia changed its methodology for compiling the balance of payments in Q1 2008. This change in methodology has led to a lower current account deficit, and to a smaller capital account balance. A more detailed explanation is given in *QM* no. 12, Section 6, "Balance of Payments and Foreign Trade".

8) The NBS net own reserves represent the difference between the NBS net foreign currency reserves and the sum of foreign currency deposits of commercial banks and of the foreign currency deposits of the government. More detailed explanations are given in the Section Monetary Flows and Policy.

9) The value of the index on the last day of the observed period.

10) The total trading value on the Belgrade Stock Exchange includes the value of the trading in stocks and bonds of frozen foreign currency savings deposits. The middle exchange rate for the observed period was used to convert trading on the stock market from dinars to euros.

2. Economic Activity

Economic activity started off in 2011 with an accelerated recovery and a continuation of the desired restructuring process, oriented towards increasing exports and production of tradable goods. The *QM* estimates of the y-o-y GDP growth in Q1 stand at around 2.7%, and non-agricultural gross value added (GVA) at around 2.4%. *QM's* estimate of GDP growth in Q1 is slightly less reliable than usual, given that a new classification of activities has entered in force as of 1 January 2011 and that a new methodology for the calculation of the quarterly GDP will be published in accordance with that. However, there is no doubt that economic recovery has accelerated in comparison to the previous quarter, mainly as a result of the improved performance of industrial production. The seasonally adjusted GPD growth index recorded high growth against the previous quarter of around 1.2% (4.9% annualized), but this is relativized by the temporary standstill in production recovery in Q4 of the previous year. This is why we stood by the previous, somewhat more conservative, estimate of GDP growth in 2011, of around 3%. In Q1 we noticed some unfavorable signs that may represent a risk for the growth of economic activity in the medium term. Thus, we observed that high export growth in Q1 was accompanied by high import growth, and that the net exports contribution to y-o-y GDP growth was negative. Our analysis still leads to the conclusion that the decline in net exports in Q1 is most probably only a temporary one and that domestic demand has seen a growth of investment activity and not consumption. However, a much bigger danger in the medium term is the possible loss of price competitiveness of the national economy, due to the real appreciation of the dinar, as indicated by euro-ULC trends.

Gross Domestic Product

Q1 witnessed a GDP growth of about 2.6%...

According to *QM* preliminary estimate,[1] based on available economic activity performance data, real y-o-y GDP growth in Q1 stood at about 2.7%. Non-agricultural gross value added (GVA), which we consider a more reliable indicator of economic activity, recorded a real growth of about 2.4%. Possibly, the official estimate of y-o-y GDP growth in Q1 will slightly differ from ours, as the Statistical Office of the Republic of Serbia (SORS) will partly change its methodology for the calculation of GDP growth (please refer to Highlights 2: The Reliability of Official Gross Domestic Product Data in Serbia).[2] Precisely because of the change in the methodology, the expected revision of the quarterly growth rates and the change of the classification of activities, this *QM* edition will not include the standard table on GDP growth by production sector. We will resume monitoring GDP growth according to our established principle from the next quarter, when the necessary new weights and indicators have become available.

...accompanied by a rebalancing of the economy

The growth of the seasonally adjusted GDP in Q1 stood at around 1.2% (4.9% annualized) against Q4 of the previous year (also estimated according to the old methodology). Such a high seasonally adjusted GDP growth is a result of positive trends, but also of a comparison to the somewhat lower level of production in Q4 of the previous year, when the economic recovery came to a temporary standstill due to the impact of exogenous factors (a temporary halt in NIS and US Steel production, dairy industry crisis and the like). This is why we believe that the real economic recovery pace in Q1 is somewhat slower, despite the high seasonally adjusted GDP growth and we maintain the previous GDP growth estimate for 2011, amounting to around 3%.

1 The methodology that we used to estimate the GDP is based on the methodology of the Statistical Office of the Republic of Serbia (SORS). We estimate the real gross value added (GVA) growth of the individual sectors of the economy by the production principle, then we add them up and add the tax component. Modifications in relation to the SORS methodology are partially related to the indicators we use for estimating sector growth that, in our opinion, are more reliable indicators of real sector growth in certain cases (e.g. "construction sector - cement production"). Also, considering that we have fewer indicators available than SORS, we include in our estimate indirect indicators that are not part of the official statistical methodology, and we also carry out more in-depth analyses of the individual sector trends and demand analysis.

2 SORS preliminary estimate of GDP growth in Q1 stands at 3%.

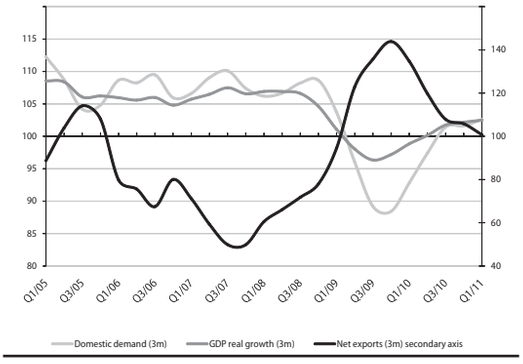
Growth in manufacturing industry and decline in trade volume

Based on the *production principle*, the biggest trend reversal in Q1 occurred in the manufacturing industry, which recorded a 3% seasonally adjusted growth against the previous quarter. On the other hand, the negative trend in wholesale and retail trade from the previous quarter continued, declining even deeper in Q1. These data indicate that the trend of restructuring of the domestic economy has continued throughout Q1, i.e. that production has been recovering more rapidly than personal consumption.

Net exports in decline, but most probably due to energy prices

Graph T2-1 shows the y-o-y real growth of GDP, domestic consumption and net exports since 2005. We have observed that after two years of strong adjustment that took place due to the economic crisis (decline of domestic demand and GDP and reduction of the trade deficit – growth of net exports) in Q1 there may have been a trend reversal. In fact, net exports as the driver of economic recovery in 2010 recorded a decrease of about €80 mn in Q1 in relation to the same period last year.

Graph T2-1. Serbia: Y-o-y Real Growth of GDP, Domestic Demand and Net Exports (3m moving averages), 2005–2011



Source: QM based on SORS data
Net exports growth – inverted reduction of the trade deficit (goods and services)
As revised data on real GDP growth by quarter are still not available, we have used old GDP data in the Graph.

However, so far we are closer to assessing that there has been no significant reversal of the 2010 trends, considering that the decline of net exports can be explained by the hike in energy prices and the relative inelasticity of demand on the change in these prices. Because, if we were to exclude energy from foreign trade, then y-o-y growth of net exports would stand at about €100 mn, i.e. a similar net export growth trend from the previous year would continue. Considering that exports, unlike imports have stable and high growth rates of almost all relevant areas, we expect that, after the end of the heating season and with the stabilization of global oil market prices, imports will slow down and net exports will stop declining.

Domestic demand led by investments

The accelerated growth of domestic demand witnessed in Q1 need not have, by default, a negative impact on the medium term rebalancing of the economy. By all accounts, Q1 has witnessed two divergent domestic demand trends: (1) a decline in personal consumption – as indicated by the real decline in earnings, a sharp drop in retail trade turnover, shrinking industrial consumer goods production and a relatively low level of import thereof and (2) an increase in investments – as evidenced by the high rate of y-o-y growth of capital goods imports that stood as high as 35% 3 and the domestic production thereof of 32%. We have found that the desirable rebalancing of the economy trend has not been interrupted in Q1, despite a somewhat different share of the GDP components in the achieved growth.

Table T2-2 shows the GDP[4] trends and aggregate demand trends, with its components (export and domestic demand). In Q1 we have witnessed that export demand growth has taken the lead over all other observed components and has remained the key driver of production. The last column shows the current values of observed indicators against the pre-crisis comparable period (Q1 2008). We notice that the only aggregate that has exceeded its pre-crisis level is export demand, which is by 5% higher than its pre-crisis level. Real GDP has dropped by 2% compared to the pre-crisis period, while the component that has recorded the biggest decline in comparison with all others is domestic demand.

3 For further details please refer to Section 4 "Balance of Payments and Foreign Trade" in this edition of *QM*
4 We have used revised annual data for GDP.

Table T2-2. Serbia: Growth of Aggregate Demand and Components, 2005–2011

	2008	2009	2010	2010				2011	Q1 2011/
				Q1	Q2	Q3	Q4	Q1	Q1 2008
				Y-o-y indices					
GDP	103.8	96.5	101.8	100.4	101.7	103.1	101.7	102.7	98.2
Aggregate demand	106.3	91.9	102.8	99.0	103.5	105.9	102.7	106.8	95.8
Domestic demand	104.5	94.0	99.3	97.1	100.4	102.7	96.9	103.0	92.9
Export demand	113.3	83.3	117.5	106.9	116.0	118.5	126.7	124.4	105.2

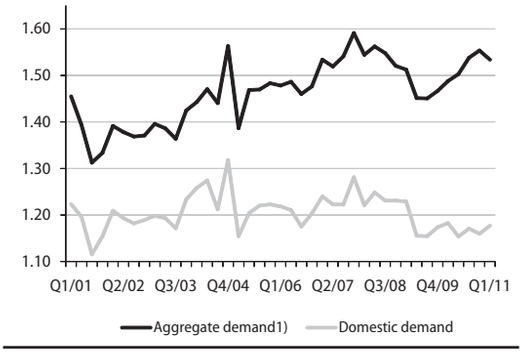
Source: *QM* based on NBS and SORS data

Due to the faster recovery of exports and other GDP components, the structure of domestic economy is also rapidly changing. Exports of goods and services have been gaining importance in the economy reaching about 36% of GDP in Q1, which is significantly higher than before the economic crisis when it stood at 30%.

Graph T2-3 shows the ratio of demand (aggregate and domestic) to production. In the last few quarters, as in Q1, domestic demand seems to have stabilized at a level which is 17% higher than production. In the pre-crisis years, the difference between demand and production amounted to 25%, so this is yet another indication that a significant change has occurred in the structure of the domestic economy during the crisis.

Unit Labor Costs measured in dinars are in decline

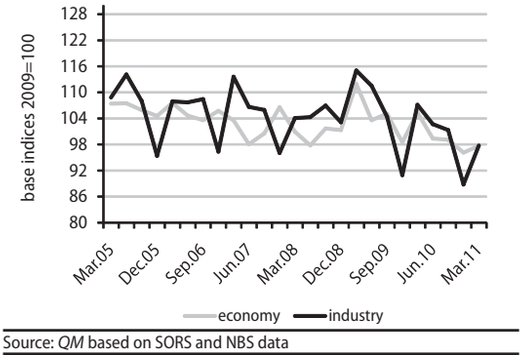
Graph T2-3. Serbia: Aggregate and Domestic Demand to GDP Ratio, 2001–2011



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

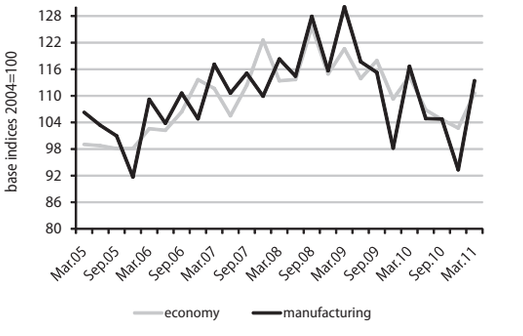
Unit Labor Costs[5] (ULC) measured in dinars continued to decrease in Q1, which means that the share of labor costs in the value added has been in decline (Graph T2-4). This decline is owed to a combination of production recovery along with a decrease of real wages and employment. Although the ULC decline is fundamentally a desirable trend, the most important cause of the reduction of the real wage mass compared to pre-crisis levels is, unfortunately, the significant decline in employment, which was even higher than the decline in production in Serbia.[6] Considering that ULC have a marked seasonal component, the declining ULC trend is revealed by observing its y-o-y growth indices. These indices point to a decline of about 8% in comparison with the same period last year.

Graph T2-4. Serbia: Real Unit Labor Costs in the Economy and Industry, 2005–2011



Source: *QM* based on SORS and NBS data

Graph T2-5. Serbia: Real Euro Unit Labor Costs in the Economy and Manufacturing Industry, 2005–2011



Source: *QM* based on SORS and NBS data

5 Unit Labor Costs in dinars are calculated for the economy (excluding the Agriculture and Public Administration sectors) and industry.

6 For further details please refer to Section 3, "Employment and Wages" in this edition of *QM*.

Price competitiveness of the national economy begins to deteriorate

Unit Labor Costs measured in euros (euro-ULC) indicate the international price competitiveness of the domestic economy, because they define the ratio of the greatest domestic price component (labor costs) to value added. We calculate euro-ULCs for the manufacturing industry (which produces by far the greatest share of tradable goods) and for the overall economy,[7] as shown in Graph T2-5. We have used 2005 as the base year, because this is when the trend of a significant loss of price competitiveness of the national economy began, as a result of the strong appreciation of the dinar, which ended with the escalation of the economic crisis in Serbia.

Box 1. Change in Activity Classification

As of January 2011, the Statistical Office of the Republic of Serbia (SORS) uses a changed activity classification in its data. The new activity classification AC (2010) is actually the standard European Union (EU) statistical classification of economic activities, which has been taken over, unaltered.[1] In comparison with the previous activity classification, AC (1996),[2] the number of categories across all classification levels has been increased.[3] Table T2-6 shows a comparative overview of the old and new activities by sector.

Table T2-6. Serbia: Comparison of the Old and New Classification of Activities by Sector

	Old classification of activities		New classification of activities
1	Agriculture, hunting and forestry	1	Agriculture, forestry and fishing
2	Fishing	2	Mining and quarrying
3	Mining and quarrying	3	Manufacturing
4	Manufacturing	4	Electricity, gas, steam and air conditioning supply
5	Electricity, gas and water supply	5	Water supply; sewerage, waste management and remediation activities
6	Construction	6	Construction
7	Wholesale and retail trade; repairs	7	Wholesale and retail trade; repair of motor vehicles and motorcycles
8	Hotels and restaurants	8	Transportation and storage
9	Transport, storage and communications	9	Accommodation and food service activities
10	Financial intermediation	10	Information and communication
11	Real estate, renting and business activities	11	Financial and insurance activities
12	Public administration and compulsory social security	12	Real estate activities
13	Education	13	Professional, scientific and technical activities
14	Health and social work	14	Administrative and support service activities
15	Other community, social and personal service activities	15	Public administration and compulsory social security
		16	Education
		17	Human health and social work activities
		18	Arts, entertainment and recreation
		19	Other service activities

Source: SORS

Table T2-6 clearly evidences the tendency to disaggregate heterogeneous sectors in the new activity classification, but also to adjust the systematization to the changes that occurred in the economy's structure over the past 15 years. Thus, for instance, the Transport, Storage and Communications sector has been divided into two sectors: 1) Transport and Storage and 2) Information and Communications, while the old Electricity, Gas and Water Supply sector has been disaggregated into an energy and utility sector: 1) Electricity, Gas and Steam Supply and 2) Water Supply and Waste Water Management. One must take into account that in the case of sectors with unchanged titles there has been a change of coverage. Thus, the new Construction sector covers about 5% more employed and a 10% greater value added in comparison with the old one.

In terms of monitoring economic activity, the new activity classification will undoubtedly lead to a significant improvement of the assessments and a higher reliability thereof, considering that activities are now better grouped and presented in greater detail. Furthermore, as of 2011, the national accounts statistics will be using new indicators that will describe the changes in the quarterly GVA in greater detail. The introduction of the new classification of activities will therefore increase the reliability of SORS assessments and the comparability of its data with those of the European Union.

1 NACE Rev. 2 (Regulation of the European Parliament and of the Council No 1893/2006, that has entered into force on 1 January 2008)

2 The year in which the activity classification entered into force is listed in the brackets.

3 The number of *sectors* has been increased by four, *areas* by 27, *bramches* by 49, and *groups* by 106. For detailed information on the changes in the activity classification please refer to the website of the Statistical Office of the Republic of Serbia: http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=412

7 Excluding the Pulic Administration and Agriculture sectors.

And while in the second half of 2010, it seemed to us that the loss of competitiveness witnessed in the period of the real appreciation was fully recovered after the economic crisis – as a result of the real depreciation of the dinar and changes in the labor market – in Q1 we are seeing a possible reversal of this trend. Euro-ULCs rose in Q1 and were 9% higher than in the base year (2005). Considering that we calculated the euro-ULC value using the average exchange rate from Q1 of RSD 103.9, we expect that already in the next quarter, euro-ULC will grow by an additional 5%, due to another appreciation in April and May. The decreased price competitiveness of the domestic economy can be a significant impediment to a further increase of exports.

Industrial Production

Industrial production recovers in Q1

Industrial production grew by 6.4% in Q1 and the manufacturing industry by 5.8% (Table T2-7). Although the achieved growth is somewhat faster than the recovery of the overall economy, one should not forget that industrial production also recorded a much greater decline than other sectors during the economic crisis. Observed by industry sectors, Electricity, Gas, Steam and Air Conditioning Supply and Mining achieved slightly better results than the manufacturing industry, probably due to a slightly colder winter than in the previous year.

Table T2-7. Serbia: Industrial Production Indices, 2005–2011

	Y-o-y indices								
	2007	2008	2009	2010	2010				2011
					Q1	Q2	Q3	Q4	Q1
Total	103.7	101.1	87.9	102.9	102.8	106.9	103.7	98.5	100.0
Mining and quarrying	99.4	103.6	95.7	113.8	110.3	118.1	115.8	111.7	6.7
Manufacturing	104.2	100.7	84.2	103.9	104.6	107.1	104.6	99.2	72.8
Electricity, gas, and water supply	102.8	101.8	100.6	95.7	95.9	102.7	95.8	91.4	20.5

Source: SORS

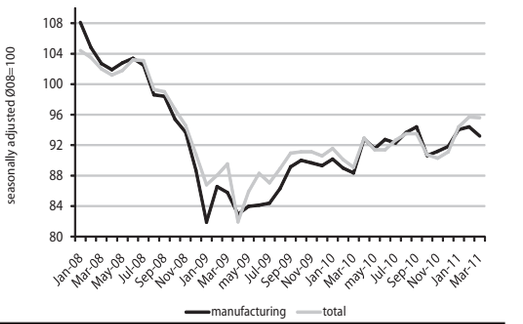
Seasonally adjusted indices recover after a robust fall in Q4

Graph T2-8 shows the seasonally adjusted indices of industrial production in the entire industry and in the manufacturing industry. Following the sharp fall in Q4 of the previous year, seasonally adjusted data are back on an upward path in Q1. In this Graph, the somewhat poorer results of the manufacturing industry stand out to some extent in March, but we hope that this is only a temporary fluctuation in an upward trend.

Industrial production is still about 10% lower than in the pre-crisis period

In Graph T2-8 we also note that two years since the beginning of recovery industrial production is still significantly below its pre-crisis level. In Q1 industrial production is 5% lower than the average in 2008. To obtain a proper indicator of the drop in industrial production we should be comparing it to Q1 2008, which is when the strong decline of the seasonally adjusted production indices started. Compared to Q1 2008, industrial production in Q1 2010 is still 8% lower and manufacturing industry about 11%.

Graph T2-8. Serbia: Seasonally Adjusted Industrial Production Indices, 2008–2011



Source: SORS

Growth of investment goods production...

Analyzing the industrial production components (Table T2-9) – we note that three groups of products: energy, intermediate and investment products recorded a y-o-y growth in production in Q1, while production of consumer goods recorded a y-o-y decline.

The high growth of investment goods and the decline in consumer goods production is particularly indicative (Table T2-9). These divergent developments lead us to conclude, as previously stated, that there are two divergent trends within domestic demand – the investment growth

trend and the personal consumption decline trend. These tendencies are corroborated by similar data on foreign trade.

...along with a decline in consumer goods production

In addition to the production of capital goods, another positive trend worth mentioning is the intermediate goods production trend. The production of intermediate goods in Q1 has recorded a high y-o-y growth of 13.8%, after a temporary decline in Q4 of the previous year, thereby confirming our assumption from the previous *QM* edition that the standstill in production in this industry sector has occurred due to a temporary halt in the production of US Steel Serbia.

Table T2-9. Serbia: Components of Industrial Production, 2005–2011

	Y-o-y indices							
	2008	2009	2010	2010				2011
				Q1	Q2	Q3	Q4	Q1
Total	101.4	87.4	102.5	101.1	107.3	104.3	98.2	106.4
Energy[1)]	101.7	98.8	97.7	95.7	103.9	101.3	92.0	103.7
Investment goods[2)]	105.9	79.3	93.6	94.6	93.0	89.8	97.1	132.2
Intermediate goods[3)]	100.3	78.4	109.2	123.4	132.5	123.0	109.8	113.8
Consumer goods[4)]	101.6	86.8	102.1	101.1	104.3	100.0	103.0	96.5

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.

Construction

The decline in construction activity is somewhat milder

Construction activity has declined by about 3% in Q1 compared to the same period last year, which is a smaller decline compared to that of Q4, which stood at 6%. Among the several indicators of the trends in the construction sector, we analyzed the cement production index, as one of the most reliable ones [8] (Table T2-10). Cement production in Q1 declined by 2.3% compared to the same period last year.

Another SORS indicator describing trends in the construction sector is the completed construction works value index, which recorded a 4.7% y-o-y real decline in Q1. A similar decline of both the observed indicators (cement production and value of completed construction works) indicates a y-o-y decline of construction activity by about 3%.

Table T2-10. Serbia: Cement Production, 2001–2011

	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	86.0	75.3	74.4
2010	160.7	96.9	96.0	97.4	101.1
2011	97.7	-	-	-	-

Source: SORS

Considering that the decline in construction activity stood at 12% in 2010, Q1 data are possibly a sign of a resumption of the upward trend. Although such an interpretation still calls for caution, because the Q1 construction activity is seasonally very low – the fact that the value of contracted construction activities in Q1 grew by as much as 59% against the same period last year is an indication of an upward trend.

8 Cement consumption would be the proper indicator, but data on cement consumption are not available at a quarterly level frequency. Studies have shown that cement production approximates consumption with relative reliability.

3. Employment and Wages

Labor market trends continue to worsen in Q1 2011, although at a significantly slower pace than during the first two years of the economic crisis. Formal employment declined mildly, by about 5,000 persons between September 2010 and March 2011. Only the manufacturing sector recorded an employment decline over the last six months, by about 6,000 persons, i.e. 2.1%. The number of registered unemployed increased by about 30,000 persons between September 2010 and January 2011. The average real wage in Q1 declined by 2.3% y-o-y, while the average nominal wage accelerated and recorded 10.1% y-o-y growth. Average real wages in Q1 posted a rather high y-o-y decline of around 11% and 8% in education and health sectors respectively, and a somewhat milder decline of 2% in public administration. For the first time since 2001, the average real wage in the private sector did not record any y-o-y growth in Q1.

Employment

Labor market trends continued to worsen in Q1 2011, albeit at a slower pace

Negative labor market trends continued in Q1 2011. However, their deterioration has significantly slowed down since the second half of 2010, in comparison to the first two years of the economic crisis.

A mild decline of the employment rate can be expected, while unemployment will continue to grow

Even though the results of the Labor Force Survey (LFS) conducted in April 2011 are still not available, it is expected that the employment rate has continued its mild decline and that the unemployment rate has continued to grow in the period between October 2010 and April 2011.

Table T3-1. Serbia: Employment and Unemployment According to the Labor Force Survey [1], 2008–2011

		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		
				Total	Male	Female		Total	Male	Female
		1	2	3	4	5	6	7	8	9
2008	April	2,652,429	670,141	54.0	62.3	46.0	432,730	14.0	12.4	16.1
	October	2,646,215	589,240	53.3	62.2	44.7	457,204	14.7	12.7	17.3
2009	April	2,486,734	437,957	50.8	58.7	43.3	486,858	16.4	15.0	18.1
	October	2,450,643	411,303	50.0	57.4	42.7	516,990	17.4	16.1	19.1
2010	April	2,278,504	326,623	47.2	54.3	40.3	572,501	20.1	19.4	21.0
	October	2,269,565	352,724	47.1	54.4	39.9	565,880	20.0	19.0	21.2

Source: Labor Force Survey (LFS), SORS
Note:
1) The Labor Force Survey has been conducted twice a year since 2008 – in October and in April.
2) Persons between the age of 15 and 64 are considered to be of working-age.
3) Until October 2008, the LFS did not sontain the 15-64 age group classification for the number of employed in agriculture and contributing household members, only 15+.

Formal employment continued to decline by around 5,000 persons between September 2010 and March 2011

Between September 2010 and March 2011, formal employment continued to decline, albeit at a significantly slower pace in comparison with the previous two and a half years (Table T3-2, Column 1). Total formal employment in the September 2010–March 2011 period declined by about 0.3%, i.e. 5,000 persons. The decline of formal employment was much more pronounced year-on-year, so between March 2010 and March 2011 it amounted to 46,000 persons, i.e. 2.6%.

The decline in total employment is fully attributable to the decline in the number of employed with legal entities, as data on entrepreneurs are still not available

The decline in employment in the previous six-month period is fully attributable to the decline of the number of employed with legal entities (Table T3-2, column 2), considering that data on entrepreneurs – natural persons and their employees, are still not available for March 2011 (Table T3-2, column 3). When data on the number of entrepreneurs become available, the number of employed will probably be adjusted downwards.

Table T3-2. Serbia: Number of Registered Employed and Unemployed[1], 2004–2011

		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						
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	1,911	1,411	500	210	290	1,701	758
	September	1,868	1,383	485	211	274	1,657	737
2010	March	1,817	1,362	455	199	257	1,618	778
	September	1,775	1,348	427	183	244	1,592	721
2011	March	1,770	1,344	427	183	244	1,588	751

Source: SORS – RAD-1/P semi-annual report on employed persons and wages of employed persons; RAD-1 survey amending the semi-annual survey; RAD-15 semi-annual survey on private entrepreneurs and their employees; National Employment Service (NES).
Note: September data were adjusted on the basis of the RAD-1/P semi-annual survey for March 2010.
Footnotes:
1) Registered employment refers to the formal economy, i.e. those employees with employment contracts for whom social security contributions are being paid.
2) Registered employment refers to those persons that are registered with the National Employment Service (NES). In September 2004, NES switched over from monitoring the number of job seekers to monitoring the number of unemployed, which is why we do not have a series for the period before September 2004 (Column 7).
3) The number of unemployed in March 2011 actually represents the number of unemployed registered with NES in January 2011 and published in the January 2011 Monthly Statistical Bulletin of the Statistical Office of the Republic of Serbia (SORS). For reasons yet unknown, NES has temporarily discontinued the publication of data on persons registered with them as of December 2010.

As of January 2011, SORS switched to a new classification of activities, as part of harmonization with the European Statistical System (Eurostat) standards. Data on the number of employees by new activity sectors are available for the entire 2010 and Q1 2011.

Only manufacturing industry recorded an employment drop of 6,000 persons, i.e. 2.1% over the last six months

Sector breakdown for the period September 2010 – March 2011 indicates that only the Manufacturing sector has recorded an employment drop, by around 6,000 persons, i.e. 2.1% within the sector. None of the other sectors have recorded any changes in the number of employed, if we exclude seasonal fluctuations in certain sectors (Table P-5 in the Analytical Appendix).

The greatest decline in employment, on a y-o-y level, was recorded in manufacturing, followed by trade

Y-o-y, in March 2011 the Manufacturing sector recorded the greatest decline, of about 19,000 persons, i.e. 6.1% within the sector. A decline in the number of employed was recorded in the Wholesale and retail trade – about 6,000 persons, i.e. 3.3% within the sector, Construction – about 2,000 persons, i.e. 2.5% within the sector, and Transport and storage – about 2,000 persons, i.e. 1.9% within the sector (Table P-5 in the Analytical Annex).

Between March 2010 and March 2011, the number of employed increased by 2,000 persons in the sectors Professional, scientific, innovation and technical activities and Other service sector activities (3.3% and 20.4% within the sector) (Table P-5 in the Analytical Annex).

Registered unemployment grew by around 30,000 persons between September 2010 and January 2011

The number of registered unemployed grew by around 30,000 persons, i.e. 4.2% between September 2010 and January 2011, which is the last month for which administrative unemployment trend data are available (Table T3-2, column 7). These data, although indicative, do not necessarily reflect the trends in the economically defined unemployment, because they only cover people who use services of the National Employment Service, regardless of their real labor market status.

Employment decreased by about 2,000 persons in the public administration and public enterprises

Within the public sector, administration and public state-owned enterprises have seen a decrease in employment by about 2,000 persons between September 2010 and March 2011. A regular seasonal increase of about 2,000 employees took place in the Education sector, which we have not been able to explain so far (Table T3-3).

Table T3-3. Serbia: Public Sector Employment, 2004–2011

		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						
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	933
	September	64	123	142	88	57	473	910
2010	March	62	124	142	87	56	472	890
	September	63	122	143	86	56	470	878
2011	March	61	124	143	84	57	469	875

Source: SORS

Note: The total balance of public sector staff in the Table does not comprise the employees of the Ministry of Defense and the Ministry of the Interior, although their salaries are funded from the state budget. Their numbers are estimated at around 80,000, and they account for another 4% of all employed persons in Serbia. Precise data on their numbers and average wages are not published by SORS for security reasons.

Footnote:

1) Private, socially-owned and mixed enterprises (excluding entrepreneurs). This number is arrived at by subtracting the number of public company workers and others whose wages are financed from the state budget, from the total number of employees in legal entities from Table T3-2.

Box 1. How Will New Active Labor Market Measures Affect Employment?

In May 2011, the Government of the Republic of Serbia adopted another set of active labor market measures to be implemented through the National Employment Service (NES). These measures, in the form of subsidies to employers, are expected to encourage companies to hire new workers, or to register unregistered workers.

Employers will be exempt from paying pension and disability contributions for a period of one year for an unemployed person registered with NES that they employ. During the same period personal income tax paid for that employee will be reduced by 30%. If hiring a person younger than 30 or older than 45, the employer will not be required to pay the personal income tax and pension and disability contributions for that person's salary for a period of one year. These incentives can be used only by employers who have never previously used subsidies for new employment, provided that they have not fired anyone else prior to taking on a subsidy.

In addition to these new measures, NES is already implementing two similar "competing" employment subsidy programs. The first one of these, implemented since 2007, is colloquially referred to as "Article 45" (pursuant to the Law on Social Insurance Contributions). It subsidizes social insurance contributions paid by employers and the personal income tax for newly employed workers below the age of 30 and above the age of 45 and 50, as well as for persons with disabilities. These subsidies are approved for a period of two and three years respectively. From the viewpoint of the employer as the subsidy recipient, the total value of the "Article 45" subsidy per employee would still be larger than the subsidy granted under the new Decree, except for employment of workers between 30 and 45, whose employment was subsidized until now.

The second existing subsidized employment program is "First Chance", a large-scale apprenticeship program targeting unemployed youth below the age of 30, with minimum secondary education and no previous relevant working experience. Despite this year's somewhat more stringent requirements, this program is still significantly more generous than "Article 45" and the new Decree, because the state subsidizes not only contributions, but also the salary base of the employed beneficiaries, while the employer only pays the personal income tax. On the other hand, the subsidized period (up to one year) is shorter than the period subsidized under Article 45. "First Chance" is still more popular with employers, which can be concluded from the

fact that since its introduction in 2009, the number of Article 45 subsidy beneficiaries has been practically halved – not only in the younger but also in the older working population cohorts.

Previous experiences with this type of active labor market programs – subsidized salaries – show that private sector companies have a certain "absorption capacity" in using these programs, hence, the introduction of new subsidies is not likely to significantly contribute to increasing new subsidized employment. On the other hand, companies will have a greater "menu" of subsidies and a wider choice of workers, considering that the subsidies foreseen by the new Decree also cover workers from 30 to 45 years of age (*prime age)*. As a group, they can benefit the most from these new measures.

In conclusion, we do not believe that the Government Decree on new active labour market measures will have a significant positive impact on the overall employment trends. The greatest novelty is that for the first time it offers companies the possibility of subsidized employment of unemployed prime age workers. Since the impact of this measure on the structure of subsidized employment will be greater than on its total figure, there will be no significant budget expenditures on this account. Additional diversification of the payroll subsidy system may lead to attempts of its abuse; hence, the prevention thereof will lead to increased implementation and monitoring costs. The basic motivation for adopting the new Decree was probably the need of the Government to demonstrate decisiveness and adopt a new approach to eradicating unemployment.

Wages

The y-o-y average real wage in Q1 decreased by 2.3%

The average real wage in Q1 2011 continued its decline recorded in Q4 2010. Its y-o-y drop in Q1 2011 amounted to 2.3% and was twice as high as in Q4 2010 (Table T3-4). In April 2011, the real average wage continues to decline y-o-y.

Table T3-4. Serbia: Average Monthly Wages and Y-o-Y Indices, 2008–2011

	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
2009	52,090	31,758	554	337	108.8	101.0
2010	55,972	34,159	543	332	107.5	101.2
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
Q3	52,065	31,737	558	340	107.7	100.1
Q4	54,689	33,366	579	353	105.4	99.9
Dec	60,265	36,789	628	383	106.9	100.8
2010						
Q1	52,261	31,924	530	324	105.7	101.1
Q2	55,989	34,192	548	335	107.3	103.2
Q3	56,435	34,372	537	327	108.4	101.8
Q4	59,204	36,149	556	339	108.3	98.8
Dec	64,784	39,580	609	372	107.5	97.5
2011						
Q1	57,539	35,108	553	338	110.1	97.7
April	64,293	39,298	634	387	112.4	97.9

Source: SORS

Notes:

1) Data for 2008 are adjusted on the basis of the expanded data sample used to calculate the average wage, which includes the salaries of those employed with entrepreneurs.

2) Y-o-y average monthly gross wage indices for 2008 were calculated on the basis of average earnings in 2007 and 2008 based on the "old" sample that does not include those employed with entrepreneurs. These indices are comparable with the indices for 2009, given the fact that the expansion of the sample of earnings preserved their growth dynamics and only reduced their nominal value by about 12%.

3) Total labor costs (TLCs) comprise employer's total average expense per worker, including all taxes and social security contributions. TLCs stand at around 164.5% of the net wage. Gross wage growth indices are equal to total labor cost indices, because the average TLC is greater than the average gross wage by a fixed 17.9%.

The average nominal wage is growing; it recorded 10.1% y-o-y growth in Q1

Although the average real wage has been decreasing, the average nominal wage in Q1 2011 recorded 10.1% y-o-y growth, due to the high inflation rate. The average net wage expressed in euros amounted to € 338 and remained at the same level as in Q4 2010. In comparison with Q1 2010, when it amounted to € 324, the average net wage in euros increased by 4.3% in Q1 2011 (Table T3-4).

Average real wages recorded a y-o-y drop of around 11% and 8% in education and health sectors respectively and a drop of 2% in public administration

Within the public sector the average real wage in Q1 2011 recorded a quite high y-o-y drop of around 11% and 8% in the Education and culture and Health care and social work sectors, as well as a significantly lower decline of around 2% in the state and local administration. The average real wage in public state-owned enterprises remained on the same y-o-y level in Q1 2011. (Table T3-5).

For the first time since 2001, the average real wage in the private sector did not record any y-o-y growth in Q1

The Q1 2011 average private sector real wage remained at the same level as in Q1 2010, which is the first time this has occurred since 2001, the economic crisis period included (Table T3-5, column 6).

Table T3-5. Serbia: Gross Wages in the Public Sector, 2004–2011, 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
2009	95.5	96.7	97.4	98.3	98.2	104.1	101.1
2010	99.1	95.1	94.3	98.1	98.0	104.5	101.2
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	99.8	97.9	99.4	98.4	100.8	105.1	102.5
Q2	94.0	97.4	98.1	99.0	99.3	104.8	102.0
Q3	93.6	96.2	96.9	98.1	95.4	102.9	100.1
Q4	93.0	93.6	93.5	96.0	95.9	104.0	99.9
2010							
Q1	95.8	96.1	96.1	102.2	98.0	103.5	101.1
Q2	101.0	96.7	95.1	102.1	98.3	106.6	103.2
Q3	100.4	95.1	94.6	94.5	99.8	106.0	101.8
Q4	99.4	92.5	91.2	93.5	95.7	102.3	98.8
2011							
Q1	98.1	89.4	92.0	100.6	92.2	100.3	97.7

Source: SORS

Notes:

1) Column 6 includes private, socially-owned and mixed enterprises (excluding entrepreneurs, i.e. self-employed).

2) Column 6 shows the estimated value arrived at by deducting the public sector wage bill from the total wage bill and then dividing the difference by the number of workers employed in the corporate sector (column 7, Table T3-3).

3) Real y-o-y wage indices in columns 6 and 7 for 2008 and 2009 were calculated on the basis of the expanded sample for the calculation of the average wage, which now includes also workers employed by entrepreneurs.

4. Balance of Payments and Foreign Trade

The current account deficit amounted to €839.5mn in Q1 2011, or 11.6% of GDP, and was nominally up by 10.5% on the deficit seen in Q1 2010. The growth in exports continued to accelerate (standing at 33.7% at the y-o-y level), while imports recovered abruptly (24.3% at the y-o-y level) in relation to the preceding quarters. Although exports continued to grow at a faster pace than imports, these movements led to a y-o-y increase in the goods deficit of 10.7% due to a low ratio of exports to imports. The quick recovery in imports was noticeable with reference to seasonally-adjusted values, where imports saw much faster growth than exports in Q1 2011 relative to the preceding quarter. Nonetheless, the structure of imports remained favorable throughout Q1, as a significant portion was made up by intermediate and capital goods, which can have a positive impact on domestic economic activity in the near future. Net current transfer inflows were markedly lower in Q1 2011 in relation to the extremely high values seen over the preceding two years, which could either indicate a drop in these types of inflows and a return to their lower pre-crisis values, or could be due to seasonal fluctuations. A substantial capital inflow was recorded in the financial account; this led to an increase in foreign currency reserves and an appreciation of the Serbian currency. Still, the bulk of capital inflows was made up of foreign investment into government securities, and is therefore short-term in character. On the other hand, the repayment of a substantial amount of liabilities by the banking sector, as well as the repayment of long-term liabilities by the economy, although adversely impacting the financial account, led to a drop in the Serbian economy's foreign debt.

The current account deficit stood at €839.5mn, or 11.6% of GDP in Q1

The current account deficit amounted to €839.5mn, or 11.6% of GDP, in Q1 2011 (Table T4-1). When compared to Q1 of the preceding year, the current account deficit was nominally up by 10.5%, owing to an increase in the goods deficit and lower net current transfer inflows. The ratio of the current account deficit to GDP (11.6%) remained nearly unchanged relative to that seen in Q1 2010 (11.5%; see Table T4-1). Nevertheless, the figure of 11.6% of GDP represents a major increase in relation to the ratios seen in Q2, Q3 and Q4 2010 (8.5%, 7.2% and 2.6%, respectively), as well as in 2010 as a whole (7.3% of GDP).

The goods deficit rose…

The goods deficit amounted to €1,313mn, up by 10.7% on Q1 2010. The reason for this y-o-y increase, in spite of exports continuing to outpace imports, was the low exports/imports ratio.[1] The ratio of the deficit to the gross domestic product stood at 18.1%, and, despite being at the same level as recorded in Q1 last year (when it had amounted to 18.0% of GDP), it was still above values seen in other quarters of 2010 (see Table T4-1).

Ratios of both imports and exports to GDP increased in relation to figures seen in 2010 (exports amounted to 26.9% of GDP, while imports made up 45.1%; the figures for 2010 were 26.1% and 42.9%, respectively). While the ratio of imports to GDP was above all individual quarterly values for 2010, the export ratio stood above the values seen in the first three quarters of 2010 and declined relative to the figure recorded in Q4 2010. Goods worth €1,951.4mn were exported, while imports were valued at €3,264.4mn. A slight surplus, of €27.6mn, was recorded in the trade in services. Thus the goods and the services deficit rose slightly more at the y-o-y level than did the goods deficit (6.7% at the year-on-year level).

…and current transfer inflows fell

Net current transfer inflows amounted to €558.2mn in Q1 2011, of which €369.5mn was accounted for by net inflows of remittances (Table T4-1). Net current transfers made up 7.7% of GDP, as against 11.8% in 2010 and 12.2% in 2009 (Table T4-1). The fall in the inflows of current transfers was caused by lower remittance inflows. Over the first three months of 2011 remittance inflows comprised 5.1% of GDP, markedly lower than the levels seen in 2009 and 2010 (9.1% and 8.4% of GDP, respectively). The drop in remittance inflows was rather pronounced relative to the ratio of remittances to GDP in Q2, Q3 and Q4 2010 (7.6%, 8.4% and 11.1%, res-

1 The ratio of exports to imports was 60% in Q1 2011, meaning that exports should rise nearly twice as quickly as imports if the goods deficit is to decline.

pectively), yet was less marked relative to inflows seen in Q1 2010 (having recorded a drop of 1.2 percentage points of GDP). On the one hand, therefore, the value of remittances recorded may indicate lower inflows under this category for the current year – in a return to lower remittance amounts predominant in the run-up to the crisis – or, on the other hand, it could be a result of seasonal fluctuations. Remittance inflows were down 10.9% on Q1 2010.

Q1 saw major capital inflows and an increase in foreign currency reserves…

The first three months of 2011 recorded substantial capital inflows, amounting to €727.9mn,[2] while foreign currency reserves rose by €167.7mn (Table T4-1). Of the Q1 increase, amounting to €167.7mn in total, February saw the reserves rise by €196.4mn. The growth in foreign currency reserves in February was primarily caused by the sale of Republic of Serbia government securities.[3]

…chiefly due to the sale of Republic of Serbia government securities

The bulk of the capital inflows was made up of portfolio investments (€519.5mn). Such high portfolio investment inflows were caused by foreign investment into government securities (which accounted for the greatest net inflow, of €300mn, in February). Net foreign direct investment amounted to €306.6mn, the bulk of which arrived in March (€219.1mn).[4] Other investments were negative, standing at -€98.6mn (Table T4-1).

Table T4-1. Serbia: Balance of Payments

	2008	2009	2010	2010				2011
				Q1	Q2	Q3	Q4	Q1
				in millions of euros				
CURRENT ACCOUNT	-7,054	-2,084	-2,082	-760	-610	-523	-189	-839
Goods	-8,501	-5,118	-4,773	-1,186	-1,166	-1,248	-1,173	-1,313
Export f.o.b[1)]	7,416	5,978	7,403	1,473	1,870	1,931	2,130	1,951
Import f.o.b	-15,917	-11,096	-12,176	-2,659	-3,036	-3,179	-3,303	-3,264
Services	-185	18	5	-19	5	-1	20	28
Export	2,741	2,500	2,667	537	635	737	758	631
Import	-2,926	-2,482	-2,662	-555	-629	-739	-738	-604
Income, net	-922	-502	-670	-167	-205	-127	-171	-112
Receipts	558	500	438	107	108	92	131	101
Payments	-1,480	-1,002	-1,108	-273	-313	-219	-302	-214
Current transfers, net	2,554	3,518	3,356	611	755	854	1,136	558
o/w grants	163	197	193	29	20	35	109	49
o/w private remittances, net	1,692	2,618	2,383	415	543	610	815	370
CAPITAL ACCOUNT	13	2	1	0	0	1	0	-1
FINANCIAL ACCOUNT	7,133	2,207	2,032	698	599	493	241	560
Direct investment, net	1,824	1,372	860	284	136	176	265	307
Portfolio investment, net	-91	-51	39	38	35	4	-38	520
Other investments	3,713	3,249	204	10	107	0	87	-99
Trade credits	957	654	92	-109	128	255	-182	133
Loans	3,499	1,414	830	523	-270	93	483	-879
NBS	0	1,114	341	0	237	50	54	-4
Government	98	258	735	167	198	315	55	29
Commercial banks	125	894	626	525	-396	-123	619	-691
Long-term	-274	492	619	558	-6	33	34	3
Short-term	399	402	6	-32	-390	-156	585	-694
Other (enterprises)	3,275	-853	-872	-170	-309	-148	-246	-214
Currency and deposits	-713	760	-717	-405	249	-348	-213	648
Other assets and liabilities	-30	0	0	0	0	0	0	0
Allocation of SDR	0	422	0	0	0	0	0	0
Reserves Assets (- increase)	1,687	-2,363	929	367	321	313	-73	-168
ERRORS AND OMISSIONS, net	-92	-124	49	62	11	29	-53	280
OVERALL BALANCE	-1,687	2,363	-929	-367	-321	-313	73	168
PRO MEMORIA								
				in % of GDP				
Current account	-21.6	-7.2	-7.3	-11.5	-8.5	-7.2	-2.6	-11.6
Balance of goods	-26.0	-17.7	-16.8	-18.0	-16.2	-17.2	-16.0	-18.1
Exports of goods	22.7	20.7	26.1	22.4	26.1	26.5	29.0	26.9
Imports of goods	-48.7	-38.4	-42.9	-40.4	-42.3	-43.7	-45.0	-45.1
Balance of goods and services	-26.6	-17.7	-16.8	-18.3	-16.2	-17.2	-15.7	-17.7
Current transfers, net	7.8	12.2	11.8	9.3	10.5	11.7	15.5	7.7
GDP in euros[2)]	32,690	28,893	28,377	6,589	7,176	7,274	7,338	7,245

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).

2 Or €1,008.3mn when corrected for the balance of Errors and Omissions.

3 Inflows under this category amounted to €288.6mn. In addition, February saw a small inflow under a European Investment Bank loan (€11.4mn). On the other hand, the same month recorded outflows due to banks drawing €110.6mn under the foreign currency reserve requirement, as well as owing to the repayment of foreign liabilities; see http://www.nbs.rs/internet/cirilica/scripts/showContent.html?id=4882&konverzija=no [in Serbian].

4 Investments were made into manufacturing (primarily iron and steel production), the financial and media sectors, and trade; see *NBS Inflation Report*, May 2011, p. 20.

Other investments were in negative territory

As for other investments, substantial inflows were recorded in Q1 by net trade credits (€132.8mn, Table T4-1). Of the total €647.6mn in inflows into the Cash and Deposits account, the bulk was seen in January (€643.8mn);[5] this was followed by a slight outflow in February (€34.4mn) and a minor inflow in March (€38.3mn). Owing to the substantial repayment of liabilities by the private sector throughout the three-month period in question, the Loans account recorded a negative net amount of €879.0mn. Banks repaid their liabilities to the tune of €691.1mn net (of which €693.8mn in short-term loans; see Table T4-1). Businesses also repaid a large share of their debts, amounting to €213.7mn, yet exclusively in long-term loans (€214.3mn).

Foreign Debt

Foreign debt amounted to €22.7bn, or 74.8% of GDP

As of late March 2011, total foreign debt amounted to €22.672bn, equivalent to 74.8% of GDP. The fall in the ratio of foreign debt to GDP seen in Q1 2011 was caused by the repayment of banks' liabilities (under short-term loans) and the drop in the long-term debt owed by businesses and the public sector. When compared with foreign debt levels seen a year ago (in March 2010), the lower figure for total indebtedness can be attributed exclusively to the private sector – banks and businesses.

The Q1 fall in foreign debt was chiefly caused by the repayment of the short-term liabilities of banks and long-term liabilities by businesses and the public sector

Foreign debt fell by more than a billion euros (€1,115mn) over just three months of 2011. This decline in foreign debt can mainly be attributed to the repayment of liabilities by the private sector – mainly by the pronounced repayment of short-term liabilities by banks. Apart from banks, businesses repaid an additional €169mn in long-term liabilities. In addition, public sector debt fell by €216mn as a consequence of exchange rate fluctuations and the repayment of loans taken out previously.

The ratio of foreign debt to gross domestic product was 6.7 percentage points down on the figure seen three months previously (a drop from a ratio of 81.5% recorded in late December 2010 to 74.8% in late March 2011; see Table T4-2). In Q1 2011 the private sector reduced its indebtedness by 4.8 percentage points of GDP, while the public sector cut its debt by 1.9 percentage points of GDP.

It is important to underline that the fall in the foreign debt was probably caused partly by fluctuations in the exchange rates of currencies that make up the structure of foreign debt. The euro continued to appreciate against the dollar, which must have contributed to the foreign debt expressed in euros standing slightly lower than it would have had these exchange rate fluctuations not occurred.[6]

When viewed at the y-o-y level, the lower total indebtedness is owed exclusively to the private sector

The amount of foreign debt in late March 2011 was down €271mn in relation to the figure seen one year previously. On the one hand, the private sector saw its foreign debt fall by a billion euros, while public sector debt rose by €738mn.

Banks took out an additional €480mn in long-term loans, whereas the amount of banks' short-term loans fell by €655 mn in Q1 2011 relative to Q1 2010. Businesses reduced their long-term foreign debt by €768mn and their short-term debt by €131mn. Of the total increase in public sector debt (amounting to €738mn), the increase in borrowing from the IMF accounted for €318mn.[7]

5 This was a consequence of the drop in commercial banks' foreign currency reserves caused by the repayment of short-term liabilities (under short-term loans taken out late in 2010).

6 According to the latest NBS data on the currency structure of the foreign debt, the portion of debt denominated in dollars accounted for one-tenth of the total. The euro accounted for 76.4%, special drawing rights for 8.3%, the Swiss franc for 4.6%, and other currencies for 0.7%; S ee Analysis of the Republic of Serbia's Debt, NBS, December 2010, p. 2, http://www.nbs.rs/export/sites/default/internet/english/90/dug/debt_IV_2010.pdf

7 The public sector saw its foreign debt rise owing to substantial borrowing from abroad in 2010 (including parts of the third and fourth tranches of the standby arrangement with the IMF in Q2, a loan granted by the Russian Federation and the fifth tranche of the standby arrangement in Q3, further foreign borrowing and a new tranche in Q4 under an IMF loan designed to boost foreign currency reserves, etc.; see previous issues of *QM*).

Table T4-2. Serbia: Foreign Debt by Structure, 2008-2011

	2008	2009				2010				2011
		Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
	stocks, in EUR millions, end of the period									
Total foreign debt	21,088	20,689	20,967	21,071	22,487	22,943	23,456	23,115	23,786	22,672
(in % of GDP) 2)	*71.8*	*73.6*	*71.9*	*70.4*	*75.9*	*78.9*	*82.7*	*81.3*	*81.5*	*74.8*
Public debt	6,521	6,653	7,322	6,933	7,764	8,122	8,921	8,874	9,076	8,861
(in % of GDP) 2)	*22.2*	*23.7*	*25.1*	*23.2*	*26.2*	*27.9*	*31.4*	*31.2*	*31.1*	*29.2*
Long term	6,503	6,634	7,304	6,915	7,762	8,122	8,921	8,874	9,076	8,861
o/w: to IMF	0	0	771	757	1,110	1,157	1,483	1,455	1,529	1,475
o/w: Government obligation under IMF SDR allocation	0	0	0	0	422	440	469	444	449	434
Short term	18	19	18	19	1	0	0	0	0	0
Private debt	14,568	14,036	13,645	14,137	14,724	14,820	14,535	14,241	14,710	13,811
(in % of GDP) 2)	*49.6*	*50.0*	*46.8*	*47.3*	*49.7*	*51.0*	*51.2*	*50.1*	*50.4*	*45.6*
Long term	12,442	12,387	12,225	12,469	12,720	12,919	13,076	12,945	12,880	12,696
o/w: Banks debt	2,201	2,170	2,170	2,451	2,597	2,867	3,195	3,279	3,362	3,347
o/w: Enterprises debt	10,241	10,217	10,055	10,018	10,123	10,052	9,881	9,667	9,518	9,348
Short term	2,126	1,649	1,421	1,668	2,003	1,901	1,459	1,295	1,830	1,116
o/w: Banks debt	1,323	855	747	1,257	1,713	1,691	1,304	1,146	1,731	1,036
o/w: Enterprises debt	803	794	674	411	290	210	155	149	100	79
Foreign debt, net 1), (in% of GDP)2)	43.9	44.6	41.4	38.5	40.1	43.0	45.7	46.5	47.2	42.1

Source: NBS

Note: Since September 2010 the methodology for the external debt statistics has been changed so that the external public debt includes obligations under the IMF SDR allocation (€443.5mn), which was used in December 2009, as well as capitalized interest to Paris Club creditors (€86.4mn), while the loans concluded before December 20, 2000, under which payments have not been effected, are excluded from the external debt of the private sector (€875.4mn, of which €397mn relate to domestic banks and €478.4 mn to domestic enterprises). Foreign debt data provided in the Table follow the new methodology.

Source: NBS, *QM*

1) Total foreign debt less NBS currency reserves.

2) The values used are seasonally- and cyclically-adjusted quarterly GDP figures, multiplied by four.

The ratio of public-sector foreign debt to overall foreign debt grew

The difference in the pace of borrowing by the private and public sectors caused a shift in the structure of foreign debt. The ratio of private-sector foreign debt to overall foreign debt has been dropping, while, on the other hand, the ratio of public-sector debt to total foreign debt has been rising. In late March 2009, the ratio of private-sector foreign debt to total foreign debt stood at 67.8%, while public-sector debt accounted for 32.2%. In March 2010, private-sector debt made up 64.4% of all foreign debt, while the public sector accounted for 35.4%.

The downward trend seen in private-sector foreign debt and the increase in public-sector debt continued in late 2010 and into early 2011, with private-sector foreign debt accounting for 60.9% of all foreign debt, and public-sector foreign debt making up 39.1%.

Exports

Exports continued to accelerate, growing in Q1 at a rate of 33.7% at the y-o-y level

Exports amounted to €1,960.8mn in Q1 2011 and continued to accelerate. Having seen a swift recovery in 2010 (with y-o-y rates of 14.9% in Q1, 23.2% in Q2, 24.6% in Q3 and 32.2% in Q4), total exports stood 33.7% higher in Q1 2011 relative to Q1 2010 (see Table T4-3).

Nearly one-half of the y-o-y growth in total exports is owed to *bulky exports*[8] (in point of fact, the contribution made by the growth in *bulky exports* amounted to 46%),[9] while 54% of the growth can be ascribed to the exports of products that make up the *underlying exports* category. Within *underlying exports*, the *core* component contributed 28% to the y-o-y increase in total exports, while the *other* component accounted for 26%.

Global prices determined the high growth of products making up the bulky exports category

The year-on-year increase in *bulky exports* amounted to 53.9%. The high y-o-y growth of this category was primarily caused by the y-o-y rise in the value of exports of *cereals and cereal products, iron and steel* and *non-ferrous metals*.

The pronounced increase in the prices of cereals on the global market contributed to the exceptionally high growth in the exports of these products. Cereal prices in euros were 52.2% up on

8 The bulky exports category is made up of just four groups of products (*iron and steel, non-ferrous metals, fruit and vegetables, and cereals and cereal products*; see Table T4-3).

9 This contribution is calculated as the ratio of absolute changes in export components to absolute changes to total exports in relation to the same quarter of the preceding year.

last year.[10] These high prices reflected on higher quantities of these products exported (the quantity of cereals exported was 34.0% greater than the figure recorded in the same period of the preceding year). Thus Q1 saw the value of exported cereals rise by 104.0% relative to Q1 2010. These movements made the Serbian Government ban the export of wheat and flour[11] in mid-March. Had this measure not been imposed, the exports of wheat in the first trimester of 2011 would have been slightly higher than was recorded, which would also have impacted exports as a whole. As the ban will remain in force for most of the second quarter of 2011, we can expect it to exert a substantial negative influence on the value of cereals exported, and perhaps contribute to a slowdown in the growth of overall exports in this period.

The increase in the price of steel seen in 2010 intensified in 2011; the extremely high price meant that exports continued their fast-paced growth seen in 2010. Iron and steel exports saw y-o-y growth of 47.4% in Q1, thereby making a significant contribution to the increase in total Serbian exports.[12]

The year-on-year growth in the value of *non-ferrous metals* exported stood at 50.5% (see Table T4-3), and was primarily caused by the increase in the prices of these products in the global market. Global prices (in euros) of non-ferrous metals were up 31.7% in Q1 2011 on the same period one year previously. In our estimation, therefore, the exported quantity of these products increased by 14.3% at the y-o-y level.

Table T4-3. Serbia: Exports, Y-o-y Growth Rates, 2010-2011

	Exports share in 2010	2010[1)]				2011[1)]	2010[1)]				2011[1)]
		Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
	%	mil.euros					y-o-y growth rate (%)				
Total	100.0	1,467	1,884	1,931	2,118	1,961	14.9	23.2	24.6	32.2	33.7
Bulky exports	28.1	422	496	537	627	649	42.3	41.6	39.3	53.6	53.9
Iron and steel	9.8	162	195	182	182	239	60.2	130.4	39.0	27.0	47.4
Non ferrous metals	7.1	109	132	152	132	164	68.3	75.0	69.3	55.9	50.5
Fruits and vegetables	5.4	75	80	114	129	92	21.6	-4.8	16.2	63.2	22.4
Cereal and cereal products	5.9	75	89	88	183	154	10.0	-16.6	33.7	82.0	104.1
Underlying exports	71.9	1,045	1,389	1,395	1,492	1,312	6.7	17.8	19.7	24.8	25.5
Core	28.8	438	522	583	592	577	2.1	11.8	32.1	26.5	31.7
Clothes	4.1	72	69	81	84	82	-37.7	-36.4	2.2	3.6	13.5
Miscellaneous manufactured articles, n.e.s.	3.5	47	65	72	71	60	-5.8	6.3	9.5	6.1	27.2
Manufactures of metals, n.e.s.	3.5	44	67	68	78	68	-8.0	2.2	9.2	26.7	52.6
Rubber products	2.9	54	52	55	56	76	23.6	33.6	27.0	31.9	40.0
Electrical machinery, apparatus and appliances	6.0	78	108	122	139	124	25.5	46.8	58.7	61.0	58.9
Organic chemicals	1.4	29	27	28	18	12	261.5	357.9	501.2	40.0	-58.7
Plastics in primary forms	1.8	29	32	37	34	43	47.1	69.9	753.8	31.8	48.5
Footwear	2.1	38	33	44	43	51	0.8	2.4	14.8	41.6	35.0
Paper, paperboard and articles of paper pulp	2.2	36	42	40	42	45	12.1	11.4	11.4	20.5	26.5
Non-metal mineral produce	1.3	11	27	35	26	17	-9.4	12.2	17.9	4.6	47.2
Other	43.0	607	867	812	899	735	10.2	21.7	12.1	23.7	21.0

Source: SORS

1) Figures that are in millions of euros and y-o-y growth rates were obtained based on the data from Statistical Office of the Republic of Serbia calculated using new methodology. For details see *QM*20, "Changes to foreign trade methodology used by the Statistical Office of the Republic of Serbia".

In underlying exports, both components (core and other) saw major growth

Underlying exports rose by 25.5% at the y-o-y level in Q1. In *underlying exports*, the value of exported products making up the *core* component was 31.7% up on Q1 2010. *Other exports* recorded y-o-y growth of 21.0% (Table T4-3). In the *core* component, high growth was exhibited by the product group of *electrical machinery, apparatus and appliances*, although recovery was also seen in all other product groups (with the exception of *organic chemicals*, which recorded a y-o-y drop in exported value).

Rapid export growth was also borne out by the seasonally-adjusted value graph

Rapid export growth was also borne out by the seasonally-adjusted value graph (Graph T4-4). As we had underlined in the previous issue of *QM*, seasonally-adjusted export values reached and exceeded historic highs seen before the economic crisis struck. The Graph makes it clear, as does Table T4-3, that fast-paced export growth in evidence since last year continued into the first

10 Dollar prices of cereals rose by 50.4%.

11 On 16 March 2011 the Serbian Government ruled to impose a three-month ban on the exports of wheat and flour in an attempt to stabilize the domestic market (see http://www.srbija.gov.rs/vesti/vest.php?id=149494 [in Serbian])

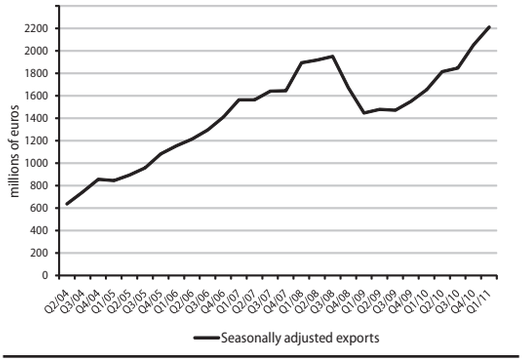
12 The value of the products making up the iron and steel group accounted for about one-tenth of the total value exported in 2010 (see Table T4-3).

trimester of 2011. The seasonally-adjusted value of exports stood 7.7% higher in Q1 2010 relative to the figure recorded in Q4 2010, an increase of 34.6% at the annual level.

Not dominated by exogenous factors, other product groups making up total exports saw moderate growth

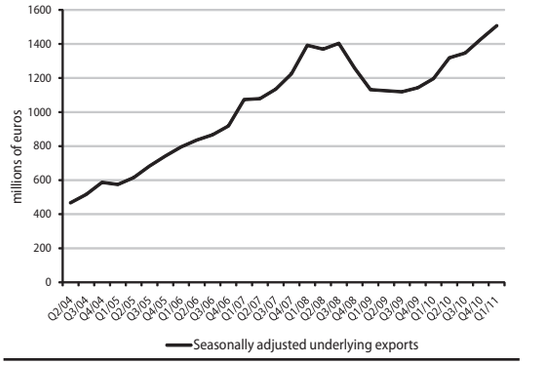
Although facts indicate that exogenous factors made a major contribution to the recovery of Serbia's economy (primarily due to the increase in the global prices of food, non-ferrous metals and steel), when the influence of these factors is excluded, it remains unclear to what extent Serbian exports recovered. Graph T4-5 shows seasonally-adjusted export values excluding *bulky exports* (to arrive at the rate of export recovery apparent when external effects are discounted). The Graph indicates that the growth in *underlying exports* was also substantial, i.e. that other production groups making up total exports – and not dominantly affected by global price growth – also saw pronounced growth. One should, nevertheless, bear in mind the fact that, when thus observed, underlying seasonally-adjusted exports exhibited slower growth than the total. Seasonally-adjusted *underlying export* values seen in Q1 2011 were 5.5% up on Q4 2010, an increase of 23.8% at the annual level. In addition, monthly growth rates throughout the first quarter of 2011 show that, after seeing growth of 2.6% in January relative to December 2010, seasonally-adjusted underlying exports started trending down, and fell by 0.4% in February relative to January, and by 1.9% in March relative to February. Therefore, seasonally-adjusted underlying export values (Graph T4-5), measured relative to the growth in total seasonally-adjusted exports (Graph T4-4) since the recovery first began (in late 2009) indicate that a recovery in Serbian exports is in fact present, but it appears to be slower when the effect of rising global prices is excluded.

Graph T4-4. Serbia: Seasonally-Adjusted Exports, by Quarter, 2004-2011



Source: SORS, *QM*

Graph T4-5. Serbia: Seasonally-Adjusted Underlying Exports, by Quarter, 2004-2011



Source: SORS, *QM*

Imports

Imports accelerated substantially in Q1 2011, recording growth of 24.3% at the y-o-y level

The value of goods imported over the first three months of 2011 amounted to €3,374mn, an increase of 24.3% on the same period one year previously (Table T4-6). The growth seen in Q1 2011 stood markedly above y-o-y rates seen over the last three quarters of 2010 (i.e. ever since imports began to recover; see Table T4-6). In addition, data on imports less energy bear out the fact that imports as a whole recovered at a quicker pace. The y-o-y growth rate of imports less energy stood at 22.3% in Q1, and was also substantially above all relevant quarterly rates seen in 2010 (see Table T4-6). With the exception of imports of *durable consumer goods* (which saw a y-o-y drop of 12.7%), high y-o-y growth was recorded by all other import components, particularly *energy*, *capital products* and *intermediate products*.

Year-on-year growth in energy imports was caused by rising global prices

Imports of *energy* were up 32.5% in Q1 2011 on the value imported in Q1 2010. Energy prices remained extremely high throughout the first quarter of 2011.[13] As the year-on-year increase in energy prices in euros stood at 30.6% in Q1, the growth in the value of energy imported was almost exclusively caused by the rise in energy prices on the global market, while the quantity imported remained nearly unchanged.

13 The unrest in Libya, the protests sweeping the Middle East, the slide of the dollar against the euro, the pound and other currencies, as well as other global events, all had an effect on the rise in global oil prices in evidence since the beginning of the year.

Imports of intermediate products accelerated their recovery…

The first quarter of 2011 saw imports of *intermediate products* accelerate their recovery, with their y-o-y rate standing at 38.9% (substantially above last year's growth rates of 1.5% in Q1, 15.3% in Q2, 23.2% in Q3 and 22.0% in Q4). Since these products account for the greatest part of total imports (31.1%), the high y-o-y growth recorded in the first quarter was the chief cause of the acceleration in total imports. *Intermediate products* made up 43.4% of the recorded increase in the value of total imports. As the recovery in the imports of these products is closely linked to growth in production, the sudden increase in their imports early in the year could signal the further medium-term recovery of Serbian production. Furthermore, the recovery in the imports of *capital products*, very slow throughout 2010, suddenly accelerated in Q1 2011. Imports of *capital products* recorded y-o-y growth of 35.0%. Although the high rate of growth in the imports of capital products seen over the first trimester of 2011 was partly caused by last year's low base and belated recovery (with negative rates seen over the first half of the year, followed by rather modest growth in the second, see Table T4-6), such a sudden reversal in the trend is another signal of the increasing importance of economic investment.

…while imports of capital products increased markedly

Imports of non-durable consumer goods and other imports saw y-o-y growth, while imports of durable consumer goods slumped

Imports of *non-durable consumer goods* and *other imports* saw a year-on-year increase of 7.7% and 7.2%, respectively, while imports of *durable consumer goods* were down 12.7% on last year's. As the value of imports of *durable consumer goods* accounted for a mere 2.8% of total imports, their year-on-year decline seen in this trimester had no substantial impact on the recovery in total imports. On the other hand, *non-durable consumer goods* accounted for 12.7% of total imports and the *other* component made up 19.7%, both exerting a major influence on overall import trends. The pace of their future recovery will therefore be important for the growth of imports.

Table T4-6. Serbia: Imports, Y-o-y Growth Rates, 2010-2011

	Imports share (2010)	2010[1)]				2011[1)]	2010[1)]				2011[1)]
		Q1	Q2	Q3	Q4	Q1	Q1	Q2	Q3	Q4	Q1
	in %	mil.euros					y-o-y growth rate (%)				
Total	100.0	2,713	3,066	3,285	3,417	3,374	-5.0	10.4	17.2	11.4	24.3
Energy	17.8	550	545	611	520	729	1.6	61.1	66.6	9.9	32.5
Intermediate products	31.1	737	959	1,089	1,101	1,023	1.5	15.3	23.2	22.0	38.9
Capital products	15.8	386	490	528	572	521	-22.2	-6.1	1.6	3.0	35.0
Durable consumer goods	2.8	83	82	85	105	72	-7.1	0.3	7.9	6.3	-12.7
Non-durable consumer goods	12.7	344	376	390	470	370	-2.3	5.7	5.8	9.1	7.7
Other	19.7	614	615	581	649	659	-5.7	-5.2	-0.6	6.9	7.2
Imports excluding energy	82.2	2,163	2,521	2,674	2,897	2,645	-6.5	3.4	9.7	11.7	22.3

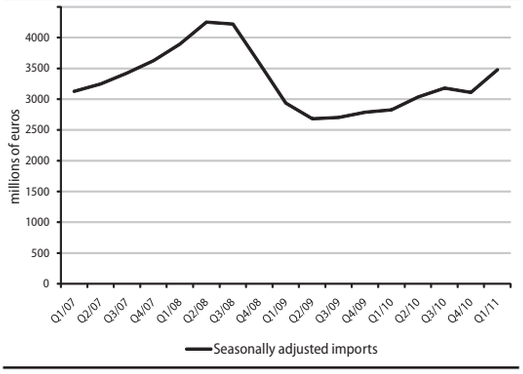
Source: SORS

1) Figures that are in millions of euros and y-o-y growth rates were obtained based on data from Statistical Office of the Republic of Serbia calculated using the new methodology. For details see *QM* 20, "Changes to foreign trade methodology used by the Statistical Office of the Republic of Serbia".

Seasonally-adjusted import values saw high growth

The graphs of seasonally-adjusted import values also indicates that marked acceleration in imports has been in evidence since the beginning of 2011 (Graph T4-7). Imports were up 11.9% in Q1 2011 on values seen in Q4 2010. Such quarterly growth represents an increase of 56.8% at the annual level. This means that the growth recorded starting with the beginning of the year was rather high, bearing in mind that seasonally-adjusted imports had been growing very slowly ever since recovery began (in late 2009), even declining in Q4 in relation to Q3 2010. Furthermore, the growth in imports will be seen to be high when compared to the simultaneous increase in seasonally-adjusted exports, standing a mere 7.7% in Q1 above Q4 2010 levels. The structure of imports was nonetheless rather favorable in Q1, as most of them were accounted for by the imports of intermediate and capital products, which may have positive effects on Serbian economic activity in the future.

Graph T4-7. Serbia: Seasonally-Adjusted Imports, by Quarter, 2007-2011



Source: NBS, SORS, *QM*

5. Prices and the Exchange Rate

The first four months of 2011 saw very high inflation, which was primarily contributed to by the strong growth in the prices of food, as well as of administratively controlled prices. Standing at 6.7%, inflation for the period from the beginning of the year to April already exceeded the upper limit of the NBS target band. On the other hand, underlying inflation[1] has been relatively low, at 1.5%, or some 4.6% when annualized, over the first four months of the year. The relatively low level of underlying inflation was caused by low private demand and the appreciation of the dinar. The Serbian currency has appreciated against the euro considerably since the beginning of 2011: its nominal appreciation against the euro since December 2010 amounted to 8%, or in excess of 10% in real terms.

Prices

Q1 saw very high inflation…

Inflation ran very high in the first quarter of 2011. The increase in prices over the first three months amounted to as much as 5.5%, or 24.1% when annualized (Table T5-1). This was the highest quarterly inflation rate seen since the Statistical Office of the Republic of Serbia (SORS) first published data in movements to the Consumer Price Index (i.e. since early 2007). A somewhat lower, but nonetheless still high, rate of inflation was recorded in April. Overall inflation for the first four months of 2011 stood at 6.7%, or some 21% when annualized.

Table T5-1. Serbia: Consumer Price Index, 2007-2011

	Consumer price index				
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	3m moving average, annualized
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
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
Jun	131.3	8.3	7.0	0.0	12.6
Sep	130.3	7.3	6.2	0.3	-2.9
Dec	130.8	6.6	6.6	-0.3	1.6
2010					
Jan	131.4	4.8	0.5	0.5	4.3
Feb	131.8	3.8	0.7	0.3	1.9
Mar	133.4	4.7	1.9	1.2	8.0
Apr	134.1	4.3	2.5	0.6	8.4
May	136.1	3.7	4.1	1.5	13.8
Jun	136.7	4.2	4.5	0.4	10.4
Jul	136.6	5.1	4.4	-0.1	7.8
Avg	138.5	6.6	5.9	1.4	7.3
Sep	140.3	7.7	7.2	1.3	10.9
Oct	141.7	8.9	8.3	1.0	15.5
Nov	143.8	9.6	9.9	1.5	16.0
Dec	144.2	10.2	10.2	0.3	11.7
2011					
Jan	146.2	11.2	1.4	1.4	13.5
Feb	148.3	12.6	2.9	1.5	13.3
Mar	152.2	14.1	5.5	2.6	24.1
Apr	153.8	14.7	6.7	1.1	22.6

Source: SORS

1 QM defines underlying inflation as the Consumer Price Index excluding the prices of food, energy, alcoholic beverages and tobacco. The share of underlying inflation in total inflation is 41%. Underlying inflation is conceptually similar to core inflation monitored by the NBS. The principal difference between underlying and core inflation is that underlying inflation excludes all foodstuffs, while core inflation excludes fresh fruit and vegetables only.

…already making it unlikely that inflation would remain within the NBS target band until the end of the year

The year-on-year inflation rate stood at 14.7% in April (Table T5-1), far above the upper boundary of the NBS target band (from 3.7% to 7.3% for this month). The y-o-y inflation rate can be expected to decrease from May or June. It is, however, less than likely that the year-on-year inflation rate will return to the NBS target band before the end of the year: cumulative inflation reached 6.7% as early as April, thus exceeding the upper boundary of the target band planned by the NBS for the end of the year (from 3% to 6%). This means it would take a deflation of some 0.7% for the rest of the year to bring inflation back inside the NBS target band by the end of 2011. Inflation can be expected to return to within the NBS target band no earlier than the first half of 2012.

Inflation was mainly spurred by prices of foodstuffs, electricity and cigarettes

High inflation was primarily the consequence of strong growth in the prices of foodstuffs, as well as of administratively controlled prices. Food prices recorded particularly high growth over the first quarter, rising by as much as 10.6%. The prices of foodstuffs mainly stagnated in April, but, owing to their high growth in Q1, accounted for 57% of total price growth for the first four months (Table T5-2). Apart from the prices of foodstuffs, a major contribution to inflation was made by administratively controlled prices, primarily due to rising prices of cigarettes and electricity. Thus the hike in cigarette prices (chiefly caused by the regular increase in the excise duty) made up some 9% of the overall inflation for the first four months, while the increase in the price of electricity accounted for some 14%. *Foodstuffs*, *electricity* and *cigarettes* were therefore responsible for some 80% of total inflation for the first four months of 2011.

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

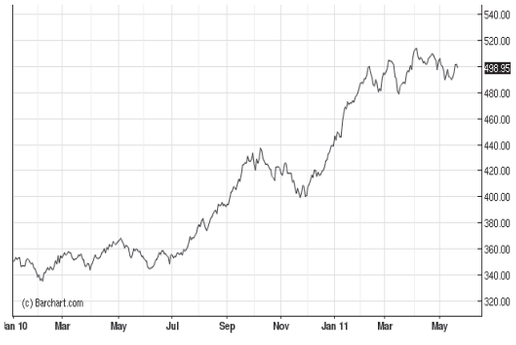
	Share in CPI (in %)	Price increase in 2010 (in %)	Contribution to overall CPI increase (in %)	Price increase in first four moths of 2011 (in %)	Contribution to overall CPI increase (in %)
Total	100.0	10.2	100.0	6.7	100.0
Food and non–alcoholic beverages	37.8	10.7	39.3	10.6	60.3
Food	34.1	10.9	36.0	11.0	56.6
Alcoholic beverages and tobacco	5.1	15.4	7.7	12.9	9.6
Tobacco	3.8	16.3	6.1	16.0	8.7
Clothing and footwear	6.0	6.2	3.7	-0.9	-0.8
Housing, water, electricity, gas and other fuels	15.1	13.8	20.1	7.1	17.4
Electricity	6.6	13.4	14.7	13.5	13.9
Furniture, household equipment, routine maintenance	4.9	9.4	4.5	1.0	0.7
Health	4.3	8.5	3.5	4.4	2.8
Transport	11.0	9.5	10.2	5.3	7.8
Oil products	4.7	12.1	5.5	8.5	5.4
Communications	3.5	2.1	0.7	-1.7	-1.0
Other items	12.3		10.3		3.2

Source: SORS and *QM* estimates

Food prices stabilized in April and May, both globally and in Serbia

Signs appeared in April and May of an upcoming stabilization of food prices, both globally and in the Serbian market; these prices can even be expected to drop slightly. Graph T5-3 shows the movements in the Thomson Reuters/Jefferies CRB Foodstuffs Index, which measures global trends in the prices of agricultural commodities. As the Graph indicates, April and May saw the prices of agricultural produce stabilize at the global level, with May exhibiting a slight downward trend. A similar pattern can be observed in the movements of the Serbian Prodex index, measuring trends in the prices of agricultural commodities on the Novi Sad Commodity Exchange (Graph T5-4). To this we can add the fact that we have been seeing a substantial drop in the prices of oil, both spot (Graph T5-5) and futures. This could mean that the growth of energy prices could also decelerate, in addition to that of food prices, as the year progresses.

Graph T5-3. World: Movements in the Thomson Reuters/Jefferies CRB Foodstuffs Index, 2010-2011



Source: www.barchart.com

Graph T5-4. Serbia: Movements in the Prodex Index (Novi Sad Commodity Exchange), 2007-2011

Source: Novi Sad Commodity Exchange

Graph T5-5. World: Movements in Crude Oil Prices (NYMEX), 2010-2011

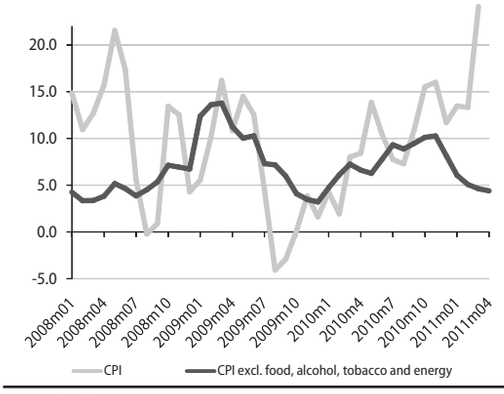
Source: www.barchart.com

Underlying inflation remained stable and relatively low, standing at under 5% at the annual level

Underlying inflation remained stable and relatively low for the first four months of 2011. It began to decelerate late in 2010 (Graph T5-6), and stabilized in early 2011, generally standing at slightly below 0.4% at the monthly level from January to April. The underlying inflation rate thus stood at 1.5% for the first four months of 2011, or 4.6% at the annual level. This relatively low inflation rate was most likely caused by low private demand (as, for instance, retail trade was down by some 10% in real terms at the y-o-y level in Q1, and as much as 20% down on the level seen before the economic crisis), as well as by the recent appreciation of the dinar against the euro.

We can expect to see inflation decelerate further over the coming months

Graph T5-6. Serbia: CPI and Underlying Inflation Trend, Annualized Rates, in %, 2008-2011



Source: SORS and *QM* estimates

Low underlying inflation indicates that the coming months can see an additional slowdown in overall inflation. This will, however, depend on movements in the prices of foodstuffs and energy, as major increases in administratively controlled prices are not expected in the near future (with the possible exception of gas prices, whose share in the CPI is minor and is unlikely to exert any substantial influence on overall inflation). If underlying inflation remains at slightly below 0.4% per month, as was the case over the first four months of 2011, and if the prices of foodstuffs and energy remain stable (there are grounds to assume so, as discussed above), overall inflation could stand at under 0.2% per month for the rest of the year. If this rather simplified scenario were to actually come true, inflation at year-end 2011 would amount to some 8%.

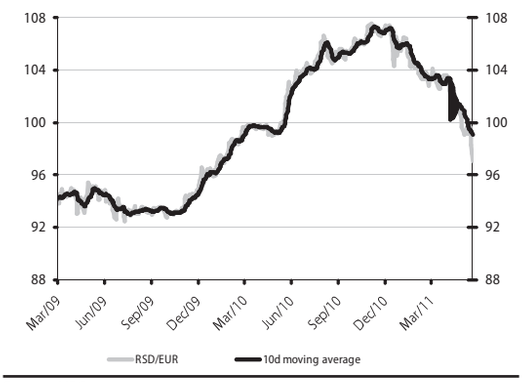
Exchange Rate

The dinar has been appreciating substantially since the start of the year…

The dinar began to appreciate significantly in late 2010, and continued doing so throughout Q1 2011, as well as into April and May (Graph T5-7). Thus the dinar nominally gained 9% against the euro from mid-December 2010 to mid-May.[2] The nominal dinar/euro exchange rate is therefore now approximately at the level last seen in the first quarter of 2010 (Table T5-11).

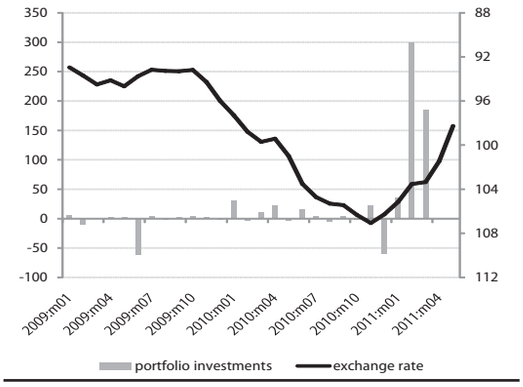
2 The dinar strengthened against the dollar by as much as 15% over the same period.

Graph T5-7. Serbia: Daily RSD/EUR Exchange Rate, 2009-2011



Source: NBS

Graph T5-8. Serbia: Portfolio Investment Inflows and RSD/EUR Exchange Rate, 2009-2011

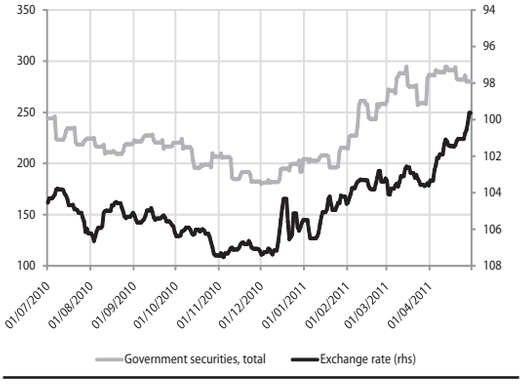


Source: NBS
Note: Portfolio investments – monthly data in EUR million, left-hand scale; RSD/EUR exchange rate – monthly averages, right-hand scale

…due to major portfolio inflows from abroad…

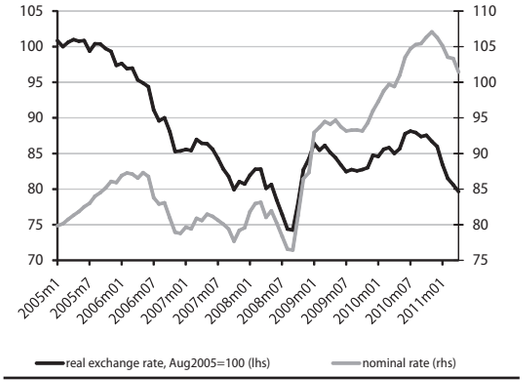
The appreciation of the dinar was caused by substantial capital inflows from abroad, in particular the high inflows of portfolio investments: in Q1 alone, net inflows of these investments amounted to €520mn (Graph T5-8). By way of a comparison, inflows of portfolio investments in Q1 2010 amounted to a mere €38mn. Owing to the high portfolio inflows and the relatively moderate current account deficit, the overall balance of payments recorded a surplus in Q1.[3]

Graph T5-9. Serbia: Stock of Government Securities and RSD/EUR Exchange Rate (Daily Levels), 2010-2011



Source: Ministry of Finance, NBS, *QM* estimates
Note: Government securities, total – sum of T-bills and T-bonds (including euro-indexed bonds) and NBS repo instruments, in billions of dinars, left-hand scale; RSD/EUR exchange rate – daily mid rate, right-hand scale

Graph T5-10: Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2005-2011



Source: NBS, SORS and *QM* estimates

…mainly into government securities

Portfolio investments were mainly directed towards government securities, and, to a somewhat lesser extent, NBS instruments.[4] The trigger for such major portfolio inflows was the issue of euro-indexed bonds by the Ministry of Finance late last year. The high NBS reference rate, coupled with a decrease in the risk premium for Serbia, also contributed to the high inflows of foreign capital. The fact that these inflows have led to the appreciation of the exchange rate has made Serbian government securities all the more attractive to foreign investors, which has in turn led to new inflows and a renewed appreciation of the dinar (Graph T5-9). This completes the circle, making Serbia a very appealing destination for carry trade investors at the moment.

3 For a detailed discussion see Section 4, "Balance of Payments and Foreign Trade".
4 The stock of T-bills rose from some RSD 145 bn in late 2010 to about RSD 230 bn in May 2011.

Real exchange rate appreciated even more markedly, owing to high inflation

The real exchange rate also appreciated markedly, due to the nominal appreciation and high inflation. Real appreciation amounted to 9% for the period from the beginning of the year to April, while preliminary May data indicate that real appreciation is set to continue. Thus the real dinar/euro exchange rate has now come back to levels seen in the first half of 2008, thereby nearly completely cancelling out the real depreciation that ensued directly following the economic downturn (Graph T5-10).

Table T5-11. Serbia: RSD/EUR Exchange Rate, 2006-2011

	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							
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
June	80.2460	96.8	98.9	100.9	78.5	91.7	97.2	1.5556
September	76.4226	92.2	96.3	96.0	74.2	90.8	92.0	1.4387
December	87.3002	105.3	109.7	109.7	84.3	104.4	104.4	1.3482
2009								
March	94.4951	114.0	113.7	108.2	86.1	104.0	102.2	1.3041
June	93.7408	113.1	116.8	107.4	83.4	106.3	99.0	1.4027
September	93.2990	112.5	122.1	106.9	82.5	111.2	98.0	1.4554
December	95.9833	115.8	109.9	109.9	84.7	100.6	100.6	1.4597
2010								
January	97.2874	117.3	104.7	101.4	84.6	97.9	99.8	1.4281
February	98.7951	119.1	105.5	102.9	85.6	100.1	101.0	1.3698
March	99.7048	120.2	105.5	103.9	85.8	99.6	101.3	1.3576
June	103.5079	124.8	110.4	107.8	87.8	105.3	103.6	1.2219
September	105.4352	127.2	113.0	109.8	87.4	105.8	103.1	1.3043
October	106.3318	128.2	114.1	110.8	87.5	105.8	103.3	1.3891
November	107.0668	129.1	113.6	111.5	86.7	104.4	102.3	1.3675
December	106.2771	128.2	110.7	110.7	86.0	101.5	101.5	1.3222
2011								
January	105.1350	126.8	108.1	109.5	83.5	98.7	98.5	1.3368
February	103.5239	124.8	104.8	107.9	81.5	95.2	96.2	1.3667
March	103.3352	124.6	103.6	107.7	80.6	93.9	95.1	1.3998
April	101.4395	122.3	102.0	105.7	79.7	91.4	90.9	1.4435

Source: NBS, 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 the 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.

6. Fiscal Flows and Policy

Seasonally adjusted real revenues of the consolidated state sector recorded a considerable decline in Q1 2011 compared to the previous quarter, in addition to a mild decline in seasonally adjusted real public expenditures. As a result of these trends, the consolidated fiscal deficit in Q1 amounted to around RSD 26.4 bn, (i.e. around 3.5% of quarterly GDP). The ratio of the Q1 fiscal deficit to the planned annual fiscal deficit approximated the ratio recorded in the previous years. Therefore, if the trend recorded in Q1 continues in the coming period and wages and pensions are adjusted in compliance with the fiscal rules, the fiscal deficit is expected to stay roughly equivalent to the planned 4.1% of GDP. Any increase in significant public spending categories, in excess of the amounts set by the fiscal rules, would lead to a significant increase in the fiscal deficit. This is corroborated by the fact that the budget deficit of the Republic of Serbia recorded in April amounted to as much as RSD 17.2 bn, which is significantly more than the previous months' average (around RSD 9.3 bn), as a result of a considerable drop in real budget revenues. At the end of O1, Serbia's public debt stood at €12.7 bn (around 41.9% of GDP), which is around €520 bn more than at the end of the previous quarter. The achievement of the planned GDP growth rate and the planned fiscal deficit in the current and the forthcoming year would help stabilize the public debt below 45% of GDP, the limit set by fiscal rules. Any increase in the fiscal deficit above the planned amount would drive the public debt above the set limit thus also adversely affecting its sustainability.

General Trends and Macroeconomic Implications

Real public revenues posted a decline in Q1

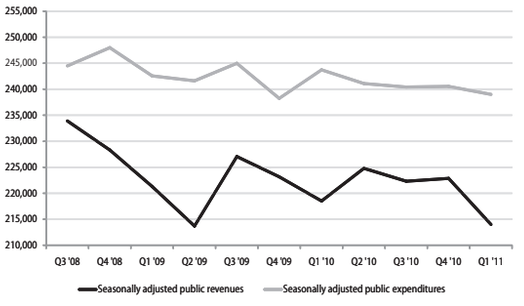
Q1 2011 once again saw a decline in seasonally adjusted real revenues of the consolidated state sector by 4% compared to the previous quarter. Compared with the same quarter of the previous year, Q1 followed the trend of the previous two quarters having recorded a decline in the revenues of the government sector in real terms, only this decline was slightly higher in Q1 at 2.3%. Such trends indicate that despite the nominal growth in public revenues – Q1 did not see a real recovery thereof since the nominal growth was entirely devalued by inflation. Even though the previous year experienced alternating periods of growth and decline in seasonally adjusted real public revenues, in Q1 their value was still (by 3.3%) lower than at the beginning of the crisis, in Q1 of 2009. This shows that the mild economic recovery was not sufficient to compensate for the long-term decline in the share of the VAT in GDP caused by the change in the structure of the economy and by the further cut in customs rates (on account of further implementation of the EU Stabilization and Association Agreement and enhancement of the free trade agreement network).

Almost all categories of public revenues recorded a decline

For the most part, the decline in seasonally adjusted real tax revenues recorded in Q1 occurred as a result of a significant fall in the revenues from customs duties, other tax and non-tax revenues encompassing a wide spectrum of various budget revenues such as levies, fees, fines, revenues from rental of state property, revenues from dividends, etc. The sharp decline in other tax revenues came as a consequence of the abolishment of the tax on mobile telephony at the beginning of 2011. In addition, non-tax revenues recorded a significant growth in the previous quarter, setting the baseline for comparison with this quarter higher. Seasonally adjusted real revenues from the VAT also fell mildly, by 2.3% against the previous quarter. Almost all other real, seasonally adjusted public revenues (save for the corporate income tax) recorded a decline compared with the previous quarter, albeit a relatively mild one.

In Q1 public spending trend continued to decline

Graph T6-1. Serbia: Seasonally Adjusted Real (Quarterly) Revenues and Spending of the Government Sector in mn RSD (2006=100)[1)]



Source: Calculations by the author
1) Since SORS discontinued the publication of the retail price indices conclusive with December 2010, from this issue of *QM* onward, revaluation of nominal into real amounts of revenues and spending to calculate the seasonally adjusted amounts will be made using the base consumer price index (2006=100).

Real seasonally adjusted consolidated state sector public spending mildly dropped in Q1 (by 0.6%) compared with the previous quarter. Such patterns of change are a continuation of a trend of stagnation and decline in public spending recorded in the previous quarters. The patterns of change of the individual public spending items were divergent in Q1. Thus, spending on employees and pensions declined, as opposed to spending on goods and services, capital spending and spending on subsidies which were on the rise. The declining trend recorded by the major spending categories such as spending on employees and pensions was a result of the enforcement of restrictive indexing rules, seen as positive and necessary. Since the increase of the spending on subsidies and goods and services was the outcome of one-off payments made in Q1, it is estimated that without those outstanding expenditures, the overall decline in public spending would have been somewhat higher.

Fiscal consolidation measures implemented on the spending side in 2009 and 2010 reduced the total amount of real seasonally adjusted spending in Q1 2011 by 1.5% compared with Q1 2009. This fiscal adjustment was achieved primarily through spending on employees and pensions (accounting for over one half of the total public expenditures), which is assessed as positive. In addition, the amount of capital spending in Q1 topped that recorded in Q1 2009 by as much as 20.5% which is assessed as positive and comes as a result of an acceleration in implementing infrastructure projects.

Consolidated fiscal deficit in Q1 was around 26.4 billion dinars (3.5% of GDP)

As a result of the abovementioned movements, the consolidated deficit in Q1 amounted to RSD 26.4 bn or close to 3.5% of (quarterly) GDP in Q1. Since the total planned consolidated deficit for 2011 amounts to around RSD 140 bn dinars, the Q1 consolidated deficit accounts for around 19% of the planned annual one, which is close to the average share of the first quarter deficit in the total deficit realized in previous years. These patterns of change indicate that government revenues and expenditures remained within the planned limits and that, if the trend continues in the forthcoming period, the fiscal deficit is realistically expected to approximate the planned target of 4.1% of GDP. This also indicates that Q1 did not exceed the planned increase in public revenues that would provide for any extraordinary increase in public spending. Any increase in major public spending items in excess of the amounts planned in preparation of the 2011 budget would push the fiscal deficit up through the planned ceiling.

The Budget Law foresees the sources of financing the fiscal deficit and matured liabilities on account of principal repayments on government debt in 2011. The estimated sum to be secured for these purposes is around €2 bn, of which around €1.4 bn are required for funding the fiscal deficit in 2011, around €150 mn for repayment of the government debt due to the frozen foreign currency deposits and the remaining €450 mn for the settlement of (principal) liabilities stemming from other loan arrangements. Most of the funds required for the above purposes will be secured by borrowing in the local financial market and from international financial institutions. Therefore, the lack of revenue from privatization of Telekom Serbia is not expected to affect state budget liquidity. Under the given circumstances, where the funds required for funding the fiscal deficit and debt repayments are to be secured mainly from borrowing, the implementation of a credible economic policy gains importance. Namely, any attempt to undermine the credibility of economic policy would result in a deterioration of borrowing terms for the government, which in turn would have adverse effects in a situation where a significant share of the government's liquidity relies on borrowing.

Table T6-2. Serbia: Consolidated Balance of the General Government Sector[1], 2008–2010

	2008	2009					2010					2011
		Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1
						in billions of dinars						
I TOTAL REVENUE	1145.9	258.8	267.1	297.0	323.6	1,147	266.6	292.9	309.5	354.4	1,223.4	293.6
II TOTAL EXPENDITURE	-1195.7	-270.3	-306.3	-315.1	-356.2	-1247.9	-286.1	-317.8	-329.7	-396.3	-1,329.9	-314.5
III "OLD" DEBT REPAYMENT, NET LENDING AND RECAPITALIZATIONS	-19.1	-0.9	-6.3	-5.8	-7.4	-20.4	-4.6	-6.4	-8.5	-10.4	-29.9	-5.5
o/w Net lending [2]	-19.1	-0.9	-6.3	-5.8	-7.4	-20.4	-4.6	-6.4	-8.5	-10.4	-29.9	-5.5
IV TOTAL EXPENDITURE, GFS (II+III)	-1214.8	-271.2	-312.6	-320.9	-363.6	-1268.3	-290.7	-324.2	-338.2	-406.7	-1,359.8	-320.0
V CONSOLIDATED BALANCE (I+IV), GFS definition[3]	-68.9	-12.4	-45.5	-23.9	-40.0	-121.8	-24.1	-31.2	-28.8	-52.3	-136.4	-26.4
VI ACCOUNT BALANCE CHANGE	-55.4	16.4	-5.3	-12.4	46.8	45.4	-2.3	-8.4	0.9	-9.4	-19.2	33.4
VIII TOTAL REVENUE/GDP (%)	41.7	42.1	39.3	42.5	44.9	42.3	41.0	40.3	40.5	45.2	41.8	39.0
IX TOTAL EXPENDITURE/GDP (%)	(45.6)	(44.1)	(46.0)	(45.9)	(50.5)	(46.7)	(44.7)	(44.6)	(44.3)	(51.8)	(46.5)	(42.5)
X CONSOLIDATED DEFICIT/GDP (%)	(3.9)	(2.0)	(6.7)	(3.4)	(5.6)	(4.5)	(3.7)	(4.3)	(3.8)	(6.7)	(4.7)	(3.5)

Source: Table P-10 in Analytical Appendix

1) The General Government sector – all government levels (republic, province, municipalities) and their budget beneficiaries and mandatory social security organizations, (Pension and Disability Insurance Fund, Health Insurance Fund, National Employment Service), excluding public enterprises and the National Bank of Serbia (NBS).

2) The item corresponds to the item "Spending for the procurement of financial assets" in the PFB, i.e. to the item "net lending" in the IMF presentation. These are loans to students, farmers, loans granted through the Development Fund, repayment of debts to pensioners, and recapitalizations.

3) The consolidated balance (cash surplus/deficit according to GFC) is the difference between current revenues and proceeds from the sale of non-financial assets (i.e. capital revenues) and current spending and spending for the purchase of non-financial assets (i.e. capital spending). Beside those, spending also includes an item which includes repayment of domestic debts – pensions, budgetary lending and recapitalization. The result defined in this manner, measures the liquidity impact of government transactions on the economy; for further details, please see the methodological discussion in Box 1, *Quarterly Monitor* No. 3.

Notes: For further details, please refer to Table P-10 in the Analytical Appendix.

Although public revenues in Q1 were nominally higher than expected, the difference is entirely due to the fact that the inflation rate in this period also exceeded the planned level. Besides, the relatively high inflation also affected public expenditures and fiscal deficit trends. Namely, the inflation expected in the forthcoming period will influence the nominal growth of public revenues due to a revaluation of the tax base (for example, in case of the VAT where revaluation is implemented automatically). Because of the time lag between the moment of transaction and settlement of tax liabilities, lasting about one month on average in the case of the VAT – such a high inflation rate adversely affects the real revenue level. In case of other taxes, where the tax base is not revaluated automatically (such as social security contributions paid on employees' salaries), the effect of inflation upon real devaluation of public revenues is even more significant. Generally, inflation also affects the nominal increase in public expenditures, whereas the magnitude of its influence upon the real movement thereof depends upon the type of spending, institutional arrangement, goods and services procurement program, etc. Since the wage and pension indexation is tied to the inflation rate, their increase, scheduled for May, will amount to 5.5% instead of 2.95% due to the high inflation recorded in the previous period. Should the inflation exceed the target in Q2 and Q3, this would generate a growth of nominal wages and pensions higher than foreseen by the Budget Law. It is estimated that, due to the relatively high inflation rate, public spending on wages and pensions in 2011 will be nominally higher by around RSD 15 bn and that spending on social protection and transfers will be increased by around RSD 3 bn.

Considerable decline in revenues and high state budget deficit recorded in April

State budget revenues in April 2011 were lower, in real terms, by 12.5% compared with the same month of the previous year. Customs, other tax and non-tax revenues and excise revenues recorded the biggest real decline of 13.1%. VAT revenues dropped by 8.4% against April 2010. Compared to March 2011, real seasonally adjusted VAT revenues shrank by 3%. The revenue decline recorded in April can be partially explained by the fact that this month had fewer work days than March this year and April of last year. In addition, the last day of April was not a work day and therefore some of the excise payers settled their liabilities on the first ensuing work day (2 May) which effectively caused the amount of revenues collected in April to be somewhat lower. However, since the total decline in revenues recorded in April was considerable, it is possible that such a fall is also caused by negative trends in the real sector.

On the other hand, April experienced a continued trend of decline in state budget expenditures which were lower by 3.6%, in real terms, compared with the same month of the year before. Such a budget expenditure reduction against April 2010 was achieved owing to further reductions in spending on employees (based on the fact that employees' wages were nominally frozen until

the end of 2010), as well as due to cuts in current and capital transfers. In contrast, spending on interest repayments, other current spending and capital spending grew. Thus, April 2011 saw public investment grow by 8.3% compared with April of 2010, which is assessed as favorable and was caused by an acceleration in implementing infrastructure projects financed from the state budget. As a result of such trends in state budget revenues and expenditures, budget deficit recorded in April reached as high as RSD 17.2 bn, way above the previous three-month average (of around RSD 9.3 bn per month). The total state budget deficit posted in the first four months of 2011 stood at around RSD 45 bn, accounting for around 37.5% of the planned deficit for 2011, compared to the budget deficit recorded in the first four months of 2010 which made up only around 29% of the total 2010 deficit. The relatively high budget deficit posted in the first four months of this year, particularly in April, is caused primarily by the real decline in budget revenues. If this trend extends into coming months, adequate adjustments will be necessary in terms of decreasing certain public spending items or increasing certain tax rates in order to keep the 2011 budget deficit within the planned limits.

The existing Budget Law of the Republic of Serbia for 2011 sets the total amount of the state budget at RSD 726.4 bn, expenditures at RSD 846.9 bn and deficit in the amount of RSD 120.5 bn Since the inflation will cause both revenues and expenditures to be nominally higher than foreseen by the Budget Law, the budget will need to be revised to the extent that the nominal amounts of revenues and expenditures adjusted in compliance with the new projections. Fiscal rules for 2011 foresee the consolidated fiscal deficit to reach 4.1% of GDP (around RSD 140 bn), based on the assumption that the state deficit will amount to RSD 120.5 bn Considering that the planned budget revenues were not exceeded in the first four months and that the estimated GDP for 2011, after the adjustments currently being discussed, will probably be lower than the GDP based on which the projection of the consolidated fiscal deficit for 2011 was made, it has been assessed that a revision of the state budget would leave no space to also increase the deficit.

Analysis of Individual Tax Forms and Individual Public Spending Items

The decline in total real, seasonally adjusted public revenues recorded in Q1 was caused by a contraction of revenues from almost all taxes.

Q4 saw a decline in revenues from all consumption taxes

Real, seasonally adjusted revenues from all consumption taxes posted a decline against Q4 of the previous year. The biggest decline (7.6%) was recorded in customs revenues, whereas decline in revenues from the VAT and excise duties fell was milder (2.3% and 0.2% respectively). The the decline in customs revenues is an outcome of further liberalization of foreign trade policy and relatively modest imports growth. Namely, to comply with the EU Stabilization and Association Agreement in Q1 2011, Serbia additionally lowered customs duties on certain products imported from EU member states. As regards revenues from the VAT, the decline in real, seasonally adjusted revenues from this source indicates an absence of domestic demand recovery. In addition, such a trend in revenues from the VAT was also influenced by the increasing share of existential products (taxable at the lower VAT rate of 8%) in household consumption and probably by a growing practice of tax evasion in line with the obvious weakening of fiscal discipline, particularly in the domain of issuance of fiscal receipts and in the retail sale of goods and services where the added value is the biggest. Thus, official records show that retail sale in Q1 dropped by 9.6%, in real terms, against the same period of the year before, not only because of a real decline in consumption but also because of a growing tendency towards avoiding registered sale. Having in mind that this is a form of tax evasion relatively easy to identify and prove, intensifying inspections by the Tax Administration focused on the issuance of fiscal receipts, particularly in bars and restaurants, is recommended.

Table T6-3. Serbia: Seasonally Adjusted Quarterly Indices of Real Public Revenues (previous quarter = 100)

	Public revenues	Consumption taxes			Taxes on production factors			Other tax revenues	Non-tax revenues
		VAT	Excise duties	Customs duties	Personal income tax	Social contributions	Corporate income tax		
Q1 2009	**96.9**	97.8	108.1	88.6	93.3	95.2	87.9	91.2	93.7
Q2 2009	**96.6**	92.8	103.5	86.7	96.2	100.1	86.7	100.0	96.7
Q3 2009	**106.3**	108.1	110.8	96.4	100.7	99.9	105.6	122.3	115.0
Q4 2009	**98.3**	103.0	102.9	100.2	95.5	95.5	93.7	101.5	90.7
Q1 2010	**97.9**	95.3	89.9	93.8	104.2	102.2	105.1	102.2	104.7
Q2 2010	**102.9**	103.1	108.9	100.9	98.8	98.3	98.9	109.0	106.8
Q3 2010	**98.9**	101.6	102.9	96.7	98.0	96.9	98.9	93.3	95.1
Q4 2010	**100.2**	95.9	102.7	94.6	99.0	98.4	103.0	98.3	107.3
Q1 2011	**96.0**	97.7	99.8	92.4	97.4	99.0	101.8	92.7	93.6
Total index in Q1 2011 (Q1 2009=100)	**96.7**	**96.8**	**121.7**	**66.9**	**90.0**	**90.3**	**92.4**	**117.6**	**107.6**

Source: Calculations by *QM*

Box 1. Rebalancing of the Economy and Public Revenue Structures

Data on the relative value of individual public revenues categories in Serbia, measured as a percentage (%) of GDP, indicate an approximately identical flexibility of consumption taxes and taxes on factors of production relative to the level of economic activity. Thus, in the period from 2007 to Q1 2011 consumption taxes (as a % of GDP) fell by 12.5% (i.e. 2.3 percentage points of GDP), while taxes on factors of production declined by 5.5% (i.e. 1 percentage point of GDP). Since revenues from the VAT, together with contributions, are the basic source of financing public spending, the issue of their trends in the forthcoming period gains in relevance. The decline in VAT based revenues is caused by a slow-down of domestic demand (i.e. domestic consumption relative to GDP), and growing tax evasion. Numerous analyses confirm that possibilities for achieving economic growth based on foreign capital inflow inflating domestic demand are exhausted and that future growth should be based on increasing export-oriented production. Data on movements in foreign trade and domestic demand in 2010 and at the start of 2011 indicate a certain rebalancing of Serbia's economy towards a strong growth of exports accompanied by a modest increase in imports and domestic demand. Customs duties and the VAT are charged on imported goods (along with excise duties on particular goods) in contrast to the exports which are exempt from any form of consumption taxes. Therefore, even under the assumption that GDP growth rates projected for 2011 and the forthcoming years are achieved, it is estimated that the rebalancing of the economy towards intensifying economic growth based primarily on exports will cause a further relative decline in revenues from VAT and customs duties (as % of GDP). On the other hand, however, the projected growth in economic activity is expected to create more jobs and drive wages up, implicitly enhancing revenues from income taxes and social contributions. For that reason, the structural changes in the economy and their impact upon the scale and structure of public revenues should be taken into account in redesigning the tax system further and in creating medium-term fiscal policy.

Table T6-4. Serbia: Patterns of Public Revenue Structure as % of GDP, 2005-2011

	2005	2006	2007	2008	2009	2010	Q1 2011
VAT	12.8%	11.5%	11.7%	11.3%	10.9%	10.9%	10.5%
Excise	4.2%	4.4%	4.3%	4.1%	5.0%	5.2%	4.7%
Customs duties	2.3%	2.3%	2.5%	2.4%	1.8%	1.5%	1.2%
Consumption taxes - total	**19.3%**	**18.2%**	**18.5%**	**17.9%**	**17.7%**	**17.6%**	**16.4%**
Personal Income Tax	5.6%	6.0%	5.1%	5.1%	4.9%	4.8%	4.3%
Social Security Contributions	10.8%	11.8%	11.9%	11.8%	11.8%	11.0%	10.4%
Corporate Income Tax	0.6%	0.9%	1.3%	1.5%	1.2%	1.1%	1.9%
Taxes on production factors - total	**17%**	**19%**	**18%**	**18%**	**18%**	**17%**	**17%**
Other public revenues	6.4%	7.1%	7.2%	6.8%	6.8%	7.3%	5.9%
Total public revenues	**42.7%**	**44.1%**	**44.0%**	**43.1%**	**42.3%**	**41.8%**	**39.0%**

Source: Calculations by *QM*

The trend of declining revenues from social contributions and the personal income tax continues

In Q1 the trend from the previous quarter continues related to the performance of revenues from the personal income tax and social contributions. Thus, real, seasonally adjusted revenues from the personal income tax fell for the fourth consecutive quarter against the previous quarter (by 2.6%). The same tendency was demonstrated by revenues from mandatory social security contributions that also declined for the fourth consecutive quarter - the fall recorded in Q1 relative to

the previous quarter being 1%. The wage tax accounts for more than three-quarters of total personal income tax revenues, while social contributions charged on wages represent an even larger share of revenues from social contributions. Since no decline in average real wages was recorded in Q1, the fall in real seasonally adjusted revenues from labor taxes must have been caused by a decline in employment and a fall in the real amounts of other types of personal income. Besides, a relatively high share of the grey economy is still evident when it comes to wage taxation. Since almost one half of the total amount of wages is paid to public sector employees, the nominal increase in their wages in May, the announced increase in November and the expected growth of private sector wages could have a domino effect and slow down the real decline in revenues from the personal income tax and social contributions. However, a more obvious recovery of revenues from these sources could be expected only when the registered employment rate gets back on an upward path, which entails a considerable recovery of economic activity and the eradication of the grey economy in income taxation. With regards to this, tax relief in the form of temporary exemptions from the obligation to pay a share of labor taxes for newly employed persons has been announced to stimulate employers to register their employees. The effects of this measure on tax revenues would depend on its actual impact on the level of registered employment and on how fast such a fiscal unburdening of newly employed persons' wages would reflect on higher employment. Besides, this measure would be of a distortionary nature since it would reward, yet again, the employers whose practice so far was in disregard of positive regulations, by allowing them to now legalize their operations and pay taxes on employee salaries at a considerably lower rate than the employers who have always conducted their business in the formal sector only. Since the introduction of different tax regimes for different categories of tax payers creates space for fraudulent behavior, it is necessary to narrow this space down by precisely defining these measures. Thus, for example, an employer who defaults on his commitments should be forced to pay the difference up to the full amount of his tax obligation including the related interest on arrears at the rate applicable to delays in the payment of fiscal levies.

If it is estimated that there would be a mild decline in tax revenues at the initial stage of implementation of these measures (before they result in employment rate recovery), it is necessary to define measures for reducing public spending in order to avoid failure in achieving targeted fiscal defici. If, in line with the concept of the Laffer curve, the given tax reliefs on wage taxes for newly employed persons would result in a reduction of the grey economy in wage taxation over the medium term and, consequently, in the recovery of tax revenues, this would bring these public spending categories to the previous level. Implementation of the temporary wage taxe relief for newly employed persons would reduce the average fiscal burden on wages from 62% to around 30%. Yet, this is still significantly more than the zero-burden enjoyed by employers running their businesses in the grey zone. Therefore, if this measure is to have any effect in terms of the eradication of the grey economy in the domain of employment and earnings, it would be necessary to considerably increase the efficiency of the Tax Administration's control and to impose more severe sanctions for this type of tax evasion.

Table T6-5. Serbia: Seasonally Adjusted Quarterly Indices of Real Public Expenditures (previous quarter = 100)

	Public expenditures	Staff expenditures	Purchase of goods and services	Subsidies	Pensions	Capital expenditures
Q1 2009	97.8	93.5	99.3	79.4	103.1	84.7
Q2 2009	99.6	100.3	103.8	91.6	99.4	116.2
Q3 2009	101.4	99.8	96.4	114.5	100.9	89.2
Q4 2009	97.2	101.9	97.8	82.1	99.5	92.8
Q1 2010	102.3	97.1	106.7	117.9	98.4	120.7
Q2 2010	98.9	98.1	97.1	113.7	98.2	88.0
Q3 2010	99.7	100.0	98.6	103.3	98.8	108.8
Q4 2010	100.1	96.7	99.5	89.3	97.6	99.9
Q1 2011	99.4	95.7	104.0	106.1	95.9	108.6
Total index in Q1 2011 (Q1 2009=100)	**98.5**	**89.9**	**103.3**	**112.9**	**89.2**	**120.5**

Source: Calculations by *QM*

Real, seasonally adjusted revenues from the corporate income tax in Q1 rose by 1.8% compared with Q4 2010. Considering that the corporate income tax is paid in advance in the course of the

current year, based on the previous year's tax obligation, the increase posted by this revenue item is an indicator of improved profitability of the economy in 2010.

Q1 saw a considerable, 7.3% decline in other tax revenues, relative to Q4. This decline is primarily caused by the abolishment of the tax on mobile telephony starting from January 2011.

In Q1 spending on employees and pensions declined...

Total real seasonally adjusted spending of the consolidated government sector in Q1 mildly dropped relative to the previous quarter. Such a pattern is a result of the decline in spending on employees and pensions, and of an increase in spending on purchases of goods and services, capital spending and spending on subsidies.

In Q1, the most significant public spending categories – spending on public sector wages and pensions fell against the previous quarter, continuing the downward trend recorded in the previous five quarters. Such a pattern is a result of a 2% wage and pension increase approved in January, which is below the inflation rate recorded in the preceding period, i.e. below the amount these spending categories should have been indexed by pursuant to fiscal rules. The 5.5% increase in public sector wages and pensions approved in May and the rise expected in November will lead to an increase in these public spending categories. If, however, these increases are approved in compliance with the fiscal responsibility rules, this will not drive the fiscal deficit up through the planned ceiling.

...while capital spending, spending on purchase of goods and services and spending on subsidies were on the rise

Real, seasonally adjusted capital spending once again posted a considerable growth of 8.6% relative to the previous quarter, which represents an indicator of continued acceleration in the implementation of major infrastructure projects after a period of stagnation recorded in 2009 and at the beginning of 2010, as a result of the unresolved issue of land expropriation and lack of project documentation.

Table T6-6. Serbia: Consolidated Balance of the General Government Sector, 2007–2011

	2007	2008	2009	2010					2011
				Q1	Q2	Q3	Q4	Q1-Q4	Q1
I PUBLIC REVENUES	**1,002.0**	**1,145.9**	**1,146.5**	**266.6**	**292.9**	**309.5**	**354.4**	**1,223.4**	**293.6**
1. Current revenues	995.4	1,143.1	1,139.2	266.2	292.4	308.9	348.1	1,215.7	292.9
Tax revenue	870.0	1,000.4	1,000.3	236.1	255.6	269.3	295.5	1,056.5	259.1
Personal income taxes	115.8	136.5	133.5	31.1	34.5	34.4	39.0	139.1	32.7
Corporate income taxes	29.7	39.0	31.2	11.7	6.5	6.5	7.9	32.6	14.4
VAT and retail sales tax[1)]	265.5	301.7	296.9	71.9	77.3	83.2	87.0	319.4	79.3
Excises	98.6	110.1	134.8	27.2	35.1	42.5	47.4	152.2	35.1
Custom duties	57.4	64.8	48.0	9.5	11.0	11.3	12.5	44.3	9.0
Social contributions[2)]	270.3	312.7	318.8	74.9	79.4	79.8	88.9	323.0	78.3
Other taxes	32.8	35.6	37.1	9.8	11.8	11.5	12.9	46.0	10.2
Non-tax revenue	125.4	142.7	138.8	30.2	36.8	39.6	52.7	159.2	33.8
2. Capital revenues	5.3	1.4	0.9	0.0	0.2	0.0	0.1	0.3	0.3
II TOTAL EXPENDITURE	**-1,031.5**	**-1,195.7**	**-1,248**	**-286.1**	**-317.8**	**-329.7**	**-396.3**	**-1,329.9**	**-314.5**
1. Current expenditures	-919.5	-1,089.6	-1,155	-272.6	-300.5	-304.0	-347.7	-1,224.8	-297.8
Wages and salaries	-238.3	-293.2	-302.0	-72.7	-76.0	-76.3	-83.1	-308.1	-76.7
Expenditure on goods and services	-237.4	-139.9	-187.4	-39.7				-39.7	-44.7
Interest payment	-168.1	-181.2	-187.4	-39.7	-47.9	-49.0	-65.9	-202.5	-44.7
Subsidies	-17.9	-17.2	-22.4	-8.0	-8.3	-8.2	-9.7	-34.2	-9.9
Social transfers	-63.7	-77.8	-63.1	-11.2	-18.4	-22.1	-26.2	-77.9	-15.1
o/w: pensions [3)]	*-409.3*	*-496.8*	-556.4	*-137.1*	*-144.0*	*-142.3*	*-155.7*	*-579.2*	*-143.1*
Other current expenditures	-259.9	-331.0	-387.3	-97.1	-97.5	-98.2	-101.3	-394.0	-99.2
2. Capital expenditures	-22.1	-23.5	-24.0	-3.9	-5.9	-6.1	-7.0	-22.9	-8.3
III "OLD" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	**-15.3**	**-19.1**	**-20**	**-4.6**	**-6.4**	**-8.5**	**-10.4**	**-29.9**	**-5.5**
IV TOTAL EXPENDITURE, GFS (II+III)	**-1,046.8**	**-1,214.8**	**-1,268.3**	**-290.7**	**-324.2**	**-338.2**	**-406.7**	**-1,359.8**	**-320.0**

Source: Table P-10 in Analytical Appendix

1) Retail sales tax/VAT minus new tax credits of the corporate sector.

2) Contributions less refunds between the Pension and Disability Insurance Fund (PIO), the Development Fund and companies that are PIO debtors.

3) Refers only to spending on current pensions.

Note:

To calculate real growth, an average base index of retail prices was implemented (base December 2003) on quarterly figures.

In Q1 considerable growth was recorded in real, seasonally adjusted spending on purchases of goods and services which grew by 4% against the previous quarter. For the most part, this growth is a result of the matured payment obligations under the satellite lease agreement signed with an Israeli provider (around RSD 3 bn). Spending on subsidies also posted strong growth of 6.1% relative to the previous quarter. The growth of spending on subsidies was on account of

the transfer of state budget funds to Serbian Railways for the settlement of certain obligations and compensation transactions between this and certain other public companies. The growth recorded by the above two spending items is a result of one-off payments and does not present a lasting, systemic increase in spending for these purposes so it is not expected to have any significant effect on the achievement of the planned fiscal deficit, which is assessed as positive. It is important to note that the increase in spending on subsidies to public enterprises is neutral from the aspect of the fiscal deficit since most of these funds will be used for the settlement of the obligations these companies have towards other public sector segments.

Implementation of the new Social Welfare Law started in Q1 effectively increasing the number of beneficiaries of the major social benefit program (family material support - MOP), as well as an increase in the amounts of such support that has led to a growth of government spending in this category. Under current circumstances, where the poverty rate in Serbia has considerably grown due to the economic crisis, redefining rules to expand the outreach of social welfare programs and increase the amounts of the benefits is assessed as a correct stabilization measure bound to have a positive impact on the position of the poorest members of the society.

Spending on repayment of interest rose in real terms in Q1, as a result of the overall growth of public debt, as well as due to the increase of the share of relatively expensive loans in the government debt portfolio. Considering that the greatest portion of the public debt in denominated in euros, it is expected that a continued real appreciation of the Dinar in the coming period could slow down the rising trend in this spending category.

Table T6-7. Serbia: Year-on-Year General Government Sector Consolidated Balance Real Trend, 2007–2011

	2007	2008	2009	2010					2011
	Q1-Q4	Q1-Q4	Q1 - Q4	Q1	Q2	Q3	Q4	Q1 - Q4	Q1
I PUBLIC REVENUES	**8.6**	**3.3**	**-8.7**	**-4.0**	**2.5**	**-3.6**	**-1.3**	**-1.5**	**-2.3**
1. Current revenues	7.9	3.5	-9.1	-4.0	2.6	-3.5	-1.4	-1.5	-2.4
Tax revenue	8.0	3.7	-8.8	-4.3	0.7	-3.0	-3.7	-2.5	-2.6
Personal income taxes	-8.4	6.3	-10.8	-6.0	-3.8	-5.1	-1.2	-3.9	-6.7
Corporate income taxes	52.1	18.5	-27.0	-15.2	7.5	-0.1	6.2	-3.6	9.8
VAT and retail sales tax [1]	10.6	2.5	-10.2	-3.5	6.4	1.1	-6.1	-0.7	-2.2
Excises	6.5	0.7	11.6	3.9	6.8	2.4	3.4	4.2	14.3
Custom duties	18.6	1.8	-32.4	-23.1	-11.9	-10.4	-14.8	-14.9	-15.4
Social contributions [2]	9.6	4.3	-7.0	-4.9	-6.9	-8.8	-5.5	-6.5	-7.3
Other taxes	1.7	-2.3	-4.9	23.3	36.8	3.9	2.1	14.5	-6.9
Non-tax revenue	7.4	2.6	-11.3	-1.6	18.1	-6.7	13.4	5.8	-0.4
2. Capital revenues	1,703.2	-76.8	-41.4	-97.6	-64.3	-26.0	69.6	-66.8	-66.8
II TOTAL EXPENDITURE	**8.9**	**4.5**	**-4.8**	**-1.4**	**-3.1**	**-3.2**	**0.3**	**-1.7**	**-2.3**
1. Current expenditures	6.9	6.9	-3.3	-1.9	-2.0	-3.7	-1.4	-2.2	-3.1
Wages and salaries	9.4	10.9	-6.0	-3.7	-6.1	-4.4	-8.9	-5.9	-6.4
Expenditure on goods and services	10.5		-5.7	3.1	-5.1		2.2	-0.3	-0.2
Interest payment	16.1	-2.8	-5.7	3.1	-5.1	-1.9	2.2	-0.3	10.5
Subsidies	-44.4	-13.3	19.0	29.1	71.1	5.8	75.0	40.6	19.8
Social transfers	7.6	10.1	-26.0	-5.3	16.6	9.2	26.8	13.9	-7.4
o/w: pensions [3]	*6.5*	*9.5*	2.2	-3.8	-3.3	-5.5	-3.3	-3.9	-9.3
Other current expenditures	7.1	14.9	6.7	-4.3	-5.6	-6.4	-7.9	-6.1	88.9
2. Capital expenditures	1.1	-4.3	-6.7	12.7	6.6	-18.1	-27.2	-11.8	9.5
III "OLD" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	**-53.9**	**12.3**	**-2.4**	**360.3**	**-4.9**	**34.9**	**27.7**	**35.2**	**6.9**
IV TOTAL EXPENDITURE, GFS (II+III)	**9.2**	**4.6**	**-4.8**	**-0.1**	**-3.1**	**-2.5**	**0.8**	**-1.1**	**-2.9**

Source: Table P-10 in Analytical Appendix

1) Sales tax/VAT less new tax credits of the corporate sector.

2) Contributions less compensations between the Pension and Disability Fund (PIO), the Development Fund and PIO debtor companies.

3) Refers only to spending on current pensions.

Note:

Real growth was calculated by applying the average retail prices base index (December 2003 dbase) on quarterly figures.

Public Debt Analysis

Serbia's public debt rose in Q1 by around €520 mln (to 41.9% of GDP)

At the end of Q1 2011, Serbia's total public debt stood at €12.7 bn (41.9% of GDP[1]), which is around €520 mn more than at the end of 2010. The public debt growth in Q1 was significantly higher than the quarterly fiscal deficit in the same period. The difference occurred due to the fact that in Q1 the government strived to secure funds for financing the deficit in the forthcoming quarters and for the settlement of existing government liabilities soon due for payment (for example liabilities with respect to the frozen foreign currency deposits). Thus, in Q1 the government signed a loan agreement with Société Générale Bank for an amount of around €300 mn that will be used for financing the deficit throughout 2011. Besides, the government issued short-term and medium-term bonds on several occasions. The funds collected under the above borrowing arrangements have been deposited to the government's account.

Table T6-7. Serbia: Public Debt, 2000–2011

	2007	2008	2009	2010					2011
	Q1-Q4	Q1-Q4	Q1 - Q4	Q1	Q2	Q3	Q4	Q1 - Q4	Q1
I PUBLIC REVENUES	**8.6**	**3.3**	**-8.7**	**-4.0**	**2.5**	**-3.6**	**-1.3**	**-1.5**	**-2.3**
1. Current revenues	7.9	3.5	-9.1	-4.0	2.6	-3.5	-1.4	-1.5	-2.4
Tax revenue	8.0	3.7	-8.8	-4.3	0.7	-3.0	-3.7	-2.5	-2.6
Personal income taxes	-8.4	6.3	-10.8	-6.0	-3.8	-5.1	-1.2	-3.9	-6.7
Corporate income taxes	52.1	18.5	-27.0	-15.2	7.5	-0.1	6.2	-3.6	9.8
VAT and retail sales tax[1)]	10.6	2.5	-10.2	-3.5	6.4	1.1	-6.1	-0.7	-2.2
Excises	6.5	0.7	11.6	3.9	6.8	2.4	3.4	4.2	14.3
Custom duties	18.6	1.8	-32.4	-23.1	-11.9	-10.4	-14.8	-14.9	-15.4
Social contributions[2)]	9.6	4.3	-7.0	-4.9	-6.9	-8.8	-5.5	-6.5	-7.3
Other taxes	1.7	-2.3	-4.9	23.3	36.8	3.9	2.1	14.5	-6.9
Non-tax revenue	7.4	2.6	-11.3	-1.6	18.1	-6.7	13.4	5.8	-0.4
2. Capital revenues	1,703.2	-76.8	-41.4	-97.6	-64.3	-26.0	69.6	-66.8	-66.8
II TOTAL EXPENDITURE	**8.9**	**4.5**	**-4.8**	**-1.4**	**-3.1**	**-3.2**	**0.3**	**-1.7**	**-2.3**
1. Current expenditures	6.9	6.9	-3.3	-1.9	-2.0	-3.7	-1.4	-2.2	-3.1
Wages and salaries	9.4	10.9	-6.0	-3.7	-6.1	-4.4	-8.9	-5.9	-6.4
Expenditure on goods and services	10.5		-5.7	3.1	-5.1		2.2	-0.3	-0.2
Interest payment	16.1	-2.8	-5.7	3.1	-5.1	-1.9	2.2	-0.3	10.5
Subsidies	-44.4	-13.3	19.0	29.1	71.1	5.8	75.0	40.6	19.8
Social transfers	7.6	10.1	-26.0	-5.3	16.6	9.2	26.8	13.9	-7.4
o/w: pensions[3)]	*6.5*	*9.5*	2.2	-3.8	-3.3	-5.5	-3.3	-3.9	-9.3
Other current expenditures	7.1	14.9	6.7	-4.3	-5.6	-6.4	-7.9	-6.1	88.9
2. Capital expenditures	1.1	-4.3	-6.7	12.7	6.6	-18.1	-27.2	-11.8	9.5
III "OLD" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	**-53.9**	**12.3**	**-2.4**	**360.3**	**-4.9**	**34.9**	**27.7**	**35.2**	**6.9**
IV TOTAL EXPENDITURE, GFS (II+III)	**9.2**	**4.6**	**-4.8**	**-0.1**	**-3.1**	**-2.5**	**0.8**	**-1.1**	**-2.9**

Source: Ministry of Finance of the Republic of Serbia and QM estimates

1) According to the Public Debt Law, the public debt encompasses the debt of the Republic of Serbia arising from agreements stipulated by the state, securities and agreements for rescheduling the obligations of the state, undertaken in previous agreements, as well as securities issued under special laws, state debt under the guarantees issued by the state or arising from the direct take-over of the liabilities in the capacity of a debtor, for the repayment of debts for the guarantees/counter-guarantees issued by the state, debts of local governments for which the state has issued guarantees.

2) Ministry of Finance of the Republic of Serbia estimates

3) QM estimate (using quadruple quarterly GDP value stripped of the season and cycle component, by applying the Hodrick-Prescott filter)

Of €12.7 bn of public debt – some €11 bn are direct and €1.7 bn indirect government liabilities. Comparing the volume and structure figures of the public debt at the end of Q4 2010 with those posted at the end of Q1 2011, the ensuing conclusion is that public debt growth in Q1 is owed entirely to an increase in direct government liabilities. More precisely, almost the entire public debt growth recorded in Q1 is accounted for by the growth of the internal (direct) debt, which speaks of the government's growing focus on the local financial market and domestic banks when it comes to borrowing. However, this does not entail a reduced exchange rate, since domestic market borrowing is also primarily done in Euros, or in Dinars with a Euro-indexed clause. In Q1, the government borrowed in the domestic financial market through an issuance of treasury bills denominated in Dinars, as well as through an issuance of treasury bills and bonds denominated in Euros. The borrowing through the emission of T-bills denominated in dinars was at the nominal (annual) interest rate ranging between 13% and 13.5%. Taking into account the current inflation rate, the real interest rate is around 3%, which is assessed as positive. Besides, this type of borrowing eliminates the currency risk which is an additional advantage.

1 *QM* estimate

On the other hand, this type of borrowing on the part of the government increases the demand for money in the local market which may drive interest rates up. In addition to the issuance of securities denominated in Dinars, in Q1 2011 the government for the first time issued long-term government bonds denominated in Euros in the amount of €97 mn with a repayment period of 15 years and interest rate of 5.85%. Also, the government issued €200 mn worth of Euro-denominated medium term bonds with a 53-week maturity and an interest rate of 4.48%. In Q1, the government also started issuing treasury bills denominated in Dinars but indexed to the Euro. The issuance of Euro-denominated bonds, as well as that of bills and bonds denominated in dinars but indexed to the euro, boosted capital inflows from abroad which has a positive effect on the country's balance of payment status. However, by issuing the Dinar-denominated Euro-indexed securities, the government boosted the supply of Euros in the local foreign currency market, since investors started selling Euros and buying the Dinars needed to purchase government bonds, which induced a strong nominal appreciation of the Dinar against the Euro.

In addition to liabilities related to issuance of securities, direct state liabilities in Q1 also grew due to loans from commercial banks. In January 2011, the Republic of Serbia concluded the Loan Agreement with the Société Générale Bank, for the amount of USD 400 mn (€300 mn), with a repayment period of six years and an interest rate equivalent to the six-month swap to Euro, a fixed margin of 1% and a bank fee of 0.5%. Starting from the value of the six-month swap to Euro on the date of opening of the bids, the total interest rate for that loan approximates 3.9%. The relatively favorable loan conditions were owed to the fact that the loan was guaranteed by the World Bank. Since favorable borrowing conditions can be obtained in this manner, the stipulation of similar arrangements (with the World Bank and other international financial institutions) is considered desirable in the future. Funds raised in this manner could be used both to finance the current fiscal deficit and refinance existing debts relatively cheaply, for which significantly higher interest rates of up to 6%-7% annually are paid. This would also reduce future costs of repayment of interest rates, which could be used to reduce the fiscal deficit, or to increase other productive public spending categories, such as public investments. This will be particularly important in the forthcoming period, due to the fact that the interest for a significant portion of Serbia's public debt is paid at a variable rate, tied to EURIBOR or some other reference rate, and that the EURIBOR is expected to further increase as economic activity continues to recover.

In Q1, indirect state obligations (e.g. arising from guarantees issued by the Republic for loans to public enterprises) decreased by about €30 mn compared to end of 2010. This decline is owed to the settlement of a portion of the existing debt by those public sector entities.

Serbia's public debt amounted to around €12.95 bn at the end of April 2011, i.e. it increased by about €250 mn (0.08% of BDP) compared to the end of the previous month. The growth of the public debt in April is approximately equivalent to Serbia's budget deficit recorded in that month.

The status of public debt sustainability at the end of Q1 was subject to the influence of two groups of factors. On the one hand, the increase of the debt denominated in Euros has an adverse effect on its sustainability. On the other hand, as the greatest share of the debt is denominated in Euros while being financed from the GDP denominated in Dinars, it is estimated that the appreciation of the Dinar against the Euro has had a favorable impact on he sustainability of Serbia's public debt.

Rating agency *Standard and Poor's* has raised Serbia's credit rating from BB- to BB, which has been assessed as a favorable development. In fact, this rating adjustment indicates a decreased country risk and can reflect positively on the global market's borrowing requirements for the state and economy. Although Serbia is one of the few countries in the world whose credit rating was raised after the outbreak of the crisis, this rating is still worse than that of most of the countries in the European Union and the region (out of the countries in the region, only Bosnia-Herzegovina and Albania have a worse credit rating, Macedonia and Montenegro have the same rating as Serbia, while all other countries have a better credit rating). Stricter adherence to fiscal rules

and implementation of other structural reforms in the economic, legal and political systems are expected to contribute to a further stabilization and improvement of the country's credit rating, with a positive impact on the state's and economy's global market borrowing requirements.

Methodological adjustments are required for calculating and expressing the indebtedness level of the state

As regards the public debt–to-GDP ratio, as a relative indicator of the country's indebtedness, the data of the Ministry of Finance indicate that this ratio has dropped by 1.7% of GDP in Q1 (from 41.5% to 39.8%), although the public debt in the observed period grew in absolute terms, by €520 mn Divergent patterns of the absolute amount of the state's obligations and the relative indicator of its indebtedness is a result of the irregular adjustment of the comparison base (of GDP value). In fact, comparisons of the absolute amount of public debt at the end of 2010 by the Ministry of Finance was made in relation to the estimated GDP value for that year, while the comparison of obligations at the end of Q1 2011 was made in relation to the estimated amount of GDP in 2011. However, as the GDP does not increase in leaps, but continuously during the whole year, it would be justified to calculate this indicator in relation to the estimated annual GDP value at the end of each quarter. Taking this methodological approach as a starting point, *QM* analyses indicate that the public debt at the end of Q1 amounted to 41.9% of GDP, 0.2% of GDP more than at the end of 2010. The difference in the relative amount of the public debt, according to the estimates of *QM* and the Ministry of Finance, was also affected by the fact that the Ministry compared the amount to official GDP data on public debt at the end of March. As it has been established in the meantime that the official data on GDP value were overestimated, (please see Section 2, Economic Activity), *QM* used the new (revised, i.e. reduced) GDP value to determine the relative public debt amount, excluding the seasonal and cyclical component.

The fiscal rules stipulated in the Budget System Law limit the general government debt (excluding the debt for restitution) to 45% of GDP. The same Law prescribes that the general government debt includes the general government direct debt and the guarantees issued by the general government to national and international creditors. According to the data of the Ministry of Finance, Serbia's public debt at the end of Q1 amounted to around 39.5% of GDP, (i.e. 41.9% of GDP according to *QM* estimates). According to available information, the figure on the status of the public debt at the end of Q1 published by the Ministry of Finance does not include the share of contingent liabilities arising from local government debt, for which the central government has issued a guarantee. It is estimated that by including this potential liability, the general government level debt would slightly increase (by about 0.8% of GDP).

Although the public debt ceiling stipulated by the fiscal rules has not been reached yet, the fact that it is by now already relatively close, indicates that the medium and long-term sustainability of Serbia's debt is at risk. It is estimated that the sustainability of the public debt in the forthcoming period will depend on the economic activity trend (GDP dynamics), on success in containing the fiscal deficit within the planned limits and on the changes in the foreign exchange rate and interest rates. As there is a relatively high level of uncertainty about the exchange rate and interest rate trends in the forthcoming period, the conclusion is that the state should manage public debt sustainability in the first place through the fiscal deficit policy and by providing the conditions for the implementation of the planned economic growth rates. Therefore, containing the public debt within the prescribed limits set at 45% of GDP requires strict adherence to fiscal rules on the size of the fiscal deficit. It is estimated that if the GDP were increased by 3% in 2011 and 4% in 2012, and if the fiscal deficit stood at 4.1% of GDP in the current, and 3.2% of GDP in the next year – the public debt would be stabilized within the limits set by fiscal rules. Breaking the limits set for the fiscal deficit would contribute to exceeding the upper ceiling of the public debt of 45% of GDP. Furthermore, if GDP growth in the current and next year is slower than projected, a greater decrease of the fiscal deficit will be required in 2012, in order to keep the public debt within the prescribed limits.

7. Monetary Flows and Policy

To stabilize inflation and rein it back into its target band, the National Bank of Serbia increased its key policy rate twice in Q1. These changes affected the growth of repo operations, which increased by €86mn after having declined over the course of 2010. Primary money continued to drop in Q1 owing to a simultaneous fall in both net domestic and net foreign assets, with net foreign assets declining much more significantly. The National Bank of Serbia's net own reserves fell by €154mn. Similar behavior was also exhibited by wider monetary aggregates, such as, for instance, M2. Having seen its growth slow down over the last three quarters, real M2 recorded negative growth of -5.4% at the year-on-year level in Q1, due to the simultaneous drop in net domestic and net foreign assets. The growth in bank lending to businesses and households decelerated in Q1 in relation to the preceding year, which, when coupled with the repayment of €214mn in businesses' foreign liabilities, led to a net increase in indebtedness of €2mn. Sources of new lending fell by €603mn in Q1 owing to a drop in the deposits of businesses and the repayment of banks' foreign liabilities. The share of non-performing loans rose to 12.24% in Q1, even though the appreciation of the dinar/euro exchange rate positively affected the cost of servicing debt. This, in turn, made banks less interested in lending.

Central Bank: Monetary Policy and Balance

In Q1 the NBS increased its key policy rate…

In a response to rising inflation, which has now exceeded the target band for two quarters in a row, the NBS continued increasing its key policy rate: a rise of 50bp in January was followed by another increase, of 25bp, in March. The latest adjustment was made in early April, increasing the rate yet again to bring it up to 12.5%. This growth in the interest rate has smoothed out oscillations and caused the dinar to gain ground against the euro, with the NBS intervening only once – in January – by buying €5mn in the interbank foreign exchange market (while €312mn was sold in Q4 2010, Table T7-3). Even with the reduced volume of interventions, net own reserves saw a fall of €154mn in Q1 (as against a drop of €69mn in Q4 2010, Table T7-9). In addition to increasing the key policy rate, in January the NBS amended its March 2010 decision governing banks' reserve requirements, increasing the rate for foreign currency sources from 25% to 30% for assets maturing in under two years and re-introduced the required dinar-denominated portion of foreign currency reserves.[1]

…and amended its Decision on Banks' Required Reserves

Primary money recorded a drop in Q1…

The first quarter saw a drop in the level of *primary money* amounting to 9.6% of the initial H, thereby continuing a trend in evidence since last year, which saw primary money fall by 27.3% of the initial H (where Q1 2010 saw a drop of 0.4%, Table T7-1). Although the NBS did not intervene in the interbank foreign currency market, except for a minimal correction in January, its net own reserves recorded a drop of 8.9% of initial H (where Q1 2010 saw a drop of 3.5% of initial H). The fall in the net domestic assets (NDA) was a consequence of increased government sector deposits and expanding repo operations. A greater drop in NDA was pre-empted by an increase in other net domestic assets of 10.9% of initial H, which stopped the overall slide in NDA at 0.7% of initial H. After inflation broke through the upper edge of the target band and continued to rise, the NBS reacted by increasing its prime lending rate and, in January, amending its March 2010 decision governing reserve requirements to curb the expansiveness of monetary policy. Apart from changes relating to reserve requirements for dinar sources of financing, the greatest effects are expected from the increase in the rate for foreign currency sources maturing in less than two years from 25% to 30%, and from the re-introduction of the required dinar-denominated portion of foreign currency reserves.

…with NDA and NFA declining at the same time

1 For foreign currency liabilities with contractual maturity of two years or less, 15% of the reserve requirement is to be denominated in dinars, while the dinar-denominated portion amounts to 10% for liabilities maturing in over two years.

Table T7-1. Serbia: Currency Purchases and Sterilization, 2008-2011

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
FLOW					in millions of dinars, cumulative from the beginning of the year					
NBS own resreves[1]	27,211	-5,590	-12,043	29,771	64,094	-37,703	-76,916	-141,888	-150,330	-15,940
NBS own reserves (in euros)	*312*	*-59*	-128	*319*	*668*	*-378*	*-743*	*-1,346*	*-1,415*	*-154*
NDA	122,232	43,117	-54,266	-118,637	-126,108	-712	11,197	75,454	82,943	-1,223
Government, dinar credits[2]	81	-308	-310	-310	398	5	-9,946	-9,942	-9,975	-6
Government, dinar deposits[2]	8,638	-17,155	-8,376	3,021	-40,135	6,554	11,738	19,401	7,687	-8,285
o/w: municipalities	*-909*	*-4,415*	-2,026	*2,199*	*3,130*	*1,450*	*1,322*	*2,270*	*-1,280*	*835*
Repo transactions[3]	127,517	-8,455	-29,024	-69,849	-61,506	12,105	34,979	87,176	104,772	-12,401
Other items , net[4]	-14,004	-17,199	-16,556	-51,499	-24,865	-19,376	-25,574	-21,181	-19,541	19,469
H	149,443	-48,707	-66,309	-88,866	-62,014	-38,415	-65,719	-66,434	-67,387	-17163
o/w: currency in circulation	13,007	-11,856	-9,009	-7,193	5,566	-9,663	-7,841	-5,771	-3,719	-10,409
o/w: excess liquidity	1,602	41,330	-41578	-51043	-14227	-33665	-30871	-21232	-16873	-6,754
INCREASE					cumulative, in % of opening H[5]					
NBS own reserves[2]	20.3	-1.8	-3.9	9.6	20.8	-15.3	-31.2	-57.5	-61.0	-8.9
NDA	91.3	-14.0	-17.6	-38.4	-40.9	-0.3	4.5	30.6	33.6	-0.7
Government, dinar deposits[2]	6.4	-5.6	-2.7	1.0	-13.0	2.7	4.8	7.9	3.1	-4.6
Repo transactions[3]	95.2	-2.7	-9.4	-22.6	-19.9	4.9	14.2	35.4	42.5	-6.9
Other items , net[4]	-10.5	-5.6	-5.4	-16.7	-8.1	-7.9	-10.4	-8.6	-7.9	10.9
H	111.6	-15.8	-21.5	-28.8	-20.1	-15.6	-26.7	-26.9	-27.3	-9.6
o/w: currency in circulation	9.7	-3.8	-2.9	-2.3	1.8	-3.9	-3.2	-2.3	-1.5	-5.8
o/w: excess liquidity	1.2	-13.4	-13.5	-16.5	-16.5	-13.7	-12.5	-8.6	-6.8	-3.8

Source: Table P-14 in the Analytical Appendix

1) For more details see section 8, Monetary Flows and Policy, Box 4, *QM* 5.

2) "State" includes all levels of Government: the Republic and local government.

3) This category includes NBS T-bills and repo operations.

4) Other net domestic assets include: domestic credits (net claims against banks, excluding NBS T-bills and repo transactions, net claims against companies) together with other assets (capital and reserves; and items in the balance: other assets and other liabilities), adjusted for exchange rate differentials.

5) "Initial H" marks the stock of the reserve money (H) at the start of the stated year, i.e. the end of the previous year.

Table T7-2. Structure of Serbia's Foreign Currency Reserves – Stock and Flow, 2008-2011

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
					stock, in millions of euros					
NFA of Serbia	5,451	5,305	5,211	5,569	5,940	5,609	5,438	5,211	4,771	4,654
Commercial banks, net	-2,562	-2,670	-2,824	-3,125	-3,519	-3,667	-3,633	-3,258	-3,628	-3,802
Gross foreign reserves	1,385	978	936	1,380	1,694	1,750	1,589	1,906	2,110	1,410
Foreign liabilities	-3,947	-3,648	-3,761	-4,505	-5,213	-5,417	-5,221	-5,164	-5,738	-5,213
NBS, net	8,013	7,975	8,036	8,694	9,459	9,275	9,070	8,469	8,400	8,456
Gross foreign reserves	8,180	8,155	8,913	9,551	10,657	10,522	10,661	10,019	10,003	10,018
Foreign liabilities	-167	-180	-877	-857	-1,198	-1,246	-1,591	-1,551	-1,603	-1,562
IMF	-9	-14	-769	-756	-1,113	-1,160	-1,499	-1,469	-1,521	-1,484
Other liabilities	-159	-166	-108	-101	-85	-87	-92	-82	-82	-78
NBS, NET RESERVES-STRUCTURE										
1. NBS, net	8,013	7,975	8,036	8,694	9,459	9,275	9,070	8,469	8,400	8,456
1.1 Commercial banks deposits	-2,191	-2,136	-2,281	-2,471	-2,916	-3,031	-3,309	-3,293	-3,289	-3,264
1.2 Government deposits	-459	-536	-521	-542	-513	-593	-474	-491	-495	-738
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	5,362	5,303	5,234	5,681	6,030	5,652	5,287	4,684	4,616	4,455
					in millions of euros, cumulative from the beginning of the year					
NFA of Serbia	-1,665	-146	-239	118	489	-332	-503	-729	-1,169	-119
Commercial banks, net	-183	-108	-263	-564	-957	-148	-114	261	-110	-175
Gross foreign reserves	-18	-407	-449	-5	309	56	-105	212	416	-700
Foreign liabilities	-165	299	186	-558	-1,266	-204	-8	49	-526	524
NBS, net	-1,482	-38	23	682	1,446	-183	-389	-990	-1,059	56
Gross foreign reserves	-1,482	-25	733	1,371	2,477	-135	5	-637	-654	16
Foreign liabilities	1	-13	-710	-690	-1,031	-49	-393	-353	-405	41
IMF	-12	-5	-761	-747	-1,104	-47	-386	-356	-408	37
Other liabilities	13	-7	51	58	74	-2	-7	3	3	4
NBS, NET RESERVES-STRUCTURE						0				
1. NBS, net	-1,482	-38	23	682	1,446	-183	-389	-990	-1,059	56
1.1 Commercial banks deposits	1,219	55	-90	-280	-725	-115	-393	-377	-374	22
1.2 Government deposits	575	-76	-61	-82	-54	-80	39	22	18	-232
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	312	-59	-128	319	668	-378	-743	-1,346	-1,415	-154

Source: NBS

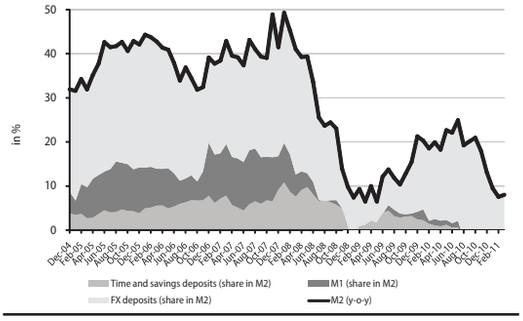
Note: Foreign currency reserves of the NBS are treated differently in the monetary survey and in the balance sheet of the NBS. Under the monetary survey, this category includes IMF loans and other external liabilities, while the NBS balance sheet, beside the listed items, also includes foreign currency deposits of commercial banks (reserve requirements and other foreign currency deposits).

Table T7-3: Net Monthly Foreign Currency Trade NBS – Banks and Exchange Offices, January 2008 – March 2011

	Interbank fx market (NBS-commercial banks)	Exchange offices	Total	
(-, net sale of foreign currency by NBS)				
		in millions of euros		
January-December 2006	350	367.8	718	
January-December 2007	-704.8	1161.2	456	
January-December 2008	-1304	507	-797	
January-December 2009	-656.9	128.2	-529	
January 2010	-245.5	0	-246	
February 2010	-196	0	-196	-631.5 in Q1 2010
March 2010	-190	0	-190	
April 2010	-5	0	-5	
May 2010	-359	0	-359	-785.0 in Q2 2010
June 2010	-421	0	-421	
July 2010	-231	0	-231	
August 2010	-182.5	0	-183	-595.2 in Q3 2010
September 2010	-181.7	0	-182	
October 2010	-173	0	-173	
November 2010	-185	0	-185	-321.5 in Q4 2010
December 2010	36.5	0	37	
January 2011	5	0	5	
February 2011	0	0	0	5 in Q1 2011
March 2011	0	0	0	

Source: NBS

Graph T7-4. Serbia: Money and its Components[1)], 2004-2011



Source: Table P-12 in the Analytical Appendix
1) The share of money components has been calculated as their contribution to growth against the value of M2 versus the same period in the previous year, with the sum of the calculated share equivalent to the 12-month growth of total money (M2).

Monetary System: Money Supply Structure and Flow

The money supply recorded a drop in Q1…

…with NDA and NFA declining at the same time

The drop in the money supply was in evidence from the beginning of the year, and amounted to -3.3% of initial M2 (Table T7-5). The cause for the decline in money supply can be found in the negative growth of net domestic assets (NDA) of -1.4% of initial M2 and net foreign assets (NFA) of -1.09% of initial M2. Credits to the non-government sector (adjusted for changes in the exchange rate) made a positive contribution of 1.5% of initial M2 to the overall Q1 increase in NDA. Another positive contribution was made by the Q1 drop in monetary sector capital of 7.3% of initial M2. In the same period the government reduced its indebtedness by 2% of the initial M2, which adversely affected NDA. The Q1 drop in NFA is owed to the combined effect of the negative foreign exchange increase of -1.3% of the initial M2 and negative exchange rate adjustments of -0.6% of the initial M2.

Dinar sight and time deposits have been trending down, with hard currency deposits stagnating

Table T7-5. Serbia: Money and Component Aggregates, 2008-2011

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
					y-o-y, in %					
M2[1]	9.8	6.5	12.1	10.4	21.3	19.9	22.1	20.1	13.1	8.0
Credit to the non-government sector[2]	33.7	33.8	27.7	22.3	16.1	14.4	25.0	27.1	27.2	19.3
Credit to the non-government sector[2], adjusted[3]	23.6	20.9	13.9	7.7	10.2	10.4	16.2	16.8	19.9	16.7
Households	15.7	7.4	1.5	4.4	3.7	7.9	16.1	18.7	18.9	25.1
Enterprises	28.1	28.8	20.9	9.3	13.6	11.6	16.3	15.8	20.4	12.8
					real y-o-y, in %					
M2[1]	2.9	-3.2	2.1	0.9	9.8	11.5	14.6	10.3	1.3	-5.4
Credit to the non-government sector[2]	25.2	21.7	16.4	11.8	5.2	6.3	17.3	16.7	13.9	4.5
Credit to the non-government sector[2], adjusted[3]	15.7	9.4	2.7	-2.8	-0.5	2.6	8.8	6.7	6.9	1.8
Households	8.3	-2.8	-8.6	-5.8	-6.4	0.3	8.7	8.5	5.9	9.2
Enterprises	19.9	16.5	9.0	-1.3	2.5	3.7	8.9	5.9	7.3	-1.6
					cumulative, in % of opening M2[4]					
M2[1]	9.8	2.3	7.0	9.5	21.3	1.1	7.7	8.5	13.1	-3.3
M2 dinar[1]	0.5	-1.9	0.6	2.2	4.2	-2.7	-1.6	-2.8	-2.2	-2.0
Foreign deposits (households and enterprises)[5]	2.3	-0.1	2.9	4.1	11.2	1.3	3.3	4.0	8.1	0.0
Valuation adjustments[6]	7.0	4.4	3.4	3.2	5.9	2.6	5.9	7.3	7.2	-1.3
NFA, dinar increase	-8.8	2.2	0.4	3.6	8.9	-0.9	-0.6	-1.7	-5.3	-1.9
NFA, fx increase	-14.5	-1.1	-2.1	1.1	4.5	-2.7	-4.4	-6.1	-9.1	-1.3
Valuation adjustments[6]	5.7	3.3	2.5	2.5	4.4	1.8	3.8	4.4	3.8	-0.6
NDA	18.7	0.2	6.6	6.0	12.4	2.1	8.3	10.2	18.4	-1.4
o/w: credit to the non-government sector[2], adjusted[3]	22.0	3.6	5.1	8.3	11.6	3.9	11.1	14.6	21.6	1.5
o/w: net credit to government[7]	7.0	-2.0	4.1	6.1	5.2	0.8	4.1	4.3	6.1	-2.0
o/w: NBS and com. banks capital and reserves	-16.4	0.7	-5.5	-9.9	-13.7	-0.2	-11.1	-6.3	-7.7	7.3
					cumulative, in % of GDP[8]					
Net credit to government[7]	2.2	-0.9	1.4	2.1	1.7	0.3	1.6	1.6	2.3	-0.9
o/w: dinar credits	0.8	-0.5	1.7	2.4	1.7	0.6	1.3	1.8	1.9	-0.4
Credit to the non-government sector[2], adjusted[3]	10.7	3.4	3.5	4.3	6.4	2.9	7.2	9.2	11.5	0.1

Source: Table P-12 in the Analytical Appendix
1) Money supply: components – see *QM* Analytical and Notation Conventions.
2) Credits to the non-government sector – credits to the corporate sector (including local governments) and households.
3) Flows have been adjusted for the exchange rate change. Adjustments have been made under the assumption that 70% of credits to the non-state sector have been euro-indexed.
4) The starting M2 marks the M2 stock at the start of the year, i.e. at the end of the previous year.
5) The contribution of foreign currency deposits to M2 growth measures only the contribution of the increase in foreign currency denominated foreign currency deposits, so that their revaluation produces exchange rate differentials.
6) Exchange rate differentials refer to the difference between the contribution of NFA to M2 growth measured in dinars and the contribution of NFA to M2 growth measured in foreign currencies.
7) Credits to the government: net – the difference between credits (dinars and foreign currency) and deposits (dinar and foreign currency) of the state. "Government" does not include local governments, which are treated as the non-government sector.
8) GDP used in calculations is annually centered.

Table T7-6. Serbia: Monetary Survey, 2008-2011

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
					in millions of dinars, end of period					
STOCK										
NFA	483,707	504,072	486,784	517,908	570,534	559,408	563,269	549,806	507,096	480,916
o/w: NBS gross reserves	724,755	772,902	832,817	888,389	1,022,861	1,049,068	1,103,542	1,056,399	1,063,078	1,035,237
o/w: commercial bank foreign liabilities	-349,703	-345,733	-351,420	-419,017	-500,336	-540,076	-540,431	-544,477	-609,859	-538,640
NDA	508,826	511,535	575,119	569,336	633,447	658,351	732,914	756,197	854,430	834,723
Net credit to government[1]	-53,042	-76,033	-14,887	4,838	-4,340	3,916	42,404	43,258	66,656	38,964
Net dinar credit	-14,199	-27,201	31,692	52,467	33,822	50,763	71,864	88,847	91,071	77,935
Net fx credit	-38,843	-48,832	-46,579	-47,629	-38,162	-46,847	-29,460	-45,589	-24,415	-38,971
Credit to the non-government sector[2]	1,126,111	1,215,843	1,218,702	1,245,735	1,306,224	1,389,783	1,523,040	1,583,687	1,660,870	1,658,603
Other items, net	-564,243	-628,275	-628,696	-681,237	-668,437	-735,348	-832,530	-870,748	-873,096	-862,844
M2[3]	992,533	1,015,607	1,061,903	1,087,244	1,203,981	1,217,759	1,296,183	1,306,003	1,361,526	1,315,641
M2 dinar[3]	395,088	378,094	401,120	416,996	436,784	403,722	417,948	402,995	410,172	382,714
Fx deposits (households and economy)	597,445	637,513	660,783	670,248	767,197	814,037	878,235	903,008	951,354	932,926
STRUCTURAL INDICATORS										
Currency outside banks/Dinar deposits (households and economy), in %	29.5	26.0	25.3	24.8	28.0	27.0	26.5	28.7	28.8	27.0
Fx deposits (households and economy) / M2 (%)	60.2	62.8	62.2	61.6	63.7	66.8	67.8	69.1	69.9	70.9
Velocity (GDP[4] / M2)	2.7	2.6	2.5	2.6	2.4	2.4	2.3	2.3	2.3	2.4
M2 / GDP[4]	0.38	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Credits to the non-government sector / GDP[4]	0.43	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
Non-perofrming loans[5] (in % of total loans)	5.8	9.1	12.1	11.2	10.8	13.8	12.0	11.9	14.9	12.2
Money multiplier (dinar M2/H)	1.2	1.4	1.6	1.8	1.7	1.9	2.2	2.2	2.2	2.2

Source: Table P-13 in the Analytical Appendix
1) See footnote 7) in Table T7-2.
2) See footnote 2) in Table T7-2.
3) Money Supply: components – see *QM* Analytical and Notation Conventions.
4) See footnote 8) in Table T7-2.
5) The ratio of loans continually in default for 90 days and over to total loans – data provided by the Association of Serbian Banks Credit Bureau. For more details, see: J. Dimitrijević, "Non-performing loans in Serbia – What is the right measure?", *QM6*.

Banking Sector: Lending and Sources of Financing

Total growth of new lending to businesses was negative…

The first quarter saw a slowdown in the growth of new lending to businesses and households, which amounted to €216mn (while Q4 had seen lending of €763mn, Tables T7-7 and T7-8). The majority of the funds (€191mn) were lent to businesses, while households showed greater aversion to new borrowing; the growth of new lending to households thus amounted to a mere €25mn (in Q4 2010 businesses had borrowed €614mn, while households had taken out €153mn in loans). To overcome households' reluctance to borrow, the NBS amended its Decision on the Classification of Bank Balance Sheet Assets and Off-Balance Sheet Items in April. One of the amendments introduced a new method for establishing the level of credit indebtedness of an individual. Under the amended decision, the level of indebtedness is now established as the ratio of credit obligation to net monthly income less the value of the minimum basket of consumer goods for the first member of the household. At first glance, this amendment could serve as a major incentive for boosting lending when compared to the time when an individual could borrow only up to a level where monthly repayments did not exceed 30% of his or her monthly income. As, however, some 70% of all loans granted contained a foreign currency clause, most borrowers found their repayments exceeding the 30% threshold as the dinar depreciated. These debtors should automatically have been reassigned to a lower-performing class of loans, whereby the bank in question would have had to increase its required reserve deposit with the NBS. The new decision is, therefore, expected not so much to significantly increase borrowing by individuals as to release banks from additional reservations for clients whose loans should have been downgraded long ago. As it was only in February that banks began receiving businesses' applications for subsidized loans for this year, these loans now account for only 40% of the assets invested in each of the preceding two quarters (Q3 and Q4 2010 saw investments of €440mn and €430mn in subsidized loans respectively). April and May saw growth continue as an additional €300mn in subsidized loans were granted in under two months. In a departure from the preceding quarter, Q1 saw the government sector increase its indebtedness with commercial banks minimally, by €7mn (as opposed to Q4 2010, when the government borrowed €410mn). Businesses continued repaying their foreign liabilities: the cross-border lending account recorded a drop of €214mn since the beginning of the year (Table T7-8). With borrowing from domestic sources reduced and cross-border lending in negative territory, businesses saw their total indebtedness drop by €23mn at the end of Q1.

…owing to negative cross-border lending…

…that exceeded borrowing from domestic sources

In Q1, repo investments rose for the first time in over a year…

After more than a year of withdrawing assets from the repo stock, banks invested €86mn into repo bills in Q1 (Table T7-7). The repo stock reached its historic low in November 2010, when it had stood at €359mn, and thereafter rose slightly to late March. The increase in the NBS prime lending rate affected the rise in the repo stock, as did the narrowing of the gap between the T-bill yield rate and the repo rate to about one-half of one percentage point.

…as did the volume of funds drawn by the government through T-bill auctions

In addition to repo investments, Q1 recorded the investment of some €1.1bn into the purchase of Treasury bills; more than half of the funds raised in this manner were used to repay T-bills as they matured. Euro-denominated government securities were issued for the first time in February. In two auctions the government raised some €300mn, of which €100mn was accounted for by bonds maturing in 15 years. T-bills are mainly being purchased by commercial banks using funds secured from abroad, which impacts the domestic credit market in multiple ways. On the one hand, this increases the supply of euros and puts appreciation pressure on the dinar/euro exchange rate, thereby driving down euro-indexed loan instalments repayable in dinars. On the other hand, if we bear in mind the fact that, in Q1, new lending to the corporate sector amounted to just 16% of the value of T-bills purchased and repo investments made, the obvious conclusion is that businesses are being squeezed out of the financial market. This is further borne out by the growth seen in Q1 of interest rates on dinar loans to businesses, except for loans intended to stimulate exports.

Table T7-7. Serbia: Banking Sector Activity – Sources and Structure of Lending, Adjusted[1] Flows, 2008-2011

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
	in millions of euros, cumulative from the beginning of the year									
Funding(-, increase in liabilities)	-833	958	61	-1,171	-2,790	7	-117	-68	-1,495	603
Domestic deposits	-95	235	-336	-691	-1,633	131	-233	-236	-836	206
Households deposits	84	-40	-270	-551	-1,314	-137	-323	-500	-1,020	-92
dinar deposits	-63	46	-2	-30	-89	30	21	25	12	24
fx deposits	147	-87	-268	-521	-1,225	-167	-343	-525	-1,032	-116
Enterprise deposits	-180	276	-67	-140	-319	268	89	264	184	298
dinar deposits	198	171	5	-174	-284	213	84	232	151	176
fx deposits	-378	105	-72	34	-35	55	5	32	33	122
Foreign liabilities	-165	299	186	-558	-1,271	-196	40	90	-563	580
Capital and reserves	-572	424	212	78	114	72	77	78	-96	-183
Gross foreign reserves(-,decline in assets)	-18	-407	-449	-5	311	53	-120	197	430	-720
Credits and Investment[1]	700	156	1,057	1,980	2,844	397	1,279	1,281	2,285	309
Credit to the non-government sector, total	2,022	226	381	696	1,183	411	1,264	1,669	2,434	216
Enterprises	1,574	331	465	700	1,097	319	897	1,142	1,756	191
Households	448	-104	-84	-4	86	91	368	527	678	25
Placements with NBS (Repo transactions and treasury bills)[2]	-1,419	40	256	694	625	-125	-445	-839	-1,010	86
Government, net[3]	98	-110	421	590	1,036	112	460	451	861	7
MEMORANDUM ITEMS										
Required reserves and deposits	-225	-191	-225	-185	36	54	-182	-188	-115	-157
Other net claims on NBS[4]	422	-385	-380	-481	-158	-287	-272	-195	-229	17
o/w: Excess reserves	443	-409	-394	-501	-177	-279	-252	-173	-220	22
Other items[5]	-330	-166	-158	-254	-99	-147	-331	-692	-565	-136
Effective required reserves (in %)[6]	30	30	28	26	25	26	24	24	23	23

Source: Table P-14 in the Analytical Appendix

1) The calculation of the increase in lending is based on the assumption that 70% of the total lending is euro-indexed. The increase for the original dinar values of deposits was calculated based on the average exchange rate for the period. For foreign currency deposits - as the difference in balance, calculated at the end-of-period exchange rate. Capital and reserves were calculated at the end-of-period exchange rate of the euro and exclude exchange rate differentials that would have emerged from the new calculations of all other items.

2) NBS securities include treasury bills and NBS bills that sell at the repo rate and at the rate set by the market in auctions of maturities exceeding 14 days.

3) Net credits to the state: credits granted to the state less state deposits held with commercial banks. The state includes all levels of government: the Republic and local governments.

4) Other NBS claims (net): the balance between commercial bank claims against the NBS based on cash and disposable reserves, and their liabilities towards the NBS.

5) Commercial banks' balance sheet items: other assets, deposits of legal entities undergoing receivership, interbank relations (net) and other liabilities excluding capital and reserves.

6) Effective reserve requirements represent the share of mandatory reserves and deposits in the total of deposits (households, corporate) and banks' borrowing abroad. The base to calculate the reserve requirements excludes subordinated debt, due to unavailability.

Table T7-8. Serbia: Borrowing by Businesses and Households

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
	quarterly growth of stock, in millions of euros									
Total loans to enterprises and households from the domestic banking sector and direct foreign borrowing by enterprises	468	82	-10	71	329	311	539	271	506	2
Loans to enterprises and households from the domestic banking sector	152	226	158	315	488	411	854	405	765	216
Loans to enterprises	135	331	138	235	398	319	577	246	614	191
Loans to households	17	-104	20	80	90	91	276	159	151	25
Direct foreign liabilities of enterprises	316	-144	-167	-244	-159	-100	-315	-134	-259	-214
Direct foreign liabilities of enterprises and banks' credits to enterprises from the domestic banking sector	451	187	114	158	239	219	263	112	355	-23
	quarterly growth of stock, in % of quarterly GDP									
Total loans to enterprises and households from the domestic banking sector and direct foreign borrowing by enterprises	5.5	1.2	-0.1	1.0	3.9	3.7	6.8	3.6	6.5	0.0
Loans to enterprises and households from the domestic banking sector	1.8	3.3	2.3	4.6	5.8	4.9	10.7	5.3	9.9	3.0
Loans to enterprises	1.6	4.8	2.0	3.4	4.7	3.8	7.2	3.2	7.9	2.6
Loans to households	0.2	-1.5	0.3	1.2	1.1	1.1	3.5	2.1	1.9	0.3
Direct foreign liabilities of enterprises	3.7	-2.1	-2.4	-3.6	-1.9	-1.2	-3.9	-1.8	-3.3	-2.9
Direct foreign liabilities of enterprises and banks' credits to enterprises from the domestic banking sector	5.3	2.7	1.7	2.3	2.8	2.6	3.3	1.5	4.6	-0.3

Source: FREN

1) See Footnote 1 in Table T7-5.

Q1 recorded a drop in sources for new bank investment…

…as the volume of deposits by businesses declined …

Sources for new bank investment fell in Q1 by €603mn (Table T7-7), as expected for the beginning of the year. Of this amount, businesses withdrew €298mn from their accounts to boost liquidity and pay their tax bills for the preceding year, while household deposits rose by €92mn. If the overall growth of deposits by households is considered, it will be seen that €116mn was denominated in foreign currency, whereas dinar deposits fell by €24mn. Although the NBS had on several occasions publicized the fact that saving in dinars brought greater returns than saving in euros (especially over the past six months, which saw the dinar gain against the euro), foreign

…and as banks borrowed less from abroad

currency dominated households' time deposits. Another reason for the drop in sources for new investment was the repayment by the banking sector of assets borrowed from abroad to the tune of €580mn in Q1. On the other hand, commercial banks increased the volume of assets in the capital and reserves account by €183mn, to some extent offsetting the withdrawal of funds for new investment.

Negative cross-border lending exceeded investment from abroad…

The downward trend seen since Q2 2010 in the ratio of lending to GDP continued. The combined impact of negative cross-border lending that exceeded the growth of new loans to businesses from domestic sources, and the appreciation of the dinar/euro exchange rate seen in Q1, were the main factors behind the drop in the ratio of lending to GDP to 65.4% (from a ratio of 68.3% in Q4 2010, Table T7-9).

…which caused a drop in the ratio of lending to GDP

Table T7-9. Serbia: Ratio of Outstanding Credit Stock to Businesses and Households to GDP

	2008	2009				2010				2011
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
Total loans to enterprises and households from domestic banking sector and direct foreign borrowing by enterprises	80.6	84.9	81.9	80.1	81.7	83.4	86.6	86.2	85.8	83.4
Loans to enterprises and households from domestic banking sector	42.0	44.5	43.8	43.9	45.1	46.8	49.9	51.7	52.9	52.2
Loans to enterprises	27.6	29.8	29.5	29.7	30.5	31.7	33.6	34.6	35.8	34.1
Loans to households	14.5	14.7	14.3	14.2	14.7	15.1	16.3	17.0	17.1	18.0
Direct foreign liabilities of enterprises	38.6	40.5	38.1	36.2	36.6	36.6	36.6	34.5	32.9	31.2
Direct foreign liabilities of enterprises and banks' credits to enterprises from domestic banking sector	66.2	70.2	67.6	65.8	67.0	68.3	70.3	69.2	68.7	65.3

Source: FREN

The ratio of non-performing loans to total loans rose once more…

Although the ratio of non-performing loans (NPLs) to total loans stabilized at a level slightly below 12% in the second half of last year, Credit Bureau data indicate that this ratio rose again to 12.24% at the end of March (Table T7-10). An additional cause for concern is the fact that this negative trend continued into April, when NPLs made up 12.89% of all lending. The rise in the volume of NPLs was seen with all types of borrowers, but its growth was primarily spurred by the increase in the ratio of NPLs to businesses to 14.39% (from 14.02% in Q4 2010), since these loans account for the majority of total lending. The rise in the ratio of NPLs to total loans, and the fact that the number of companies with frozen bank accounts increased by 1,573 in Q1, bear witness to the pressing issues faced by Serbia's economy – insufficient liquidity and the limited reach of subsidized liquidity loans. A solvent and well-capitalized banking sector is a robust shock absorber that will ensure the restructuring of the corporate sector, itself of vital importance. A new piece of legislation had been enacted, the Law on Negotiated Restructuring of Companies, which is to be accompanied by an appropriate package of tax incentives and reservations.

…with 14.39% of all loans to businesses facing delinquency in Q1

Table T7-10. Serbia: Ratio of Non-Performing Loans to Total Loans, 2008-2011

	2008	2009				2010				2011
	Dec.	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
	balance at the end of period									
Corporate	6.86	11.05	14.86	13.24	12.14	11.62	14.18	13.83	14.02	14.39
Entrepreneurs	3.66	5.28	8.93	10.21	11.21	12.19	13.73	15.7	15.8	15.66
Natural persons	3.78	5.36	6.19	6.63	6.69	6.37	6.79	7.04	6.71	6.79
Total	**5.79**	**9.1**	**12.1**	**11.2**	**10.8**	**10.14**	**11.99**	**11.88**	**11.9**	**12.24**

Source: Association of Serbian Banks Credit Bureau

8. Financial Markets

The increase in the National Bank of Serbia's prime lending rate, as well as in interest rates on government securities of various maturities, made investors – both Serbian and foreign – readier to invest in government financial instruments. Capital inflows, boosted by the investment in government securities, affected the appreciation of the dinar. As inflation in Serbia has remained high and growing, regardless of any appreciation, real yields measured relative to inflation have been negative. However, real yields relative to changes in the exchange rate have been exceptionally high, which is expected to further raise investor interest. Other segments of the capital market have also been attracting investors. The first quarter saw an increase in trading in shares on the Belgrade Stock Exchange and a decline in the trade in frozen foreign currency deposits (FFCD) bonds. At the same time, Belgrade Stock Exchange indices rose, as did yields on FFCD bonds of all maturities.

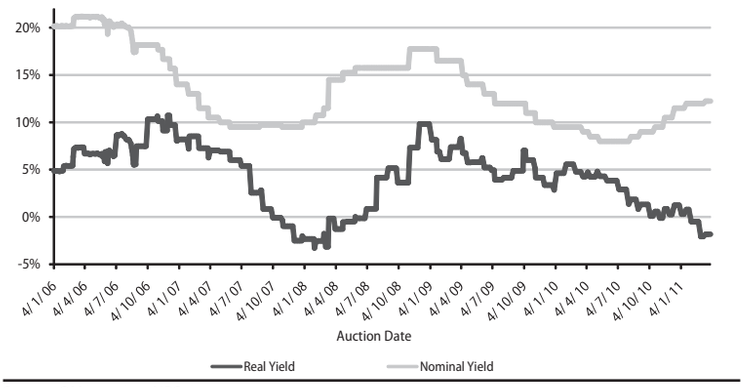
Q1 saw an increase in demand for securities used by the NBS to carry out open-market operations…

Real National Bank of Serbia (NBS) repo yields measured relative to inflation declined in Q1 from 0.3% at the start of the quarter to -1.8% at its end (Graph T8-1). Throughout Q1 the NBS continued pursuing its policy of increasing the prime lending rate, but inflation recorded major growth over the same period. Nominal yields on 2w repo operations climbed by 75bp, while inflation rose by some 286bp, thereby causing repo yields to fall into negative territory.

…real repo yields measured relative to inflation entered negative territory…

…while real yields measured relative to changes in the exchange rate reached extreme levels

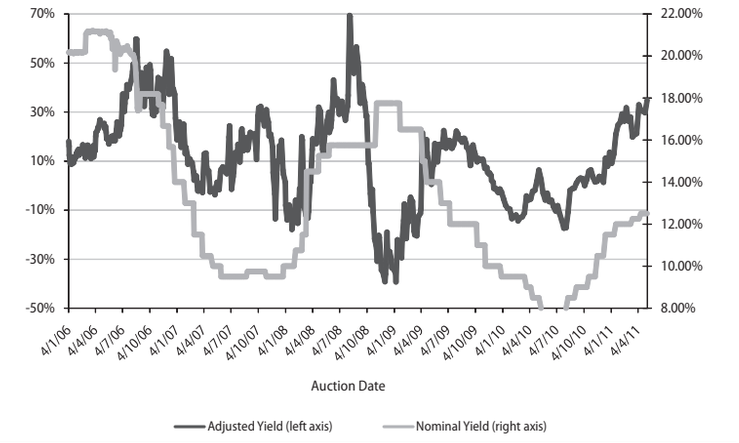
Graph T8-1. Real (with regard to inflation measured using HCPI) and Nominal Repo Yields, 2006-2011



Source: *QM* based on NBS data

On the other hand, Q1 continued the trend of rising real yields on 2w repo operations measured as nominal yields adjusted for expected movements in the euro/dinar exchange rate (changes to the exchange rate over the preceding three months; Graph T8-2).[1] Yields calculated in this manner fluctuated between 9.1% and 31.7%. In addition to the increase in nominal yields by the NBS in Q1, such pronounced growth in real yields was chiefly owed to the appreciation of the dinar seen since the last day of 2010. As the Serbian currency continued gaining against the euro both in Q1 and Q2 2011, so real repo yields rose to reach 34.7% in early May.

Graph T8-2. Repo Yields Adjusted for Expected Exchange Rate Movements and Nominal Yields, 2006-2011



Source: *QM* based on NBS data

Demand for T-bills rose in Q1…

…real yields relative to inflation entered negative territory…

A change in the trend in movements of yields on T-bills became apparent in Q1 2011 (Graph T8-3). The yield curve for Republic of Serbia T-bills shifted downward in Q1, with yiel-

1 A detailed explanation of this approach to calculating real yield rates is provided in "The Exchange Rate and Policy of the National Bank of Serbia: 2002–2006", Spotlight on: 1, QM Issue 5.

…while real yields measured relative to changes in the exchange rate reached extreme levels

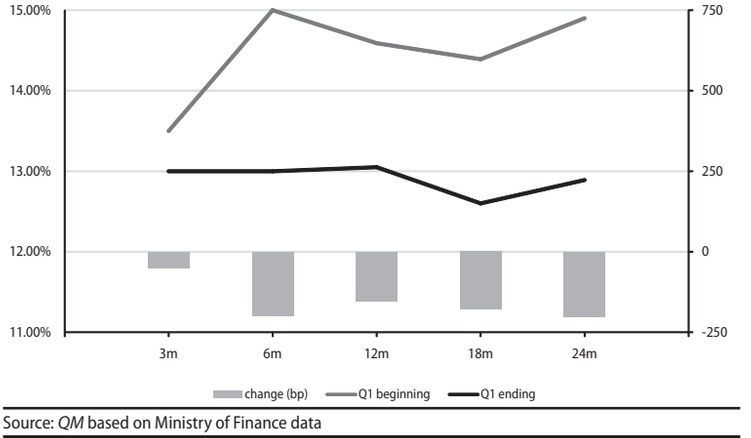
ds on T-bills of all maturities declining. At the end of Q1, yields ranged from 12.6% and 13%, depending on maturity. Yields on 24m T-bills fell the most, by some 200bp, while those on 3m yields declined the least, by about 50bp. The T-bill yield curve thus flattened out in Q1, almost completely eliminating any difference in yields between 3m and 24m T-bills.

The realization rate at auctions held by the Serbian Treasury can be seen as a gauge of investor interest. Since the start of 2011, the average realization rate for T-bills of all maturities (except 24m) exceeded 80%, an increase relative to Q4 2010, when the average realization rate never stood at more than 75%.

The drop in yields on T-bills and the increase in the realization rate indicate greater demand for T-bills. Real T-bill yields, measured relative to the inflation rate, fluctuated between 2.3% and 3.8% in Q1, depending on maturity. As the inflation rate rose by nearly 3pp over the course of Q1, real yields measured in this manner entered negative territory at the end of the first quarter. Real T-bill yields obtained by adjusting nominal yields for expected movements in the dinar/euro exchange rate were already attractive as early as the beginning of Q1, standing at between 17.2% and 18.7%. As the first quarter saw the Serbian currency appreciate further, in spite of a nominal drop, T-bill yields measured in this manner rose by between 2.8pp and 4.3pp to end the quarter at between 21.1% and 21.6%, depending on maturity. Such real T-bill yields justify the increase in demand seen in Q1 and indicate that it is currency risk, rather than inflation, that is being viewed as the primary risk by investors.

Q1 saw the issue, for the first time, of euro-denominated securities by the Serbian Treasury

Graph T8-3. Changes to T-bill Yield Curves



Source: *QM* based on Ministry of Finance data

The first quarter saw the issue, for the first time, of euro-denominated securities by the Serbian Treasury – discounted 53w T-bills and 15y T-bonds with 5.85% coupons. The value of the T-bill and T-bond issue was €200mn each. Demand for euro-denominated T-bills exceeded the quantity offered fivefold, further bearing out the assumption that investors viewed currency risk as the greatest short-term concern. On the other hand, the realization rate for the 15y T-bonds was under 50%, indicating that insurance companies were the only investors ready to take on long-term bonds, even with all currency risk removed.

The yield recorded at the auction of the discounted euro-denominated T-bills amounted to 4.48%, while the FFCD bond of comparable maturity (A2012) saw a market yield of 4.74% on the same day. The difference of nearly 30bp represents the premium asked by the investors for an additional three months until the maturity of the FFCD bond.[2]

Both volume and turnover in the FFCD bond market fell after two quarters of growth

The first quarter saw a drop in the activity in the frozen foreign currency deposit (FFCD) bond market. The value of the volume and turnover declined by some 41% and 40.5%, respectively.

Average yields on bonds of all maturities rose in Q1 2011 (Graph T8-4), continuing the growth in evidence since Q4 2010 that followed two years of decline.

The increase in yields on the FFCD market first seen in Q4 2010, after a two-year downward trend, continued in Q1 2011

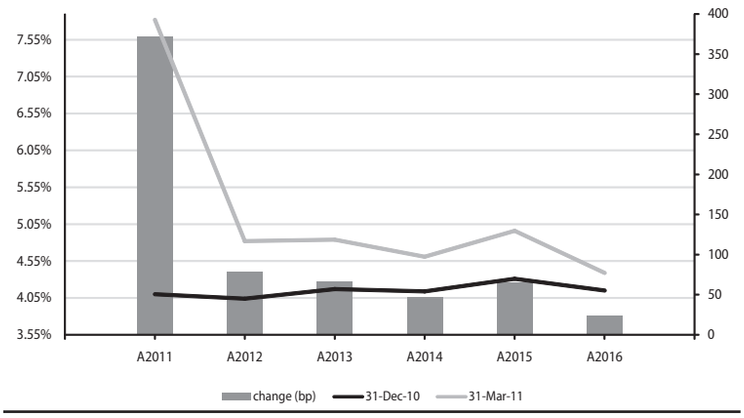
The first quarter saw the yield curve shift upward, with yields rising by between 24bp and 372bp. The greatest increase in yield was recorded by the A2011 bond, owing to its shortest maturity. When A2011 is excluded, the yield curve is seen to be slightly inverted, i.e. the yield on A2012 was higher, by 43bp, than the yield on A2016.

2 The euro-denominated T-bill is set to mature on 17 February 2012, while the A2012 bond will mature on 31 May 2012.

The FFCD yield curve was inverted at the end of Q1

The upward trend in the dinar value of turnover in the Belgrade Stock Exchange, first seen in Q3 2010, continued into Q1 2011. Activity in the Belgrade Stock Exchange as measured by the dinar value was up on the preceding quarter, and, at some 8.3bn, reached a new two-year high (Graph T8-5). The value of turnover realized was nearly 10% greater than that seen in Q4, with the continuous market segment growing by some 31% and exclusively accounting for the increase, while the discontinuous segment saw the value of turnover slump by some 48%.

Graph T8-4. Changes to FFCD Bond Yield Curves



Source: *QM* based on www.belex.co.rs

Activity in the Belgrade Stock Exchange increased in Q1, measured both by the value of turnover and the number of transactions realized

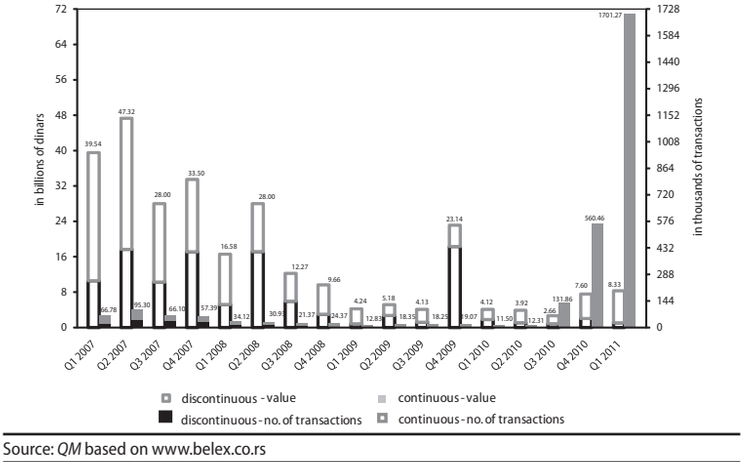
The number of transactions realized also continued the growth trend in evidence since Q2 2010 (Graph T8-5). Following Q4 2010, which saw the number of transactions quadruple, Q1 2011 recorded about 1.7 million transactions, three times as many as over the preceding quarter. This is a new post-2005 high in the number of transactions realized on the Belgrade Stock Exchange. The continuous segment again accounted for the growth, seeing some 205% more transactions, while the number of transactions in the discontinuous segment declined by some 5% relative to Q4 2010.

The average value of a transaction continued to decline in Q1, and amounted to some 4,900 dinars, a 34% slide relative to Q4. The continuing upward trend in the number of transactions realized, coupled with an additional drop in the value of the average transaction, indicates that small investors continue to drive the trend of increasing activity.

Belgrade Stock Exchange indexes rose sharply in Q1, but Q2 saw a slight drop

Belgrade Stock Exchange indices rose sharply in Q1 (Graph T8-6). The BELEX15[3] index rose by 16.4%, BELEXline[4] increased by 11.1%, while SRX[5] EUR rose by 17.2%. This growth did not carry over into early Q2. April recorded a slight drop in the value of the indices, which, however, proved to be short-lived as the beginning of the second third of May saw a reversal; BELEX15 and BELEXline thus saw growth of 3.8% and 0.9%, respectively, from the beginning of Q2 to the end of the second third of May.

Graph T8-5. Volume and Structure of Share Trading, 2006-2011

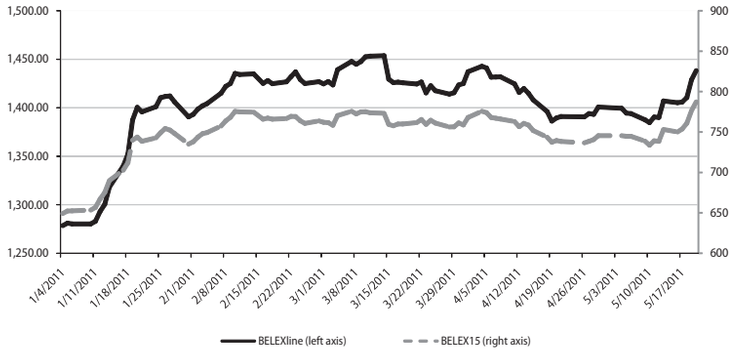


Source: *QM* based on www.belex.co.rs

In the preceding quarter, the growth in yields on FFCD bonds was accompanied by greater activity in the market, which, coupled with rising Belgrade Stock Exchange indices, indicated a return by investors into riskier assets – shares – from less-risky FFCD bonds. This quarter saw continuing growth in yields on FFCD bonds, but not in activity in this market, while the stock market continued trending

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

Graph T8-6. BELEXline and BELEX15 Indices, 2011



Source: *QM* based on www.belex.co.rs

upwards, by both value and activity. We can therefore assume that the shift by investors from bonds to shares is no longer dominant, but that new assets now drive stock market growth.

9. International Environment

The global economic recovery is continuing. Developed countries face the issue of high unemployment and a weak personal consumption slowing down the pace of economic recovery. The economies of developing countries are making faster progress on average, but these countries are facing high inflation risks. Although economic policy continues to be expansionary, they are decreasingly so, and the rate of decrease significantly varies from one country to another.

The recovery of the global economy continues but is accompanied by high unemployment in developed countries and growing inflation in developing countries. The projections for economic growth, as presented in the most recent IMF1 report, show little change. In 2011, the global growth rate should reach 4.4%. Even though the economic recovery in developed countries is relatively slow, the danger that the world economy may relapse into recession for a lack of expansiveness in fiscal policy is reduced. This is why the International Monetary Fund (IMF) advises the governments of these countries to take more seriously the measures that would lead to medium-term fiscal balance. In developing countries, the rise in commodity and food prices is affecting the poor catalyzing political and social tensions. The best example are the events North Africa and the Near East. The Japan disaster most probably will not seriously hamper global growth. The anticipated growth rate of this country for the current year was adjusted by the IMF by a mere 0.2 percentage points. However, state finances will be additionally encumbered, while the ratio of Japan's public debt to GDP is already very high.

The IMF has not significantly changed anticipated growth rates included in its most recent Report

According to IMF projections, developed countries should realize a growth rate of 2.4% this year. The eurozone countries continued their recovery despite the insolvency of some of the members. The real growth expected to be achieved in the eurozone during 2011 totals 1.6% and predictions for 2012 go further to 1.8%. According to flash estimates, in Q1 the eurozone achieved quarterly growth of 2.5% annually, which is 2.0% over the growth figures for Q4 2010. Given the fact that personal consumption is still curbed by low wages, due to unemployment issues and a reduction in expansionary fiscal policy, in several eurozone countries export is the main growth engine. The tendencies in four main eurozone countries are different. In Q1, Germany had a y-o-y growth of 4.8%, while the respective figure for France is 2.2%. These two countries lead the recovery and have almost reached the GDP level registered before the crisis. The economic growth in Spain (0.8%) and Italy (1.0%) is considerably weaker. Some forecasts however indicate that Spain should have a speedier recovery than anticipated. The economic success of Germany is especially drawing attention, mainly thanks to a growth in exports. The external demand of developing countries is increasing, particularly that of China on whose market Germany successfully places its products which, combined with a modest growth in wages, ensures high profitability for German enterprises.

Table T9-1. World: Economic Growth and Inflation, 2008-2011[1)]

	Real GDP								Inflation		
	Real growth (%)				Real growth (%)[3)]				Consumer prices (%)[4)]		
	2008	2009	2010	2011[2)]	Q2 2010	Q3 2010	Q4 2010	Q1 2011	Q3 2010	Q4 2010	Q1 2011
USA	0.0	-2.7	2.9	2.8	3.0	3.2	2.8	2.3	1.2	1.3	2.1
Japan	-1.2	-5.2	3.9	1.4	3.3	4.8	2.4	-0.7	-0.8	0.1	0
China	9.6	9.1	10.3	9.6	10.3	9.6	9.8	9.7	3.5	4.7	5.1
Euro area	0.5	-4.1	1.8	1.6	2.0	2.0	2.0	2.5	1.7	2.0	2.5
Germany	1.0	-4.7	3.6	2.5	3.9	3.9	3.8	4.8	1.2	1.5	2.1
France	0.1	-2.6	1.6	1.6	1.6	1.7	1.4	2.2	1.5	1.6	1.8
UK	-0.1	-4.9	1.7	1.7	1.6	2.7	1.5	1.8	3.1	3.4	4.1
Italy	-1.3	-5.2	1.3	1.1	1.3	1.4	1.5	1	1.6	1.8	2.3
Russian Federation	5.2	-7.9	3.7	4.8	5.3	2.6	4.5	4.1	6.2	8.1	9.5

1) Source: IMF, EBRD, Eurostat, OECD, National Bureau of Statistics of China, Russian Federal State Statistics Service
2) Annual rates for 2011 are IMF projections.
3) GDP growth rates are y-o-y figures.
4) Compared to the same period in the previous year.

Germany realizes high growth mainly owing to export figures and it serves as a role model for other developed countries

According to IMF projections, real GDP growth in the United States of America (USA) should reach 2.8% in 2011 and 2.9% in 2012. The annual real growth for Q1 2011 totaled 2.3% in the USA and was slower than in Q4 of 2010 (2.8%). Domestic demand was weak. During Q2 2011, US growth

1 World Economic Outlook, April 2011

will most probably continue in this modest trend due to the relatively high prices of oil and food, as well as a consequence of the nuclear disaster in Japan.

Many developing countries are reaching production levels that are higher than those registered before the economic crisis which leads to the conclusion that, once out of recession, some of these countries will be in the expansionary stage. According to IMF projections, developing countries are forecasted to achieve a real growth of 6.5% in 2011 and 2012. China and India should achieve growth of 9.6% and 8.2%. The growth projections for the countries of the Near East and North Africa have changed so the forecast for 2011 was reduced from 4.6% to 4.1%, while the respective figures for 2012 went from 4.7% to 4.2%. The political uncertainty caused by mass demonstrations against the regime in that part of the world, aggravated by the war in Libya adversely impacted economic growth.

The forecast for Central and East European[2] countries for the year 2011 anticipates a mild increase from 3.6% to 3.7%, while the projection for the following year remained unchanged, i.e. 4%. Following the 2009 recession, the countries of the region realized a 4.2% growth last year. The recovery continues, but the pace of recovery varies. Poland never actually had a recession and according to forecasts its growth will continue this year at the same rate as in the previous year, i.e. 3.8%. Turkey, which in 2010 experienced growth of as much as 8.2%, will have lower growth this year (4.6%). This year, Russia and Ukraine should reach a growth of 4.8% and 4.5%, respectively. Slower recovery is marked in Croatia and Romania, which will grow by 1.3% and 1.5%, respectively, according to the IMF forecasts. Serbia, Bulgaria and Macedonia should realize a growth rate of 3% in 2011.

Table T9-2. Indicators for Surrounding Countries[1)]

	Real growth (%)					Consumer prices (%)		Current account balance (% GDP)		Budget deficit (% GDP)	
	2010	Q3 2010[2)]	Q4 2010	Q1 2011	2011[3)]	2010[4)]	2011[4)]	2010[3)]	2011[3)]	2010[3)]	2011[3)]
Bulgaria	0.2	-1.2	2.9	2.5	3.0	4.4	5.3	-0.8	-1.5	-3.6	-2.6
Romania	-1.3	-2.1	-0.6	0.3	1.5	8.0	4.0	-4.2	-5.0	-6.5	-4.4
Hungary	1.2	2.3	2.6	2.2	2.8	4.2	3.9	1.6	1.5	-4.1	3.9
Croatia	-1.4	0.3	-0.6	..	1.3	1.9	3.5	-1.9	-3.6	-5.3	-6.3
FYR Macedonia	0.7	1.6	2.3	..	3.0	3.0	7.5	-2.8	-4.2	-3.8	-3.4
BIH	0.8	..	..	..	2.2	3.1	5.0	-6.0	-6.0	-4.0	-3.0
Serbia(QM)	*1.8*	*3.1*	*1.7*	*2.7*	*3.0*	*10.2*	*8.0*	*-7.3*	*-7.4*	*-4.7*	*-4.1*

1) Source: Eurostat, IMF and EBRD.
2) Y-o-y quarterly growth rates, source: EBRD, QM
3) Estimates and projections of the IMF, for Serbia: QM
4) Year end inflation; Source: IMF, for Serbia: SORS and QM

Inflation will be kept within the targeted range in developed countries but with a shrinking in the expansionary nature of monetary policy

According to IMF projections, the rise in consumer prices over 2011 should amount to 2.2% in developed countries. In the eurozone, consumer prices should register a growth of 2.3% in 2011, barely over the growth in the USA (2.2%), and the next year is expected to see a slowdown to the rate of 1.7% in the EU and 1.6% in the USA. Developing countries should see a rise in the consumer price index of 6.9%, which in the countries of Central and East Europe should reach 5.1%. In 2011, the Consumer Price Index should spike up to 9.9%[3]. The forecasted inflation for Serbia should be significantly higher than in other countries of the region, and its value mirrors the average of the Commonwealth of Independent States found in Europe[4].

A decrease of expansionary monetary policy

The monetary authority of the eurozone started to decrease the degree of expansiveness of monetary policy. In April, the European Central Bank (ECB) increased its reference rate to 1.25% in response to a rise in inflation that reached 2.8% annually in April. During the press conference in May, President Trichet made a "milder" statement than expected and avoided saying anything that would indicate that the reference rate would be increased in the following month. This is why a rise in the reference rate is not expected in June, but in July. The reaction to such a statement was a significant strengthening of the dollar to euro exchange rate. Most economists foresee an increase in the reference rate by 0.25 percentage points by year-end. The attitude taken by the ECB regarding the economic crisis in Greece is and continues to be that restructuring is not seen as a viable option, but that the program supported by the IMF and the European Union should be continued.

2 According to the IMF classification (World Economic Outlook), the region of Central and Eastern Europe includes Poland, Bulgaria, Romania, Hungary, Estonia, Lithuania, Latvia, Bosnia and Herzegovina, Croatia, Macedonia, Serbia, the so called Republic of Kosovo, Turkey, Albania and Montenegro.
3 IMF forecast, QM forecasts the growth of consumer prices by about 8%
4 Russia, Belarus, Moldova and Ukraine

As opposed to the ECB, the American monetary authorities do not have the intention to raise the reference rate any time soon. Given that the rate of capacity exploitation is low, that unemployment is at its peak, and the inflation prospects are not to be worried about, it is expected that the FED should use the reference rate to stimulate economic growth. As for the second stage of "quantitative easing"[5], it will be completed in June as planned.

Developing countries are struggling with inflation so monetary authorities of several countries have raised the reference rate so as to prevent "overheat" consequences. Aside from China, which has already invested in efforts to diminish inflation using several different tools, the reference rate has also been raised by India, which was unexpected. A more restrictive monetary policy in developing countries shrinks their home demand and slackens growth rates.

Expansionary monetary policy impacts volatility on global stock exchanges

Following the strengthening of the dollar, there has been a sharp decline in the price of silver. During a single week, silver lost 30% in its value. In a period of one year, the prices of silver rose by about 130%. When the euro declined against the dollar, there was a drastic drop in the price of silver which had reached its historic maximum. Many analysts claimed that one of the signs that the price of silver was overrated was the proportion between its price and the price of gold. The average of the proportion between an ounce of gold and an ounce of silver has been around 50, according to historical data. Following a speedier growth in the price of silver in relation to the price of gold, the ratio approached the number 30. The growth in the price of gold was most probably under the influence of the American monetary policy which may bring on inflation, and so, as a hedge against this risk, investors purchased gold. Silver has industrial applications; therefore, the rise in the price of silver was also inspired by the growth of global economy, but the achieved price meant that speculative capital was another contributor towards such a steep growth. Whether investors also purchased silver as a safeguard against inflation remains to be seen, but this is just another example showing the extent to which financial markets are unstable.

Following a devaluation of euro, the decline in the price of silver ensued, and soon after, there was a significant dip in the oil price. In several days, fuel (WTI type) lost 15% in value. After economic data and polls indicated a slower growth in developed countries and after some developing countries raised their reference rates, a report was issued on oil supplies being above the expected figures. Being under the impression of a high level of supplies and a possible slowdown of world growth, as well as the drop in the value of the euro and the price of silver, stock market dealers have cut the price of fuel.

It remains to be seen whether the volatility on the foreign exchange and commodity market will impact share prices. So far, the tendencies on the financial market say that the recession ended and that the growth will continue, but investors' bearish behavior shows risk-aversion that is higher than before these events took place on the foreign exchange and commodity markets.

A decrease of expansionary fiscal policy

In developed countries, there is less danger that in the absence of an expansive fiscal policy the economy will relapse into recession which is why the IMF advises the governments of these countries to take more serious measures that will lead to medium-term fiscal balance. Expansiveness is more significantly decreased in countries without fiscal room, i.e. countries with a high public debt. In the countries that are not indebted and have a larger fiscal room, expansionary fiscal policy is gradually wearing down.

It is interesting that fiscal policy is not becoming any less expansionary in the USA, although IMF economists expressed their opinion that the USA should adjust the degree of fiscal policy expansiveness. Following the problematic 2011 budget adoption, another hard trial awaits. This is the issue of the upper threshold of the absolute amount of state debt, which is regulated by law in the USA[6]. This law was adopted in 1917 as a tool for preventing uncontrolled spending of funds by the state. The decision to raise the debt ceiling has to be voted for by Congress. Ever since 1962, the upper limit has moved by a total of 74 times, last time in February 2010. All the same, the atmosphere between Democrats and Republicans is growing more tense, as presidential elections approach, and the American public is more and more under the influence of economists of a radically right orientation. Very soon, the state debt will approximate the upper limit of USD 14.2 bn after which the USA will not be able to borrow more, unless the Congress votes in favor of raising the upper limit

5 QE2
6 Second Liberty Bond Act

of indebtedness. The majority of economists believe that they will reach an agreement. A positive scenario entails a rapid agreement between Democrats and Republicans with regards to future state spending, to keep the state debt under control, which would strengthen the American currency as opposed to the previous scenario.

IMF's advisory role

The recovery of the global economy must be accompanied by a decrease in the expansiveness of macroeconomic policy which still does not mean restrictiveness. By all means, the prevailing conditions determine the mix of monetary and fiscal policy to be used. And so, for instance in the USA, the IMF proposes a decrease in fiscal policy expansiveness in order to stabilize the public debt and strengthen the currency. For insolvent countries in the eurozone, the only possible solution is a significant reduction of the expansionary fiscal policy. The prevention of "overheat" in the economies of many developing countries requires the application of restrictive macroeconomic policy. Developing countries are registering growing inflation, also as a result of economic growth, and the more so because of the rise in the prices of food and energy, which has an adverse impact on the standard and inspires requests for higher salaries. The growth of salaries may trigger an inflation spiral. Should the countries have a surplus in the balance of payments and a low level of public debt, the IMF suggests a more restrictive monetary policy which would reduce inflation pressures and credit growth. If countries register deficits in the balance of payments, the IMF also suggests restrictiveness in monetary and fiscal policies. In countries where real estate and share prices show steep growth, the stability of the financial system must be the focus of macroeconomic policy. In addition, due to the growth in the prices of food in the prior period, it is necessary to provide non-recurring assistance to the poorest.

Bulgaria and Romania are facing similar problems as Serbia: relatively slow economic recovery accompanied by high inflation

In Q1, Bulgaria realized an annual growth of 2.5%, somewhat lower than in Q4 2010 (2.9%). This is the second consecutive quarter that Bulgaria has registered positive economic growth but the good news about the continuance of recovery are clouded by the negative news on inflation. From November last year, the y-o-y Consumer Price Index exceeded 4.5% to reach its 5.6% maximum in March 2011. In April it decreased to 4.6%, but mostly due to the change in the base, given that changes in tax levies on cigarettes and alcoholic beverages were introduced last year. The main problem is the growth of prices of food and fuel. An average family in Bulgaria allocates one third of its budget for food and round 15% for other products related to the cost of fuel. In case of poverty stricken families these percentages run higher, so inflation places a heavy burden on domestic demand and any possible increase could significantly hamper economic growth. Also, the rise in the price of fuel is causing an increase in the costs of the export sector, because Bulgarian enterprises have a higher average consumption of fuel than enterprises in the European Union. Due to the deterioration in living standards caused by the increase in prices, the Government of the right center is slowly losing voter support. LUKOIL's decision to increase the price of fuel triggered mass demonstrations. The anti-corruption commission announced an investigation of cartel behavior in the energy sector. Bulgaria cannot reduce the inflation of imported products by strengthening the local currency since it has a currency board, or use a more restrictive fiscal policy to ease some of the pressure on prices, given that at this stage of the economic cycle, inflation is not caused by overheated demand but the problem is related to the supply of these products. This is why the only solution is to provide financial assistance to the most deprived, in the first place the poorest pensioners. Non-recurring assistance will most probably be granted only to pensioners with the lowest incomes, given that universal assistance would be a serious burden for the budget, so the IMF's negative stance on the proposal is clear.

After the economic contraction last year, Romania should realize growth this year. During Q1 and the first time after the onset of the recession, Romania realized a modest positive growth of 0.3%, but the forecasts are that the growth will gain momentum in the ensuing quarters. Although the next elections are scheduled for 2012, the risk of conducting an irresponsible economic policy for the purpose of winning voter support is lower than before, as the arrangement with the IMF will be extended. The impact of the IMF will preclude a more expansionary monetary policy and a reduction of the reference rate (given the fact that the April inflation exceeded 8% annually), so the year 2011 is not expected to see it change (currently it stands at 6.25%). The tendency of reducing the budgetary deficit continues throughout 2011 and 2012.

HIGHLIGHTS

Highlights 1. Data! Data! Data! You Cannot Build a House without Bricks!

Diana Dragutinović *

The Importance of Data

Complete, timely and reliable data are necessary both for economic policy makers and their critics, but also for economic analysts so that they can assess market conditions and the adequacy of economic policy. The higher the quality of data and the longer the time series are, the more fruitful the economic policy measures, and the more grounded the criticisms and analyses will be!

Data from five areas of macroeconomic statistics: **national accounts, prices, public finance, monetary movements and the balance of payments** is what helps us to identify key problems, risks and challenges for economic policy makers.

The GDP data and its use tell us about key relations in the economy, such as the relation between investments and current consumption (public and private), as well the relation between domestic and foreign savings. The data make it possible for us to estimate whether the economy is in a state of macroeconomic disequilibrium, and what type of disequilibrium it is.

Based on balance of payments data it is possible to determine how big the foreign trade, current account and overall 1 deficits are, how these deficits are financed, whether the significance of debt financing is increasing, and whether the deficit is sustainable in the medium-term, considering the size of foreign currency reserves and foreign debt.

The monetary survey of the National Bank of Serbia (NBS) and commercial banks shows why money grows. Then, what is the role of the budget deficit? What is the role of the balance of payments? Has there been an increase in credit activity? Who is accumulating debt: the government or the private sector? Households or enterprises?

The government is usually the biggest actor in the economy, and changes in its financial position have a strong influence on the rest of the economy. Therefore, measuring and evaluating the activities of the government is of crucial importance for economic policy makers. Based on public finance statistics it is possible to determine the level and composition of public revenues and expenditures, how they are financed, but also the macroeconomic consequences of deficits.

Data is what is supposed to help us answer many questions. Why do we still have inflation? Where are the reserves for speeding up economic growth located? Is it possible to reduce both the balance of payments deficit and inflation, while accelerating economic growth? Do we know for sure what economic policy makers are supposed to do? Where are economic policy makers wrong? If we do not know the answers to these questions, what are economic policy makers left with? - Certainly, with experimenting their way to success – or failure.

Data Revision

Recently, economic policy makers, their critics and analysts have faced significant revisions in the methodology of national accounts, balance of payments, statistical data on wages, the Labor Force Survey, etc. Every improvement of the quality of data should be commended, especially since improvements to data which were also available previously, as well as introducing new data, is an integral part of the development agenda of data collecting institutions. However, it should be noted that some revisions of statistical data have significantly altered the level and dynamics of important macroeconomic indicators and opened many questions about the general quality of data. On the other hand, the situation in some areas of statistical reporting is pretty good.

Price Statistics

A good example of complete, timely and reliable reporting is price statistics. Namely, the Statistical Office of the Republic of Serbia (SORS) uses the Consumer Price Index as the main price index, which is produced in line with internationally comparable methodology. Goods and services are classified according to COICOP, which is also used by Eurostat (thus, data on movements in the Consumer Price Index are completely comparable with Eurostat's Harmonized Consumer Price Index (HCPI)). The weights applied to individual goods and services are based on data from the Household Budget Survey (HBS), which is also generally harmonized with international methodologies and is considered a relatively reliable source of data. Original data on prices of goods and services are gathered through a network of associates of SORS in 15 cities in Serbia. The weights applied to data from individual cities are also based on the HBS. The associates in the SORS network are generally well trained (the methodology for collecting

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original data is similar to the one used for the "old" Retail Price Index, which was compiled for many years). The publications calendar for data on movements in the Consumer Price Index is also in accordance with Eurostat practice: the data for a particular month are published up to two weeks after the end of that month (for example, data on inflation in April was published on the 12th of May). It must be pointed out is that, since the end of last year, SORS has been publishing on its website detailed disaggregated data on the movements in the CPI and its subcomponents. In that sense, this field is one of the most transparent. Previously this was not the case: for example, the Retail Price Index was published online in a disaggregated form only for the broadest goods and services groups. SORS has been constructing the Consumer Price Index since 2007. The Retail Price Index was also constructed until the end of 2010 (and, until two years ago, it was the official measure of inflation). Unfortunately, no connection was made between these two indices, so there is no consistent and longer price index series. Of course, there are always methodological problems which arise when constructing any price index. Above all, this relates to how technological progress is treated, that is, separating price changes into "pure" price changes and price changes due to changes in the quality of goods. In principle, this problem can be solved through "expert estimates" or by specifying a hedonistic regression model, but SORS, like most other national statistical offices, has not solved this problem. So, comparatively, this is not a particularly relevant problem. All in all, we can conclude that the monitoring of prices is comparatively one of the best areas in SORS, both in terms of methodology, and in terms of transparency of results.

Monetary and Financial Statistics

Data on developments in monetary indicators such as, for example, data on the balance sheets of the central bank, the balance sheets of commercial banks, and on the consolidated balance sheet of the banking sector, are regularly available, produced according to standard methodology, are published monthly in the Statistical Bulletin of the NBS, but, even more importantly, they are published quarterly in International Financial Statistics. Data on interest rates are also available. Their compilation, analysis and ensuring comparability over time, but also among countries, is related to a large number of methodological problems. The methodology is constantly improving, but even the already achieved quality of data provides a good basis for their analysis.

Since a good deal of information depends on reports that commercial banks submit each month, changes to certain positions for the previous month (or two) occur when the banks themselves notice that they have made an error in recording some items and when they notify the NBS of such error. The NBS then corrects these items for the previous month or two, but in a large number of cases the changes are negligible. More significant data changes are characteristic of January NBS Bulletins, since the December data that banks submit are subject to period-end adjustments, so changes of data for December occur in almost all items of the January issue. Still, the changes amount to no more than 3% of the previously shown value (in most cases, they are below 1%). The other changes relate to methodological adjustments and standardization such as, for example, the recent move of the item "Entrepreneurs" into the "Household" sector ("Entrepreneurs" were previously classified under "Enterprises"). This change did not cause significant effects in terms of monetary aggregate data either.

The data that is used to analyze movements in the financial markets (money, foreign currency and capital markets) – for example, data on repo-operations of the NBS, the exchange rate, auctions of treasury bills, frozen foreign currency deposits bonds, the indices of the Belgrade Stock Exchange and trading on it – are publically available on appropriate websites. This type of data is not revised, and the data are immediately available.

Balance of Payments Data

Monthly data on the balance of payments are regularly available, with a lag of one month plus two weeks for the reporting (current) month. Data on trade with foreign countries are provided by SORS in relevant reports, with a lag of one month plus one to two days for the reporting (current) month for aggregate data, and one month plus two weeks for data disaggregated by goods. Revisions of the balance of payments are made periodically every six months, when SORS provides the final data for the previous year. Besides regular revisions, which do not significantly change the data, there have been two more substantial revisions of this data, which *QM* has already written about, but let us recall that those were: (1) adjusting the balance of payments to IMF methodology (IMF BOP manual, 5th edition),[1] and (2) changing the methodology for recording foreign trade by the Statistical Office of the Republic of Serbia.

(1) The National Bank of Serbia has changed its methodology for constructing the balance of payments (both the current and the capital account) in order to adjust the balance of payments to IMF methodology (IMF BOP manual, 5th edition). After these changes, it is not possible to directly compare the new data with data pu-

1 http://www.imf.org/external/np/sta/bop/BOPman.pdf

blished for the period prior to the end of 2007. Compared to the previous methodology, this change (viewed in isolation) lessens the acutely high current account deficit, but does not alter the worsening trend.

The changes relate to: (a) the treatment of current transfers – the inflow of assets based on currency exchange offices' operations, inflows and outflows of remittances, and withdrawals of assets from citizens' foreign currency accounts, as well as from non-resident accounts, and (b) recording other capital inflows – above all new foreign currency savings, as well as payments of matured frozen foreign currency savings deposit bonds.

The inflow of assets based on currency exchange offices' operations is no longer registered as a separate item. Even though this category is still monitored and registered, one part of these inflows is registered as inflows of remittances, while the other part is recorded as export of services (tourism income).

New foreign currency savings deposits, which were previously recorded as an item in the capital account, have since January 2008 been registered in the current account as inflows of remittances.

Changes in foreign currency accounts held by non-residents, which were previously registered in the current account, are now registered in the capital balance according to the new methodology, under the currency and deposits item.

Payments of frozen foreign currency savings deposit bonds are no longer recorded separately – the part which remains in citizens' foreign currency accounts is neutral from the standpoint of the balance of payments, and the part which is paid out as foreign currency cash is recorded as an outflow of remittances.

According to the new methodology, non-refundable transfers (grants) are included in current transfers.

There has also been a change in how NBS foreign exchange reserves are calculated. IN addition to changes in the currency structure of foreign exchange reserves (the NBS also used these to adjust the flows of foreign currency reserves according to the previous methodology) the new methodology, in keeping with IMF recommendations, includes adjustments for changes in the value of securities that are part of foreign exchange reserves, as well as for changes to international prices of monetary gold.

(2) According to recommendations of the United Nations Statistics Division, on 01/01/2010 Serbia started applying the *General Trade System*. This concept is broader than the previous one, both for exports and imports, and encompasses all goods that enter the economic territory of a country or leave it, with the exception of goods in transit, as well as goods transactions which are of a temporary nature (for fairs, test samples, and the like). According to the *General Trade System*, goods are imported and exported into areas of free circulation, premises for inward processing or industrial free zones, as well as into facilities for customs warehousing.

Until 2010, Serbia applied the *Special Trade System (relaxed definition)*.[2] Besides capturing imports and exports according to the relaxed definition, the Statistical Office of the Republic of Serbia also included re-export of goods from customs warehouses (which is captured by the General System) in order to better comply with criteria given in the Balance of Payments (BPM 5) and the System of National Accounts. The key change in the new methodology is that transactions connected with customs warehousing related to imports are included, which completes the scope set by the *General Trade System*. That makes SORS data on foreign trade since the beginning of 2010, obtained according to the new methodology, uncomparable with the data from previous years.

As from 01/01/2010 the new methodology implies the use of the new revision of the Standard International Trade Classification, **SITC Rev. 4**[3], which has replaced the SITC Rev. 3 used until then. SITC Rev. 4 has kept the general structure of SITC Rev. 3, and contains the same number of sectors and divisions as SITC Rev. 3. There have been changes to certain sub-groups and items, and one group is added (599 – Residual products of the chemical or related industries, n.e.s.; municipal waste; sewage sludge; other waste). There is a net reduction in the number of items after the changes.

Viewed in isolation, export data according to the new methodology remain unchanged compared to the previous methodology, due to the previously applied inclusion of additional exports, while imports and the current account deficit are perceptibly increased.

The end result of both changes is perceptibly increased imports and a significantly larger foreign trade and balance of payments deficit compared to the period prior to these changes.

Government Finance Statistics

Government finance statistics are published in the *Public Finance Bulletin*, which comes out with a lag of one month and a half relative to the current month. Revisi-

2 The *Special Trade System (relaxed definition)*, which used to be applied in Serbia, is a broader concept than the strict definition of the *Special Trade System*. See: http://www.scribd.com/doc/7757210/Metodologijaspoljnatrgovina#fullscreen:offv.rs/axd/dokumenti/saopstenja/st13/st13032010.pdf http://unstats.un.org/unsd/publication/SeriesM/SeriesM_34rev4E.pdcf

3 http://webrzs.stat.gov.rs/axd/dokumenti/saopstenja/st13/st13032010.pdf http://www.scribd.com/doc/7757210/

ons of monthly data are rare; minor revisions are usual, above all due to the differences between data provided by the Health Insurance Fund and those of the consolidated report of the Fund, but these are not of such a scope that could change the basic fiscal result. Anyway, the scope, quality or availability of data are not at issue when analyzing our fiscal position. Strict compliance with international standards when classifying real and financial transactions is a key to realistic presentation of the state of public finance. Many governments have resorted to various accounting "tricks", which have sooner or later led to a break-down in public finance. The tricks have as a rule increased revenues, for example through recording proceeds of privatization as revenues, even though they should be treated as financing (and so put *below the line*). Similar to that, expenditures were reduced by recording expenditures on subsidies or capital transfers in such a manner that it seemed that they were investments in financial assets; or by purposefully excluding certain expenditures by converting permanent expenditures into long-term receivables without a due date. Improvements in the fiscal position have been explained by the quality of fiscal policy, even though the changes were exclusively the result of the applied methodology. The best example of that is the statistical treatment of payments of frozen foreign currency savings deposits. During the first years when these payments commenced, they were treated as expenditures, because of their effects on consumption; later, they were recorded as pure payments; neither approach is statistically correct, though. So, to conclude, all the data is there, one just needs to know *where* and *what* to look for. In that sense, it is rightly expected that the State Audit Institution and the Fiscal Council will contribute to further improving public accounting.

Debt Statistics

Data on public and private sector debt are available, but the different scopes of the National Bank and Ministry of Finance data, as well as the differences in scope compared to standard debt definitions, deserve to be analyzed, above all because they often cause heated but needles discussions. That is why Highlights 3 is dedicated to government, public and external debts. However, here we will point to the most important revisions that have been made.

Data on the total external debt of the country are registered according to IMF methodology, which can be found in the *External debt statistics – Guide for Compilers and Users*, published by the IMF in 2003, which is used as the relevant methodology by the World Bank, the OECD, the BIS, the European system of central banks and others.

The methodology for external debt monitoring is regularly improved and adjusted to IMF methodology, while its consistency over a long period of time makes time comparisons possible. The last change was made in September 2010. The external public debt includes liabilities under the IMF special drawing rights allocation (€443.5 mn), which was used in December 2009, as well as the capitalized interest to the Paris Club creditors (€86.4 mn), while loans concluded before December 20th 2000, under which payments have not been effected (€875.4 mn, of which €397 mn relate to domestic banks, and €478.4 mn are related to domestic enterprises) are excluded from the external debt of the private sector. The change has reduced the amount of foreign debt, but it has increased the amount of external debt of the public sector and general government.

Data on the Gross Domestic Product (GDP)

Data which are most often subject to revisions are GDP data. They are revised several times a year, either in regular or in extraordinary revisions. The last revision caused fiery reactions by experts and the broader public. That is why Highlights 2 are dedicated to GDP revisions. Since we wish to have a more balanced approach concerning revisions and raising doubts as to the quality of data, we wish to point out that critics only refer to factors that reduce the GDP. However, it would not be correct not to mention that Serbia is one of the rare countries that do not include the grey economy in its GDP calculations. When that happens (probably in 2012) the GDP will again be revised, but this time upwards. So, the latest revisions of the GDP are probably not final. The question is: should we wait for the new revision or judge the current situation from the latest data? Since the last revision was a big surprise for everyone with regard to economic growth, it demands additional research. Growth in the post-crisis period has been explained as high, but unbalanced. And indeed, before the revision of statistical data on the GDP, the rate of economic growth was highest in the period of highest capital inflows. After the revision, this conclusion was altered, because it was exactly in the period of highest inflows that economic growth was significantly lower than in the period which preceded it, which means that the entire inflow was oriented towards *consumption*, and that consumption itself was oriented towards imports, to which the extremely high balance of payments deficit for that period testifies. Frequent revisions of data are not the only problem we are facing. Data on GDP distribution, consumption and investment are still not available on a quarterly basis. Data on (physical and human) capital stock will probably not be available for a long time to come, which makes it impossible to calculate potential GDP and long-

term growth rates - the needed signs along the road for conducting macroeconomic policy.

Employment and Wage Statistics

Statistical data on employment and wages in Serbia has been subject to numerous methodological adjustments since 2000, which has led to frequent "breaks" in the series and made the monitoring of trends in this area of the economy much more difficult. The problem of the quality of labor market statistics is doubled due to the concurrent series of reforms in the system of wage taxes, which have made data comparison over time even harder.

Formal employment and average wages in the Republic of Serbia are monitored through the RAD survey, which SORS conducts on a sample of firms. The sample that forms the basis for this survey is biased because it mostly includes the public sector and large private (mostly privatized) firms. At the same time, small and new private firms are not covered well, which creates an increasing bias in the wage and employment data, as the share of small firms in the economic activity increases due to transition. Since wages in small firms are significantly lower than in the public sector, this distortion in the sample has caused the level and dynamics of growth of the average wage in Serbia to be overestimated by at least 10% in the 2000-2008 period. The wages of the self-employed (entrepreneurs) and their employees have been monitored since 2009, which has reduced the average wage in Serbia, and "broken" the time series. Namely, changes in employment by entrepreneurs, and since 2009 changes in the related wages as well, are recorded based on data from the Health Insurance Fund of the Republic of Serbia (HIF), which supplement the RAD survey conducted by SORS. Even though SORS has significantly improved the credibility of its wage statistics since 2009 by taking data from the HIF, it must be noted that the data from the HIF database are not completely reliable due to the uncompleted process of re-registering enterprises and the irregularity of payment of health insurance contributions.

The overestimated average wage until 2009 has also had significant negative (fiscal) consequences in other areas of public policy, because the amount of money going to welfare purposes (cash welfare benefits) and for pensions, as well as the level of the minimum wage, are legally defined in relation to the average wage. Estimates of the average wage also threatened international competitiveness of Serbia, particularly having in mind that in the same time period the dinar was also overvalued.

Additionally, in January 2011 SORS switched to a new classification of activities within the context of a process of harmonization with the standards of the European Statistical System (Eurostat). This change in the classification of activities, though necessary, broke the data series in the RAD survey on the number of employees and their wages, separated into activity sectors, which we have been following since 2001.

Finally, the methodology for conducting the Labor Force Survey (LFS), the main source of information about overall movements on the labor market (as it includes informal employment), was also changed in 2008, by expanding the definition of employment. This change increased the rate of employment and reduced the rate of unemployment, so the LFS is fully comparable only in the period after 2008, even though it has been conducted since 2004.

To conclude, Serbia is an example of a country in which intensive transformations in the labor market during transition that have been happening in parallel with reforms of the statistical system, have brought about a decrease in reliability and an increased bias of labor market statistical data. This is particularly a problem for decision makers during a time when Serbia is faced with the highest unemployment rate and the lowest employment rate in its history, and also is a bad signal for investors.

Conclusion

It follows from the latest revisions of statistical data that imports are seriously underestimated and the GDP is overestimated, which has caused a worsening of key macroeconomic indicators: the ratio of the budget deficit, the balance of payments deficit and the external and public debts to GDP. Statistical problems have given rise to numerous questions about the general quality of data. This situation can cause a change in investors' attitudes towards investing in Serbia.

The role of complete, timely and reliable data in supporting the quality of economic policy measures cannot be overstated. Data are the main input in the analysis of macroeconomic policy. So, in addition to the knowledge about economic theory, economic policy makers do need the data that truly reflect what is going on in the economy. The quality of data also affects empirical findings, analyses and decisions.

Good economic data are a precondition for efficient macroeconomic management. In a situation with complex macroeconomic movements and time lags between taking measures and the effects of these measures, the government has to have the capacity to immediately identify all adverse trends in the economy and to apply appropriate corrective measures. This cannot be done

without data which are complete, correct and timely.

The availability of reliable economic data is necessary for international investors as an indicator of whether a country is a promising destination for foreign investment. International investors are aware that good economic data is necessary to efficiently manage economic flows, and therefore avoid countries which do not publish such data.

Public availability of data also assures international investors that they will be able to follow economic movements and manage risks. It was precisely the realization by investors that authorities were hiding the deterioration of the economic situation through slow and incomplete reporting of key economic data that brought about such severity of the financial crises in Mexico and Asia. Since they were not certain how bad the economic situation was, investors tried to quickly withdraw their assets, which made the crisis even deeper. The question of data is at the root of many harmful consequences of the international financial crisis, which led to the creation of international standards for data quality. Public availability of high quality economic data enables companies and individuals to make business decisions certain that they understand the general macroeconomic environment. Similar to international investors, local business people will not overreact to "bad news" if they understand the economic context.

So, to conclude: **Complete, timely and reliable data** are a *sine qua non* of high quality macroeconomic analysis and management. As long as data do not satisfy the necessary standards, the state of the art of macroeconomic analysis and policy will be limited. And that is not an excuse. That is a fact.

Highlights 2. The Reliability of Official Gross Domestic Product Data in Serbia

*Danko Brčerević**

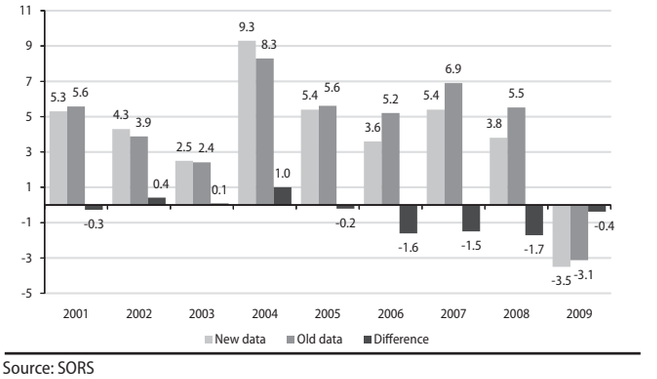
In March 2011, the Statistical Office of the Republic of Serbia (SORS) published its revised *real* growth rates of the gross domestic product (GDP) for the 2001-2009 period, the *nominal* GDP for 2009 (which was done according to the regular official data publication calendar) and its corrected data for the *nominal* GDP in 2007 and 2008. The revision of the *real* growth rates was done because of improvements in methodology: (1) switching over from calculations based on fixed prices (2002) to calculations based on previous year's prices, (2) changes to activity classifications and (3) a revision of indicators used for estimates of value added in individual sectors. The corrections of the *nominal* GDP for 2007 and 2008 were done because of the application of a new calculation methodology in the statistics of foreign trade, which has led to an increase in the value of imports.

In these Highlights we analyzed the revision of the *real* growth rates and the basic reasons for this correction. Also, we have tried to answer the following questions: are data on economic activity in Serbia less reliable than in other countries, and can official statistics be trusted?

An additional motive for this analysis is that the last revision of the results of economic activity occasioned a debate about the credibility of the official data on the level and movements of economic activity in Serbia. In a region where unreliability of official indicators has already contributed to serious economic problems (Greece, Hungary), doubts about the official data on economic activity in Serbia can have very unfavorable and long-reaching consequences – first and foremost they can reduce the confidence of investors and rating agencies and additionally increase the already very high country risk.

Graph O2-1 shows the previous and revised yearly growth rates of the real GDP. We can notice that the corrections ranged from 1 percentage point higher (2004) to 1.7 percentage points lower (2008). This latest revision has reduced total real GDP growth from 2001 to 2009 from 47.7% to 41.8%.

Graph O2-1. Serbia: Revisions of Yearly Real GDP Growth Rates, 2001-2009



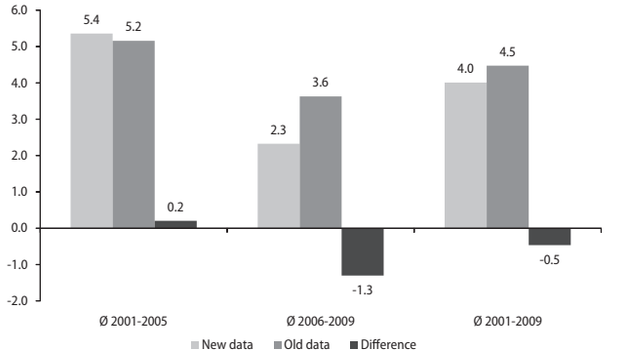
Source: SORS

The most significant changes in the new methodology for calculating the GDP are those related to switching to using previous year prices instead of 2002 prices. The

* *Quarterly Monitor*, FREN

problem with the previously used methodology was that the further one is from the base year (2002), the less do the weights from that year reflect the real economic situation. We wrote in more detail about the shortcomings of using constant 2002 prices in several previous issues of *QM*.[1]

Graph O2-2. Serbia: Revisions of Real GDP Growth Rates, Multiple Year Averages, 2001-2009[1)]



Source: SORS

In short, the greatest imprecision in measuring GDP growth was due to the overestimates of the contribution of high telecommunications growth to total economic growth. Strong competition between mobile telephony provides has caused impulses in mobile telephony to become significantly cheaper in the second half of the 2000s. This fall in the real value of impulses could not have been registered using the old methodology, because it did not take into account relative price changes after 2002. Therefore, only the high growth rate of the volume of traffic in telecommunications services was used as an indicator of the growth in value added in that sector, which overestimated the total growth of GDP.

As an illustration of these arguments, Graph O2-2 shows average GDP growth rates according to the "old" and "new" data during two sub-periods (2001-2005 and 2006-2009). Graph O2-2 clearly shows that data corrections in the second observed sub-period are several times higher (reduced reliability due to the greater distance from the base year), but also that the direction of the corrections is downward (systematic overestimates of the contribution of telecommunications). Considering that the described methodological problems were present also when calculating the 2010 GDP, we can expect that data revisions will decrease the real growth of GDP in that year as well, which has up until now been estimated at 1.8%.

The other change in the calculation of the GDP relates to the new classification of sectors, which conforms to EU standards, and which SORS has been using since January 2011 (see Box 1 "Change in Activity Classification" in Section 2, "Economic Activity", in this issue of *QM*). New indicators have been introduced in order to describe the movements in the activity of the changed sectors, which should give a fuller picture of the trends in individual areas of the economy. Switching over to the new classification of sectors, besides increasing the reliability of SORS estimates, also makes Serbian data more comparable to data from EU countries.

Although every improvement in the methodology for estimates and of the integrity in SORS's work should be commended, frequent revisions of basic macroeconomic indicators are threatening to become a serious problem of domestic economic policy.[2] Table O2-3 shows the 2004 revisions of the official data on real GDP growth in Serbia and similar countries in the region.[3]

We can see that revisions of official data are common in the region, and that all countries have changed the official datum at least once.[4] It is indicative, however, that the biggest and most frequent changes of data have occurred in Serbia, which is the only country that has revised its datum for the official 2004 GDP growth rate in every observed year (as many as five times). These

Table O2-3. Serbia and Countries in the Region: Revisions of the Real Growth of GDP in 2004, 2006-2011

	October 2006 datum	October 2007 datum first revision	October 2008 datum second revision	October 2009 datum third revision	October 2010 datum fourth revision	May 2011 datum fifth revision
Bulgaria	5.7	6.6	6.6	6.6	6.6	6.7
Croatia	3.8	4.3	4.3	4.3	4.3	4.1
Hungary	5.2	4.8	4.8	4.8	4.9	4.9
Romania	8.4	8.5	8.5	8.5	8.5	8.5
Serbia	9.3	8.4	8.2	8.3	8.5	9.3

Source: IMF and the statistical offices of the observed countries

1 See Box 1, "An Assessment of the Real Economic Activity Trend in 2007" in Section 5, "Economic Activity", *QM*, no. 12 and Highlights 2, "How Much Has Economic Activity Really Declined in 2009?", *QM*, no. 17

2 The real GDP growth rate is used in *fiscal rules* in order to determine the budget deficit, the growth of pensions and wages, and it indirectly affects the relative size of the public debt, the external debt, the current account deficit, etc.

3 We decided to analyze the 2004 growth rate because we have available a relatively long and comparable series of official data for the same year. The datum for the real growth of GDP in 2004 in the observed countries has been the official datum from 2006 onwards; before that year, we only have estimates. That is exactly why we show the changes in the 2004 GDP growth rate after 2006. We used IMF's database as a source, and the latest data from national statistical offices for 2011.

4 It is interesting that, besides Serbia, also Bulgaria and Croatia have revised their 2004 GDP growth rate in 2011, so it is not unusual to revise data as old as seven years.

Table O2-4. Serbia and Countries from the Region: the Effects of Revisions on Average Real GDP Growth for the 2002-2005 Period, 2006-2011

	October 2006 datum	October 2007 datum first revision	October 2008 datum second revision	October 2009 datum third revision	October 2010 datum fourth revision	May 2011 datum fifth revision
Bulgaria	5.2	5.6	5.6	5.6	5.6	5.6
Croatia	4.8	4.9	4.9	4.7	4.7	4.7
Hungary	4.1	4.4	4.4	4.3	4.3	4.3
Romania	5.7	5.7	5.7	5.7	5.7	5.7
Serbia	5.6	5.3	5.2	5.1	5.1	5.4

Source: IMF and the statistical offices of the observed countries

changes were in both directions – they include two *reductions* of the previous growth rate, and three *increases* – and the last datum, from April 2011, is identical to that which was first published in October 2006 (Table O2-3).

Table O2-4 shows the average real GDP growth rate for the 2002-2005 period in Serbia and similar countries in the region. This indicator in some way aggregates all the revisions of the growth of GDP for all four years (2002-2005), and can show us more reliably whether the changes created in this way are random or biased towards a subsequent decrease (increase) in GDP growth.

Table O2-4 shows that GDP growth rate revisions in all countries, including Serbia, in principle happen without any particular pattern. The average GDP growth rate from the beginning until the end of the observed period (from 2002 to 2005) increased in two countries, decreased in two, and remained unchanged in one. We can also see that the official data on average GDP growth rates for multiple years varies far less due to revisions than do growth rates for individual years.[5] This implies that GDP growth revisions in all observed countries are most often conducted in such a way that increases of the growth rate in one year are offset by decreases in some other year.

One of the possible explanations for why revisions are more pronounced in Serbia than in the other observed countries is that our country is the only one that does not do quarterly estimates of GDP growth according to the *expenditure* approach, but only according to the *output* approach. Observing economic activity from the *expenditure* point of view would greatly contribute to the stability and increased reliability of official estimates.

How important it is to follow changes in GDP from several angles at the same time is confirmed by the recent publication of the official datum for the nominal GDP in 2009,[6] which was obtained by using the *income* and *expenditure* principles.[7] Analysts working for *Macroeconomic analyses and trends* (*MAT*) noticed that this nominal GDP points to a greater fall of GDP in 2009 than the 3.5% that were previously obtained according to the *output* principle. If estimates according to the *expenditure* principle were done at the quarterly level as well (and not only annually, with big lags), which is how they are done in other countries, these dilemmas could be prevented. The surprisingly large public sensation that was caused by this analysis could be a good occasion to make official statistics even more advanced and reliable.

As has been the practice until now, the *Quarterly monitor of economic trends and policies* (*QM*) will continue to use the data on economic activity provided by SORS, which is the only relevant institution for publishing these types of data. Concerning the estimates of the fall in economic activity in 2009, we did publish a shorter analysis around the middle of 2009, where we expressed the opinion that the real fall in GDP (even after the latest revision) in that year was somewhat higher than the official datum.[8]

Several different analyses by *QM* that were published after 2009 indirectly pointed to a similar conclusion. Thus, when analyzing the large drop in employment in Serbia, we noticed that the drop in employment during the economic crisis was 2.5 times greater than the fall in GDP, which was not what economic theory would suggest. It was indicative that in all other East European countries this elasticity was several times lower than in Serbia and ranged from 0.1 to 0.9.[9] The greater fall of GDP in 2009 could easily explain most of this deviati-

5 The standard deviation fell by more than half in all observed countries when we aggregated the data, compared to its value when observing revisions for individual years only. In both cases, in Serbia the standard deviation of official data due to revisions is three times higher than the average for other countries.

6 The official datum on nominal GDP in 2009 was published according to SORS's regular activity calendar. The nominal GDP for 2009 was RSD 2,713 bn (the previous unofficial estimate by SORS was RSD 2,815 bn) or €28.883 bn (the previous estimate was €29.967 bn).

7 The explanations of the different principles for calculating the GDP can be found on the website of SORS, in the methodological publication called "Godišnji nacionalni računi" [Yearly National Accounts].

8 See Highlights 2. "How Much Has Economic Activity Really Declined in 2009?", *QM*, no. 17

9 We conducted an analysis of the elasticity of employment to GDP in *QM* number 21 (April-June 2010), where we used the then official datum of 2.9% for the 2009 drop in GDP. With the latest revision of the drop in GDP, this elasticity was reduced from 2.5 to around 2, which has brought us slightly closer to other East European countries. The deviation from typical values is still very indicative and points to a possibly greater fall in GDP.

on. There were other clues as well that the fall in GDP in 2009 was underestimated – the strong adjustment of the foreign trade and current account deficits, as well as the big drop in tax revenues. Both of these occurrences were more similar in their intensity to East European countries which had falls in production between 5 and 7 percent, than to those countries which had smaller falls in production.

This *QM* analysis points to several conclusions about the reliability of official data: (1) the revision of real GDP growth rates for the 2001-2009 period was done in order to improve the methodology for estimates, which at the same time has increased the reliability of the estimates of movements in economic activity during that period; (2) although a step in the right direction has been taken, there is still ample room to further improve the quality of data on economic activity in Serbia, above all by introducing quarterly monitoring of the use of GDP; (3) revisions of GDP data are usual in similar countries in the region, but in Serbia the revisions are quite a bit more frequent and are themselves larger; (4) we have observed no systematic bias in reporting data; (5) it is possible that the latest published datum still underestimates the real fall of GDP in 2009.

It would certainly be desirable to keep in mind that the possible underestimate of the fall of GDP in 2009 happened as a consequence of simple circumstances that were present only in that year (large changes in the macro-environment due to the effects of the economic crisis), which we pointed out two years ago. This, of course, does not question the credibility of SORS, that is, its consistency and non-bias.

Highlights 3. Government vs. Public Debt: Definition, Institutional Scope, Financial Reporting and a Few Other Things

Diana Dragutinović[*]

Is Government Borrowing a "Sin"?

When times are hard, many people rely on credit cards. Similarly, when economies are in recession, many states defend themselves with fiscal deficits. There is nothing fundamentally wrong in a state using deficit as an instrument of economic policy in times of recession. In fact, it would be absolutely wrong not to use deficit during recession, – since in that case a depression would ensue. There is nothing fundamentally wrong in government borrowing. And, if borrowing is for the general good, then there is indeed nothing bad in that. Politics, not economics, has made deficit and borrowing "filthy words".

But the Pace of Government Borrowing Can Be a "Sin"

However, not since the World War II have so many governments borrowed so much so quickly. There is a general consensus that without fiscal stimuli the recession would have been deeper and it would have lasted longer, but this kind of fiscal policy is unsustainable in the long run. The hunger of the government for money crowds out the private sector from financial markets and reduces potential economic growth. Even more alarming is the fact that taking on new debt can lead to a situation in which debt repayment is impossible, which has happened to a not so small number of countries. Of course, borrowing is not only a result of economic crises. Other causes are: (1) the "fiscal sin", that is, pursuing pro-cyclical fiscal policy in times of expansion and counter-cyclical policy in times of recession, (2) the snowball effect – the effect of sluggish economic growth and high interest rates on the growth of public debt, and (3) "the original sin" which is manifested through a volatile domestic currency and the effects of the domestic currency depreciation on the level of public debt.

The Rules of Borrowing

There is no absolute rule on when deficits or public debts are too high relative to an economy's size. Prior to the current economic crisis, the general consensus was that European Union countries could have a deficit of up to 3% and a debt of up to 60% of GDP. Nevertheless, for many years now, Japan's debt has exceeded its GDP, but there is still high domestic demand for its government bonds. We should not forget that the "Titanic" was the best ship ever built – nobody could have imagined that it would be possible for anything to happen to it, and yet it sank. Deficit and debt in most countries have reached a limit which implies that fiscal adjustments are necessary.

Wishing to limit discretionary fiscal policy – the level of public spending, as well as the size of the fiscal deficit – experts are now increasingly interested in applying the so-called fiscal rules. In the macroeconomic sense, fiscal

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rules set limits for fiscal policy in order to strengthen budget discipline, improve coordination between different levels of government and reduce uncertainty about future fiscal policy. Numerical ceilings are most usually placed on debt and deficit sizes.

Determining and applying fiscal rules to deficit must be accompanied by a clear definition of the scope of the public sector. In that way, the room for maneuver is reduced for fiscal authorities to arbitrarily use public accounting and exclude certain types of expenditures from these rules. In that sense, it is best to apply fiscal rules to the level of general government.

In Serbia, the necessity of fiscal adjustment is built into the Budget System Law. The Law introduced **general fiscal rules**, according to which the maximum ratio of general government debt to GDP is 45% (excluding restitution based debt), and the ratio of the annual fiscal deficit to GDP is determined according to Taylor's rule: $\mathbf{D_t = D_{t-1} - a * (D_{t-1} - D^*) - b * (G_t - G^*)}$: until the targeted level of 1% of GDP is reached. The letters have the following meanings: $\mathbf{D_t}$ is the targeted deficit level in the current year, $\mathbf{D_{t-1}}$ is the actual deficit in the previous year, $\mathbf{G_t}$ is the projected growth rate in the current year, $\mathbf{D^*}$ is the targeted medium-term deficit of 1% of GDP, $\mathbf{G^*}$ is the potential medium-term growth rate of 4%, **a** is the speed of deficit adjustment towards the targeted level and its value is 0.3, **b** is the coefficient of deficit adjustment to the state of the economy and is 0.4. This formula not only ensures gradual adjustment, but also allows for flexibility. In the period of transition towards a stable state, whether adjustment is going to be greater (or lesser) depends on the dynamics of economic growth (dynamic or stagnant). One can notice that the maximum general government debt (45% of GDP) is lower than the Maastricht criterion (60%). There are objective reasons for this: high interest rates on domestic debt, flexible exchange rate and its effect on the size of debt, the coming debt due to restitution, and Serbia's lower credit rating and level of development compared to the states which are members of the European Monetary Union. Otherwise, the parallel limitation of both the deficit and the public debt corresponds to the rules of the European Union.

Borrowing Is a "Hot Topic" in Serbia

Bearing in mind the rate of borrowing in Serbia during the last three years, it is not surprising that this is an increasingly debated topic both among experts and the general public. There have been many discussions about the scope of debt, as well as the large differences between debt statistics as published by the National Bank of Serbia and the Ministry of Finance, which is specifically underlined in the State Audit Institution Report.

That is why these Highlights deal with the differences between the government and the public sector, the differences between government debt and public debt, and with different concepts of debt and standard classifications and definitions of debt according to the 2011 *Public Sector Debt Statistics – Guide for Compilers and Users*, which was prepared by the Task Force on Finance Statistics. The Task Force is made up of nine international organizations: the Bank for International Settlements, the Commonwealth Secretariat, the European Central Bank, EUROSTAT, IMF, the Organization for Economic Cooperation and Development, UNCTAD and the World Bank. The definitions in this *Guide* are in accordance with the *System of National Accounts 2008* (*SNA 2008*), and the *Balance of Payments and International Investment Position Manual, Sixth Edition* (BPM6). The same definitions are used in the expected, revised *Government Financial Statistics Manual*, but are somewhat different compared to the still applicable *Government Financial Statistics Manual 2001* (*GFSM 2001*). We will show the relation between statistical data on public sector debt and on external debt, as well as the differences between statistical data on debt in Serbia compared to set standards. Finally, we will show that different institutions (up until the latest *Guide*), such as the OECD, the IMF and the World Bank, for instance, have used different definitions, which has had an additional effect on varying practices, so that data for different countries have a different scope. This makes international comparisons harder.

Government vs. Public Sector – Synonyms: Yes or No?

In academic literature the terms *government* ("state"/ "national"/ "sovereign") and *public* are often used as synonyms, especially in financial glossaries. Standard textbooks in macroeconomics and public finance treat public debt as the aggregate of all previous deficits, which connects the public debt with the government's fiscal operations. Similarly, public debt represents government borrowing to finance expenditures not covered by regular revenue, which establishes a direct dependence between the government's financial operations in the past and the public debt. Also, public debt is defined as the total financial commitments of all governmental institutions.

Institutional Sectors and Units

Even though it may be concluded from the above that government and public sector are one and the same, public sector and government **are not the same terms**,

nor are they defined in the same way. Government is a **narrower term** than public sector. But, in order to explain this, we must disaggregate the economy into institutional sectors:

• **The sector of non-financial corporations**, engaged in producing goods and non-financial services for the market,

• **The sector of financial corporations**, engaged in producing financial services, including financial intermediation,

• **General government sector** which provides services (but also goods) for personal and collective consumption, primarily on a non-market basis and that redistributes income and wealth, with political responsibility and the role of the regulator,

• **The sector of households** comprises individuals and families, whose basic function is to supply labor, to consume goods and use services, and to produce goods and non-financial services as entrepreneurs,

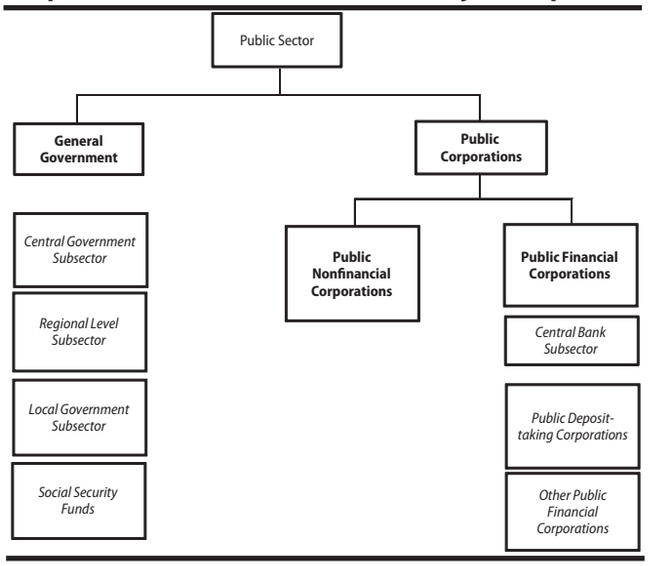
• **The sector of non-profit institutions** serving households; it comprises legal persons engaged in the production of non-market services and whose main resource are voluntary contributions.

Each of these sectors can further be divided into subsectors. Thus, for example, general government consists of the central, regional and local governments and social security funds. Or, the non-financial sector can be disaggregated into public enterprises, national private non-financial corporations and foreign controlled private non-financial corporations.

The public sector encompasses all institutional units that are directly or indirectly controlled by units of the general government; thus, it includes all units of the general government and all public non-financial corporations and financial institutions, as shown on Graph O3-1.

The relation of the public sector to other institutional sectors is shown in Table O3-2.

Graph O3-1. The Public Sector and its Major Components



The scope of the public sector determines the scope of public sector debt. Total public sector debt includes general government debt (domestic and external), the debt of public non-financial corporations and the debt of public financial corporations.

Table O3-2. The Public Sector and its Relations with Other Institutional Sectors

General Government Sector	Nonfinancial Corporations Sector	Financial Corporations Sector	Households Sector	Nonprofit Institutions Serving Households Sector
Public	*Public*	*Public*	*Private*	*Private*
	Private	*Private*		

Table O3-3. The Dependence between Public Sector Debt and External Debt Statistics

Sector / *Residency*	Public Sector			Private Sector		Total
	General Government	Public Nonfinancial Corporations	Public Financial Corporations	Nonfinancial	Financial	
Domestic						
Foreign				Includes guaranteed private debt	Includes guaranteed private debt	Total external debt
Total Debt	Total general government debt	Total debt of public nonfinancial corporations	Total debt of public financial corporations			

Units of the public sector can guarantee the debt of institutional units of the private sector and other units of the public sector. The guaranteed debt of private enterprises is included in the statistical data on public debt only as a memorandum item. The guaranteed (as well as non-guaranteed) debt of public non-financial corporations and financial corporations is included, by definition, in the statistics of public sector debt. In the case that public sector debt statistics do not include all units of the public sector, these guarantees must be included in public sector debt statistics, but only as a memorandum item.

Similarly, general government debt includes the direct debt of the general government. Contingent liabilities (guarantees issued by the general government) are not part of general government debt until original debtors incur temporary liquidity or permanent solvency problems. In that case, the government as the guarantor either takes over the debt or pays the debt on behalf of the original debtor. As contingent liabilities create fiscal risk (a potential difference between the real and expected fiscal result – the real and expected deficit and debt), they must be included in the general government debt only as memorandum items, since there is uncertainty about the liability to pay and the size of payments. It must be pointed out that this source of fiscal risk can be a result of intention (which is common practice with insufficiently responsible fiscal policy makers), but above all the result of unpredictable events, such as financial crisis.

The dependence between public debt statistics and external debt statistics is shown in Table O3-3. The total external debt includes the external public and private sector debt. So, the external debt of the public sector is a sub-set of the total external debt.

Concepts of Debt

There are two concepts of debt: gross and net. *Gross debt* relates to all liabilities in the form of debt instruments that are defined as financial claims on interest and/or principal against debtors by creditors, at some point in the future.

However, for risk management purposes, liabilities, but also assets, must be dealt with in an integrated manner. For example, debt can be created in order to acquire an asset which will generate income intended for payment of liabilities. *Net debt* is gross debt less financial assets in the form of debt instruments, that is, the value of financial liabilities less the total value of financial assets.

Different Definitions

Different international financial institutions monitor different aspects of debt accumulation and use different definitions for different scopes. The OECD defines **total central government debt** as the direct and contingent liabilities of the central government, but excludes the debts of local governments and social security funds. The Maastricht definition is concerned with the **gross debt of the general government**, in the way this definition is used by the IMF. It is interesting, however, that the definitions of **general government gross debt** by the World Bank (*World Debt Tables*) and the IMF (*Government Finance Statistics*) are different. **According to the IMF, general government gross debt** includes only the direct liabilities of the government; it includes neither the central bank debt (because it issues securities only within the context of monetary policy), nor the debt of other depositary and non-depositary public financial corporations; it does not include guarantees issued by the government until they become due and payable by the government as the main guarantor. The **World Bank** expands the scope of the **general government gross debt** so as to include, in addition to direct liabilities, government guaranteed debt as well. So, the external general government gross debt includes: external direct general government debt and all guarantees issued to foreign creditors by the general government.

Financial Reporting

Data on fiscal operations (public revenues, expenditures and debt) are gathered through the IMF questionnaire distributed to member countries, as well as through the OECD questionnaire. Despite IMF efforts at standardizing and systematizing data collection, the statistics are still incomplete and far from standardized, and they vary from country to country. The inadequate statistical data scope makes international comparisons harder.

Additionally, in practice, the IMF recommends certain modifications to statistical monitoring of debt. So, for example, if public enterprises or public institutions (including the central bank) are engaged in significant quasi-fiscal operations, the IMF recommends including these operations in fiscal statistics. That means that whether the central bank will be included (integrated) with the general government depends on its status and relation to the general government, as well as to other units of the public sector. This occurs if the central bank is not independent, so if quasi-fiscal operations were excluded (including debts accumulated on this basis), that would distort the picture of the fiscal position of the government.

History reminds us that quasi-fiscal operations of public enterprises and public financial corporations were to a significant extent the cause of the financial crisis in Latin America during the 1980s. That is precisely the reason why Latin American countries use the broadest definition for the public sector, including the financial sector when necessary. If financial crises have taught us anything, it is that government liabilities are as a rule higher than direct debts. Consequently, there is a need for as broad a scope and presentation as possible.

Serbia's experience with the IMF is interesting when it comes to statistical debt reporting. As a rule, in all IMF reports general government debt includes guaranteed debt, regardless of the standards this institution has set

concerning the scope of general government debt.

It is a fact that there exists a need for different financial reports. The content of report must satisfy the goal for which the report is prepared. For example, a report produced for the purposes of macroeconomic analysis should encompass the whole public sector; reports whose goal is to determine the accountability of individual institutional units of the public sector can be significantly narrower. Of course, reports must be different for unitary and federal states.

Reports must be of help in formulating and monitoring:

• general economic policy, because of the effects that public borrowing has on the allocation and use of resources;

• monetary policy, because of the effects that public borrowing has on the supply of money;

• fiscal policy, because of the wish to balance the distribution of the financial burden between current and future taxpayers, as well as to ensure that future costs of servicing and repayment of outstanding debt are sustainable;

• exchange rate and balance of payments policy, because if external public debt represents a significant part of total public debt, then it is precisely the distribution of public debt between domestic and foreign currency and internal and external creditors that affects the exchange rate and the balance of payments.

Reports produced for the purposes of international financial institutions which arise from membership in the IMF, the World Bank, the OECD and the EU, must be produced according to the rules of these institutions, including their definition of public debt. Some reports must show the creditworthiness of a country.

Also, reports that show the responsibility of the executive and legislative authorities for taking up loans and spending of funds are needed; but also reports that are used as a basis for planning and control of state borrowing programs of different levels of government and government bodies.

Nevertheless, whatever the objective of a report, the reliability of data depends to the greatest extend on the quality of definitions, which must be:

• precise – in order to avoid any doubts whether particular items are to be included or excluded;

• clear – reports must be understandable to users;

• consistent – from year to year, with other financial statistics, accounting standards in the country, but also between countries;

• appropriate – the criterion for including any particular element should be based on its relevance to the objectives that the report is supposed to achieve;

• encompassing – in order to ensure that all individual elements of debt included are approved, planned, managed and controlled.

Government and Public Debt in Serbia

The National Bank of Serbia and the Ministry of Finance monitor the external debt of the public sector in a different manner. The differences arise from different scope of data, but also from different classification of debt. One of the main reasons for these differences is that the Ministry of Finance monitors external public debt from the standpoint of direct and indirect liabilities to be paid from the budget, in accordance with the Law on Public Debt, while the National Bank of Serbia monitors the entire external debt of the public sector, as part of the overall external debt.

On May 31st, 2010 the external public debt as recorded by the National Bank of Serbia was over €2 bn higher than the stock of debt according to Ministry of Finance data. However, the difference is primarily due to the debt of the National Bank of Serbia towards the IMF (which should not be a part of the general government debt, but it is a part of the debt of the public sector), the so-called non-regulated debt, that is, debt that is not being repaid (which should not be a part either of the public sector debt or of the general government debt) and the non-guaranteed debt of local governments (which should be a part of the general government debt, but is not included according to the existing Law on Public Debt). During 2010, the National Bank excluded debts that are not being repaid from public sector debt.

Serbia's public debt is defined by the Law on Public Debt and it includes: (1) the debt of the Republic incurred on the basis of contracts concluded by the Republic, (2) the debt of the Republic on the basis of securities, (3) the debt of the Republic on the basis of contracts and agreements rescheduling the liabilities incurred by the Republic on the basis of previously concluded contracts, as well on the basis of securities issued under special laws, (4) the debt of the Republic incurred on the basis of guarantees issued by the Republic, or on the basis of direct assumption of obligation to repay debts that were guaranteed in the capacity of debtor, (5) local government debt, and the debt of legal persons whose founder is the Republic, and for which the Republic has issued a guarantee.

The Budget System Law, Article 2, among other things provides definitions of the central government, the ge-

neral government and the public sector. Thus, the **central government** includes all entities that are responsible for delivering predominantly non-market based services and redistributing income and wealth at the national level; it encompasses the budget of the Republic of Serbia and extra-budgetary funds, including social security funds. The **general government** includes all entities that are responsible for delivering predominantly non-market services and redistributing income and wealth at all levels of government; it encompasses the budget of the Republic of Serbia, local government budgets, extra-budgetary funds, including social security funds at all levels of government. The **public sector** is the part of the national economy that encompasses the general government and non-financial corporations controlled by the government (public enterprises) which primarily perform commercial activities. The Budget System Law is not intended for regulating the public debt, but rather the debt of the general government, which includes the direct debt of the general government and issued guarantees (which, again, corresponds to the definition used by the World Bank).

Conclusion

The National Bank of Serbia monitors the total debt of the public sector. The Ministry of Finance monitors public debt as it is defined by the Law on Public Debt, which explains the differences between the debt statistics of the National Bank of Serbia and the Ministry of Finance. The name itself – the Law on Public Debt – does not correspond to the content of the Law, because it in essence defines the debt of the central government, but as it would be defined by the World Bank, and not the IMF. The fact is that the Budget System Law introduces the term "general government", as well as the term "general government debt", but defines the debt of the general government as it would be defined by the World Bank, and not the IMF. The Maastricht debt criterion relates to general government debt, which includes only the direct debt of the general government. It follows that it is precisely the debt thus defined that should be regulated by the Law on Public Debt (the Law on General Government Debt). Of course, even in this case there would have to be differences between the debt statistics of the National bank of Serbia and the Ministry of Finance.

It would be desirable also for the Ministry of Finance to report, as the National bank does, in a comprehensive manner on the public sector debt, even though the general government debt is the indicator of our fiscal position.

It would be desirable to harmonize names with contents, that is, to harmonize definitions and classifications in laws that regulate debt and borrowing with international standards. Changes to definitions would not affect public sector debt, but they would affect general government debt, which would be reduced by the amount of the guaranteed debt.

Considering that thus far guarantees have not been regulated appropriately either in the budget or in debt statistics, it follows that, when it comes to debt, a change in its scope must be accompanied by a change in the statistical treatment of payments against guarantees in the budget, in the cases when debt is assumed or repaid on behalf of the original debtor.

If repayments of debt on behalf of original debtors should occur, the budget must register the expenditure as capital transfer and at the same time as decrease in financial assets (cash or deposits). The expenditures reduce net assets and the net financial position. The guarantor's debt rises. The original debtor must register revenues and at the same time a decrease in debt liabilities, a growth in net assets and its financial position, and a decrease in debt.

The past practice has treated payments in the same way as financial transactions (repayments), which is not in accordance with international standards, because they are government expenditures that reduce net assets, and not only a financial operation that changes the structure of the financial position.

Finally, with the aim of increasing the scope of and improving debt and risk management, it is necessary to introduce regular monitoring of liabilities not settled on their due date, considering that this is also a way to cover the deficit.

SPOTLIGHT ON:

An Analysis of the Proposal to Increase the Local Governments' Share in the Wage Tax

Milojko Arsić *

To enhance fiscal decentralization, the United Regions of Serbia proposed to increase the local governments' share in the wage tax from the current 40% to 80%. The proposal entails a transfer of taxes, amounting to approximately 1.5% of GDP, from the central to the local tier of government, with no additional liabilities imposed on the local level. The study showed that the transfer of taxes from the central to the local tiers of government, without a transfer of liabilities, would increase the deficit of the budget of the Republic and the consolidated government, jeopardizing fiscal and macroeconomic stability. Without thorough preliminary preparations, any attempt to transfer additional liabilities to the local level concurrently with the significant tax revenues, would almost inevitably lead to a decrease in the efficiency of the state. Furthermore, increasing the wage tax revenues of all local governments by the same percentage would result in the increased growth of the budgets of developed regions, thereby increasing, instead of decreasing, regional disparities. This paper presents an alternative proposal for a process of gradual fiscal decentralization, in the first place restoring the transfers of non-earmarked funds to local governments to the level to 1.7% of GDP. Additionally, increasing property tax revenues and decreasing local taxes would result in the increase of the local governments' direct revenues and improve the structure thereof from the aspect of the business environment. Subsequently, additional functions and revenues required for their funding would gradually be transferred from the central to the local level. The transfer of additional functions would follow political decentralization and the strengthening of the local governments' administrative capacities.

Introduction

The decentralization of Serbia has become a topic of major concern in political and economic debates over the past years. Decentralization proposals are numerous and diverse, and include measures ranging from changes to the state system by regionalizing Serbia, to changes of the electoral system at local level, to fiscal decentralization. Fiscal decentralization entails increasing the local government share in state taxes and direct spending. Arguments in favour of fiscal decentralization are mainly the need to increase the efficiency of the state and a decrease regional economic disparities in Serbia. Fiscal decentralization, along with administrative and political decentralization, could contribute to improving the public decision-making democratic process, because these decisions would be taken at a level closer to the citizens.

Proposals for fiscal decentralization in Serbia raise numerous important questions, such as: what is Serbia's level of fiscal decentralization compared to that of other countries in the region and does fiscal decentralization have a favorable impact on the country's economic growth and more equitable economic development? Another important issue is whether the proposed increase of the local governments' share in the wage tax from 40% to 80% is an adequate step in the decentralization process, not only from the aspect of the set goals[1], but also from the aspect of macroeconomic stability. In this study we are mainly concerned with analyzing the impact of the increase of the local governments' share in the wage tax, while general issues related to decentralization are briefly examined in the introduction.

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1 Another concrete proposal for enhancing fiscal decentralization entails the restitution of property to local governments. Although there are certain dilemmas with regard to the fine points, the arguments in favor of the restitution of property to local communities is indisputable – in democratic societies every tier of government owns its own property.

The level of fiscal decentralization is usually measured by the share of local governments' direct expenditures in consolidated public spending[2]. Measured in this manner, fiscal decentralization in OECD member states ranges from 6% in Greece to over 12%–15% in the federal states (Austria, Germany, Belgium), to more than 40% in Scandinavian countries. The share of the various tiers of government in consolidated public spending in OECD member countries is given in Annex 1. The level of fiscal decentralization in Serbia is by 1/3 lower than the average in the OECD – where local governments account for a 24% share in the consolidated public spending[3], whereas in Serbia this share is around 16%. OECD member countries in Central Europe have a similar level of fiscal decentralization as the other members of this organization. Based on a comparison with OECD member countries, we could deduce that the level of fiscal decentralization in Serbia is relatively low and should be increased in the future.

A related issue is the fiscal decentralization trend in Serbia. Fiscal decentralization strengthened in the 2001–2008 period and weakened during the economic crisis because local government revenues (and consequently expenditures), declined somewhat more rapidly than overall government revenues. The faster decline in local government revenues is a result of the decline in central government transfers to local governments, from 1.7% of GDP in 2008 to around 1% of GDP in 2010. Therefore, in the last two years these revenues were insufficient to fund local governments' functions. The response of local governments to this issue differed and included raising local taxes, taking bank loans, arrears in payments to budget funds recipients and suppliers, holding off the implementation of discretionary spending (capital projects) and other. Most of the local community responses listed herein had an adverse impact on public finance and the functioning of the economy. For instance, the increase in local taxes has a significantly negative impact on entrepreneurship, micro and small enterprises and, due to their inability to pay these taxes, it has led to their close-down, increased unemployment, or a switch-over to the grey economy. Arrears in local government payments contribute to increasing insolvency and weakening financial discipline in the country. Thus, the decrease in the transfers to local governments not only jeopardized the funding of the functions in their sphere of competence, but also adversely affected the functioning of the economy.

In economic theory, the prevailing position is that decentralization has a positive impact on economic efficiency[4] and growth. However, experiences of different countries in the area of decentralization differ – as a rule, decentralization leads to an increase in the consolidated public expenditures, and in some cases it increases the efficiency of the state. According to the prevailing empirical research findings in OECD member countries, greater decentralization has a positive impact on economic growth[5]. However, some of the latest research findings contest the positive impact of decentralization on growth, even in the case of developed countries[6]. Despite the fact that empirical research findings on the impact of decentralization on a country's growth and equitable development are divergent even in the case of developed countries – the need for decentralization is the predominant recommendation of international financial institutions to countries in transition.

According to the results of some empirical studies, the effects of decentralization vary by country group: decentralization has a small positive impact on economic growth in developed countries, while its impact on economic growth is negative in developing countries[7]. Particularly relevant from Serbia's aspect are studies on the effects of decentralization in Central and Eastern European countries, indicating that decentralization has had an adverse impact on economic growth since the beginning of the transition until the middle of the previous decade[8]. A possible explanation of the divergent effects of decentralization in developed countries and emerging countries might be that developed countries have stronger institutions at all government levels, including the local[9].

The second question is how decentralization impacts the economic inequality between local communities, in other words, a country's balanced economic development. The ways in which fiscal decentralization affects the level of regional economic disparity differ, so it is hard to predict in theory the net impact of the various mechanisms on a region's economic disparity. In the case of OECD countries, according to the findings of some studies, decentra-

2 Naturally, an important element in assessing the level of fiscal decentralization is the level of the autonomy of local governments in making decisions on local expenditures. The level of fiscal autonomy is greater when subnational governments, at a given spending level, have greater freedom in deciding on their spending.
3 OECD (2009).
4 Classical theoretical arguments can be found in Tiebout (1956), and empirical research in Oates (1972).
5 See Piriou-Sall (1998) and Thißen (2003).
6 Rodríguez-Pose, A., A. and R. Ezcurra (2010).
7 See Davoodi and Zou (1998).
8 Rodríguez-Pose, A. and A. Krøijer (2009).
9 Dabla-Norris (2006).

lization contributes to decreasing regional disparities[10]. The results of other studies show that decentralization of *revenues* increases regional disparities, while decentralization of *expenditures* decreases regional disparities[11]. Research including not only developed but also middle income and undeveloped countries indicates that fiscal decentralization reduces regional disparities in developed countries and increases regional disparities in middle income and undeveloped countries[12].

Different empirical findings[13] on the impact of decentralization on economic growth and regional disparities, but also Serbia's experience from the previous years point to the conclusion that decentralization requires a cautious and gradual implementation in Serbia. Gradual decentralization acknowledges the limited administrative capacities of local authorities and the consequent need for thorough preparations for the transfer of powers to the local level. It also enables the elimination of any mistakes without significant negative consequences.

Despite a widespread debate on decentralization and regionalization in Serbia in the previous years,[14] there were relatively few proposals as to the new powers that would be taken over by local governments, the revenues required for funding them, the pace at which these powers and revenues would be transferred to local governments and the like. The proposal to increase the local governments' share of the wage tax from the current 40% to 80%, along with the restitution of property to local governments is the latest proposal for increasing fiscal decentralization in Serbia.

This study first analyzes the degree to which this proposal is in line with modern tax systems and the tax distribution between the central and local government. A second issue related to the aforesaid proposal concerns the manner in which the loss of the budget revenues of the Republic will impact the fiscal deficit and public debt and compliance with the legal obligations of the Republic, including its obligation to transfer funds to local governments. Also related to the previous issue is the issue of whether additional powers would be transferred to local governments along with the significant additional revenues? The third question is whether the implementation of this proposal would contribute to decreasing disparities between local government revenues (original and transferred), as is being suggested? In the conclusion to this study, we briefly propose alternative measures for increasing local government revenues, decreasing disparities in their income per capita, without triggering deficit growth at the level of the central government. We also propose changes in the structure of local taxes that should contribute to improving the business environment.

1. The Importance and Distribution of the Personal Income Tax in Serbia and Globally

The wage tax is fiscally the most important element of the personal income tax (PIT). The wage tax usually accounts for a 60%-75% share[15] of the personal income tax, which is why the level and distribution of the wage tax have a dominant impact on the level and distribution of the aggregate personal income tax. Therefore, first of all, a comparative analysis of the personal income tax and its distribution will be made between the various tiers of government in Serbia and globally, followed by an analysis of the distribution of wage tax revenues in Serbia.

The comparative analysis of the significance and distribution of the PIT will be based on a comparison of Serbia with two groups of states – members of the EU and members of the OECD. A comparison with EU member countries is relevant not only because of Serbia's accession to the EU, but also because of the similarity in the level of institutional and economic development between Serbia and the new EU member countries. However, comparable data on the distribution of the PIT among various tiers of government are available only for OECD member states. For that reason, the fiscal significance of the PIT in Serbia has been compared with EU member countries, while the distribution of the PIT among the various tiers of government has been compared with OECD member countries. Please note that these two groups of countries largely overlap – the difference being the fact that the OECD includes several developed non-European countries and excludes some of the new EU members.

The PIT is one of the most important taxes in most contemporary tax systems. The share of the personal income

10 Lessmann C. (2006).
11 Landon S. and B. G. Reid (2005).
12 Rodríguez-Pose, A., A. and R. Ezcurra (2009).
13 An overview of the results on the impact of decentralization on growth can be found in Lessmann (2006).
14 The requests for a return of the jurisdictions to AP Vojvodina guaranteed by the 1974 Constitution are an exception. However, even in this case there is a lack of analyses and arguments to prove that Vojvodina would discharge the requested functions more efficiently than the Republic or local governments.
15 Accurately determining the share of the wage in the income tax is difficult, because most developed countries apply some kind of a synthetic tax, in which the aggregate tax is determined based on all income earned by an individual or a family.

tax in the GDP of EU countries ranges between a minimum of 2.8% in Slovakia to a maximum of 25.3% in Denmark[16]. The average ratio of PIT revenues to the GDP of EU member countries is 8.1%, against 5.1% in the new EU members. Ever since the 1990s, the EU and other developed countries have been recording a mild declining trend in the share of the personal income tax in GDP, which is in line with both the theoretical standpoints and empirical findings according to which the personal income tax has a less favorable impact on economic growth than other taxes (consumption taxes or property taxes, for example)[17].

Graph L1-1. Revenues from the Personal Income Tax in Serbia and the EU

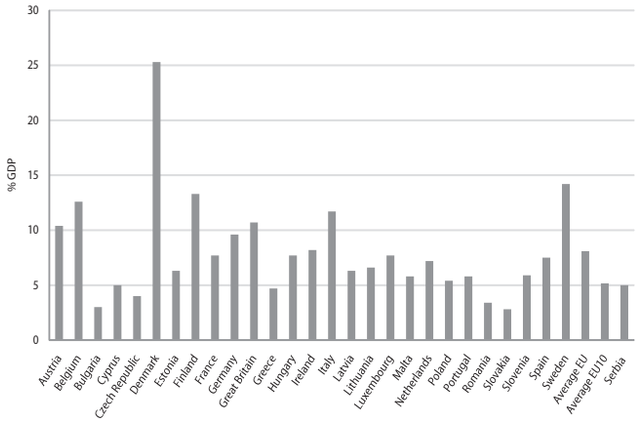


Table L1-2. The distribution of the Wage Tax Revenues among the Different Tiers of Government in Serbia and in OECD countries in 2008, in %

	Central level	Intermediate level (Republics/provinces)	Local level
Australia	100	0	0
Austria	75	14	11
Belgium	53	35	11
Canada	63	37	0
Czech Republic	71	0	29
Denmark	38	0	62
Finland	41	0	59
France	100	0	0
Germany	43	40	17
Greece	100	0	0
Hungary	100	0	0
Iceland	50	0	50
Ireland	100	0	0
Italy	88	0	12
Japan	65	0	35
Luxembourg	100	0	0
Netherlands	100	0	0
New Zealand	100	0	0
Norway	48	0	52
Poland	63	0	37
Portugal	97	0	3
Slovakia	77	0	23
Spain	59	0	41
Sweden	3	0	97
Switzerland	21	46	33
Turkey	89	0	11
Great Britain	100	0	0
USA	78	20	2
Average OECD	72	7	21
Serbia*	54.1	3.5	42.5

Source: OECD, Revenue Statistics 2010, and for Serbia, Ministry of Finance data
* on average, 2008–2010

Before the crisis, the personal income tax accounted for a 5% share in Serbia's GDP, i.e. somewhat lower than in the Central and Eastern European countries and in the new EU member states. During the economic crisis, the share of the personal income tax in Serbia's GDP dropped due to the decline in employment and the decrease of the real level of income from property and capital, to 4.6% in 2010.

Although significant differences exist among countries, in OECD countries the PIT for the most part belongs to the central government. In OECD countries, the central government accounts for 71% of the PIT, local governments for 21% and the share of the intermediate tiers of government (provinces, republics and similar) in the PIT amounts to around 7% on average. The differences between countries in the distribution of PIT based revenues are by and large a result of differences in their state systems, tax system structures, and other such differences. In as many as 10 of the observed 28 OECD countries, local governments do not participate in the PIT at all, whereas the local governments' share in the PIT is in excess of 40% in only eight of these countries. A high share of local governments in the PIT is characteristic for Scandinavian countries, where the level of fiscal decentralization is particularly high. In federal and confederate countries a significant portion of the personal income tax is appropriated for the intermediate tiers of government. The foregoing leads us to the conclusion that in a significant majority of developed countries the personal income tax is dominantly a revenue of the central government. The reason for this is not only the fiscal importance of the personal income tax, which is necessary for financing the commitments of the central government, but also the appropriateness of this tax for the realization of macroeconomic policy.

In Serbia, the various tiers of government (Republic, AP Vojvodina and local governments) participate in the distribution of the PIT. Some forms of the personal income tax are shared by various tiers of government (the wage tax) whereas other tax forms belong to one

16 Eurostat (2010) „Taxation Trends in European Union",
17 A comprehensive overview of research papers corroborating this standpoint can be found in the OECD study (2010) "Tax Policy and Economic Growth" or in the EU publication (2008) "Public Finance in EMU – 2008", Chapter 4. According to these studies personal income taxes have a less favorable impact upon economic growth than *consumption and property taxes. Particularly unfavorable is the impact of the personal income tax with high marginal tax rates*.

specific tier of government only (for example, local governments keep the entire revenue from the taxation of self-employment income, real estate rental income, etc.). The share of the Republic of Serbia in the personal income tax amounts to around 54%, the local government share stands at around 42.5% and Vojvodina's share at 3.5%. The distribution of the PIT-based revenues in Serbia is stable – the shares of individual tiers of government in the PIT in the period 2008-2010 remained practically unchanged.

The local governments' share in Serbia's PIT is currently already twice the OECD average, whereas the central government share is lower than the average for this group of countries by around 25%. In as many as 20 OECD countries, the local governments' share in the PIT is considerably below that in Serbia, in three other countries it is approximately the same as in Serbia (in the 41%-43% range), whereas only in five of these countries is the local governments' share in the PIT significantly higher than in Serbia.

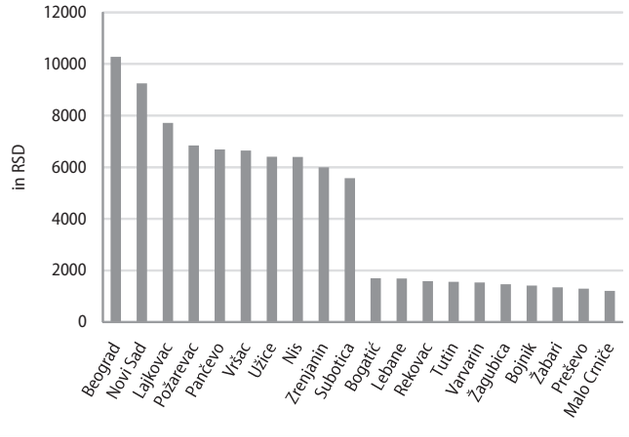
The wage tax, globally accounting for 60%-75% of the PIT, is by far the largest individual position within the scope of the PIT[18]. The remaining PIT based revenues are collected based on incomes from property and capital. The share of the wage tax is approximately proportional to the share of the income from working activities in the national income[19], since the elements of duality in tax systems that provide a more favorable treatment to incomes from capital are neutralized by tax reliefs enjoyed by low income/wage earners.

Table L1-3. Current Wage Tax Distribution

	2008	2009	2010	Average
		in RSD bn		
Total	102.2	104.1	106.5	104.3
Republic	57.2	58.3	59.6	58.4
Local budgets	40.3	41.1	42.1	41.2
AP Vojvodina	4.7	4.7	4.8	4.7
		breakdown in %		
Total	100.0	100.0	100.0	100.0
Republic	56.0	56.0	56.0	56.0
Local budgets	39.4	39.5	39.5	39.5
AP Vojvodina	4.6	4.5	4.5	4.5
		% GDP		
Total	3.8	3.7	3.5	3.7
Republic	2.1	2.1	2.0	2.0
Local budgets	1.5	1.5	1.4	1.4
AP Vojvodina	0.2	0.2	0.2	0.2

Source: Calculations based on Ministry of Finance data

Graph L1-4. Wage Tax Revenue Per Capita



The revenues from the wage tax in Serbia accounted for around 3.7% of GDP over the recent years, which amounts to around 80% of the personal income tax. The wage tax in Serbia makes up around 10% of the consolidated government revenues. Of the total realized wage tax income, 40% belongs to local governments, persons employed in AP Vojvodina set aside 18% for the budget of the Province, while the remaining share goes to the budget of the Republic of Serbia. The distribution of the revenues from the wage tax between the Republic, local governments and AP Vojvodina is shown in Table L1-3. Measured in terms of their share in the GDP, the bulk of the wage tax revenues went to the budget of the Republic (around 2% of GDP), whereas local governments collected revenues in the amount of 1.4% of GDP and Vojvodina in the amount of 0.2% of GDP.

The importance of the wage tax for individual government tiers can be illustrated by the share of the wage tax in the total revenues of those particular tiers. The wage tax is most significant for local governments, accounting for a 23% share of their revenues (weighted average), whereas it accounts for around 10% of the budget of the Republic of Serbia, and around 9% of the budget of AP Vojvodina.

The significance of the wage tax revenues to individual local governments significantly varies ranging from a minimum of 8% in the case of Čajetina to 35% in the case of Bečej and Aranđelovac. Such a high variability with respect to the share of the wage tax in the total revenues of local governments also shows a relatively high coefficient of variation (27%). The per capita revenue from the wage tax also varies significantly, ranging between

18 The accurate disaggregation of income from work activities and income from capital is difficult to make, primarily due to the fact that numerous people work using their own capital and assets (lawyers, taxi drivers, hair stylists, farmers, etc.).

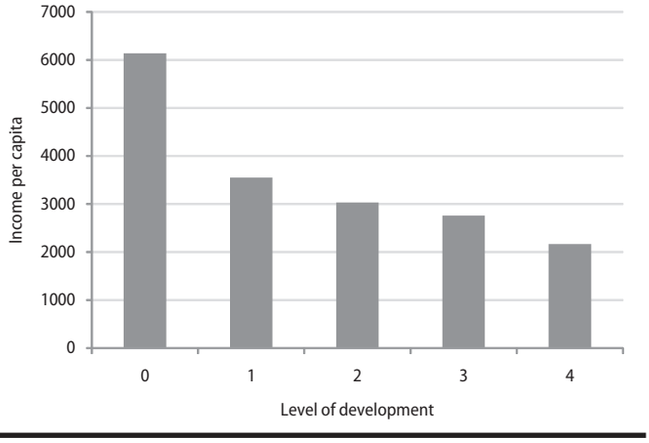
19 See for instance Semjuelson and Nordhaus (2009).

around RSD 1,200 in the Municipality of Malo Crniće to around RSD 10,000 in Belgrade and Novi Sad. Graph L1-4 shows 10 local communities with the *highest* and 10 local communities with the *lowest* wage tax revenues per capita. A graph showing all local communities in Serbia according to their wage tax revenues per capita is given in Annex 2.

2. The Level of Development of Local Communities and Wage Tax Revenues

To assess the impact on local budgets of the proposed increase of the local government share in the wage tax from 40% to 80%, it is necessary to quantify the relation between the level of development of municipalities and the wage tax revenues realized by these municipalities. It is expected that more developed municipalities will have higher revenues from the wage tax, whether measured per capita or expressed as a percentage of the total municipal revenues. The positive correlation between the wage tax revenues per capita and the level of municipal development is a result of the expectation that wages and rates of employment are higher in more developed municipalities. This correlation could only partially be weakened by the currently effective legal solution linking the obligation of wage tax payment with the municipality of residence of the worker rather than with the municipality where the registered office of the employer is. Although sometimes the deviations can be considerable,[20] most of the workers are employed in the territory of the municipality in which they reside or in the neighboring municipalities. Owing to the tendency of geographic grouping of municipalities according to their level of development, if one municipality in the group has an above average level of development, chances are that the adjacent municipalities also above average in development. Since most employed persons work in the municipalities of their residence or in neighboring ones, it is expected that the more a municipality is developed the higher the wage tax revenue it will generate.

Graph L1-5. The Level of Development of Municipalities and Wage Tax Revenue in Dinars



All municipalities in the Republic of Serbia (pursuant to the criteria contained in a Decree adopted by the Government of the Republic of Serbia) are classified into four groups based on their level of development thereof[21]. Within the scope of this study, we have singled out from the fourth group the so called deprived areas, aiming to conduct a more detailed analysis with five levels of development. Within this classification, group 0 consists of the most developed municipalities, group 1 is reserved for the municipalities with the level of development between 80% and 100% of the average in the Republic, group 2 for the municipalities with 60% to 80% of the average. group 3 for those municipalities rated at 50% to 60% of the average in the Republic, while group 4 consists of the areas with a level of development below 50% of the average in the Republic (deprived areas). Graph L1-5 shows the average wage tax revenue per capita by groups of municipalities ranked according to their level of development. Obviously, the wage tax revenues per capita grow with the level of development of each municipality. Thus, for instance, the per capita revenues from the wage tax in the 40 most developed municipalities in Serbia outrank those in the least developed ones by around 180% (i.e. 2.8 times). The data displayed on Graph L1-5 refer to the pre-crisis year of 2008 but similar results have been obtained based on the data for 2010 as well.

It can also be expected that the more developed a municipality, the higher the share of the wage tax in its budget will be. The data referring to Serbia are in line with this expectation – the share of the wage tax revenues in the budgets of the more developed municipalities (groups 0, 1, and 2) is 5 percentage points higher than the share of such revenue in the budgets of non-developed municipalities (groups 3 and 4)[22]. This regularity has important implications

20 See, Altiparmakov, Nikola, *Quarterly Monitor,* No. 23.

21 Due to the lack of adequate individual development indicators for municipalities, it was necessary to use the official classification dividing all municipalities into four development groups.

22 Interestingly enough, the most developed municipalities from group 0 have lower shares of revenue from the wage tax in their respective budgets, than the municipalities in groups 1 and 2, even though they realize higher per capita revenues from that tax than municipalities classified into groups 1 and 2. This can be explained by the fact that the most developed municipalities realize above average revenues from other sources – high revenues from the property tax, fees for the use of urban building land, etc. .

when thinking about increasing the share of municipalities in the wage tax: even if the wage tax revenues of each individual municipality are increased by the same percentage (for example, if they were doubled), the budgets of more developed municipalities will realize higher rates of growth compared to their non-developed counterparts. *Consequently, increasing revenues from the wage tax by the same percentage for all municipalities would result in growing disparities between municipal budgetary revenues – which is contrary to the aim of achieving more balanced regional development and decreasing disparities between municipalities.*

Table L1-6. The Level of Development of Municipalities and the Significance of Revenues from the Wage Tax

Level of development	0	1	2	3	4
Number of municipalities	40	23	36	8	40
Share of wage tax in revenues in %	22.6	26.4	23.4	19.7	17.8

The statistical significance of the previous tendency – according to which the share of the wage tax in the total revenues of a municipality decreases the lower its level of development – has been tested using a regression equation evaluating the impact of the level of development of a municipality on the share of the wage tax revenues in its budget:

$$p_i = 0{,}252 - 0{,}0184 x_j$$
$$(37{,}3) \quad (-6{,}6)$$

where p_i (i = 1,…,145) stands for the share of the wage tax revenues in the municipal budget, x_j is the level of development of the municipality (j = 0,…,4), and the number in brackets is the *t* statistic. From the above equation it follows that when a municipality drops to a lower development group (for example, from group 1 to group 2), the share of the wage tax revenues in the tax revenues is reduced by around 1.8 percentage points. *Table L1-6 above, as well as the statistical analyses, clearly show that the wage tax revenues are least significant for the budgets of the least developed municipalities.*

3. An Analysis of the Effects of the Proposed Increase in the Local Governments' Share in the Wage Taxes

The increase of the local governments' share in the wage tax from the now effective 40% to 80% has been argumented by the need to increase the fiscal independence of local governments and to reduce the disparities in the level of development of local communities. The suggested redistribution of taxes is analyzed from the aspect of its impact on macroeconomic stability and on the efficiency of the entire state.

The implementation of the aforesaid proposal would help local governments gain additional revenues amounting to 1.5 percentage points of Serbia's GDP, while the revenues of the budget of the Republic of Serbia would be decreased by the same amount (Table L1-7). The ensuing conclusion is that accepting the aforementioned proposal would undoubtedly lead to an increase in the autonomy of local governments. However, if this tax redistribution is to be acceptable, it should not jeopardize macroeconomic stability and it should increase the efficiency of the entire state.

If this redistribution of funds from the Republic to local governments is to be sustainable from a macroeconomic perspective, local governments need to take over not only the additional revenues, but *concurrently* also additional liabilities. Considering that the Republic "owes" an increase of transfers by about 0.5 percentage points of GDP to local governments for the performance of their existing functions, the increase of local government revenues by 1.5% of GDP would imply that they need to take over functions requiring funding in the amount of 1% of GDP. The local governments' failure to take on additional functions would further increase the deficit on the level of the whole Republic by about 1% of GDP and trigger a rise in public debt, directly jeopardizing macroeconomic stability. Consequently, the transfer of taxes from the central to the local level, without a transfer of additional liabilities, is not sustainable from the aspect of macroeconomic stability[23]. Hence, hereinafter we will examine the alternative option, which proposes to increase obligation devolved to subnational governments concurrently with the transfer of additional revenues.

23 Based on statements made by the persons making such proposal, it is unclear whether local communities would also assume additional liabilities, but the overall impression is that this would not be the case.

Table L1-7. The Distribution of the Wage Tax: Present Situation and the Proposal

	Breakdown in %		Redistribution of the wage tax	% GDP		Redistribution of the wage tax
	Current distribution	Proposal		Current distribution	Proposal	
Total	100.0	100.0	-	3.7	3.7	-
Republic	56.0	15.5	40.5	2.0	0.6	-1.5
Local budgets	39.5	80.0	-40.5	1.4	2.9	1.5
AP Vojvodina	4.5	4.5	0.0	0.2	0.2	0.0

To justify the transfer of revenues and functions (powers) to local governments, the latter have to be able to perform the functions devolved to them at least as efficiently as the central government. If this is not the case, i.e. if local governments are less efficient in discharging these functions, for instance due to the absence of economies of scale, weaker administrative capacities or other reasons, then the reallocation of resources and powers from the level of the Republic to the local level would not be economically justified. In this context, it is important to note that fiscal decentralization is not a goal in itself, and empirical research shows that it does not even guarantee an increased efficiency of the state.

Since local governments can gain significant resources, the additional functions that should be devolved to them should also be relatively significant. This raises the issue of the preparedness of local governments to take on additional functions in the short term. Based on experiences with the devolution of other (lesser) powers to local governments over the last decade in Serbia (as was the case with local tax administration), it is doubtful whether local governments have the capacity of taking on additional functions in the short term. Hence, it appears that the only economically justified solution is the gradual devolution of additional functions to the local governments, which would mean that their share in consolidated public revenues should also gradually increase, as opposed to a one-time raise by about 1.5% of GDP.

Another argument in favor of increasing the local government share in the wage taxes is that it would help reduce disparities in regional development. While it is quite certain that by applying the aforementioned proposal local governments would aggregately increase their revenues by about 1.5% of GDP (approximately RSD 50 bn), the implementation of this measure would, as shown in Part 2 of the paper, increase economic inequality between local budgets. Should the local government share in the wage tax increase from 40% to 80%, the revenues earned by each local government would double. Although the wage tax revenues of all local governments would double, the growth of total budgetary revenues due to the implementation of this measure would vary. Given the nature of the wage tax, an above-average growth of budgetary revenues would be realized by local governments where salaries exceed the national average and where the employment rate is higher, i.e. by those local governments where the share of the wage tax in the total budget is already above the average. Less developed local governments would also earn additional revenues, but the increase of their total budgetary revenues would be below the average. Table L1-6 leads to the conclusion that the total budgetary revenues realized by local governments (groups 0, 1 and 2) would increase by 23%, whereas total budgetary revenues of the least developed local governments (group 3 and deprived areas – group 4) would increase by about 18%.

Hence, we conclude that the increase of the local governments' share in the wage tax would increase the disparities in their respective budgetary revenues, compared to the current situation.

4. Assessment of the Proposal and a Possible Alternative

Generally, it is assessed that a one-time significant increase in the local governments' share in the wage tax is not an adequate solution for the concrete problems that local governments face. The increase of the local governments' share in the wage tax from 40% to 80% would increase their revenues by about 1.5% of GDP – i.e. by 1% of GDP more than is necessary to recover funds lost by local governments due to a decrease in transfers from the Republic. Such a significant redistribution of resources between the national and local governments is justified only if local governments were to take over some significant functions from the Republic. Should this not be the case, the implications would include an increase in the fiscal deficit, and consequently the growth of public debt – which is contrary to the fiscal rules requiring a decrease of the government deficit from the current 4.1% GDP to 1% GDP by 2015, and limiting the public debt to a level below 45% of GDP. In addition, it is necessary to bear in mind that the share of the revenues of the Republic in the GDP will continue to drop in the ensuing years on various other grounds (not only due to a decrease in the wage tax), such as the continuation of the process of cutting customs duties for products

imported from the EU, a reduction of VAT revenues due to the increased share of exports in the GDP and the like, while the liabilities of the Republic will remain unaltered. Therefore, the reallocation of tax revenues from the Republic to local governments in the amount of 1.5% of GDP, without devolving any of the current liabilities of the Republic would cause an increase in the fiscal deficit and a growth in public debt that would further jeopardize macroeconomic stability. Besides, the loss of budgetary revenues on the part of the Republic would adversely influence its ability to use transfers to decrease disparities in budgetary revenues between various local governments.

Another negative consequence of a possible one-off significant increase in the revenues of local governments would be retaining the irrational elements noted on the local level. Comparative analyses indicate that in the local tiers of government there is a significant employment surplus. Although the Government took certain measures to address this issue, so far the progress made in this respect is relatively small. Local governments that have retained employment surpluses even in the period when their revenues suffered a significant decline will be even less motivated to decrease these surpluses once they have received additional revenues.

In addition, an increase of the local governments' share in the wage tax would further increase the disparities in budgetary revenues between local governments – which is incommensurate with balanced regional development. This finding is in accordance with empirical researches conducted in the OECD countries that have found that decentralization of taxes increases regional disparities (please refer to the Introduction). The noted regularity reflects the fact that incomes and consumption are higher on the territory of richer local governments and the assets found on their territory are of a higher value. Consequently, the tax revenues of these local governments, under the given tax rates, is higher. This weakness could generally be addressed by thoroughly redefining the transfer policy, but it is uncertain whether it is justified to increase disparities by applying a certain measure, only to take measures thereafter to restore disparities to the present level or to decrease them.

If Serbia were to implement the proposal for the increase of local governments' share in the wage tax, it would find itself among the countries with largest local government share in PIT – only Sweden would have a higher local government share in the PIT than Serbia. However, as opposed to Serbia, Sweden has decentralized taxes and liabilities alike. All other OECD countries, many of which are characterized by high decentralization, would have a lower local government share in the personal income tax than Serbia. Hence, the personal income tax on Serbian citizens would *de facto* become a local tax. For instance, on the territory of the Autonomous Province of Vojvodina, where the Province also participates in the wage tax, in case this proposal is implemented, the Republic would acquire only 2% of the wage tax revenues, which is probably at the level of the administration costs of this tax.

The need for strengthening local finances and gradually increasing fiscal decentralization is not to be disregarded, but it should be implemented gradually by transferring additional tax revenues to local governments while at the same time devolving additional powers (liabilities) to them. The first step towards this objective is restoring the transfers from the budget of the Republic to local governments to the 1.7% of GDP prescribed by law. For the Republic to increase transfers and observe laws and regulations on the fiscal deficit, the costs of salaries and pensions should be considerably reduced in relation to the GDP in the ensuing years, and other current expenses should be reduced as well (subsidies, purchase of goods and services), keeping the existing share of the revenues of the Republic in the GDP.

Another direction of fiscal decentralization is increasing the significance of the property tax as a source of government revenue. Although property taxes are not popular, they are a globally significant and in some countries even the most important source of revenue for local governments. From the standpoint of economic development, it is important to note that theoretical evidence proves that of all taxes, property taxes have the least negative effects on the efficient functioning of the economy. These theoretical forecasts are quite convincingly corroborated by different empirical researches conducted for the OECD countries. Hence, it is estimated that a moderate increase in property tax revenues (over several years) could be a reasonable compromise between efficiency and the lack of political popularity of these taxes. Sources of increases in property tax revenues could, in the case of Serbia, take the form of a slight rise in taxes on property already subject to taxation, as well as the taxation of property currently not subject to taxation, even though its taxation is required by the law. In light of this fact, it is necessary to improve the preparedness and motivation of the local tax administration to enhance property valuation, but also to increase the coverage of property subject to taxation. It is estimated that, aside from providing administrative assistance to local governments in taxing property, the Republic should also introduce a certain system of incentives and penalties to stimulate local governments to increase these revenues. In the absence of such a system of incentives and penalties, it is to be expected that instead of increasing their revenues, local communities would invest all their efforts towards lobbying for an increase of transfers from the Republic or towards an increase in the shares in joint taxes.

Also, re-examining the merits of the highly progressive property tax is deemed necessary, bearing in mind that elsewhere in the world the maximum tax rates on property rarely exceed 1%. Adapting of tax rates to the market value of property and increasing the coverage of taxed property would enable richer local governments with high-value property to apply a basic tax rate that is lower than the present 0.4% rate and still earn additional revenues.

An increase of transfers from the Republic, as well as an increase in property taxes, would decrease local fees which have an extremely negative impact on entrepreneurs, micro and small enterprises. Property taxes are superior to local fees because they are more in line with the economic power of tax payers. Although it is expected that the mechanism of competition will put pressure upon local governments to adjust these fees to a sustainable level, it is also necessary to consider the option where the central government sets the maximum value of these taxes.

Restoring transfers to the legally-prescribed level and increasing revenues from local taxes would enable local governments to perform the functions that are already in their jurisdiction, plus certain other functions (e.g. in the field of social protection). A shift in the structure of local taxes from fees to property taxes would cut operative costs, boosting the development of the economy, and small and medium enterprises in particular. Only then would the functions that local communities can discharge more efficiently than the central government be taken under advisement, after which these functions would be successively devolved to the local level, accompanied by an increase in the local governments' share in tax revenues. For fiscal decentralization to be economically viable, it needs to be supported by reforms of the political system that would strengthen the autonomy of local governments in making decisions, but also increase the administrative capacities of local governments.

Conclusion

According to the majority of empirical researches, fiscal decentralization in developed countries has a positive impact on growth and balanced regional development, while in developing countries, including countries in transition, fiscal decentralization frequently has an adverse effect on growth and regional development. A possible explanation for the divergent decentralization effects in developed countries and in developing countries is that developed countries have stronger institutions on all state levels, including the local one. Empirical research findings, as well as Serbia's experience in the previous years, point to the conclusion that decentralization requires cautious and gradual implementation in Serbia. Gradual decentralization acknowledges the limited administrative capacities of local authorities and the consequent need for thorough preparations for the transfer of powers to the local level. It also enables the elimination of any mistakes without significant negative consequences.

In this paper we have examined two basic issues. The first issue is how the redistribution of taxes from the central to the local level would impact macroeconomic stability and economic growth. The proposed increase in the local governments' share in the wage tax, without a devolution of additional liabilities to the local governments, would increase the deficit of the Republic and the total fiscal deficit by 1%–1.5% GDP, jeopardizing fiscal and macroeconomic stability in Serbia. Also, the allocation of *additional* resources to local governments, without a devolution of *additional* functions to them, would cause irrationalities on the local level, such as a surplus in the number of employed. A possible devolution of additional functions to local governments in the short term, and without prior thorough preparations would lead to a decrease in the efficiency of the entire state (the examples of the devolution of the administration of the property tax and the annual personal income tax fully confirm this). The decrease in state efficiency would adversely impact economic growth. Should the forgoing proposal be implemented, the wage tax would *de facto* become a local tax, which is neither in line with the practice of most tax systems, nor with the role that this tax has in fiscal policy implementation. The central government would only have a 2% share in the wage tax on the territory of the Autonomous Province of Vojvodina – which is probably at the level of the costs of the administration of this tax.

The second issue is whether the proposed increase in the local governments' share in the wage tax is an adequate step in the process of decentralization, from the aspect of reducing regional disparities. This paper shows that doubling the wage tax revenues of all local governments would cause an increase in disparities in the amount of budgetary revenues of local governments, which is contrary to the policy of balanced regional development. Consequently, the implementation of the proposed measures would widen regional disparities instead of reducing them. Eliminating this weakness by changing the transfer policy is impossible without considerably decreasing the share of the central government in taxes. Decreasing the central government share in taxes leads either towards macroeconomic instability, unless additional functions are devolved to local governments, or decreases the efficiency of the state in cases

when additional functions are devolved to local governments without prior preparations. In addition, a transfer policy that would fully focus on mitigating the adverse consequences of the proposed redistribution of the wage tax on regional disparities would mean departing from the practice in well-organized countries, where transfers are used for the achievement of many goals.

Considering that the proposed solution would have negative macroeconomic implications and would not contribute to decreasing regional disparities, this paper provides the elements of an alternative scenario of fiscal decentralization that proposes to restore the transfers to local communities to the level of 1.7% of GDP in the next year or two. Additional revenues would be ensured through a reform of local taxes that would include increasing property taxes and decreasing fees, accompanied by the improvement of the structure of local taxes from the aspect of economic efficiency. Concurrently, the process of gradual devolution of certain functions and the transfer of respective revenues to local governments would be initiated. A gradual progression of fiscal decentralization, entailing a detailed preparation of local governments for the takeover of additional functions, would improve the potential for the reduction of regional disparities and increase the overall efficiency of the state which is crucial for its economic growth. Generally, based on Serbia's experience and that of other countries, it may be inferred that fiscal decentralization yields good results if preceded by political decentralization and increase in administrative capacities of local authorities.

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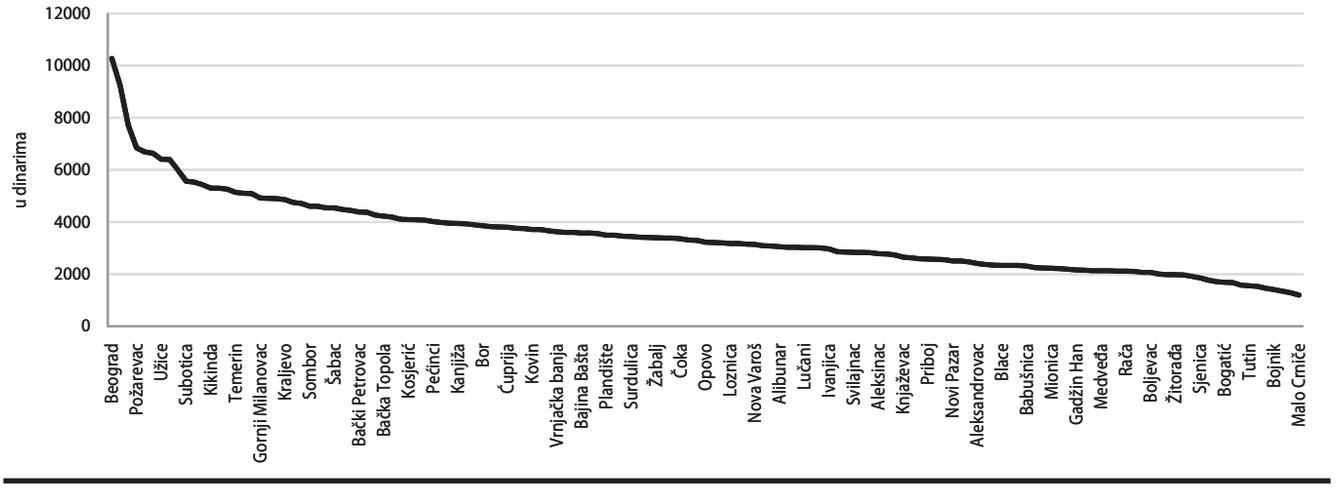
Annex 1. Government Expenditures by Tier of Government, 2006 (in %)

	Central government	Provinces, regions	Subnational government	Social insurance
New Zealand	89.3	0.0	10.7	0.0
Great Britain	71.6	0.0	28.4	0.0
Ireland	69.7	0.0	19.7	10.6
Norway	68.8	0.0	31.2	0.0
Czech Republic	60.3	0.0	27.5	12.3
USA	56.3	44.9	0.0	0.0
Portugal	54.1	0.0	12.9	33.0
Greece	53.7	0.0	6.3	39.9
Iceland	50.0	0.0	31.7	18.3
Hungary	49.4	0.0	24.7	26.0
Slovakia	48.4	0.0	17.5	34.1
Luxembourg	45.9	0.0	11.5	42.6
Austria	45.7	15.1	12.2	26.9
Sweden	43.9	0.0	44.8	11.3
Korea	40.4	0.0	45.5	14.2
Poland	35.4	0.0	30.7	33.9
France	35.0	0.0	20.2	44.7
Japan	33.8	0.0	31.9	34.4
Italy	33.5	0.0	31.5	35.0
Denmark	31.8	0.0	63.3	5.0
Finland	29.9	0.0	39.2	30.9
Canada	29.6	45.6	19.3	6.1
Netherlands	29.5	0.0	33.5	37.0
Belgium	23.2	23.6	14.1	39.1
Spain	22.4	35.8	13.4	28.5
Germany	19.1	21.9	15.2	44.0
Switzerland	14.8	33.7	20.9	30.6
OECD27	43.9	8.2	24.4	23.6

Source: Government at a Glance 2009, OECD
Note:
Transfers between various tiers of government are not included.
For the US, there is no breakdown of spending by federal and local government level.

Annex 2. Wage Tax Per Capita, 2010



Equity Aspects of Major Tax Forms in Serbia

Nikola Altiparmakov[*]

Personal income tax, property tax and value added tax represent the most visible tax forms for the average citizen, and their equity is a precondition for a positive attitude of society towards the tax system, and more broadly, towards the entire fiscal system. With respect to vertical equity, we deem taxes on labor income, property and consumption (within the lifecycle context) to be slightly progressive. However, we identify significant cases of violations of horizontal tax equity, such as the privileged treatment of income from royalties or the unjustified approval of presumptive lump-sum income taxation. The difference between *de-jure* and *de-facto* tax equity is especially significant when it comes to income and property taxes, due to very significant extent of tax evasion. We also identify a possibility to increase the overall equity of the entire fiscal system – by reducing the list of goods and services subject to the reduced VAT rate and using the additional budgetary revenues to finance progressive public expenditure policies.

Introduction

Equity represents one of the basic premises of modern socially acceptable tax systems. Tax equity is based on the principle that citizens are supposed to bear the tax burden according to their economic abilities (the so-called *ability-to-pay principle*), which is explicitly defined in Article 91 of the Constitution of the Republic of Serbia: "Obligation of paying taxes and other dues shall be general and based on economic power of taxpayers". In this paper we will analyze the equity aspects of major tax forms which are most pertinent for citizens of Serbia – the personal income tax, the property tax and the value added tax.

Economists differentiate between two aspects of tax equity – horizontal and vertical equity. *Horizontal equity* refers to the principle that taxpayers with equal economic ability should be subject to equal tax burden. *Vertical equity* suggests that taxpayers with greater economic ability (greater income or more valuable property) should be subject to a greater tax burden, not only in absolute terms, but also in relative terms as well – through progressive increases of tax rates as taxpayers' economic ability increases. While horizontal equity represents a broadly accepted principle in academic and social circles,[1] vertical equity is not based on positive economic theory, but represents a result of subjective social norms – that richer citizens should pay taxes according to increasing tax rates in order to subsidize the poorer strata and stimulate social cohesion.

Empirical research from recent decades suggest that progressive tax rates are not the most adequate tool for redistributing income within a society; rather, income redistribution should optimally be achieved through appropriate and well targeted public expenditure policies. This is especially the case when conditions are such that there is high tax evasion and a large grey economy, as is the case in Eastern Europe, where basically all countries in recent years have introduced flat-rate personal income tax systems.

Diminishing reliance on progressive tax rates and global personal income taxes in recent years has been followed by a stronger reliance on taxation of consumption, first and foremost through the value added tax (VAT). The widespread opinion in the past that the VAT is an inequitable tax which puts the largest burden on the poorest strata of the population has been significantly disputed in newer economic research during the past two decades. Newer research suggests that the VAT is significantly less regressive than previously believed, and even slightly progressive if a person's entire lifecycle is considered.

This paper is organized in the following manner: the first part analyzes the equity of the personal income tax and mandatory social security contributions; the second part analyzes the equity of the value added tax; the third part analyzes the recently reformed tax on the property of natural persons. The fourth part summarizes the equity aspects of the current Serbian tax system and gives some concluding remarks.

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1 The definition of equal economic ability of taxpayers can vary depending on social concepts of equality. For example, we can ask whether two taxpayers with equal incomes, but with a different number of dependants, have the same economic ability.

1. Equity Aspects of the Personal Income Tax

The personal income tax in Serbia prescribes different effective tax rates for different categories of income, which violates the principle of horizontal equity (Altiparmakov, 2007). So, for example, the effective tax rate on rental income is 16%, on interest income 10%, and the tax rate on income from gambling is 20%.[2] The horizontal equity of the system was improved in March 2010, when amendments to the Personal Income Tax Law introduced a uniform tax rate of 10% on all forms of income from financial capital. Even though different effective tax rates are still present in the segment covering income from non-financial capital, deviations from horizontal equity are not large in terms of revenue-yield (see Table L2-1).

Table L2-1. Structure of Personal Income Tax Revenues, 2010

Type of income	Effective tax rate	Revenue, RSD mil	Revenue, % of GDP	Share in total revenue
Wages	10.3%	106,760	3.64%	79.8%
Self-employed - business books	10%	1,840	0.06%	1.4%
Self-employed - pressumptive tax	10%	2,154	0.07%	1.6%
Royalties	10%, 11.4%, 13.2%	1,894	0.06%	1.4%
Other labor income	9.6%, 10%, 16%	7,065	0.24%	5.3%
Dividends	10%	6,866	0.23%	5.1%
Interest income	10%	2,568	0.09%	1.9%
Rental income	10%, 16%	3,251	0.11%	2.4%
Capital gains	10%	873	0.03%	0.7%
Gambling income	20%	433	0.01%	0.3%
Total		**133,702**	**4.56%**	**100.0%**

Notes:
1) Wages are taxed at 12%, with a tax-exempt threshold.
2) Revenues based on personal service contracts make up more than half of "other" labor income.
3) Revenues based on the annual surtax are not analyzed.
Source: Author's calculations based on the Personal Income Tax Law and data from the Serbian Treasury

Labor income revenues constitute as much as 90% of the total personal income tax revenues, while wage tax revenues make up 80%. Therefore, we devote special attention to equity aspects of taxing different forms of labor income. Considering that labor income is also subject to mandatory social security contributions, we analyze the joint fiscal burden of personal income tax and mandatory social security contributions on labor.

Table L2-2. Fiscal Burden on Wages, per RSD 100 of Net Wage

Wage level	Fiscal burden	% of employees
50% of the average wage (minimum wage)	61.0	20%
75% of the average wage (median)	63.3	30%
average wage	*64.5*	*15%*
150% of the average wage	65.7	20%
250% of the average wage	66.7	10%
350% of the average wage	67.1	4%
500% of the average wage	67.4	1%

Source: Arsić et al. (2010)

We can see that the fiscal burden on wages in Serbia is slightly progressive, because of the existence of tax-exempt threshold on wages, which in 2011 amounts to RSD 7,300. Fiscal burden decreases for wages which are higher than five times the average national wage, because contributions for social security apply up to a ceiling which equals five average wages in the Republic. However, as less than 1% of taxpayers have registered wages that are higher than five times the average in the Republic, this represents basically a negligible level of regressiveness in the system.[3]

Horizontal tax equity demands that all citizens of Serbia which live off their labor should be subject to an equal, or at least comparable, tax burden, regardless of the form of their labor income. It follows that the total fiscal burden on income from personal service contracts and royalties should be comparable to the fiscal burden on wages, which is on average RSD 65 on every RSD 100 of net income.

2 The tax on interest income is charged only on bank savings in foreign currency.
3 The usual international practice is that social security contributions are applied up to a ceiling, since the amount of social security benefits is also limited in value. Wages higher than five times the national average are also subject to the annual surtax, which reduces the regressiveness of the system in this segment. Since annual surtax yields minor revenues, its effects will not be explored in more detail in this paper.

Table L2-3. Fiscal Burden on Personal Service Contracts and Royalties, per RSD 100 of Net Fees

	Employed	Unemployed
Personal service contract - 20% tax-exempt deduction	50.6	76.8
Royalty - 34% tax-exempt deduction	38.4	55.9
Royalty - 43% tax-exempt deduction	31.5	44.8
Royalty - 50% tax-exempt deduction	26.6	37.3

Note:
1) In practice, royalties with a tax-exempt deduction of 43% and personal service contracts are the most common. Classification of royalties and their respective tax-exempt deductions is given in Article 56 of the Personal Income Tax Law.
Source: Author's calculation based on the Personal Income Tax Law and the Law on Mandatory Social Security Contributions

Table L2-3 shows that the current tax treatment of income from personal service and royalty contracts in Serbia is very inequitable, from two aspects. First, we can notice that the fiscal burden on regularly employed taxpayers who receive additional income from personal service contracts or royalties is significantly lower than fiscal burden of unemployed "free-lancers" to whom these contracts represent the only source of registered income. The reason for this inequity is the inconsistency in the Law on Mandatory Social Security Contributions, which exempts employed taxpayers from paying health insurance contributions on personal service and royalty contracts – which is contrary to tax consistency and social solidarity principles. The other inequitable aspect is the fact that the total fiscal burden on income from personal service and royalty contracts for employed taxpayers is significantly lower than the fiscal burden on wages. This introduces possibilities for tax planning and legal tax avoidance - by declaring a portion of the regular wage income as income from personal service contracts or (even more favorably) as royalties' income. Data from the Tax Administration indicates that as many as 80% of taxpayers earning income from personal service or royalty contracts – have registered employment. The data from Serbian Treasury is even more telling – around 95% of the total income from personal service contracts and royalties is earned by employed taxpayers. Thus, we can conclude the existence of a widespread abuse of this tax inconsistency which allows taxpayers in Serbia to implement tax avoidance schemes and reduce their tax liabilities.[4] Besides the aforementioned inconsistency in the Law on Mandatory Social Security Contributions, tax avoidance in this segment is supported by inadequate (excessive) tax-exempt deductions which the Personal Income Tax Law prescribes, especially for royalties.

From the standpoint of equity and distributing the tax burden in accordance with economic ability of taxpayers, it is important to mention the case of presumptive lump-sum taxes. *Presumptive lump-sum income taxation* makes it possible to calculate entrepreneurial income for "small" taxpayers in an approximate and indirect way, instead of directly calculating the actually earned income based on business books. This approach is in accordance with good international tax practice which suggests a reduction of unnecessary administration and compliance costs in the case of small taxpayers who "considering the circumstances are not capable of keeping books, or for whom keeping them makes performing other activities harder", as stated in Article 40 of the Personal Income Tax Law. However, the inconsistent implementation of the Law in practice leads to violations of horizontal tax equity principle, because presumptive lump-sum taxation is allowed, among others, for lawyers, consulting agencies, and even accounting agencies! Considering that the owners of grocery stores in Serbia have an obligation to keep business books and regularly calculate their incomes, it really cannot be justified that highly educated professions, like lawyers or accountants, are allowed to pay a presumptive lump-sum income tax. Generous and unjustified application of presumptive lump-sum income taxation is obvious from Table L2-1 – revenues from entrepreneurs paying presumptive lump-sum income tax are higher than revenues from entrepreneurs who regularly keep business books.

The legally privileged treatment of royalties and unjustified application of presumptive lump-sum income taxation are especially troublesome from the standpoint of equity, if we take into account that these tax privileges are mostly limited to citizens with university or college education – in Serbia these make up only 10% of the population, and they are on average materially better off than the remaining 90% of the population.

Finally, it is important to note that international experience, especially from countries with high levels of tax evasion and a large grey economy, suggests that the most significant tax evasion is done precisely in the segment of unregistered personal incomes. Consequently, the 2007 Living Standards Measurement Survey, which was carried out by

4 Around 160,000 of employed taxpayers receiving income from personal service and royalty contracts accounted for about 9% of all employed workers in 2008.

the World Bank, showed that over 25% of all labor income earned in Serbia is not registered in the tax system at all.[5] This fact significantly undermines the effective horizontal equity of personal income taxation, because tax authorities are not able to effectively implement the Law in practice, which creates a significant difference between *de-jure* and *de-facto* tax equity.

2. Equity Aspects of the Value Added Tax

The economic burden of consumption taxes, such as the value added tax (VAT), is borne by the final consumer, even though companies which participate in the production and sales chain make appropriate tax payments. Considering that richer citizens save a larger, and consume a smaller, percentage of their income than poorer citizens, it was believed for a long time that the VAT is an extremely inequitable and regressive tax which places the biggest burden on the poorer strata of the population. However, economic research over the past twenty years or so has produced both theoretical and empirical results which significantly dispute the hypothesis about the inequity of taxation through the VAT system.

Table L2-4 shows the structure of household consumption in Serbia, sorted according to income deciles – the first decile consists of the 10% of households with the lowest incomes (below and around the poverty line), while the tenth decile consists of the 10% of households with the highest registered income. The total consumption of every household is divided into four categories: consumption subject to the standard VAT rate of 18%, consumption subject to the reduced VAT rate of 8%, consumption of services which are exempt from the VAT system, and natural in-kind household consumption (mostly consumption of own-source produced food) which is also not taxed under the VAT system.

Table L2-4. Household Consumption Structure by Income Deciles, 2009, %

Decile	Standard VAT rate	Reduced VAT rate	VAT exempt	Natural consumption
1	46.4	40.8	2.4	10.3
2	48.7	39.0	2.6	9.7
3	49.5	40.3	2.1	8.1
4	50.0	38.9	2.1	9.0
5	51.4	39.5	2.0	7.1
6	51.7	39.8	2.0	6.5
7	54.5	39.1	2.2	4.3
8	52.9	39.7	3.5	4.0
9	55.5	36.9	3.8	3.9
10	58.1	34.6	3.4	3.9

Source: Arsić and Altiparmakov (2011)

We can see that the structure of consumption within the VAT system is relatively progressive – the share of consumption subject to the reduced VAT rate is higher among households with the lowest income, while natural in-kind consumption of own-source produced food is also most present among households with the lowest incomes. This structure of the VAT system would place a heavier burden on richer households than on poorer ones, if both rich and poor households could save an equal percentage of their income. However, richer households save a greater percentage of their income than poorer households, and it is precisely this regressive distribution of household savings that was the source of (wrong) conclusions about the regressiveness of the whole VAT system. In this manner, the effective VAT rate paid by the poorest citizens turns out to be several times higher than the effective tax rate paid by the richest citizens – 21.2% in the first decile, compared to 7.9% in the tenth decile (Arsić and Altiparmakov, 2011).[6]

Results similar to the above mentioned ones for Serbia have also been obtained in research conducted in other European countries (Decoster et al., 2010). However, the extremely high estimated effective VAT rates for the poorest citizens in the first decile, which in most countries are actually higher than the legally prescribed standard VAT rate - raise doubts. The only way to estimate effective VAT rates which are higher than the legally prescribed standard VAT rate is if households spend significantly more than they earn. Thus far, research has shown that this is precisely the case in the poorest households. Thus, in Serbia, the poorest households in the first income decile on average spend almost double their declared incomes. This phenome-

5 It is realistic to expect that the percentage of unregistered income is actually higher, considering that surveyed people systematically underestimate their illegal activities.

6 We estimate the total VAT burden of households based on registered consumption, and we calculate the effective VAT rate relative to total registered incomes. If we were to calculate the effective VAT rate only relative to money incomes, considering that it is impossible for implicit incomes from natural in-kind consumption to be a base for paying the VAT, the difference would become even more drastic – the effective rate is 27% in the first decile, compared to 8.1% in the tenth.

non was explained by Caspersen and Metcalf (1994) who noticed that households that have low income in any particular year can be divided into four groups – well-off households which experienced "bad business luck" in a given year, households whose members are at the beginning of an upward profitable career, households whose members have retired after a profitable career, and households that are truly long-term poor.

This research suggests that, considering the annual volatility of income and the fact that households' perform consumption smoothing during their lifecycle, it is not appropriate to assess the equity of the VAT system based on income data for any one particular year; rather, it is necessary to take into account the whole lifecycle and some measure of permanent household income.[7] Research based on lifecycle and permanent income theories suggests that VAT systems are significantly less regressive than previously thought, and even slightly progressive in some countries. Table L2-5 shows that the theory of permanent income suggests a slightly progressive VAT system in Serbia.

Table L2-5. Estimated Share of VAT Burden in Household Permanent Income, %

Permanent Income Decile	Effective VAT rate
1	10.8%
2	11.5%
3	11.5%
4	11.8%
5	11.8%
6	12.2%
7	12.2%
8	12.3%
9	12.6%
10	13.0%

Source: Author's calculations based on the 2009 Household Budget Survey

Thus, the VAT system in Serbia cannot be characterized as vertically inequitable, but as a slightly progressive system within the context of the lifecycle and permanent household income. What is more, in terms of horizontal equity, the VAT is superior to other tax forms in Serbia, because tax evasions are most difficult within the VAT system. We have already said that tax evasion related to labor incomes is estimated at over 25% of total income. Tax evasion in the VAT system is significantly lower, because VAT evasion needs to be organized along the entire production and sales chain – since the discovery of tax evasion in any segment leads to the taxation of value added in all previous phases of the production cycle.[8], [9]

Finally, we take a look at the aforementioned view of a large number of tax experts that redistribution of income, especially in transition countries where tax evasion and the grey economy are highly present, should primarily be done through public expenditure policies, and not through the tax system (Chu et al., 2000). Namely, the idea of a reduced VAT rate is that basic goods, such as food or medicines, should be taxed less in order to protect citizens' living standards, above all the living standards of the poorest. We can see from Table L2-4 that the share of consumption subject to the reduced VAT rate is indeed larger for poorer citizens than for those who are richer. But, Table L2-4 shows these amounts relative to total household consumption. Most of the money, in absolute terms, going towards the consumption of reduced VAT rate goods is actually spent by richer citizens whose consumption is the highest in absolute nominal terms. Therefore, the highest share of implicit VAT subsidies (reduction of budgetary revenues due to taxation at the reduced 8% rate, instead of at the standard 18% rate) actually goes to richer citizens.

7 In the empirical literature, current consumption is most often used as a relevant proxy for household permanent income.

8 VAT evasion is most profitable in the case of services such as restaurants or handicrafts, where a high percentage of the value added is created in the last phase of the production cycle.

9 There are currently no reliable estimates of the amount of tax evasion in the VAT system. However, the relatively high share of VAT revenues in GDP suggest that the level of VAT evasion in Serbia does not deviate significantly from the level of evasion in developed countries of the European Union.

Table L2-6. The Amount of Annual VAT Subsidies per Average Household for Different Goods Taxed at the Reduced 8% Rate, in RSD, 2009

Permanent Income Decile	Bread and bakery products	Milk and dairy products	Meat and fish	Medicines	Utility services
1	1,237	1,125	1,547	765	325
2	1,375	1,538	2,292	792	641
3	1,355	1,789	2,933	906	832
4	1,496	2,010	3,546	995	1,156
5	1,634	2,264	4,259	1,082	1,188
6	1,637	2,410	4,645	1,272	1,462
7	1,738	2,553	5,290	1,447	1,631
8	1,787	2,736	5,883	1,506	1,759
9	1,802	3,117	7,299	1,835	2,114
10	2,097	3,650	9,614	2,350	2,501

Source: Arsić and Altiparmakov (2011)

We can see that in the case of the most basic goods, such as dairy products or medicines, the greatest money subsidies go to the richer strata. Thus, the richest households in the tenth decile receive three times more in implicit VAT subsidies than the poorest citizens in the first decile. The difference in the case of utility services is even more drastic – the richest households receive eight times more in VAT subsidies than the poorest households.

The obtained results are in accordance with recommendations that it is economically optimal to have a VAT system with a uniform tax rate, and to achieve social policy goals through adequately targeted public expenditure policies (Ebrill et al., 2001). It follows that from the standpoint of equity and the efficient use of limited public resources, it would be advisable in the coming period to consider reducing the list of goods that are subject to the reduced VAT rate, and to use the additional budgetary revenues to increase social welfare programs (children's allowance, material family support), as well as to increase progressive budgetary expenditures (education, healthcare).[10]

3. Equity Aspects of the Property Tax

Due to different social and political circumstances, over the years the property tax[11] in Serbia has done very poorly in fulfilling its tax function, and has been an almost negligible source of public revenues due to significant underestimation of property values, numerous tax exemptions and incomplete taxpayer registry.[12] A similar situation with respect to property taxation can be observed in other former socialist countries of Eastern Europe. However, the transition towards a market economy also opens the question of efficient and equitable property taxation, considering that property taxes are a significant source of revenue in most developed market economies.[13] Also, most empirical research shows that among the most commonly used taxes in practice, the property tax represents the economically most efficient tax form, which hampers economic growth the least (OECD, 2010).

December 2010 amendments to the Property Tax Law were aimed at eliminating the above mentioned deficiencies, making it possible for the property tax to become a relevant fiscal instrument in the coming period.[14] The main changes to the Law were concerned with a more realistic valuation of the tax base, changes of the regressive system of tax credits, and changes of tax rates.

A realistic valuation of the tax base for the property tax represents the biggest administrative challenge for transition countries. Since it is technically not possible to implement a system in which the market price itself would represent the relevant tax base, it is necessary to build a system of property valuation which would track the movements of property market prices in a consistent manner. In order to reduce the systemic bias towards underestimation of (older) property values, amendments to the Law reduced the maximum amount of depreciation from 70% to 40%, with annual rate of depreciation being reduced from 1.5% to 0.8%. Reducing the depreciation allowance is an appropriate

10 If the reduced VAT rate were to be abolished, and a system with a uniform VAT rate of 18% introduced, additional budgetary revenues would amount to 2.5% of GDP, which could be used to finance progressive expenditure policies.

11 In this paper we analyze the periodic property tax (statics), and will not be dealing with the tax on transfer of properties, nor with the tax on inheritance and gifts (dynamics), which are also defined in the Property Tax Law.

12 A systemic underestimation of the tax base is troublesome from the standpoint of equity because owners of the most valuable property benefit the most in this case.

13 We can also notice tangible differences in the significance of the property tax in developed economies. For example, property tax revenues total about 3% of GDP in the United States, Canada and Great Britain, while property tax revenues in Germany, Italy and Austria stand around 0.5% of GDP.

14 The property tax belongs to local governments. Local governments took over the administration of this tax from the Republic in 2007.

step in the right direction, although limiting the maximum amount of depreciation to 25% to 30% would more truthfully reflect the actual circumstances on the real estate market – whereby the differences between prices of newly built and older real estate are not very significant. However, property tax reforms have (thus far) not included changes of bylaws which prescribe an extremely complicated and non-transparent system of coefficients for the quality of construction. This system is susceptible to manipulations by taxpayers and untruthful underestimation of the quality of real estate, which diminishes the horizontal equity of the property tax in practice.

The old Property Tax Law prescribed that tax credits are to be determined as a percentage of (initial) tax liability – from 40% to 70% of the calculated tax liability, depending on the number of members in the household. This was a clearly regressive system, because tax credits were proportional to the value of real estate, so citizens with the most valuable real estate received the highest tax credits. In order to eliminate the regressiveness in the system of tax credits, the December 2010 amendments prescribed a move to a system of tax credits based on absolute nominal amounts. However, the adopted solution, according to which tax credits amount to 50% of the calculated tax liability, up to a maximum of RSD 20,000 - is not adequate. Namely, the absolute nominal level of tax credits of RSD 20,000 is extremely high, so we estimate that over 95% of households in Serbia will not be able to use this maximum nominal amount of tax credit. Thus, the regressive system of tax credits proportional to the value of real estate will still be in force for over 95% of households in Serbia. What is more, the new system of tax credits will no longer take into account the number of household members, which diminishes its equity.

It is well known that tax systems always feature a trade-off between tax equity and tax efficiency. The December 2010 amendments to the Property Tax Law are troublesome because the decrease in tax equity was not accompanied with a more efficient and simpler structure of property taxation. Namely, an identical effective burden on taxpayers could have been achieved through a much simpler tax structure – by cutting the current tax rates in half, and completely eliminating the system of tax credits.[15] Therefore, it is the author's opinion that lawmakers in this case implemented a suboptimal solution, because an identical tax burden could have been achieved through a significantly simpler property tax system, which would have been more understandable and accessible to the average citizen.

The old Property Tax Law (nominally) prescribed a sharp tax progression with four rates: 0.4%, 0.8%, 1.5% and 3%. But, considering the significant systemic underestimation of property value for tax purposes, this progression was only declarative – as many as 99% of real estate properties that were registered for the property tax in 2006 were subject to the lowest tax rate of 0.4%. The December 2010 amendments, along with eliminating certain causes of systemic underestimation of property value, also softened the tax progression, so tax rates now range from 0.4% to 2%.

Table L2-7. Progressive Property Tax Rates

Tax base	Marginal tax rate
up to RSD 10 mil	0.4%
from RSD 10 mil to RSD 25 mil	0.6%
from RSD 25 mil to RSD 50 mil	1.0%
over RSD 50 mil	2.0%

Note: The shown rates represent the maximum allowed rates, and units of local government can opt for lower tax rates.
Source: Property Tax Law

Taxation of property with progressive tax rates is not common in international practice, although some countries, such as Austria or Denmark, do apply such a system. We can notice form Table L2-7 two aspects that are not in accordance with best tax practices. Good tax practice suggests a significant "distance" between progressive tax rates in order to create a significant difference in the tax burden and justify the increase in administrative and compliance costs due to the additional tax rate. We can see that the "distance" between the first and the second tax rate (0.4% and 0.6%) is not very significant, which raises the question of whether the extra complexity associated with the additional tax rate of 0.6% is justified, especially if we keep in mind the estimates that around 95% of taxpayers in Serbia will actually be subject to the lowest tax rate of 0.4%.

Also, the highest marginal tax rate of 2% is very high when compared internationally, and represents a significant economic burden. Namely, we can compare the economic influence of the property taxation with the economic influence of income taxation if we assume that the value of the imputed rent is 5% of the property value per year. In

15 In the case of taxpayers who use the maximum tax credit of RSD 20,000, equalizing the effective tax burden could have been achieved with an adequate increase in the highest marginal tax rate.

this context, the economic burden of the property tax of 2% is significant, and amounts to RSD 66 per every RSD 100 of net income from the imputed rent.[16]

It is additionally hard to defend the high marginal tax rate of 2% considering the fact that the December 2010 amendments only reformed the property tax in the case of natural persons, while companies still pay property taxes at a uniform rate of 0.4%, with the tax base being the book value of the property, which in most cases is extremely low and has nothing to do with the real market value of the property. Thus, owners of the most valuable property are given a legal possibility to avoid property tax - by declaring their personal property as capital of their (potentially fictitious) companies.

It is the author's opinion that, if progressive property taxation is desired, it would be better to establish two adequately set tax rates – a 0.4% rate for the largest number of taxpayers, and a second progressive tax rate of 1% for properties with high market value. In this manner, a mostly identical total tax burden would be achieved, with a significantly simpler tax structure.[17]

In the end, it is important to mention that a large number of real estate properties in Serbia are not registered for paying the property tax at all. Namely, close to 1.7 million real estate properties in Serbia were registered for paying the property tax in 2006. On the other hand, up to 2010 there were 0.8 million applications for legalizing illegally built objects or legalizing illegal upgrades to existing objects. Even though the Law prescribes that illegally built objects are also subject to the property tax, this requirement is most often not applied in practice. Also, there are a number of legally built objects which are not registered for paying the property tax due to lack of diligence on the part of the competent authorities – but relevant data about the number of such real estate properties is not available. In any case, we can conclude that over 25% of real estate properties in Serbia are either not adequately registered for the property tax, or they are not registered at all. This significantly violates the principle of horizontal tax equity in practice.

4. Concluding Remarks

Taxes on personal income, property and consumption represent the most visible tax forms for the average citizen, and their equity is the condition for a positive attitude of society towards the tax system, and more broadly towards the entire fiscal system.

From the point of view of vertical equity, taxation of labor income, property and consumption (within the lifecycle context) in Serbia can be deemed as slightly progressive. These taxes, however, feature numerous cases of violation of the horizontal equity principle and unequal treatment of taxpayers with equal economic ability.

In the area of personal income taxation, it is important to adopt legal amendments in the coming period which would ensure a uniform effective tax rate on incomes from capital and eliminate the privileged tax treatment of income from personal service and royalty contracts. Also, it is important to ensure presumptive lump-sum income taxation is applied in a consistent manner in practice and allowed only in cases of truly qualified entrepreneurs.

When it comes to property taxation, it is necessary to introduce as soon as possible the obligation for companies to pay the property tax in accordance with estimated market value of the property, so that the treatment of natural persons and companies is equalized and possibilities for owners of the most valuable property to legally avoid property tax – are eliminated. Also, it would be advisable to reassess the complex tax progression with four tax rates, as well as the benefits of retaining the system of tax credits in its current form. From the administrative side, it is necessary to significantly expand the scope of registered property for tax purposes, including illegally built objects.

Regarding the taxation of consumption via the value added tax, it would be advisable in the coming period to implement coordinated changes to revenue and expenditure side policies – by reducing the list of goods subject to the reduced VAT rate and using the extra budgetary revenues to finance progressive public expenditure policies. In this way, the vertical equity of the entire fiscal system would be improved, and a more efficient use of limited public reso-

16 Amongst the general public in Serbia, it is common to express the tax burden as a percentage of net income, which is the practice followed in this paper. However, an internationally comparable approach implies expressing the tax burden as a percentage of total income. Measured in this way, property tax burden would be 40%, while the average fiscal burden on wages (as a percentage of total labor costs to the employer) would be around 38.5%.

17 Considering that progressive property taxation basically has an effect only in Belgrade, where significant revenues from this source exist, one could contemplate the second tax rate being even higher than 1%, in order to achieve revenue neutrality in the case of Belgrade.

urces would be realized. Regarding effective horizontal equity, the VAT system in Serbia can be considered superior to personal income and property taxes, because of the significantly less possibilities for tax evasion, which in the case of personal income and property taxation amount to over 25%.

Arsić et al. (2010) point to the economic benefits of implementing a tax reform which would shift a significant portion of the tax burden from labor to consumption. In this paper, we suggest that this reform would have positive effects from the aspect of tax equity as well – the vertical equity of the tax system would not be reduced, while the effective horizontal equity would be improved.

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Analysis of the Effects of Simplification of Tax Compliance Procedures: the Case of VAT and Wage Taxes*

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The aim of this study is to calculate and analyze potential savings that could be achieved at the macro level through the reform of three tax compliance procedures.[1] The Standard Cost Model (SCM), developed by the International SCM Network, was used for the purpose of this research. Procedures analyzed in this study are related to (*i*) electronic submission of tax returns related to wage taxes, (*ii*) submission of VAT returns on forms generated by company's accounting software, and (*iii*) provisions related to stock counting requirements for the purpose of VAT exemption of losses related to ullage, wastage, spoilage. Our results indicate that transition to electronic submission of wage tax returns with the Tax Administration, rather than filing in hard copy, would generate cost savings of 571.5 million of dinars (EUR 5.5 million). As for the second listed procedure, none of the companies from our sample identified the requirement to file VAT returns on the form issued by the Tax Administration as a major burden. Our research also indicates that currently, VAT payers in Serbia perform stock counting for the purpose of VAT exemption of losses related to ullage, wastage, spoilage on average 2.7 times per year. If they were allowed to deduct the amount of losses incurred over the whole period starting from the previous inventory, the stock counting-related costs would decline by approximately 4.45 billion dinars (EUR 43.2 million), provided VAT payers decide to do the inventory once per year.

1. Preface

With the emergence of democratic changes and the start of the transition process from 2000, Serbia has commenced the reform and modernization of its regulations in order to lower the costs of doing business. Beside reducing costs and creating substantial savings for society as a whole, removing unnecessary obstacles in business provides incentives for building a modern and competitive market economy. Therefore, the focus in that domain is on the optimization of administrative procedures prescribed by legislation that have a direct impact on corporate performance.

The National Alliance for Local Economic Development (NALED) has identified so far more than 200 unnecessary administrative procedures that, if changed, would improve the business environment in Serbia. However, it still cannot be said that this list represents a complete picture of problematic administrative procedures that should be reduced.

The aim of this study, conducted under financial support of USAID through its Serbia Competitiveness Project, is to provide an estimate of cost savings that would be realized if three specific tax compliance procedures listed in NALED's "Grey Book II"[2] were changed. By monetizing expenditure reductions, our intention is to show the magnitude of possible effects after reforming some of the existing procedures. Selected procedures for the purpose of this study are as follows:

• Submission of tax returns related to wage taxes. – Until 2010, only large taxpayers were allowed to electronically submit tax returns but now this option was provided to other taxpayers as well. However, according to the available information, all taxpayers (legal entities) will be obliged to switch from physical to electronic submission of tax returns by 2012.

• Submission of VAT returns on forms generated by company's accounting software. – Most Tax Administration offices request that VAT payers submit VAT returns on the forms printed out by the Tax Administration. We will

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2 NALED (2009).

analyze potential saving effects if VAT payers were permitted to file VAT returns on the forms generated by their accounting software.

• Provisions related to stock counting for the purpose of VAT exemption of losses related to ullage, wastage, spoilage. – Under the current regime, VAT payers may decide on the frequency of stock counting they perform in order to get VAT exemptions on respective amount of losses but are required to conduct the counting in the same time period as the losses occur. The expenditure effects of conducting stock counting on an annual basis was analyzed.

In order to measure and monetize expenditure reductions which will arise from a reform of these procedures, we have adopted the methodology as defined by the Standard Cost Model (SCM), developed by the International SCM Network. Data for analysis were collected from a non-random sample framework that is tailored to the needs of SCM, which does not impose rules of valid statistical inference.

In accordance with the intent to quantify the savings that would arise in connection with reforms of these procedures, this study is organized in two main parts. The *second section* provides a brief overview of the research methodology with applied data collection for conducting the analysis, while the *third section* deals with the results of the research.

2. Methodology and Data

As previously defined, this study will follow the pattern provided by the Standard Cost Model, which is a quantitative method for determining administrative burdens for business imposed by regulation. SCM can be applied in all countries, no matter how developed they are. Also, the model is flexible enough to be applied at different levels (for example, it can be used to measure effects of a single law or by-law acts, selected areas of legislation or to perform a baseline measurement of all legislation in a country). It is important to underline that the model will lead us to an approximate indication of the cost level of the analyzed procedures. However, it is not statistical in its nature and cannot provide for achieving statistically significant research results. Therefore, we are not bound by statistical rules when creating sample of enterprises for interviewing.

This research is conducted mostly by following the phases and steps defined by the International SCM Network in its International Standard Cost Model Manual. There are fifteen steps subsequently separated in four phases, for this kind of research. Some steps can be regarded as crucial for the research purposes, while some of them are trivial (like a step which suggests a "revision of the previous ones"). We will present solely the crucial steps.

The first two phases, so called "start up and preparatory", consist of different steps primarily oriented towards:

• Identification and demarcation of related regulations

• Identification of relevant cost parameters

• Preparing the proper questionnaire for data collection.

The content of the third and the fourth phase is as follows:

• Selection of typical businesses for interview

• Creating the representative sample of enterprises

• Business interviews

• Extrapolation of validated data to national level.

While some of the steps are straightforward, the others have to be explained in detail (e.g. those related to the questionnaire, sampling and extrapolation of data to the national level). In the next two sub-sections we will highlight these steps. In order to enable understanding of the logic, which stands behind the formation of the questionnaire and the sample, we will firstly present the extrapolation of results which arise from our sample to the national level.

2.1. Extrapolation of Data to the National Level

Starting from the data obtained from our sample of companies, their extrapolation to the national level is based on an SCM formula[3] that brings us to the standard cost of implementation of certain procedures. Standard cost (*SC*) is

3 See International SCM Network (2005) and Karaulac (2009).

calculated as the product of prices of individual procedures (*P*) and its annual frequency (*Q*) and it is the result of the extrapolation of data collected at the micro level to the level of the economy as a whole. Savings from the reform of each procedure are computed as the difference between the estimated standard cost before and after the reforms. In its augmented form, standard cost could be represented as follows:

$$SC = P \times Q = (H \times T + A + E) \times (N \times F) \ ,$$

where $P = H \times T + A + E$, and $Q = N \times F$.

(*H*) is the time (usually hours) that a company needs to implement clearly defined administrative activities in collecting and providing information to the relevant government bodies.

(*T*) is a tariff related to gross compensation paid by the company to the staff engaged in performing certain administrative procedures, including collecting and submitting information to the relevant state bodies. Tariffs should be appropriate to the professional characteristics of persons who perform entrusted administrative activities. Also, tariff should encompass all other additional costs that arise in performing these administrative duties (e.g. travel expenses of persons who perform administrative activities, the costs of stationery and the like).

(*A*) is related to the purchase of the special equipment necessary to perform certain procedures. However, if the purchased equipment can be used for other purposes in the company, its acquisition cost should not be taken into consideration.

(*E*) is related to the external costs that the company has to incur when engaging people outside the company for conducting and completing certain administrative procedures in accordance with the regulations (lawyers, accountants and other persons).

(*N*) is the total number of companies on the level of the economy as a whole, which are obliged to perform certain administrative procedure.

(*F*) is the frequency of performing certain procedures in a given time period (usually for one year). In some cases the frequency is strictly defined by the law (e.g. annually, quarterly, or monthly), while for some procedures there are no rigid guidelines and the company can choose the frequency of implementing certain procedures according to its own preferences. In both cases, certain administrative procedures must be conducted at least once per year.

Almost all elements of the SCM formula, with the exception of (*N*), can be determined by a proper design of the survey and sampling. The number of firms (*N*), as an element of the formula, is essential for the extrapolation of micro data from the sample to macro level, and it is obtained mainly from the registers of government bodies or relevant statistics. In our case, (*N*) is obtained from the evidence of the Tax Administration and the Serbian Business Registers Agency (SBRA).

2.2. Questionnaire and Sampling

The questionnaire created for the purpose of this study covers the crucial aspects of three selected tax compliance procedures. Before creating the final version of the questionnaire, our draft version was put on a test to see how relevant and understandable it is. The test subject was accounting sector of the Serbian affiliation of the international company Sandvik Coromant (Sandvik Serbia), one of the world's largest suppliers to the metal working industry of tools and know-how for competitive machining.

The final version of the questionnaire is focused on collecting the necessary information for calculating the cost of the procedures, in accordance with the SCM formula, explained in the previous chapter (necessary time for conducting procedural operation, number of workers engaged in that job and their net salaries, usual frequency for conducting the mentioned procedural operations, etc.). The requested information is used to reach elements *H*, *T* and *F* of the SCM formula, necessary for standard cost estimation of all three administrative procedures. Bearing in mind that the purchase of special equipment (*A*) is not necessary for performing these administrative procedures, this item was not included in the final version of the questionnaire. The same case is with the involvement of persons outside the company to carry out administrative procedures (E), since it was concluded that the companies usually perform these procedures by themselves.

For the purpose of this study, we have been provided by NALED with a database of 80 companies, which have already participated in NALED's researches. In the preliminary sampling procedure, we have selected 17 companies (16 from NALED's database plus Sandvik Serbia that is not present in the database). The sampling procedure aimed at receiving detailed responses from 10 to 15 companies. The stratification of the preliminary sample, which started from NALED's database as the sample frame, was performed based on three criteria: (*i*) line of business, (*ii*) company size, and (*iii*) the reform topics identified by the company as the most important. With regards to the line of business, we have diversified the sample, so as to include both companies in the production sector and in the services sector. At the same time, the sample included small, medium-sized and large companies. With regards to the third criterion, in the first sample we have included those companies which have pointed out tax related topics as the most problematic, according to NALED's questionnaire. This selection criterion was used in order to increase the probability of getting high quality responses.

Table L3-1. Serbia: Companies Included in the Research Sample

	Companies	*Activities*
1.	Simpo Vranje	Furniture production
2.	Gorenje	Household appliances production
3.	Zdravlje Actavis	Pharmaceutical products industry
4.	Energoprojekt	Construction industry
5.	Podgorina Frucht	Food processing
6.	Audial	Electronic equipment production
7.	Mondi Serbia	Foods and vegetables processing
8.	Waggon	Wholesale of clothes and shoes
9.	Duga	Production and wholesale of paints and varnishes
10.	Termodrom	Non-specialized wholesale trade
11.	Agranela	Processing and preservation of fruits and vegetables
12.	Carnex	Food processing
13.	Sandvik Serbia	Wholesale of tools for the metal working industry
14.	Mona	Textile and leather products
15.	Jagodinska pivara	Beer industry
16.	Radijator Kraljevo	Production of boilers
17.	Rubin Krusevac	Production of alcoholic and non-alcoholic beverages
18.	ATB Sever	Electric machinery industry

Since we were faced with a rather low response rate, we performed a second round of sampling, in order to include 10 more companies from database in the sample. Even after the second round of sampling, we have still not received the satisfactory number of good and high quality answers, which is why a third round of sampling was performed. Although NALED's database contains 80 companies, many of them are actually solely traders, while some of them have ceased their business activities. Therefore, we estimated that the scope for further selection of companies from NALED's database is limited, which is why we have included 6 additional companies in our sample, which were not present in NALED's database. Afterwards, a fourth round of sampling, encompassing 11 additional companies, was performed.

Finally, after four rounds of sampling, 18 companies have responded to our questions. The list of responding companies is disclosed in Table L3-1.

Data collection techniques, allowed and suggested by SCM methodology, were used to provide data for calculating standard costs, including: *(i)* telephone and direct interviews conducted over the selected sample, which resulted in 18 responses of from the above listed companies and *(ii)* discussions with focus groups made up of experts from relevant domains.

3. Results and Analysis

As previously defined, the focus of our research is on three tax compliance-related topics. The substance of these topics and suggested reform scenarios are presented in the following subsections.

3.1. Submission of Tax Returns Related to Wage Taxes

According to current tax legislation, an employer is obliged to file the cumulative tax returns ("PP OPJ" and "PP OD" forms) for the wage tax and social security contributions, at the moment when wages are paid out to employees. The employer can file the tax returns in hard copy, at the Tax Administration office. Recently, it has been announced by the Tax Administration officials that starting from 1 January 2012 all tax returns will have to be submitted in electronic form, via Internet. Therefore, the purpose of this study is to provide a rough estimate of the decrease in

expenditures which would be affected when electronic submission of tax returns (related to wage taxes) is enabled. In order to estimate the decrease in expenditures we will find the difference between two distinct levels of standard costs – before and after the reform.

The results related to potential savings (at the macro level) from a full switch to electronic submission of the tax returns are presented in Table L3-2.

Table L3-2. Serbia: Effects of a Switch to Electronic Submission of Wage Tax Returns

	Description of estimated parameters	*Values in*		
		RSD	*EUR**	*USD**
1.	Companies' average monthly expenditures per a single carrying out of the administrative procedure before the reform (based on the sample)	317	3.08	4.07
2.	Companies' average monthly expenditures per a single carrying out of the administrative procedure after the reform (based on the sample)	19.0	0.18	0.24
3.	Average monthly savings after the reform (1) – (2)	298.0	2.89	3.83
4.	Average annual savings after the reform (3)×12	3,572.0	34.7	45.8
5.	The annual standard cost of carrying out the administrative procedure before the reform	608,563,200	5,905,911	7,811,448
6.	The annual standard cost of carrying out the administrative procedure that is expected after the reform	37,052,160	359,579	475,597
7.	**Annual savings on the national level that are expected after the reform of this administrative procedure (5) – (6)**	**571,511,040**	**5,546,331**	**7,335,851**

Source: FREN's calculations
* Calculated by using the average medium exchange rate of the National Bank of Serbia for 2010 (http://www.nbs.rs)

An analysis of companies' activities related to the submission of tax returns for wage taxes has shown that companies on average spend 1.27 hours (app. 76 minutes) for one submission. This time includes the filling in of these forms, travelling to the Tax Administration office, waiting in line, going through the procedures of tax registration and returning to the headquarters of the company. If the possibility of electronic filing of tax returns is provided, respondent companies from our sample have estimated that the average time needed to perform these tax procedures would be reduced to 0.068 hours (app. 4 minutes), which evidently represents significant time saving. In most cases, the surveyed companies have stated that this administrative procedure is performed monthly, and only few of them responded "two times per month", so the average number of tax returns filings per month amounts to 1.2.

By monetizing the time spent (before and after the reform), in accordance with the rates provided by the surveyed companies, it has been calculated that the cost savings that are expected on an annual basis amounts to approximately RSD 571.5 mn (approximately €5.5 mn). In extrapolating the results to macro level, the total number of companies submitting wage tax returns (app. 170 thousand), as per Tax Administration records, has been used.

These results suggest that a switch to electronic submission of wage tax returns will cut companies' tax compliance costs considerably. However, these costs could be further reduced by amending the tax returns, so as to disclose the wage tax and social security contributions in a single (one-page) tax return. The empirical results for other countries (e.g. for Macedonia) indicate that such simplification of reporting wage taxes, accompanied by a decrease in social security contributions rates, results in an increase in government revenues. Estimating these effects in Serbia is beyond the scope of this analysis, but could represent an appealing topic for future research.

3.2. Submission of VAT Returns on the Forms Generated by Companyies' Accounting Software

According to the VAT Law, an entity which has generated taxable turnover of more than RSD 4 mn, within a 12-month period, is obliged to register as VAT taxpayer. An entity whose total 12-month taxable turnover ranges from RSD 2 mn to RSD 4 mn may opt to register as a VAT payer, while in the case when the total turnover is less than RSD 2 mn, an entity may not be registered as a VAT payer.

An entity registered as a VAT taxpayer is obliged to submit VAT returns, within 10 days after the expiry of the tax period. The VAT Law does not stipulate whether VAT returns shall be submitted with the Tax Administration in hard copy or in electronic form. Until 2011 VAT returns were being submitted in hardcopy, while starting from 2011 taxpayers may opt between physical and electronic filing. According to the available information, starting from the year 2012 all VAT taxpayers will be obliged to file their VAT returns in electronic forms, via Internet.

The Rulebook on the Appearance and Elements of the VAT Registration Form, the Process of Registration and Deregistration and the Appearance and Elements of VAT Return (hereinafter "the Rulebook") stipulates the compulsory elements and the layout of the VAT return (PP PDV). Namely, the Rulebook stipulates that a VAT taxpayer has to submit VAT returns in the form stipulated by the Rulebook. In practice, most Tax Administration offices in Serbia provide registered VAT taxpayers with forms for VAT return, and accept only VAT returns filled-in in those forms. The local Tax Administration offices usually do not accept the tax return forms generated by taxpayers' accounting software, although those returns meet all requirements related to layout and elements stipulated by the tax legislation. The aim of this part of our research was to provide a rough estimate of savings which could be achieved if taxpayers were allowed to file VAT returns on the forms generated by their accounting software.

However, according to the responses from the companies included in our sample, none of them has identified this as an outstanding issue which creates an unnecessary administrative burden for them. Namely, all respondents have reported that they either file VAT return electronically, or on the form provided by the Tax Administration and none of them have reported that this causes additional expenditures for them. Therefore, based on the aforesaid, it may be concluded that the change in this procedure in order to switch to accepting internally generated VAT return could make the compliance process simpler, but the overall effects would not be significant. Hence, we believe that the comprehensive administrative reform should rather focus on other procedures, which have a larger impact on the costs of doing business.

3.3. VAT on Ullage, Wastage, Spoilage

According to the VAT Law, losses related to ullage, wastage, spoilage exceeding the amounts stipulated by the respective Decree issued by the Government, are to be regarded as taxable turnover. The losses related to ullage, wastage, spoilage include all losses incurred in the course of goods transfers, as a consequence of natural processes, technological process or as a consequence of activities that have to be undertaken within the production and trade process. This means that the output VAT has to be calculated and disclosed in the VAT return and paid on any ullage, wastage, spoilage exceeding stipulated thresholds. The amounts of losses related to ullage, wastage, spoilage which are exempted from VAT (as well as all related procedures) are stipulated by the Decree on the Amount of Expenditures (Ullage, Wastage, Spoilage) Exempted from the VAT (hereinafter: "the Decree"). The thresholds vary across the types of goods.

The Decree stipulates that the VAT taxpayer shall determine the amount of losses immediately after the loss has occurred or in the process of regular or extraordinary stock counting. The Decree does not stipulate how many times stock counting has to be performed within a business year.

Table L3-3. Serbia: Effects of Limiting the Number of Stock Counting to One per Year

	Description of estimated parameters	*Values in*		
		RSD	*EUR**	*USD**
1.	Average costs of stock counting (in our sample)	49,900	484	640
2.	Estimated costs of stock counting for the whole economy (per stock counting)	2,618,282,548	25,395,653	33,580,640
3.	Total real annual costs of stock counting for the whole economy (2)×2.7 **	7,069,362,878	68,568,020	90,667,729
4.	**Saving in expenditures related to stock counting if the companies were obliged to switch to annual stock counting (3) – (2)**	**4,451,080,330**	**43,172,457**	**57,087,089**

Source: FREN's calculations

According to our estimate, based on the responses obtained in our survey, if the results of the companies included in our sample are extrapolated to the national level, the option to do stock counting once a year (and not with the submission of each VAT return during the course of a year) would trigger a decline in the total amount of stock counting related expenditures by approximately 4.45 billion dinars (app. €43.2 mn). This is due to the fact that companies included in our sample now perform stock counting on average 2.7 times per year. However, this is only a rough estimate, due to two significant reasons. Firstly, large companies with developed retail and warehouse networks have significantly higher stock counting costs. Even some of the companies included in our sample have reported such high stock counting expenditures, but we have regarded them as outliers, since the total number of such companies in Serbia is negligibly small in comparison with the total number of VAT payers. Secondly, a significant number of VAT payers, particularly small ones, do not perform stock counting, due to the nature of their business. We have

attempted to take into account this fact, by reducing our weights for VAT payers performing in sectors which normally have no stocks as well as by excluding small VAT payers (with turnover subject to VAT lower than RSD 2 mn), since they also often have no need to perform stock counting, due to the nature of their business.

A reduction of frequency of stock counting to once per year would also imply an increase in the costs of financing, since the taxpayer would have to wait until the annual stock counting to claim the VAT exemption for allowed losses related to ullage, wastage and spoilage. Therefore, the increase in the costs of financing would depend on the amount of VAT paid during the year, which will be claimed back after the stock counting is performed, and the time value of money (i.e. the foregone rate of return on that amount of VAT to be claimed back). Although the companies included in our sample have been asked to provide a rough estimate of such financing costs, no company has provided it.

A company's decision on the frequency of stock counting for the purpose of VAT exemption should be based on the comparison of costs and benefits related to stock counting.[4] Namely, an increase in the frequency of stock counting per year would trigger a rise in the expenditures related to stock counting (time spent by employees on stock counting and respective monetary expenditures). However, if a company does pay output VAT on losses related to ullage, wastage, spoilage, the increase in the frequency of stock counting would reduce the company's VAT liability, since it will not be obliged to pay the VAT on the full amount of losses, but solely on the amount of losses exceeding thresholds stipulated by the Decree. Consequently, the company's final decision on the frequency of stock counting is dependent on the nature of its business (weather it does have significant amount of respective losses, or not and what is the time distribution of such losses). Therefore, for companies working with goods that are more prone to ullage, wastage, spoilage, it does pay-off to perform stock counting on a monthly or quarterly level, while other companies are better-off if stock counting is performed once per year.

In order to present the methodology to be followed by the taxpayer, when deciding on the frequency of stock counting for VAT purposes, we have developed a hypothetical case.

Table L3-4. Serbia: Cost-Benefit Analysis of an Increase in the Frequency of Stock Counting

	Description of estimated parameters	*Values in*		
		RSD	*EUR**	*USD**
1.	Average costs of stock counting	50,000	485.2	641.8
2.	VAT rate		18%	
3.	Interest rate on deposits denominated in RSD (foregone rate of return)**		7.5%	
4.	Minimum annual amount of VAT exempted losses related to ullage, wastage, spoilage, which makes additional stock counting justified (1)/((2)×(3))	3,704,000	35,946	47,544
5.	**Total annual amount of VAT exempted losses related to ullage, wastage, spoilage which makes two stock counting's justified (4)×2**	**7,408,000**	**71,892**	**95,088**

Source: FREN's calculations

* Calculated using the 2010 average middle exchange rate of the National Bank of Serbia (http://www.nbs.rs)

** The annual interest rate on deposits denominated in RDS used in this analysis is 15%. However, under the assumption that losses are evenly distributed during the calendar year, we assumed that the average time from when the loss happens to the moment when the VAT is refunded is 6 monhts. Therefore, the lost rate of return is equal to 15 x 6/12.

Our hypothetical scenario is based on the following assumptions:

- The average costs per stock counting amount to RSD 50,000,
- The company is dealing only with goods subject to the standard VAT rate of 18%,
- The opportunity costs of financing are 15% per annum. However, provided the losses are evenly distributed over the calendar year, it has been assumed that the average time from the moment the losses have occurred until the VAT is claimed back is 6 months. Therefore, the foregone rate of return equals 7.5% (15% x 6/12)

If the company is taking into account both costs and benefits from stock counting, under the above mentioned assumptions it should opt for more than one stock counting per year only if its VAT exempted losses exceed 7.4 million dinars (app. EUR 72 thousand).

4 It should be noted that companies perform stock counting for other (non-VAT related) purposes, such as financial reporting, supply management, controlling, etc. These benefits are not directly attributed in our computations.

The above mentioned regulations and the results of our analysis indicate that the current provision of the Decree, which leaves it to taxpayers to decide about the frequency of stock counting, are properly defined.

However, the problem arises with regard to a ruling by the Ministry of Finance that suggests that the VAT exempted amounts of losses (disclosed in the Decree) have to be determined (through inventory) in the VAT period in which they have occurred, in order to be VAT deductible. This provision actually implies that VAT payers may decide on the frequency of stock counting depending on the frequency at which losses arise. Such provision particularly affects large VAT payers with many shops and warehouses, as well as those who are dealing with goods which are more prone to ullage, wastage spoilage. These VAT payers, who frequently generate losses based on ullage, wastage, spoilage are indirectly forced to do inventory more frequently, if they want to claim VAT exemption of such losses. The reform of VAT legislation, which would make these provisions more flexible, so as to allow VAT payers to perform stock counting whenever they think it is necessary, but also to make the amount of losses which have occurred in that whole period (starting from previous stock counting) VAT exempted, would lead to decline in inventory-related costs. Starting from the above mentioned results on the stock counting costs, if VAT payers would reduce stock counting to once per year (after the amendments of the Decree), total annual savings with regards to stock counting expenditures would be RSD 4.45 bn (€43.2 mn).

4. Concluding Remarks

Empirical studies suggest that high administrative barriers can significantly reduce the investment competitiveness of the economy, even if the other significant elements, such as low taxes, developed infrastructure, macroeconomic stability, etc. are properly set. Simplification of administrative procedures and extensive use of modern technologies in compliance with tax and other legislation may considerably contribute to the reduction of the costs of doing business and to the creation of business-friendly environment. With regards to that, the Government of Serbia has started a process of comprehensive reform of the legislative and administrative system (the so-called "Guillotine of Legislation") in 2008. After some positive results achieved at the beginning, this process was considerably slowed-down during 2010, due to considerable resistance by the bureaucracy to the implementation of the reform of procedures. The main results of the "Guillotine of Legislation" refer to the abolishment of old pieces of legislation, which are not applicable in a modern economy. However, in order to result in an effective improvement of the business environment, we believe that further reform should focus on tackling the issues which are identified by the companies as the most burdensome.

We have investigated the expected effects of the reform of three tax compliance-related procedures: submission of wage tax returns, submission of VAT return on the forms generated by companies' accounting software and the introduction of an obligation to perform annual stock counting for the purpose of VAT exemption of losses related to ullage, wastage, spoilage. Table L3-5 shows the summary of the main results of this study.

Table L3-5. Serbia: Breakdown of Major Results of the Research

	Description of estimated parameters	*Values in*		
		RSD	*EUR**	*USD**
1.	Annual savings in expenditures after the reform of the procedure related to the submission of tax returns related to wage taxes	571,511,040	5,546,331	7,335,851
2.	Annual savings in expenditures related to stock counting if companies were obliged to switch to annual stock counting	4,451,080,330	43,172,457	57,087,089

Source: FREN's calculations

According to our best estimate, the introduction of electronic submission of wage tax returns (which is expected to become compulsory starting from 2012) could result in a decline of compliance-related expenditures by approximately RSD 571.5 mn (app. €5.5 million). At the same time, none of the companies included in our sample have identified the requirement to file VAT returns on the form issued by the Tax Administration as a burdensome issue. Our analysis also indicates that currently VAT payers in Serbia perform stock counting for the purpose of VAT exemption of losses related to ullage, wastage, spoilage 2.7 times per year (on average), which triggers total costs (at macro level) of approximately RSD 7.07 bn (RSD 2.62 bn per stock counting). If the frequency of stock counting for VAT purposes were reduced to one per annum, the total savings in accounting costs would amount to approximately RSD 4.45 bn (app. €43.2 mn). However, since VAT payers should decide on the frequency of stock counting based

on their own costs (time spent by employees on this activity) and benefits (time value of the amount of money (VAT) to be claimed back), we believe that the imposition of a strict rule to do stock counting once a year (instead of the current provision which provides the taxpayers with the possibility to opt for the frequency of stock counting) would not make the economy as a whole better-off. However, if VAT legislation were amended, so as to make the losses incurred in the whole period (starting from the previous inventory) VAT exempted, this would probably stimulate VAT payers to reduce the frequency of stock counts for VAT purposes. In that case, it is our rough estimate that inventory related expenditures would decline by RSD 4.45 bn per annum (€43.2 million).

Based on the above presented results, it may be concluded that the introduction of electronic submission of wage tax returns, as well as certain improvements to VAT legislation related to losses from ullage, wastage, spoilage, would represent a significant step towards further improvement of the business environment in Serbia, whereas the changes related to the acceptance of software-generated VAT returns would not make such crucial contribution.

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