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## PUBLISHERS

The Foundation for the Advancement of Economics

Kamenička 6, Belgrade

Tel/Fax: 011/30-21-069

E-mail: [fren@ceves.org.yu](mailto:fren@ceves.org.yu)

<http://www.fren.org.yu>

Center for Advanced Economic Studies

Lazarevačka 1, Belgrade

E-mail: [ceves@ceves.org.yu](mailto:ceves@ceves.org.yu)

<http://www.ceves.org.yu>

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## TRANSLATION AND EDITING TEAM

Đurđa Stanimirović

Nikola Radovanović

Marija Rosić

Uroš Vasiljević

## DESIGN OF INNER PAGES

Stefan Ignjatović

## PRINTING PREPARATION

Maja Tomić

## COVER DESIGN

Nikola Drinčić

## PRINTING OFFICE

Alta Nova

## VOLUME

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# 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

**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

**NIP** – National Investment Plan

**NBS** – National Bank of Serbia

**OECD** – Organization for Economic Cooperation and Development

**Q1, Q2, Q3, Q4** – 1st, 2nd, 3rd, and 4th quarters of the year

**QM** – Quarterly Monitor

**SBS** – Serbian Bureau of Statistics

**SDF** – Serbian Development Fund

**SEE** – South East Europe

**SEPC** – Serbian Electric Power Company

**SITC** – Standard International Trade Classification

**SME** – Small and Medium Enterprise

**VAT** – Value Added Tax

## From the Editor



The forecasts we made at the end of last year proved to have been right: the Serbian economy did make great strides on a wide front in 2006. We hope that our forecasts, or more accurately, anxieties, for 2007 will be proved wrong. Better said, they need not materialize. With a little luck, the probable scenario could be avoided if the upcoming elections produce clear results and a courageous economic team in the Serbian Government; for economic stability will in great measure hinge on the fiscal policy of the new Government.

To start with 2006 during which the growth of prices was slashed from almost 18% to the 7% expected at the year-end. Like any other stabilization, this one too came at a cost: the slowing of economic growth and poorer competitiveness. In Serbia's case, the slowing of economic growth seems to be mild, and, in view of the experiences of other countries in transition, the loss of competitiveness, though major, does not appear to be insuperable. At first glance, the situation could hardly seem to be better. But a more meticulous analysis would bring out that the achieved stabilization stands on very shaky foundations and that its price threatens to become extremely high. Everything will therefore depend on fiscal policy in the period ahead.

Admittedly, we have been going on and on about fiscal policy from issue to issue. Unfortunately, this time we are not saying only that fiscal policy must not be relaxed; it must be tightened urgently and radically. The macroeconomic "miracles" that marked this year – the fast economic growth and the appreciation of the dinar – as well as the huge costs of restrictive monetary policy, took place in the context of a moderate fiscal policy. Then, in August, when in any thoughtful stabilization effort, fiscal policy would have come to the aid of monetary policy, ours was abruptly relaxed. Sadly, what was involved was not merely the usual pre-election easing. Over the past few months, an expansive fiscal position has been built into government obligations and legislation for a longer term. The problem is discussed in the part on fiscal policy in *Trends*.

The situation is fragile also because of the impotence demonstrated by monetary policy. Although the real

(euro) yields on NBS papers have been almost 40% over the last six months, monetary expansion in the period remained considerable (12-m nominal growth of M2 in Q3 was 35.1%). The NBS managed to rein in credit for small domestic businesses which do not have access to banks abroad. By making bank credits extremely expensive, it managed mainly to reduce the intermediation of our banking system and drum up business for banks in neighboring countries. For its part, inflation was slowed by the appreciation of the exchange rate: first, because it reduced the dinar value of monetary supply (which consists mainly of foreign exchange) and, second, because prices of imports started to decline three months after the dinar began to get stronger.

So what are the implications for 2007? The answer depends on the fiscal and monetary policy that will be pursued next year. Inflation has not really been eliminated from the system. Unless the new Government makes a turnabout, the built-in growth of the fiscal deficit will very soon lead to its flaring up again. Inflation will start accelerating in the first half of the year, only this time it will not be accompanied by an acceleration of economic growth. The NBS could try to dampen the flames by allowing the dinar to appreciate further, a course of action we do not recommend. A further appreciation of the exchange rate would quite certainly destroy the budding exports, which are already suffering. The implementation of inflation targeting, as a blind mantra, makes sense only in balanced economies with deeper financial markets.

Should the new Government tighten fiscal policy as early as the first quarter next year, the expansive effects of the current fiscal policy would not be felt that much, and inflation could stay below the double-digits. The fiscal balance should be restored to the level of the first semester of 2006, which is possible only through the implementation of a series of measures, most particularly scrapping of the so-called National Investment Plan and increasing tax sources to make up for the reduction of the personal income tax. This would lead to a burgeoning of government deposits in the banking sector and draw a fair amount of public criticism, which the Government

would simply have to endure and stick to its guns. As pointed out in *Spotlight On: 2*, Serbia is confronted with the prospect of tremendous expenditures for environment protection alone, to say nothing of those if a proper inventory of long-term investment needs were to be made. Tightening of the reins should be coupled with a reduction of interest rates by the central bank in order to break the expensive spiral of foreign capital inflow which, at present, impinges directly on repo transactions. We hold that a mild appreciation of the exchange rate would be necessary in this scenario too, and do not even exclude the possibility that administrative restrictions to keep down the growth of credit, especially to households, would be needed for a time.

Constantly repeated bad macroeconomic policy produces long-term harm; unfortunately, constantly repeated good macroeconomic policy is not enough for sustainable long-term growth. Viewed globally, the rise in oil prices has again started generating excess capital, which is being assiduously offered to less developed countries. To recall, the world debt crisis occurred a few years after the first oil crisis. Not all countries got into trouble then – only those that failed to use the borrowed money to increase production and the productivity of their economies. Serbia's foreign trade balance can be remedied only if our productivity grows faster than the appreciation of the exchange rate, and the growth of our production must be fast enough to enable us to service our debt. This country has a multitude of productive investment opportunities – there is no other explanation for the very good track record of repayment of bank loans despite the huge interest rates.

More on the subject can be found in *Spotlight On: 1*, an article based on data provided by the Credit Bureau of the Serbian Association of Banks.

“Recovery” as a source of growth will be depleted all too soon. The new Government must create a state with the capacity to help the economy – not with budget credits, but with better and cheaper public services, by developing the infrastructure in accordance with economic and not political priorities, with clear and predictable economic rules and a level field for all the players. The road to such a state is best paved at the invitation and with the help of Europe. It is up to the new Government to secure the invitation as soon as possible, before the door slams shut.

Bidding farewell to Serbia and *QM* for a time, I want to say that, for my part, I did my very best to help to build this capacity over the past six years. I did so at the Ministry of Finance, the Ministry of Energy and Mining, at the National Bank, by prevailing on our experts to return from abroad and work here for the good of the country, by training wonderful young people to tackle new, complex matters. After the change of government in 2004, this capacity has largely been dispersed, and I focused my efforts entirely on my profession. Just over a year ago, I wrote the first issue of *QM* singlehandedly. This issue was produced by an editorial team whose names appear on the frontispiece. I am truly proud of them. Funding for the continuing publication of *QM* has been secured for some time to come. I have no doubts in my mind that the Faculty of Economics, FREN's founder, will know how to build on it.





# TRENDS

## 1. Review

Macroeconomic developments in Q3 were the direct consequence of monetary policy. The monetary tightening and higher flexibility of the exchange rate led to the strong nominal appreciation of the dinar and a considerable reduction of headline and core inflation, with both currently running at their lowest rates since 2003. Signs of a slow down of economic activity became clearer; however, more data is needed to say whether this is a temporary or long-term tendency.

In Q3, a shift began in economic policy indicating that monetary policy was moving toward inflation targeting, and there was a reduction of the consolidated fiscal surplus due to the growth of public spending. This accelerated in Q4, primarily in connection with the election campaigns of the ruling parties. Impact of the changes in monetary and fiscal policy on economic activity, inflation and the foreign trade deficit, now moderate, will become more obvious in the first semester of 2007. Realization of the expansive policy planned for next year by the outgoing government would most likely have a much more adverse effect on the economy.

The slowing of inflation in Q3 was a trend that intensified in October and November (the 12-m RPI fell from 15.6 in Q2 to 12.5 in Q3, and to 9.3 and 8.8 in October and November respectively). The main reasons were the nominal appreciation of the dinar and postponed raising of administratively controlled prices. While the deceleration in Q3 was for the most part the consequence of the curbing of non-core inflation, core inflation started slowing appreciably as of September, due mainly to the changes in the NBS's monetary policy – strong nominal appreciation of the dinar against the euro started in July (the nominal exchange rate in November was 8.5% lower than at the end of Q2). Inflation can be expected to pick up speed in Q1 next year when prices under administrative control go up (the hikes were put off because of the election campaign), and the nominal appreciation of the dinar subsides.

Total employment continued to decline from March to September, with the curbing of slightly over 20,000 jobs. Though the number of employed hit its lowest level since 2003, the situation may not be as alarming as it seems: the majority of the jobs cut were held by workers who were only formally employed and were not receiving wages. Aggregate wages and the average wage kept growing in Q3, albeit slowing down a little compared to Q2.

Economic growth was still high in Q3, about 6% relative to the same period in 2005. But the restrictive monetary policy in Q2 did impact on the economy. Industrial production in Q3 recorded a 12-m growth of 3.9 percent, lower than in the first semester (5.7%). The consequences, however, have yet to be felt. Even though the leaders in industrial production accelerated their growth, the remainder of the industry, which was harder hit by the restrictive monetary policy, slowed down. There is less and less room for the leaders to speed up their growth and, unless the rest of the industry catches up with them, a considerable slowdown of total industrial production can be expected in Q4.

The situation is similar in the foreign trade sector. Its performance appears to be satisfactory, with exports growing strongly (a 12-m growth of 34.3% in Q3) and the growth of imports remaining moderate (13.7%). A closer analysis at monthly level, however, brings out weaker performances by broad export groups. The rise in exports can be credited primarily to the metal industry, dominated by big companies that were not directly affected by the more expensive credit or the appreciation of the dinar. The question is whether this performance is sustainable, especially in the light of the effects of the dinar appreciation on both exports and imports. The current account balance has worsened (from -10.% of GDP in Q2 to -10.6% in Q3) because of the drop

in foreign exchange inflow through exchange offices which, in its turn, was the consequence of the strong nominal appreciation. Thanks mainly to the sale of the cell phone operator Mobtel, the capital account recorded a record balance (2.4 bn euros inflow in Q3). The NBS gross foreign exchange reserves grew by 1,727 mn euros in the quarter, of which own reserves amounted to 369 mn.

The consolidated expenditures of the government sector in Q3 were indicative of the announced shift in fiscal policy. In contrast to Q2, when this policy was quite tight and the growth of spending slower than that of revenues, the real growth of expenditures in Q3 (5.2% relative to the same quarter last year) was higher than the real growth of revenues (which, excluding the inflow from the sale of Mobtel, was 5.1% relative to the same quarter last year). Expansive fiscal policy will already be observable in Q4 2006, but what is really worrying are the possible and likely effects of the new legal and constitutional solutions which will take effect in 2007.

The high reserve requirement on banks' foreign borrowing and the large quantity of high-yield repo instruments offered continued to slow down domestic credit to the non-government sector (12-m nominal growth, corrected for the exchange rate of the euro, fell from 55.1% in Q2 to 47.5% in Q3). Short-term credit to companies came to a complete standstill in Q3. But the exceptionally high increase in company deposits (almost 400 mn euros in Q3) and the fact that company borrowing abroad rose by over 600 mn euros, indicate that the stoppage of domestic credit was offset by companies' cross-boarder borrowing. The high increase of repos (repo stock increased by 291 mn euros in Q3 and around 700 mn in Q4) and the exceptionally large inflow of NBS net foreign exchange reserves (366 mn euros in Q3, with over 700 mn forecast for Q4) show that, due to the high yield, repos are increasingly attracting foreign exchange from abroad (exploiting uncovered interest rate parity). This creates a vicious circle, with the NBS purchasing the increased inflow of foreign exchange in order to stop the exchange rate appreciating further (the NBS for the first time defended the rate against appreciation with foreign exchange purchases on the interbank market in Q4), and then absorbing the dinars thus issued with new repo instruments in order to keep inflation stable. In theory, such defense of the exchange rate and stability of inflation could go on endlessly. But the cost of this kind of monetary policy is questionable, all the more so in light of the challenges of the announced fiscal expansion in Serbia in Q4 and 2007.

The *Spotlight On: 1* article analyzes exclusive data of the Credit Bureau of the Association of Serbian Banks on non-performing loans (NPL). The main conclusion is that the share of bad loans in total credits (9.1%) is far below the over 20% figure used thus far. That indicator was calculated pursuant to the NBS-prescribed methodology of classifying bank claims in accordance with the degree of collectibility. Underlining the importance of this conclusion, we suggest careful monitoring of the new indicator in view of the current credit boom in the Serbian banking sector.

*Spotlight On: 2* focuses on the costs of dealing with the environmental damage caused by big companies, which will be privatized over the coming year. The authors raise the issue of the meeting of legal obligations to channel a portion of privatization revenues into remedying the damage done so far. They point up the exceptional economic and legal importance of the issue and the fact that, in the medium term, successful integration with the European market may hinge on what decisions are taken.



Serbia: Selected Macroeconomic Indicators, 2004–2006<sup>1)</sup>

	annual data		quarterly data						
	2004	2005	2005			2006			
			Q2	Q3	Q4	Q1	Q2	Q3	October
<b>Prices and the Exchange Rate</b>									
					<b>y-o-y<sup>2)</sup></b>				
Retail Price Index - total	10.1	16.5	17.2	17.1	17.8	14.8	15.6	12.5	9.3
Retail Price Index - core inflation <sup>3)</sup>	7.7	14.9	16.0	14.4	14.4	11.2	10.9	10.4	7.8
Real fx dinar/euro (Dec.02=100)	106.3	105.8	106.7	105.8	104.5	102.7	100.3	95.5	93.3
Nominal fx dinar/euro (period average) <sup>4)</sup>	72.62	82.94	81.89	83.92	85.71	87.09	86.87	83.25	80.92
<b>Economic Growth</b>									
GDP (in billions of dinars)	1,431	1,750	...	...	...	...	...	...	...
					<b>y-o-y, real growth<sup>2)</sup></b>				
GDP	9.3	6.8	8.0	6.7	5.9	6.7	6.6	6.2	...
Industrial production	7.1	0.8	-1.5	3.2	3.2	5.3	6.1	3.9	1.6
Manufacturing	9.7	-0.7	-4.1	3.6	1.8	7.5	6.2	4.4	1.3
Average net wage (per month, in dinars)	14,108	17,478	17,122	17,969	19,680	19,284	21,126	21,986	22,340
<b>Fiscal data</b>									
	<b>in % of GDP</b>		<b>y-o-y, real growth</b>						
Public Revenues	41.2	40.1	-0.5	-0.6	1.3	4.7	3.8	5.1	...
Public Expenditures	-40.0	-38.3	-2.0	-2.5	0.7	8.1	-2.4	5.2	...
			<b>in billions of dinars</b>						
Consolidated balance	17.5	33.8	3.9	9.9	15.2	0.4	16.5	11.2	...
Analytical balance (FREN's definition) <sup>5)</sup>	-7.7	-2.9	-13.4	0.8	7.3	-4.0	-0.8	0.8	...
<b>Balance of Payments</b>									
	<b>in millions of euros, flows</b>								
Imports of goods	-8,302	-8,249	-2,100	-2,234	-2,478	-2,139	-2,494	-2,541	-916
Exports of goods	2,991	3,736	1,012	1,019	1,112	1,039	1,244	1,368	489
Current account balance	-2,197	-1,843	-290	-519	-656	-679	-469	-633	-262
Foreign direct investments	773	1,200	240	495	236	164	545	1,671	218
NBS gross reserves (increase +)	229	1,857	281	454	738	375	1,286	1,727	-223
<b>Monetary data<sup>6)</sup></b>									
	<b>in billions of dinars, e.o.p. stock<sup>2)</sup></b>								
NBS net own reserves <sup>7)</sup>	94,541	165,812	127,552	149,663	165,812	173,288	215,123	235,146	248,577
NBS net own reserves <sup>7)</sup> , in mn of euros	1,183	1,939	1,541	1,767	1,939	1,994	2,501	2,868	3,110
Credit to the non-government sector	263,292	413,615	316,028	356,294	413,615	460,370	499,011	512,298	512,897
FX deposits of households	110,714	190,136	141,477	162,667	190,136	207,609	222,105	243,421	243,015
M2 (y-o-y, real growth, in %)	16.1	20.8	22.1	22.4	20.8	24.9	20.1	20.1	22.4
Credit to the non-government sector (y-o-y, real growth, in %)	20.8	26.4	22.4	23.9	26.4	38.4	37.1	27.8	25.6

Source: FREN.

1) For more details (monthly series) see web page [www.fren.org.yu](http://www.fren.org.yu).

2) Unless otherwise indicated.

3) Core inflation definition differs from previous QM issue. See footnote 1) in Trends section "Prices and the Exchange Rate".

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

5) Under FREN's definition, the analytical balance includes on the expenditure side the payment of old (domestic) debts, specifically payments for FFCs, the Serbia Reconstruction Loan, debt to pensioners, etc. Defined in this way, the result measures the liquidity effect government transactions have on the economy.

6) Due to changes in methodology made by NBS, monetary data for October was methodologically harmonized with earlier data.

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

## 2. International Environment

The good performance of European economies in Q3 is reason enough for them to be optimistic as to their continued growth until the year-end. US economic growth, however, continued slowing. Because of the significant drop in the price of oil and other raw materials, inflation was under control in all regions. In view of the Q3 results, the reference interest rates in the euro zone can be expected to go up in the next quarter, and remain at Q3 levels in the US and Japan.

**Table T2-1. World: GDP growth and inflation, 2005–2006**

in %	Real GDP						Costs of living	
	real growth		real growth (annualized, seasonally adjusted)				in comparison to the previous year	
	2005	2006	Q4 2005	Q1 2006	Q2 2006	Q3 2006	Q2 2006	Q3 2006
World total	3.2	3.6	3.5	4.6	3.5	2.9	3.0	...
out of which:								
USA	3.5	3.3	1.7	5.6	2.6	2.2	4.0	2.1
Canada	2.9	2.8	2.5	3.6	2.0	2.0	2.6	...
Japan	2.7	2.8	3.2	3.2	1.5	2.0	0.2	...
China	10.2	10.6	11.5	8.8	13.1	10.4	1.4	...
India	8.4	8.0	9.8	12.4	7.7	6.0	5.9	...
Euro area	1.5	2.7	1.0	3.1	2.7	2.6	2.0	2.1
Germany	1.1	2.8	0.0	3.2	4.4	2.6	2.1	1.6
France	1.2	2.1	...	1.8	4.9	0.0	1.7	1.9
UK	1.9	2.6	2.3	2.6	2.8	3.0	2.2	2.4
Italy	0.1	1.9	0.0	3.1	2.6	1.3	2.3	2.3
Russia	6.4	7.0	8.7	5.1	9.9	10.0	9.6	...
Bulgaria	5.5	5.5	5.5	5.6	...	...	4.7	6.7
Romania	4.1	6.9	4.3	...	...	...	7.5	5.9
Hungary	4.1	3.8	4.1	2.9	4.1	2.9	2.6	4.6
Croatia	3.8	...	5.6	6.0	...	...	...	...
Macedonia	3.8	...	3.6	0.5	...	...	...	...
Bosnia and Herzegovina	5.0	...	...	...	...	...	...	...

Source: JPMorgan, National Bank of Bulgaria, National Bank of Romania, National Bank of Republic Macedonia, National Bank of Croatia.

### EU continues recording good results in Q3

**European Union.** Euro zone growth stood at 0.5% in Q3 relative to the previous quarter, making an annual average of 2.6%. Although slowing slightly relative to the first semester, it can still be considered stable. The European Commission has forecast this year's GDP growth in the bloc at 2.7%. The German economy continued its stable growth at a quarterly rate of 0.6%. In comparison, the French economy was stagnant in this quarter. Italy saw a modest 0.3% growth. GDP growth in the EU was mainly the result of increased domestic consumption, while EU-wide inflation in this quarter was estimated at an annual 2.1%. Viewed on a monthly basis, inflation appeared to be slowing, but was still slightly above the forecast. As economic growth was stable, the prevailing view is that the reference interest rate will be raised again toward the end of the year. The euro zone's quarterly trade deficit amounted to 1.8 bn euros, against 4 bn in the previous quarter. The 25 member states' exports valued 340.4 bn euros, which was 0.2 up on the preceding quarter. Imports were 1% down on the previous quarter and stood at 342.2 bn euros. The EU's largest markets are China and Russia, which are also the countries from which the bulk of EU imports come.<sup>1</sup> Trade among EU members amounted to about 250 bn euros in Q3, with trade between old and new members of the bloc accounting for half.

### US economy is cooling down, following several interest rate hikes

**United States.** Preliminary results showed y-o-y GDP growth in Q3 at a meager 2.2%, while it was 0.4% in the previous quarter. Such low figures (Q2 growth was 2.6%, and as high as 5.6% in Q1) were due to slackening investments in residential construction, as well an increase in imports. On the other hand, the 25% drop in oil prices, the declining unemployment rate,

<sup>1</sup> Source: www.eurostat.org

and rising share prices spurred personal spending. The same period saw an annual inflation rate of 2.1%, while the base inflation rate stood at 2%. The drop in the price of oil and other raw materials contributed significantly to the slowing of inflation in Q3. Owing to these results, the US central bank (Federal Reserve) might not increase the reference interest rate (which, after 17 consecutive hikes, has been standing at 5.25% since June), so as to ease pressure on economic growth now that inflation is within “normal” limits. In Q3, the foreign trade deficit amounted to 810 bn dollars annually, or about 201.3 bn dollars in the quarter (the figure for Q2 was 218.4 bn dollars). Exports stood at 1,490 bn dollars annually (against 1,448 bn dollars in the previous quarter), while imports amounted to 2,289 bn (the Q2 figure being 2,230 bn).<sup>2</sup>

**Good results in Eastern Europe, and inflation is slowing down slightly**

**East, Central-East and South-east Europe (CEE Europe).** This group of countries recorded very good results in the period under consideration: Q3 GDP growth was estimated at 8% annually. Inflation has been falling for the group as a whole, as in other regions of the world, due to the lower prices of raw materials. Estimated Q3 inflation stood at 6.5% annually – but is still high relative to the euro zone inflation. Slovakia recorded the highest growth, over 14% annually, with Hungary bringing up the rear with its GDP growth as low as 2.9%.<sup>3</sup> The political unrest in the country in this quarter probably contributed to the weak growth. Romania and Bulgaria are set to join the EU in January 2007; other potential candidates have seen their EU accession postponed more or less indefinitely.

The Balkan countries resumed negotiations on CEFTA, the Central European Free Trade Agreement, which is to replace a number of bilateral agreements. Although a good idea, the sudden market liberalization foreseen by the Agreement will be relatively difficult to carry out in practice, which is why the signatories will be given at least six months for adjustments. A case in point is the dispute between Serbia and Croatia on customs duty and excises on tobacco products. Croatia wants Serbia to reduce excise rates on imported cigarettes<sup>4</sup> to the level of those for domestic cigarettes without changing the customs duty. At 15%, duty on cigarettes in Serbia is the lowest in Europe; the Croatian amounts to 38%,<sup>5</sup> with additional surcharges depending on the quality of imported cigarettes. When Serbia’s cigarette factories were privatized, the government made an undertaking to the buyers to protect the domestic market until 2010, which is why the base excise rate for imported cigarettes is 10 dinars per pack and one dinar per pack for domestic cigarettes until the end of 2006, when it will be increased to two dinars. Phillip Morris and BAT have already announced drastic measures if Serbia’s cigarette market is liberalized, which would probably tarnish the country’s image abroad. As matters stand, there will be difficulties in implementing these provisions of the Agreement.

**Another quarter of export driven growth in Asia**

**Asia.** Japan’s GDP growth was 0.5% on a quarterly level, or 2% annually. It was based mainly on an increase in exports of 2.7% over the previous quarter. Domestic personal consumption, amounting to 55% of total GDP, fell by 0.7% – more than the forecast 0.3% – due to poor weather and wage stagnation. Inflation stood at 0.1%.<sup>6</sup> In Q3, China recorded a GDP growth of 10.4% annually, slumping as a result of the slowing of investments into fixed assets. Thanks to booming exports, the foreign currency reserves of China’s central bank exceeded 1,000 bn dollars.<sup>7</sup> In Asia’s other emerging economies, GDP growth in this quarter averaged about 6% annually. A good balance of payments, growth of foreign currency reserves, and domestic liquidity were the hallmarks of Q3, all thanks to the export growth that continued from Q2 to Q3 this year. Another characteristic was that the total increase in exports was mainly directed at Europe. High dollar inflows, the consequence of growing exports, led to the strengthening of all Asian currencies against the dollar (although, in the case of China, the yuan’s better performance was more the result of a political decision). The reduced prices of oil and other raw materials relieved inflationary pressures in all countries, with estimated inflation in the region standing at 3.4%.<sup>8</sup>

<sup>2</sup> Source: [www.bea.gov](http://www.bea.gov).

<sup>3</sup> Source: JP Morgan Global Data Watch, 17 November 2006, p. 5.

<sup>4</sup> Serbia imports slightly less than 10 mn dollars’ worth of Croatian cigarettes.

<sup>5</sup> Duty on imported cigarettes in Macedonia is 60% and 58% in Bulgaria. EU cigarette import duties can be as high as 60%.

<sup>6</sup> Source: Government Cabinet Office, [www.esri.cao.go.jp/index-e.html](http://www.esri.cao.go.jp/index-e.html).

<sup>7</sup> Source: [http://news.xinhuanet.com/english/2006-11/26/content\\_5376461.htm](http://news.xinhuanet.com/english/2006-11/26/content_5376461.htm).

<sup>8</sup> JP Morgan Global Data Watch, 17 November 2006, p. 59.

### 3. Prices and the Exchange Rate

Inflation started decelerating appreciably in Q3 with the y-o-y rise of 15% in Q2 falling to 13% in Q3. The main reason was the decline of non-core inflation. October and November saw an even greater slowdown, with the rate dropping to 9.3% and 8.8% respectively. Core inflation started decelerating in September and declined significantly in October and November. We believe the main reason for this slowdown was the strong nominal appreciation of the dinar; following the changes in the NBS's monetary policy, the dinar strongly appreciated in nominal terms against the euro after July, and the exchange rate in November was lower by 8.5% relative to the end of Q2.

**Table T3-1. Serbia: Comparative Price Growth, Selected Indices, 2003–2006**

	RPI		Other price indices			
	period average increase <sup>1)</sup>	annual cumulative <sup>2)</sup>	RPI	Consumer price index	Industrial producers' price index	Agricultural producers' price index
			y-o-y <sup>3)</sup>			
			<b>annual indices</b>			
<b>2003</b>	11.7	7.8	7.8	9.9	5.9	1.1
<b>2004</b>	10.1	13.7	13.7	11.0	9.5	15.7
<b>2005</b>	16.5	17.7	17.7	16.1	13.7	10.7
			<b>quarterly indices</b>			
<b>2004</b>						
December	4.1	13.7	13.7	13.1	12.1	10.6
<b>2005</b>						
September	3.6	11.8	16.5	14.7	15.0	9.1
December	4.2	17.7	17.7	17.0	16.5	11.8
<b>2006</b>						
March	3.4	2.2	14.5	13.9	15.3	6.9
June	3.5	5.7	15.1	13.6	16.1	9.8
September	0.8	6.0	11.6	10.7	11.4	...
			<b>monthly indices</b>			
<b>2005</b>						
June	0.8	8.0	16.8	15.8	12.0	8.5
July	2.0	10.1	17.5	16.0	13.5	12.7
August	0.4	10.6	17.2	15.7	13.9	11.4
September	1.1	11.8	16.5	14.7	15.0	9.1
October	1.7	13.7	17.9	16.2	16.3	9.6
November	1.2	15.1	18.0	16.6	17.1	9.5
<b>2006</b>						
June	0.0	5.7	15.1	13.6	16.1	9.8
July	-0.1	5.6	12.8	11.7	14.7	10.2
August	0.7	6.3	13.1	11.9	14.3	11.7
September	-0.3	6.0	11.6	10.7	11.4	8.9
October	-0.4	5.7	9.3	7.9	8.9	...
November	0.8	6.5	8.8	7.5	7.5	...

Source: Table P-1, in Analytical Appendix.

1) Ratio of given and preceding period.

2) Cumulative index- ratio of given period and December of previous year.

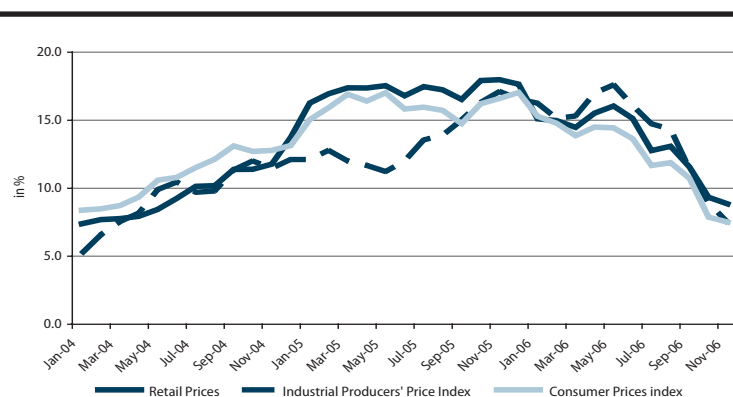
3) Data refers to given month, for period average data see Table P-2 in Analytical Appendix.

**RPI decelerated considerably in Q3, mainly due to non-core inflation**

After falling from 15% in Q2 to below 13% in Q3, the y-o-y retail price index (RPI) slowed even more in October and November, reaching 9.3% and 8.8% respectively. The fall in prices in Q3 came as a result of the slowdown of non-core inflation, mostly in the area of agricultural products and energy, while core inflation slowed slightly. Finally, October and November saw a substantial slowdown of core inflation as well.

*RPI, IPPI and CPI continue to move in concert*

**Graph T3-2. Serbia: Selected Price Indices, 2003–2006 (Y-o-y growth)**



Source: Table P-2. in Analytical Appendix.

The cost of living moved in concert with the RPI, falling to 7.5% in November. The month also saw a major slowdown of the y-o-y growth of the industrial producers' price index, from 16.1% in Q2 and 11.4% in September to only 7.5% in November.

*From October, core inflation is also decelerating considerably...*

Core inflation<sup>1</sup> continued its long-term trend in July, standing at around 11% at the y-o-y level, while it slowed in August and September. The slowdown became more perceptible in October and November, when it fell to 7.8% and 6.6% respectively (Table T3-3).

**Table T3-3. Serbia: Retail Prices (y-o-y Indices According to FREN's Classification), 2005–2006**

	Inflation total	Non-core inflation <sup>1)</sup>					Core inflation			
		Total	Agricultural products	Energy <sup>2)</sup>	Services w/ administrated prices	Other <sup>3)</sup>	Total	Food <sup>4)</sup>	Non-food <sup>5)</sup>	Services w/market-set prices
<b>y-o-y indices</b>										
<b>2005</b>										
March	17.5	17.8	18.3	19.4	20.9	5.7	15.5	19.6	10.1	19.1
June	16.8	16.6	27.2	15.6	21.7	2.7	15.8	20.9	9.8	18.5
July	17.4	17.9	37.3	17.4	23.7	2.2	15.7	19.8	10.4	19.0
August	17.2	18.8	33.3	20.2	25.1	-0.4	14.1	18.9	10.4	12.3
September	16.5	18.3	22.1	20.0	25.5	0.8	13.4	16.5	10.2	14.2
October	18.0	20.2	26.2	21.3	26.3	4.8	14.3	17.4	11.2	14.8
November	18.0	20.0	29.0	18.5	28.7	5.1	14.7	17.7	11.9	14.3
December	17.6	19.9	36.1	17.1	25.1	10.4	14.1	16.7	11.4	14.3
<b>2006</b>										
March	14.4	17.8	31.4	19.2	17.6	11.3	10.8	12.6	9.6	9.1
June	15.1	19.3	19.6	25.9	17.2	11.0	10.8	12.5	9.6	9.5
July	12.7	14.6	8.9	15.7	15.0	13.5	10.9	12.7	9.6	9.2
August	13.1	15.6	7.9	17.7	14.4	16.3	10.6	12.7	9.2	7.9
September	11.6	13.3	9.6	11.4	14.4	16.3	9.9	11.7	9.0	6.7
October	9.3	10.8	2.5	6.2	13.8	17.3	7.8	8.9	7.3	5.9
November	8.8	11.1	8.6	5.6	13.7	18.2	6.6	7.5	5.8	5.6
<b>MEMORANDUM ITEMS</b>										
					<b>weights</b>					
<b>2005</b>	10,000	5,024	309	1,837	1,928	950	4,976	2,117	2,166	693
<b>2006</b>	10,000	5,027	325	1,820	2,010	872	4,973	2,164	2,075	734

Source: SBS.

1) For core and non-core inflation components see footnote 1) in text.

2) Energy includes: liquid fuels and lubricants, and lighting and fuel.

3) Other includes: bread, cereals, pharmaceuticals and tobacco.

4) Excluding bread and cereals.

5) Excluding pharmaceuticals, liquid fuels and lubricants, and lighting and fuel.

<sup>1</sup> The definition of core inflation has been changed in this issue of QM as we used more detailed data from the SBS. Core inflation now also excludes bread and cereals, pharmaceuticals and tobacco, and is comprised of: industrial food products (except bread and cereals), industrial non-food products (except pharmaceuticals, liquid fuels and lubricants, and lighting and fuel) and services whose prices are freely formed (crafts, personal, financial and other services, and education and culture). Non-core inflation includes: agricultural produce, energy (liquid fuels and lubricants, and lighting and fuel), services whose prices are under administrative control (housing, utilities, social services, and transport and telecom services), and the group „Other“, which consists of bread and cereals, pharmaceuticals and tobacco. However, this definition still somewhat differs from the definition of core inflation used by the NBS. Since the NBS is not publishing the weighting of products included in its core inflation, QM is not in a position to reconstruct this series completely.



## 3. Prices and the Exchange Rate

**...mainly due to nominal dinar appreciation**

Core inflation slowed mainly as the result of the nominal appreciation of the dinar (Table T3-5). With some delay, the stronger dinar led to lower prices of imported products and put pressure on domestic prices. Furthermore, prices of imported raw materials were lower in dinars, which, coupled with competitive pressures, first halted the growth and then led to a fall in retail prices (again with a delay with respect to the start of the nominal appreciation). Last but not least, official and estimated unofficial remittances, which come into the country in euros, account for a significant part of domestic aggregate demand (2 bn euros in 2005, or 9.5% of GDP). With the strong nominal appreciation, which began in July, people, believing that the weakening of the euro was only temporary, were reluctant to spend their resources in order not to lose on exchange rate differentials. This restraint in spending resulted in the decrease of aggregate demand and contributed to the slowing down of inflation in Q3.

As for components of core inflation, the y-o-y growth of price of services that are freely formed slowed in Q3. The end of the quarter also saw a deceleration in the growth of prices of industrial foods and beverages, as well as of industrial non-food products. Price growth for all of the core inflation components slowed down even further in October and November (Table T3-3).

**Q3 is the second consecutive quarter of sharp decrease in non-core prices**

Non-core inflation<sup>2</sup> continued to decrease steeply, falling from 19.3% in Q2 to 13.3% in Q3 and to 11% on the average in October and November (Table T3-3). This was mostly the result of the halt in the rise in energy prices, which were by 4.4% below the level at the end of Q2, while their y-o-y growth fell from 25.9% in Q2 to only 5.6% in November. Moreover, agricultural produce prices declined significantly, and the rise in prices of services under administrative control slowed as well. The rise in prices accelerated only within the group Other compared with the first half of the year, mostly because of the rise in tobacco products prices in July and October.

With the slowdown in Q3, non-core inflation decreased its contribution to total inflation from 64.4% in Q2 to 57.6% in Q3. As a result, the contribution of core inflation to total inflation rose from 35.7% in Q2 to 42.3% in Q3. As core inflation also slowed substantially in October and November, its contribution to total inflation again fell below 40% (Table T3-4).

**Table T3-4. Serbia: Retail Prices (Contribution to Index Growth by Components According to FREN's Classification), 2005–2006**

	Inflation total	Non-core inflation <sup>1)</sup>					Core inflation			
		Total	Agricultural products	Energy <sup>2)</sup>	Services w/ admin. prices	Other <sup>3)</sup>	Total	Food <sup>4)</sup>	Non-food <sup>5)</sup>	Services w/market-set prices
<b>contribution to y-o-y growth</b>										
<b>2005</b>										
March	100.0	53.7	3.4	21.4	24.2	3.3	46.3	24.9	13.2	8.0
June	100.0	51.5	5.2	17.7	25.8	1.6	48.5	27.4	13.1	7.9
September	100.0	57.9	4.3	23.1	30.9	0.4	42.1	22.0	13.9	6.2
October	100.0	58.7	4.7	22.7	29.4	2.6	41.3	21.4	14.0	5.9
November	100.0	57.8	5.1	19.6	31.8	2.8	42.2	21.6	14.8	5.7
December	100.0	58.8	6.5	18.4	28.4	5.8	41.2	20.7	14.5	5.8
<b>2006</b>										
March	100.0	62.7	7.1	24.4	24.7	6.9	37.6	19.0	13.9	4.7
June	100.0	64.4	4.2	31.3	22.9	6.4	35.7	17.9	13.2	4.6
July	100.0	57.4	2.3	22.4	23.7	9.2	42.4	21.6	15.6	5.3
August	100.0	59.8	2.0	24.7	22.1	10.9	40.1	21.1	14.6	4.4
September	100.0	57.6	2.7	17.9	24.9	12.3	42.3	21.9	16.1	4.2
October	100.0	58.2	0.9	12.0	29.6	16.1	41.8	20.6	16.3	4.7
November	100.0	63.2	3.1	11.4	31.1	17.9	36.8	18.4	13.6	4.7

Source: SBS.

1) See footnote 1) in Table T3-3.

2) See footnote 2) in Table T3-3.

3) See footnote 3) in Table T3-3.

4) See footnote 4) in Table T3-3.

5) See footnote 5) in Table T3-3.

2 For the components included in non-core inflation see footnote 1.



**We expect inflation to noticeably accelerate in Q1 2007**

QM estimates that the y-o-y inflation rate in December will be approximately 7%, but that it will accelerate in Q1 2007 to around 10%. The most likely reason will be the raising of non-core prices (chiefly electricity and utilities), which has been postponed because of the upcoming elections.<sup>3</sup> Furthermore, higher fiscal spending in the last quarter will certainly cause demand to increase, which will bring about a rise in core prices.

**Table T3-5. Serbia: Dinar/Euro Exchange Rate, 2003–2006**

	Nominal				Real			USD/EUR rate <sup>6)</sup>
	exchange rate (FX) <sup>1)</sup>	base index <sup>2)</sup> (Dec.02=100)	y-o-y index <sup>3)</sup>	cumulative index <sup>4)</sup>	real FX <sup>5)</sup> (Dec.02=100)	y-o-y index <sup>3)</sup>	cumulative index <sup>4)</sup>	
	<b>annual exchange rate</b>							
<b>2003</b>	64.9743	105.6	107.1	110.5	102.4	97.8	104.4	1.1241
<b>2004</b>	72.6215	118.0	111.8	115.6	106.3	103.8	103.9	1.2392
<b>2005</b>	82.9188	134.7	114.2	109.3	105.8	99.5	94.9	1.2433
	<b>monthly exchange rate</b>							
<b>2005</b>								
March	80.7498	131.2	116.1	102.7	106.5	101.0	98.1	1.3074
June	82.5172	134.1	115.3	105.0	106.7	100.7	98.3	1.2180
September	84.4958	137.3	113.6	107.5	106.2	100.0	97.8	1.2265
December	85.9073	139.6	109.3	109.3	102.9	94.9	94.9	1.1861
<b>2006</b>								
March	87.1033	141.5	107.9	101.4	102.5	96.2	99.6	1.2013
June	86.7609	140.9	105.1	101.0	99.8	93.5	97.0	1.2677
July	83.7931	136.1	101.0	97.5	96.4	91.7	93.7	1.2684
August	82.8893	134.7	98.7	96.5	94.8	89.3	92.2	1.2803
September	83.0621	134.9	98.3	96.7	95.3	89.8	92.6	1.2748
October	80.9242	131.5	95.0	94.2	93.3	88.5	90.7	1.2615
November	78.9404	128.2	91.7	91.9	90.4	86.0	87.8	1.2876

Source: Table P-3 in Analytical Appendix.

1) Month average, official daily NBS mid rate. 2) Ratio of fx in column 1 and average fx in Dec 2002.

3) Ratio of fx in column 1 and fx for the same period in previous year. 4) Cumulative is the ratio of given and December of previous year.

5) Included Euro area inflation. Index calculation:  $RE = (NE/p) \times p^*$ , where:

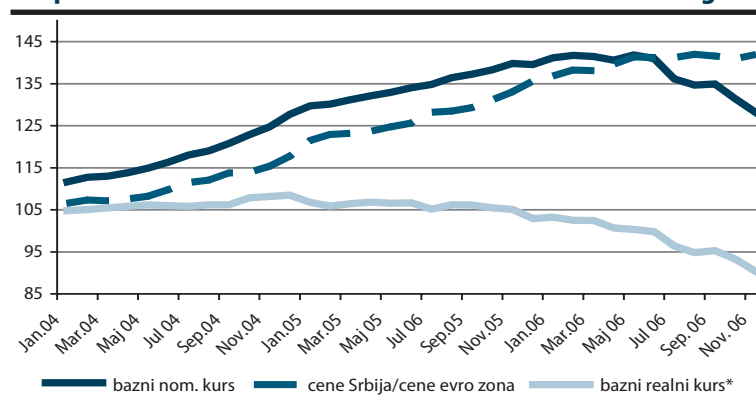
RE - real fx index ; NE - nominal fx index ; p - Serbia RPI index ; p\* - Euro area CPI index

6) Period average.

Note: Twelve-month averages for annual data, i.e. three-month averages for quarterly data.

Following the changes in the NBS's monetary policy<sup>4</sup>, the dinar strongly appreciated in nominal terms as well since July (Table T3-5). Nominal appreciation in Q3 relative to Q2 was 4.2%, while real appreciation was 4.8%. Both real and nominal appreciation continued in October and November and, for the first time since January 2005, the nominal exchange rate in November fell below 80 dinars for one euro.<sup>5</sup>

**Graph. T3-6. Serbia: Nominal and Real Dinar/Euro Exchange Rate, 2004–2006**



Source: Table P-3, in Analytical Appendix.

\*Dec 02=100. See definition of real fx in Table T3-5.

3 Having consulted experts in these fields, FREN expects electricity and utility prices to be hiked by approximately 15% in Q1 2007.

4 See Monetary Flows and Policy in this issue.

5 For a more detailed discussion on the change of the exchange rate trend see Spotlight On: The Exchange Rate and Policy of the National Bank of Serbia: 2002-2006, QM5.

## 4. Employment and Wages

Employment continued to decline between March and September 2006, falling to its lowest point since 2003. Nonetheless, the situation may not be as alarming as it seems since the presumption is that most of the terminations involved workers who were only formally employed and had not been receiving wages in the previous period. The net number of jobs lost was 22,000, showing that the decline was slowing down relative to the preceding six-month period when the figure was 35,000. Manufacturing remained the sector with the highest job cuts. Growth of aggregate and average wages persisted in Q3, although it was milder than in Q2.

### Employment

**Table T4-1. Serbia: Registered Employment, 2003–2006**

	Total No. of employed (employees and entrepreneurs)	Employees in legal entities	Employees with natural entities			Total No. of employees
			Total	No. of entrepreneurs	No. of employees within entrepreneurs	
	1 (=2+3)	2	3 (=4+5)	4	5	6 (=2+5)
<b>in thousands</b>						
<b>2003</b>						
March	2,046	1,628	418	198	220	1,848
September	2,036	1,595	441	202	239	1,834
<b>2004</b>						
March	2,065	1,601	464	208	255	1,856
September	2,037	1,560	477	210	267	1,827
<b>2005</b>						
March	2,070	1,557	513	228	285	1,842
September	2,067	1,536	531	230	300	1,836
<b>2006</b>						
March	2,032	1,496	536	228	308	1,804
September*	2,010	1,467	540	228	315	1,782

Source: SBS.

Notes by column:

1) The total number of employed (employees and entrepreneurs) includes those employed by legal entities (enterprises, organizations, institutions) - Column 2, and small businesses i.e. natural entities - Column 3 (including store owners, self-employed professionals, etc., and those working for them). Employees of the Ministry of Defense of Serbia-Montenegro and the Serbian Ministry of Internal Affairs are not included.

Source: Semi-annual Report on the Employed and Wages RAD-1/P; Additional Survey to the Semi-annual RAD-1 Report; Semi-annual Report on Small Businesses and Their Employees RAD-15.

2) Employees in legal entities (companies, organizations, institutions).

Source: Semi-annual Report on the Employed and Wages RAD-1/P (Column 10), and the Additional Survey to the Semi-annual RAD-1 Report.

3) Owners of small businesses and self-employed persons (natural entities) and their employees (Column 4 + Column 5).

4) Owners of small businesses and self-employed persons (natural entities).

5) Employees of small businesses (natural entities).

Source: Semi-annual Report on Small Businesses and their Employees RAD-15.

\* FREN's estimate.

since the assumption is that most of the terminations involved workers who were only formally employed and received no wages in the previous period. This assumption is discussed in the part on wages. The job loss in the enterprise sector is still the main factor adversely affecting total employment. The number of employees in enterprises dropped by 29,000 since March, mostly in manufacturing. A slow growth is expected to be shown in employment by entrepreneurs when September's RAD-15 survey results are released, partly compensating for some of the job cuts in enterprises. Hence the total employment drop between March and September will stand at 25,000 jobs. The numbers of employees are constant or growing in the sectors of financial intermediation and real estate/renting, followed by public administration, social insurance, and construction. After a significant loss of jobs in health and education in the previous six months, the figures in these two sectors have stabilized (Table P5, Analytical Appendix).

*Employment dropped by an estimated 22,000 jobs in the March-September period.*

Since employment data for September 2006 (RAD surveys) has not been released yet, the latest available figure on the number of employees in legal entities dates from August and that on entrepreneurs and their employees from March 2006. The rest of the data is therefore an estimate.

From March to September 2006, the decline in employment from the previous period continued, but at a slower pace. The total estimated employment drop between March and September was 22,000, around 13,000 less than in the previous six months (Table T4-1). Though it hit its lowest point in the past three years, this may not be as alarming as it seems

## Wages

*Wages continue rising, according to both SBS and MoF figures...*

The continued growth of registered wages in Q3 is reflected both in the official statistics as well as in the wage tax collected. The SBS figure for aggregate wages is for the first time higher than the one released by Ministry of Finance. There are two possible explanations: either the SBS continues to overestimate the average, or we have overestimated the number of employed in September 2006. The discrepancy will be cleared up when the official statistics on employment in September 2006 come out.

*... though at a slower pace than in Q2*

The rise in aggregate wages was slower than in Q2, which can be attributed to a dropping off in reporting of real earnings (those that were previously underreported), after the initial improvement in 2005 due to the broadening of the tax base. As employment continued to fall, the increase in aggregate wages shown in Table T4-2 can be attributed to the growth of the real average wage, along the same lines as in Q2. The SBS aggregate wages figure is even closer to the MoF figure, which confirms our observation that wages continue to grow in the “traditional economy” and in small businesses, with the steepest drop in employment in Q3 registered among workers who have not been receiving any pay (especially since most of the terminations were in the manufacturing sector).

*The Q3 fall in employment was due mostly to the termination of workers who were not receiving pay*

**Table T4-2. Serbia: Aggregate Wages and Average Monthly Wages, 2003–2006**

	Aggregate wages (MoF) <sup>1)</sup>		Aggregate wages (SBS) <sup>2)</sup>		Average monthly wages (SBS)	
	in 000 dinars	in % of GDP	in 000 dinars	in % of GDP	Gross	Net
<b>2003</b>	391,657,571	35.8	367,111,910	33.5	16,612	11,500
<b>2004</b>	462,905,007	35.6	454,125,726	34.9	20,555	14,108
<b>2005</b>	564,699,486	35.3	560,368,368	35.0	25,514	17,478
<b>2005</b>						
Q1	117,781,793	36.6	122,356,320	38.0	22,166	15,140
Q2	138,985,971	37.4	137,692,500	37.0	25,035	17,122
Q3	145,027,114	34.9	144,569,591	34.8	26,280	17,969
Q4	162,904,607	34.6	157,575,975	33.5	28,781	19,680
<b>2006</b>						
Q1	153,488,429	38.5	152,864,571	38.3	28,209	19,284
Q2	168,572,637	36.5	167,026,541	36.2	30,914	21,126
Q3	171,161,743	..	171,768,762	..	32,130	21,986

Source: MoF (Public Revenue Office) and SBS.

1) Wage tax based.

2) Calculated as No. of employees multiplied by average wage (SBS data). Quarterly data of no. of employees - FREN's estimate (see Table P-4 in Analytical Appendix).

Both nominal and real wages continued to rise in Q3, though at a slower pace than in the previous quarters (Table T4-3).

## 4. Employment and Wages

**Table T4-3. Serbia: Wage Indices, Y-o-y data, 2003–2006**

	Aggregate wages (MoF) <sup>1)</sup>		Aggregate wages (SBS) <sup>2)</sup>		Average monthly wages (SBS)	
	nominal	real	nominal	real	nominal	real
<b>2003</b>	117.6	107.0	123.0	111.9	125.3	114.0
<b>2004</b>	118.2	106.1	123.7	111.0	123.7	111.1
<b>2005</b>	122.0	105.0	123.4	106.2	124.1	106.8
<b>2005</b>						
Q1	119.6	103.1	121.6	104.9	121.8	105.0
Q2	124.4	106.9	124.1	106.6	125.3	107.6
Q3	125.4	108.5	124.1	107.5	124.3	107.6
Q4	118.9	101.9	124.8	107.1	125.3	107.5
<b>2006</b>						
Q1	130.3	113.7	124.9	109.0	127.3	111.0
Q2	121.3	106.2	121.3	106.2	123.5	108.1
Q3	118.0	105.9	119.7	107.4	122.3	109.7

Source: MoF (Public Revenue Office) and SBS.

1) Wage tax based.

2) Calculated as No. of employees multiplied by average wage (SBS data). Quarterly data of no. of employees - FREN's estimate (see Table P-4 in Analytical Appendix).

Viewed by economic activity, wages in sectors that recorded a real growth in Q2 maintained the trend in Q3 relative to the same period last year (agriculture, mining and quarrying, manufacturing, commerce, and services). The only activities in which y-o-y wages did not rise as much in Q3 as in Q2 were transport and catering. The y-o-y wage growth index in Q3 in electricity, gas and water supply was 107.1 against 99.4 in Q2 (Table T4-4).

**Table T4-4. Serbia: Average Wages by Activities, Y-o-y Real Indices, 2005–2006**

	2005	Q1 2006	Q2 2006	Q3 2006
Total	106.8	110.9	108.0	109.7
Agriculture, forestry and water works supply (13)	112.2	118.3	115.7	112.4
Fishing (15)	116.2	105.5	70.8	93.6
Mining and quarrying (4)	100.4	108.9	114.5	115.5
Manufacturing (12)	109.1	114.4	110.9	113.8
Electricity, gas and water supply (2)	104.1	104.0	99.4	107.1
Construction (11)	104.5	108.7	111.0	112.7
Wholesale and retail trade, repair (10)	111.6	114.2	113.9	112.0
Hotels and restaurants (14)	108.3	112.0	111.0	106.4
Transport, storage and communications (5)	104.2	110.0	111.0	104.0
Financial intermediation (1)	110.5	112.9	111.5	113.9
Real estate, renting activities (3)	111.6	101.5	99.1	105.8
Public administration and social insurance (6)	105.0	112.6	104.3	107.6
Education (8)	108.2	114.9	103.5	105.0
Health and social work (9)	100.0	101.4	102.3	104.9
Other community, social and personal service (7)	102.6	105.2	100.7	103.1

Source: SBS, RAD-1.

Number in parenthesis refers to activity ranked by level of average wage less taxes and contributions.

*Sectors that recorded wage growth in Q2 maintained the trend in Q3*

## 5. Economic Growth

The key question in Q3 was to what extent the restrictive monetary policy affected economic growth. The answer: the economy took the first blow and remained on its feet, but visible consequences are yet to come. Q3 economic growth was still high, and amounted to about 6% relative to the same period the year before. Industrial production recorded y-o-y growth of 3.9% in Q3, slightly lower than the 12-m growth in the first half of the year. Industrial production leaders have accelerated their growth, while the rest of industry, feeling as it does more keenly the restrictive monetary measures, is slowing. If the remainder of the sector does not catch up with the leaders, a significant slowdown in total industrial production can be expected. Construction growth is accelerating, and there are indications that it will additionally speed up in Q4.

### Gross Domestic Product

*Using SBS methodology, we estimate GDP growth at 6.2%.*

Based on SBS methodology and data, QM estimates GDP growth in Q3 at 6.2% compared to the same period last year (Table T5-1). The high level of y-o-y growth that marked the whole of 2006 was retained in that quarter; still, a slowdown in gross value added in relation to Q2 was noticeable, and is estimated at about 1 percentage point. The Q3 slowdown in industrial y-o-y growth relative to Q2 is the consequence of comparison with the slightly higher 2005 base. The somewhat slower growth of services<sup>1</sup> was, most probably, the result of the monetary policy measures that led to deceleration of credit to companies and households and lower demand.

**Table T5-1. Serbia: Gross Domestic Product, 2004–2006<sup>1)</sup>**

			y-o-y indices							base index	GDP share
	2004	2005	2005				2006			(jan-sep) <sub>06</sub> <sup>2)</sup> / (jan-sep) <sub>05</sub>	2005
			Q1	Q2	Q3	Q4	Q1	Q2	Q3 <sup>2)</sup>		
Total	109.3	106.8	106.7	108.0	106.7	105.9	106.7	106.6	106.2	125.7	100.0
Taxes minus subsidies	109.3	110.2	115.4	110.3	108.3	108.1	98.2	103.6	104.7	137.2	17.8
VA at basic prices	109.4	106.1	105.0	107.5	106.3	105.5	108.6	107.3	106.5	123.7	82.2
Agriculture	119.0	95.1	97.4	101.9	91.6	93.1	96.9	100.9	101.5	100.0	15.3
Manufacturing	108.8	99.9	93.1	96.7	105.8	103.1	107.9	106.2	104.2	106.0	18.7
Construction	103.5	102.0	84.0	100.7	106.2	111.8	105.4	100.1	98.4	110.9	3.6
Transport	115.6	123.2	119.8	122.6	123.5	126.2	128.0	126.8	123.0	193.4	12.3
Wholesale and retail trade	117.0	122.0	136.3	128.9	120.1	108.4	116.4	107.5	110.5	180.9	12.5
Financial intermediation	109.8	117.1	115.5	116.5	117.4	118.9	120.1	119.3	117.6	166.0	8.4
Other	101.4	102.3	101.8	103.1	101.8	102.4	100.2	100.3	99.8	103.6	29.2

Source: SBS.

1) In constant prices in 2002.

2) QM estimate.

At first sight, it appears that growth of the tax component of GDP over the whole of 2006 was below that of 2005. This is, however, a false impression caused by comparison with an atypical 2005. Tax collection has stabilized, as have VAT refunds; the tax component of GDP, in spite of being in line with economic growth, is compared with extremely high 2005 values, so y-o-y growth rates are lower than the growth of value added. An exceptional rise in tax collection ensued directly after the introduction of VAT. Early 2005 saw the collection of outstanding sales tax, and there was no pressure for VAT refunds. The result was the growth of the tax component in relation to the growth of value added in the economy, which was most noticeable in the first two quarters of 2005, but lasted until the end of the year.<sup>2</sup>

*Services continue to grow faster than material production...*

Economic growth in Q3 continued with all the traits seen in the first half of 2006: material sectors of production went on growing at a stable pace of about 3%, agricultural production in 2006 stood at a level similar to that of 2005, while construction recorded a y-o-y fall of about

1 Only the retail trade growth index has been published so far.

2 Q1 2005 saw the highest y-o-y growth of taxes less subsidies – 14.5%, while economic growth amounted to 5.0%. Table T5-1.

1.5% - measured using the work hours index.<sup>3</sup> Services recorded y-o-y growth of about 9.5% in Q3: transport and financial intermediation led, with growth rates of about 20%, while the growth of commerce was somewhat slower, 10%, below the figure achieved in the same period in 2005. Other services, including catering and tourism, mainly remained at the 2005 level, or slumped slightly.

*...with their share in GDP approaching 60%*

The base GDP growth index in relation to 2002 is indicative of lasting changes in the makeup of Serbia's economy. Industrial production, which accounted for almost half of GDP in the late 1980s, did not suddenly revive after the disastrous 1990s. That decade saw the Far East become the focus for a number of fields of industrial production in which Serbia had been able to compete before. The chances for a full recovery of those fields of industrial production are now very slim. Services, however, have been seeing strong growth trends year after year, and their share in GDP is now approaching the 60% mark.

### Frame 1. Official GDP Correction

*GDP figure officially corrected upward by 10%*

In September, the Serbian Bureau of Statistics published revised GDP data for the period from 2002 to 2004, along with an estimate for 2005. The data has been corrected upward by about 10% in relation to the previous set of figures, and now indicates that per capita GDP rose to 2,800 euros in 2005. Two important corrections affected the change in GDP calculation. The first was made in the households sector and a part of input rent where simplified calculations based on construction statistics had been used so far. The second involved the government sector where consistent application of final expenditure calculation methodology has resulted in new government sector output data.<sup>1</sup> The quarterly GDP growth in 2005 was also revised. The total GDP growth rate in 2005 was corrected from 6.3% to 6.8%. The biggest correction was made to construction: instead of a fall of 7%, construction now shows 2% growth in 2005. This again calls into question the index of work hours at construction sites as a reliable indicator for estimating value added in construction. It is interesting to note that cement production, used by QM as an alternative construction growth indicator, registered growth of 1.6%. Similar underestimation of construction growth – and with it, of GDP as a whole – can be expected to continue in 2006.

<sup>1</sup> Source: SBS website ([www.webrzs.statserb.sr.gov.yu](http://www.webrzs.statserb.sr.gov.yu))

## Industrial Production

In Q3, industrial production continued the high growth rates of the previous quarters. Detailed analysis, however, brings out some concerning tendencies: the acceleration of leaders in industrial production has masked a slowdown in the rest of industry.

*Industrial production grew by 3.9%*

According to SBS data, industrial production in Q3 was 3.9% higher than in the same period in 2005 (Table T5-2). Manufacturing was in the lead, with a y-o-y growth rate of 4.4% in Q3, followed by mining and quarrying with 2.8%, while electricity, gas, and water supply were up 1.6% on Q3 2005.

**Table T5-2. Serbia: Industrial Production Indices, 2004–2006**

	y-o-y indices					base index				share 2005
	2004	2005	2006			Q1 06/	Q2 06/	Q3 06/	(jan-sep) <sub>06/</sub>	
			Q1	Q2	Q3	Q1 04	Q2 04	Q3 04	(jan-sep) <sub>02</sub>	
Total	107.1	100.8	105.3	106.1	103.9	102.0	104.5	107.2	107.5	100.0
Mining and quarrying	99.3	102.1	104.0	102.6	102.8	100.7	103.5	107.5	103.0	6.3
Manufacturing	109.7	99.3	107.5	106.2	104.4	101.2	101.8	108.2	107.5	75.4
Electricity, gas, and water supply	102.4	106.6	99.3	107.6	101.6	104.8	120.9	102.5	109.2	18.4

Source: SBS.

<sup>3</sup> The construction work hours index does not respond to increases in productivity. QM estimates y-o-y construction growth in Q3 at 7%.



The somewhat lower y-o-y growth of industrial production relative to the first semester of the year was due to the higher Q3 2005 base. To eliminate this influence on y-o-y growth indices, *QM* continues the practice of comparing 2006 industrial production with the appropriate quarters of 2004. Measured in this way, Q3 industrial production growth continued to accelerate (Table T5-2).

*The acceleration has, however, been stopped*

Viewed on a monthly basis, after an acceleration and extraordinarily high growth in July, and a nondescript August, it becomes apparent that September's industrial production growth indices – comparison with 2004 and the seasonally adjusted SBS index – indicate a serious slowdown (Table T5-3). We are still rather more inclined to argue that total industrial production has not been dealt a serious blow, but, rather, that its further acceleration has been stopped. The published preliminary industrial production indices for October support this conclusion.

**Table T5-3. Serbia: Industrial Production Monthly Indices, June–September 2006**

	y-o-y indices				base index				Seasonally adjusted 005=100			
	2006				July <sub>06</sub> /	Aug <sub>06</sub> /	Sep <sub>06</sub> /	Oct <sub>06</sub> /	July	Aug	Sep	Oct
	July	Aug	Sep	Oct	July <sub>04</sub>	Aug <sub>04</sub>	Sep <sub>04</sub>	Oct <sub>04</sub>				
Total	108.2	101.9	101.9	101.6	106.6	110.7	104.4	107.1	106.0	105.0	102.6	105.7
Mining and quarrying	105.0	102.8	100.8	103.1	109.3	101.3	112.2	109.1	...	...	...	...
Manufacturing	109.1	101.9	102.6	101.3	106.2	113.6	105.1	106.2	106.5	105.4	103.0	105.9
Electricity, gas, and water supply	104.9	101.2	99.1	103.0	107.3	101.4	99.4	111.3	...	...	...	...

Source: SBS.

*Manufacturing recorded a y-o-y growth of 4.4% in Q3*

Manufacturing grew by 4.4% in Q3 compared to the same quarter last year. Even with the lower y-o-y growth relative to Q2, the comparison with 2004 and seasonally adjusted indices published by the SBS indicate a higher level of industrial production in Q3 than in Q2.

Table T5-4 shows the sections that contributed most to industrial production growth where manufacturing is concerned. These are: basic metals, food and beverages, chemical products, furniture and related products, tobacco products, and metal products excluding machinery.

**Table T5-4. Serbia: Sub-Sectors with Highest Growth Rates in 2006, 2004–2006**

	y-o-y indices								share	
	2004	2005	2005				2006			2005
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Manufacturing	109.7	99.3	94.1	95.9	103.6	101.8	107.5	106.2	104.4	100.0
Total-selected sectors	116.1	108.6	106.3	107.2	109.4	110.4	109.9	114.6	117.3	67.3
Basic metals	140.9	121.8	134.4	114.7	111.1	124.6	116.6	131.7	135.4	16.6
Food and beverages	103.4	104.6	100.6	107.3	105.2	103.2	104.2	105.1	109.5	28.3
Chemicals and chemical products	118.2	103.8	99.9	102.2	107.2	105.4	105.1	107.7	112.8	15.4
Furniture and related products	92.1	92.2	79.7	83.5	99.7	103.1	134.3	163.0	197.8	1.5
Tobacco industry	97.6	114.6	58.8	111.8	172.2	138.1	158.6	128.2	80.1	2.0
Metal products except machinery	112.0	103.2	84.9	100.4	113.3	110.7	106.9	112.0	102.0	3.5
Other	96.6	80.1	69.1	72.6	91.7	84.1	102.6	88.9	77.8	32.7

Source: SBS.

*The leaders accelerate, with the rest of industry in decline*

Industrial production leaders in 2006 (Table T5-4) have, in the main, carried their high growth rates over into Q3. The total Q3 y-o-y leader growth of 17.4% denotes a significant acceleration, and was the highest since the beginning of the year. A cause for concern is the fact that – besides the sectors mentioned above – only recycling and manufacture of non-metal mineral products saw y-o-y growth in Q3. All other sections of manufacturing recorded lower production than in the same period in 2005. High leader growth and acceleration, therefore, masked a pronounced slump in the rest of the manufacturing industry.

**Restrictive monetary policy has made it harder to do business, but...**

QM believes the reasons for such divergent trends in industrial production in manufacturing in Q2 and Q3 2006 lie mainly in the unequal impact of monetary policy on different sections in manufacturing:

1. Changes in credit terms have not had the same effect on all sections of manufacturing.

Small companies were harder hit by the restrictive NBS measures and the rise in the price of credit. A significant change occurred in the structure of non-government sector credit concurrently with the latest tightening of monetary policy.<sup>4</sup> Banks, weighed down by draconian reserve requirements on foreign borrowing, are reducing their reliance on these sources. At the same time, direct borrowing abroad is growing, with companies resorting to it to bypass the excessively expensive domestic financial system. However, not everyone can borrow abroad: only the very creditworthy part of the economy is able to take this route. When industrial production is viewed by sections, *the leader sections* (dominated mainly by large privatized companies, such as US Steel, Henkel Merima, Hellenic Sugar, and Soja Protein), were not affected by the change in credit terms on the domestic market and, in some cases, probably shifted to direct foreign borrowing. On the other hand, *sections with fewer large and successful companies* were probably unable to develop an adequate strategy in response to the high interest rates on short-term borrowing. Faced with liquidity squeezes, these companies recorded a sudden drop in industrial production.

**...the leaders are borrowing abroad...**

2. The real appreciation of the dinar against the euro has not equally affected all manufacturing sections.

The appreciation of the dinar has had an adverse effect on the growth of export-oriented companies with low profit margins, and those whose product prices are determined mainly by domestic raw materials and labor. This opinion is borne out by a slowdown in the growth of *core* exports in Q3.<sup>5</sup> Some leader sections, such as basic metals, were not affected at all by the real appreciation of the dinar: almost all of their raw materials come from abroad, while administrative control of energy prices is tantamount to a government subsidy for their exports. Other leader sections have mainly either undergone successful transition processes, or are a part of Serbia's new economy, and have witnessed improvements in productivity faster than the dinar's real appreciation rate. Industrial production leaders in 2006, have therefore, continued the trend of accelerating exports, unlike the rest of the manufacturing sections.

**...and are not as hard hit by the dinar's appreciation**

**However, the overall picture is still favorable...**

There is still not enough data to comprehensively analyze the negative impact of monetary policy measures on manufacturing. The picture as a whole still does not appear unfavorable. Therefore, taking into account the divergent trends by sections, it seems pertinent to ask whether a limited number of successful sections will be able to keep the total growth rate of manufacturing positive.

**...but not much space is available for continued leader growth acceleration...**

Basic metals lead the field in total industrial production, and, with y-o-y growth of over 35%, show no signs of flagging – or, for that matter, significantly accelerating, either. US Steel made the greatest contribution to this growth by restarting production in a second blast furnace, which had been inoperative for 18 years.

The food industry also accelerated growth – with a y-o-y increase of 8.6%, this was one of the best pieces of news in Q3. The y-o-y growth of the chemical industry also gathered pace to reach 12.8% in Q3, but this was mainly the consequence of the extremely high level of production in July, after which there was a significant downturn. Manufacture of furniture and related products saw the highest y-o-y growth in Q3 of all sections, as much as 97.8%. When October is included in the series, monthly indices indicate that production in this section has hit a plateau at the high level achieved. As Q3 2005 was the watershed month, after which the pace of growth in this area accelerated and barring any major changes, a reduction can be expected in the y-o-y indices both in Q4 and in 2007. The tobacco industry experienced the announced y-o-y drop in

<sup>4</sup> For more details, refer to *Monetary Policy and Flows and Balance of Payments and Foreign Trade* in this QM's Trends.

<sup>5</sup> For more details, refer to *Balance and Payments and Foreign Trade* in this QM's Trends.

*...so Q4 is likely to see a more significant slowdown in industrial production as a whole*

industrial production<sup>6</sup> of about 20%. A similar y-o-y drop in production of the tobacco industry can be expected in Q4 also. Manufacture of metal products excluding machinery registered y-o-y growth in Q3, but is also beginning to flag.

Taking all these facts into consideration and unless further acceleration of the food and drink industry compensates, the group of 2006 leaders will see their high growth slow in Q4. Barring an expansion in the number of growing sections in Q4, a downturn in industrial production will ensue, accompanied by a somewhat belated manifestation of the effects of monetary policy on the manufacturing industry as a whole.

The components of industrial production are shown in Table T5-5.

**Table T5-5. Serbia: Components of Industrial Production, 2004–2006**

	y-o-y indices					base index			share <sup>5)</sup>	
	2004	2005	2006			Q1 06/ Q1 04	Q2 06/ Q2 04	Q3 06/ Q3 04	(Jan-Sep) <sub>06</sub> / (Jan-Sep) <sub>02</sub>	2005
			Q1	Q2	Q3					
Total	107.1	100.6	105.3	106.1	103.9	102.0	104.5	107.2	107.5	100.0
Energy <sup>1)</sup>	101.8	103.9	100.7	104.8	99.9	104.6	111.0	105.2	109.2	23.1
Investment goods <sup>2)</sup>	118.8	74.2	107.2	87.9	78.4	71.7	54.4	67.8	65.8	7.7
Intermediate goods <sup>3)</sup>	116.0	104.9	109.4	109.1	106.5	111.9	111.8	114.0	120.8	33.9
Intermediate goods without basic metals	111.0	101.5	107.9	104.5	96.7	102.9	103.9	101.6	88.7	25.3
Consumer goods <sup>4)</sup>	102.7	101.6	107.5	110.0	116.2	99.8	111.5	118.8	112.9	35.3
Consumer goods without food industry	101.4	96.3	113.4	118.6	132.5	90.9	109.2	127.5	115.3	10.3

Source: SBS.

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), manufacture of machines and equipment (excluding electric), manufacture of office machinery and computers, radio TV and communications equipment, precision and optical instruments, manufacture of motor vehicles and trailers, manufacture of other transport equipment.

3) Mining of metal and non-metallic ores, stone quarrying; manufacture of textile yarns and fabrics, wood and cork products (except furniture), cellulose, paper and paper products, rubber and plastic products, chemical products (except pharmaceuticals and home chemicals products), petrochemicals, construction materials, basic metals, sub-sector of metal goods production except machines (sectors 284, 285, 286 and 287), electric machines and appliances, and recycling sub-sector.

4) Food industry products, tobacco products, clothing, leather products and footwear, publishing products, pharmaceutical products and home chemicals products, furniture and various other products.

5) Share in total industrial production.

*Production of consumer goods is accelerating significantly...*

Viewed by use, production of consumer goods recorded a significant acceleration of growth in Q3, up 16.2% on the same period in the previous year. This was mainly due to the good results achieved by the food and beverages industry and the manufacture of furniture and related products. Production of intermediate goods saw a y-o-y growth of 6.5% in Q3, but, when the manufacture of basic metals is excluded, there was a fall of 3.3%. Energy production stood at last year's level, and production of investment goods continued to decline.

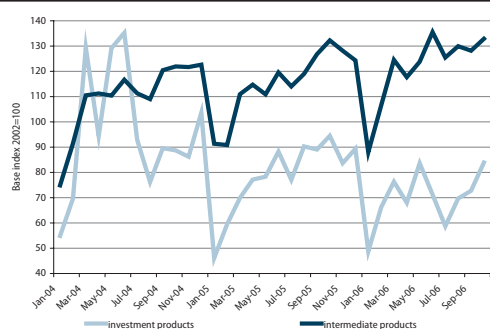
*...while other segments are mainly continuing their earlier trends*

The real trends in industrial production in 2006 become clearer in comparison with 2004 (Table T5-5). An acceleration in the production of consumer goods was apparent, while other segments, with minor oscillations, followed long-term trends.

6 QM predicted a significant downturn in the tobacco industry's y-o-y growth starting from Q3. The reasons are as follows: first, Q2 2006 was the last quarter with extremely high tobacco industry growth, as it ended the year in which production results were compared with the low base rate resulting from the reconstruction of plants; and, second, a shortage of raw materials seems likely, as tobacco growing did not keep up with the expansion in capacity and production volume of tobacco products.

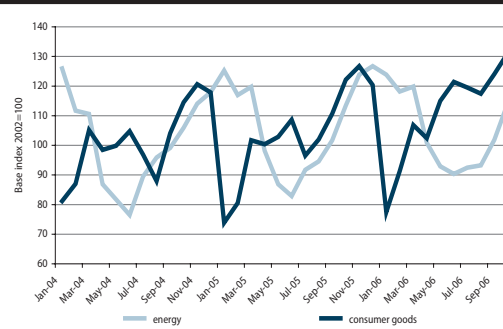
Graphs T5-6 and T5-7 show base industrial production indices by component.

**Graph T5-6. Serbia: Components of Industrial Production, 2004–2006**



Source: SBS.

**Graph T5-7. Serbia: Components of Industrial Production, 2004–2006**



Source: SBS.

## Construction

*Construction growth seems to be speeding up...*

Growth in construction accelerated and is estimated by *QM* 6% to 8% in comparison with the same period last year. As construction growth indicators have not been harmonized in Q3, we have adopted cement production as a measure of growth, given that it has thus far proved the most reliable indicator at the quarterly level.<sup>7</sup> (Table T5-8). Still, the estimated y-o-y growth in Q3 differs from y-o-y cement production growth. Cement production leads total construction activity,<sup>8</sup> so there is a delay in the impact of q-o-q changes on cement production – such as the Q3 acceleration – on construction growth. The high Q3 cement production growth is a sure sign of increased construction activity in early Q4, as Q3 construction activity is still linked to the slightly lower Q2 cement production.

**Table T5-8. Serbia: Cement Production, 2001–2006**

	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	...	...

Source: SBS.

According to other SBS indicators, the value of construction works completed in Q3, at constant prices, rose by 7.2% relative to the same period last year, in line with our estimates based on cement production. The growth was accompanied by a y-o-y fall in the number of effective

work hours at construction sites, and a reduction of about 7% in the number of people employed at construction sites.

*...with further acceleration expected in Q4*

High y-o-y cement production growth in Q3, as well as favorable weather conditions, augur a very high level of construction activity in Q4.

<sup>7</sup> Cement consumption would be an accurate indicator, but is not available at the quarterly level. However, experience so far suggests that cement production provides a relatively reliable approximation of consumption.

<sup>8</sup> See *Construction in Appendix 4 of the CEVES study, Serbia's Economy: The Stylized Facts 2000-2005*, available on the FREN website ([www.fren.org.yu](http://www.fren.org.yu))

## 6. Balance of Payments and Foreign Trade

The main characteristic of the external sector in Q3 2006 was the good performance of the trade balance and capital account. The current account balance is worsening due to a lower foreign exchange inflow from exchange operations, a consequence of the strong nominal appreciation of the dinar in Q3. Foreign trade performed satisfactorily – exports grew strongly, while import growth remained moderate. A careful analysis of monthly data, however, reveals a weaker performance of broad export groups, with export growth being due to the extraordinary performance of the metal industry. The capital account, owing primarily to the sale of Mobtel, also had a record balance. On the other hand, the question of sustainability of the external sector's good performance necessarily arises, especially in light of the impact the appreciation of the dinar will have on the behavior of both imports and exports.

**In Q3 exports grew 34,3% (y-o-y) and imports 13,7% (y-o-y)**

In Q3 exports (including trade with Montenegro) grew rapidly (34.3% y-o-y in Q3, as against 22.9% in Q2, Table T6-1), while import growth slightly decelerated relative to the previous quarter (13.7% y-o-y in Q3, against 18.8% in Q2)<sup>1</sup>. The trade deficit was reduced as a result of such growth rates. Namely, in order to achieve a reduction in the trade deficit, export growth should be 2.2 times higher than import growth, which in fact happened in Q3, when the trade balance was by 3.5% lower in nominal terms relative to the same quarter of the previous year. Expressed in percentage of GDP, it was a drop of 2.0 percentage points, to 21.0% of GDP.

**The trade deficit fell by 3.5%**

Exports in Q3 – after growing by 27.6% in Q1 and 22.9% in Q2 – grew at a rate of 34.3%. That growth was led mainly by major exporters (*Bulky Exports*: metals and agricultural produce), whose exports grew at an annual rate of 65.8%, while the growth in the broad export base (*Underlying Exports*) grew at a rate identical to the one from the previous quarter – 26.3%. We believe that the weaker growth of dispersed exports (particularly noticeable at the monthly level) can be ascribed to the dinar's appreciation, which undermines the competitiveness of exports, as well as to the tight monetary policy. Restrictive monetary policy, through higher reference interest rates and a high reserve requirement ratio, substantially increases the cost of credit, thus increasing the financing costs of companies and of their export projects. The borrowing items in the balance of payments indicate a sharp leap in direct foreign borrowing by enterprises, precisely after the last tightening of monetary policy. But more expensive credit does not affect all exporters equally. Large creditworthy exporters have access to international capital markets, so they circumvent domestic credit and finance themselves directly from abroad, which was particularly noticeable in Q3, while smaller exporters, who do not have access to foreign credit, suffer the consequences of strict monetary policy measures and opt only for highly profitable export projects.

**Imports decelerated in Q3, primarily due to lower energy imports**

Import growth in Q3 decelerated relative to Q2. While imports in Q2 grew at a rate of 18.8%, the figure in Q3 was 13.7%. This obvious deceleration of import growth, however, is linked to the lower import base in Q2 2005, which after the VAT introduction was below its perennial trend. Likewise, the strong appreciation of the dinar in Q3 did not affect imports more significantly, primarily due to a lag in the realization of imports relative to the change in the exchange rate. A decrease in energy prices, especially oil, in the second half of Q3, has not yet contributed to a stronger import growth deceleration, since it is customary for deliveries under "spot" contracts to be made one month after their signing. Appreciation can be expected to affect import growth only in the coming period. However, this growth can potentially be offset by favorable weather conditions and falling energy prices.

<sup>1</sup> In the analysis of the balance of payments, adjusted foreign trade data published by the National Bank of Serbia is used; and in the analysis of foreign trade the unadjusted data published by the Serbian Bureau of Statistics. In addition to the methodological difference, part of the discrepancy between the data from these two sources is related to the fact that the data published by the SBS are not updated regularly.



**Table T6-1. Serbia: Balance of Payments, 2004–2005<sup>1)</sup>**

	2004		2005			2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>cumulative, in millions of euros</b>							
<b>CURRENT ACCOUNT</b>	-2,197	-325	-615	-1134	-1778	-679	-1,149	-1,781
Balance of goods	-5,311	-684	-1772	-2987	-4310	-1,101	-2,351	-3,523
Exports of goods	2,991	812	1825	2844	3981	1,039	2,282	3,651
Growth rate (12-m, in %)	15	54.4	53.5	41.2	33.1	28	25	28
Imports of goods	-8,302	-1497	-3597	-5831	-8291	-2,139	-4,633	-7,174
Growth rate (12-m, in %)	29	-13.4	-2.7	3.4	-0.1	43	29	23
Balance of services	155	-25	17	17	-4	-31	-27	-12
Income, net	-172	-59	-141	-197	-255	-58	-154	-237
Current transfers	2,728	410	1200	1886	2524	474	1,302	1,867
F/X purchases, net	1,592	320	884	1329	1631	289	882	1,166
Non-resident's accounts	568	37	108	259	427	183	276	494
Grants	403	33	82	148	267	36	82	124
<b>ERRORS AND OMISSIONS</b>	168	-183	-76	-206	-207	-18	-37	-109
<b>CAPITAL AND FINANCIAL ACCOUNT</b>	2,377	711	1,174	2,277	3,667	1,072	2,828	5,260
Foreign direct investment (FDI)	773	262	502	998	1,243	164	709	2,380
Other investments	1,604	449	672	1,279	2,424	907	2,119	2,880
Medium and long-term loans, net	1,221	159	603	989	1,640	415	1,666	2,425
Other <sup>2),3)</sup>	383	290	69	291	784	493	453	454
<b>NBS Reserves, net<sup>3)</sup>, (increase +)</b>	-349	-202	-483	-937	-1,682	-375	-1,642	-3,369
<b>MEMORANDUM ITEMS</b>								
Capital balance excluding com.banks deposits in NBS	2,188	658	915	1,840	2,767	802	1,695	3,859
Com. banks' foreign liabilities, net <sup>4)</sup>	581	109	-21	-113	19	87	184	-150
NBS reserves excl. com. banks deposits	-159	252	-270	-455	-687	-77	-606	-975
Total foreign loans minus com. banks' deposits with NBS <sup>5)</sup>	1,195	199	371	585	1,045	356	725	1,057
	<b>in % of GDP</b>							
Exports of goods	15.2	15.4	17.3	18.0	18.9	16.7	18.4	19.6
Imports of goods	-42.1	-28.4	-34.1	-36.8	-39.3	-34.4	-37.3	-38.5
Balance of goods	-26.9	-13.0	-16.8	-18.9	-20.4	-17.7	-18.9	-18.9
Balance of services	-11.1	-6.2	-5.8	-7.2	-8.4	-10.9	-9.2	-9.6
GDP in euros (annual) <sup>6)</sup>	19,723	21,107	21,107	21,107	21,107	24,860	24,860	24,860

Source: Table P-6 in Analytical Appendix.

1) Original US dollars monthly data are converted to euros using monthly averages of official daily NBS mid rates.

2) Includes short term trade credits, unpaid imports of oil and gas, short-term loans, other assets and liabilities, gross reserves of commercial banks.

3) Excluding IMF.

4) Commercial banks' long term foreign debt, and inflow of short term foreign loans. Excludes statutory reserves on Fx liabilities

5) Includes long term foreign debt and short term foreign loans.

6) GDP converted into euros using annual average of official daily NBS mid rates. GDP 2006: FREN's estimate.

Service revenue and expenditure both had a strong leap in Q3 (annual growth in revenue and expenditure was 37.7% and 33.2% respectively). This behavior of service items coincides in terms of timing with the beginning of the exchange rate appreciation and the tightening of monetary policy. Therefore we believe that part of the growth in service imports is in fact a capital inflow, rather than a simple reflection of a sudden surge in activity in this sector. In terms of growth between quarters, there was an unusual surge in services: revenue grew by 25.2 % and expenditure by 23.1% (Q3 relative to Q2), with this leap not being a consequence of seasonal factors. The steady growth of foreign borrowing, as well as the high foreign reserves of the NBS invested in first-class foreign securities, resulted in the strong growth of both interest payments (annual growth of 58.5%) and of interest earnings (85.3%). Net factor transfers in Q3 amounted to 83 mn euros.

### *The decline in fx inflows from exchange offices*

### *... is a response to the appreciation of the dinar*

Q3 saw a sharp fall in current transfers (a y-o-y decline of 17.4%): predominantly due to lower purchases of foreign exchange from exchange offices (a y-o-y decline of 36.2%), which dropped in the course of the summer far below their values for last year. In July, the y-o-y fall in foreign exchange inflows from exchange operations amounted to -33.0%, in August as much as -56.8%, and was obviously linked to the response to the nominal appreciation of the exchange rate. July saw strong nominal appreciation of the dinar (or a decrease in the value of the euro) and people realized they would get considerably less dinars when converting foreign exchange. In the expectation that the drop in the rate would be of short duration, they wisely opted to hold back from selling their foreign exchange. This is confirmed by a leap in newly made foreign exchange savings deposits in August (y-o-y growth of 148%) and September (y-o-y growth of



**...and directly results in the worsening of the current account balance**

101%), though the picture is somewhat distorted because of the inflows from the privatization of Hemofarm (70 mn euros, or 18.1% of new foreign exchange savings deposits in Q3, was paid to natural persons – the company's small shareholders). It is clear that, though temporary, this leap in the marginal propensity to save caused a drop in the marginal propensity to consume, which further caused the shrinking of demand and, with a certain lag, contributed to the disinflation of prices. Still, the probability is that this behavior is temporary, and it may be assumed that, depending on the perceptions regarding further movements of the exchange rate and generated expectations, in the course of the fall, and especially in December, the movements of foreign exchange inflows from exchange operations and new foreign currency savings deposits will return to their long-term trends.

On the other hand, after the adjustment of balances of non-residents' accounts in May and June, when these accounts showed negative flows<sup>2</sup>, in August, and particularly in September, the net change in these accounts was positive. The reasons were inflows from abroad, as well as resources paid into non-residents' accounts in takeover processes. On a quarterly basis, non-residents' accounts had y-o-y growth of 44.6%.

**Record capital account, a result of the Mobtel privatization, but also of higher borrowing...**

The capital account reached its record in Q3 amounting to 2,432 mn euros, mainly due to record amounts of foreign direct investment (the Mobtel privatization), and the continuation of non-government foreign borrowing (601 mn euros on a net basis), primarily driven by direct enterprise borrowing (663 mn euros on a net basis). Foreign direct investment amounted to 1,671 mn euros in Q3. Record FDI's are, first and foremost, a consequence of the Mobtel privatization (out of this privatization transaction, 1.155 bn euros is FDI), the sale of Hemofarm shares owned by residents, and further recapitalization of banks. It should be borne in mind that, despite the fact that Vojvodjanska Banka was privatized in July, under the contract the payment of the privatization price will be made only in Q4 2006; therefore this privatization is not included in Q3 FDI's.

**Both medium-term and long-term borrowing went up ...**

Medium-term and long-term borrowing continued to grow strongly in Q3 as well (y-o-y growth of 96.0%). In this quarter, unlike in the previous one, credit growth was not a consequence of higher bank borrowing, (which slowed down relative to the previous quarters), but of a sudden surge in direct foreign borrowing by enterprises (y-o-y growth of 173.5%). In line with this, the composition of borrowing has also changed: the share of bank borrowing in total borrowing is declining – owing to high required reserves prescribed by the National Bank - while the share of direct enterprise borrowing is increasing considerably. On the one hand, domestic creditworthy companies, often even through the intermediation of foreign-owned domestic banks, borrowed directly abroad, thus bypassing the overly expensive domestic financial system. On the other hand, banks adjusted to the tightened regulatory environment, and increased their sources through substantial recapitalization in Q2 and Q3. As a result, growth of direct bank borrowing is slowing down (y-o-y growth of 13.1% in Q3 relative to the record y-o-y growth of as much as 539.0% in Q2).

**... primarily due to the strong growth in direct borrowing by enterprises**

The draconian reserve requirement on short-term foreign borrowing led to a substantial clearance of the short-term foreign debt of banks: the net balance of short-term loans fell by 159 mn euros.

Newly deposited foreign currency savings, as underscored above, grew strongly in Q3 (78.1%), because of the exchange rate movements and expectations that the appreciation could be a temporary phenomenon, and because of the inflow in the amount of 70 mn euros (18.1% of new foreign currency savings deposits in Q3), which the German Strada paid out to small shareholders of Hemofarm.

**Net NBS own foreign reserves rose in Q3 by 369 mn euros**

NBS international reserves continued to grow in Q3 (1726.9 mn euros). Its net own reserves (gross reserves reduced by required reserves of banks and government deposits) amounted to 369 mn euros in Q3. The rise in own net reserves is a consequence of the NBS intervention in a broader sense on the foreign exchange market<sup>3</sup> with a view to preventing the further appreciation of the dinar.

<sup>2</sup> See QM5, "Balance of Payments and Foreign Trade". In the first months of 2006 some banks misclassified foreign borrowing as non-residents' deposits, because of the lower reserve requirement ratio on those deposits. A vigorous reaction of the NBS resulted in the reclassification of these deposits and reduction of their amount in June and July 2006.

<sup>3</sup> The NBS intervention in a broader sense includes NBS interventions on the interbank foreign exchange market and foreign exchange purchases from NBS exchange offices.

## Exports

**Exports accelerated (35.3%)**

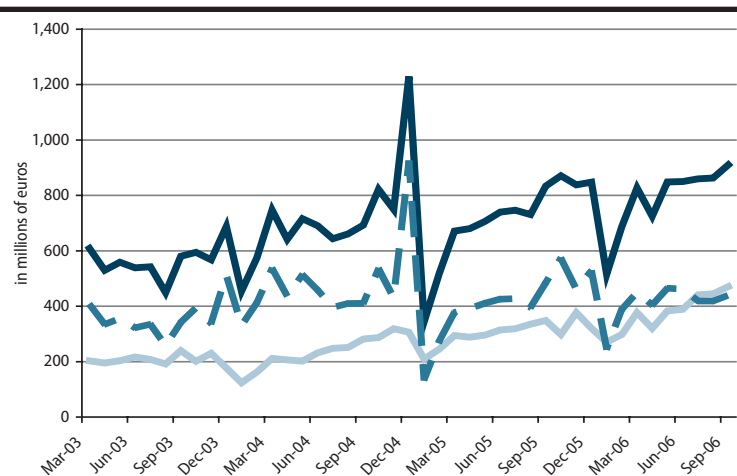
**... primarily due to growth in metal exports**

**... while export growth of other groups is remaining stable (26.3%)**

**Bulky Exports accelerated**

In Q3 2006 growth in exports of goods accelerated (y-o-y growth of 35.3%) relative to Q2 (y-o-y growth of 21.6%, Graph T6-2)<sup>4</sup>. That growth was, however, a consequence of the increased exports of a small group of large exporters (ferrous and non-ferrous metals), while the growth of other export groups (*Underlying Exports*) remained almost identical to the Q2 figure (y-o-y growth of 26.3%). Incidentally, the faster growth of goods export in Q3 2006 was a consequence of the privatization and restructuring of companies in the field of ferrous and non-ferrous metallurgy and of a rise in both domestic and EU industrial production.<sup>5</sup> Export growth would have certainly been even more rapid had it not been for the strong appreciation of the real effective exchange rate in the observed period.

**Graph T6-2. Serbia: Merchandise Exports, Imports and Trade Deficit, 2004–2006**



Source: SBS.

A breakdown of total exports into *Bulky Exports*, the *Core Group* and *Other*<sup>6</sup> (Table T6-3) indicates that in Q3 2006 *Bulky Exports*, whose share in total exports was 27.9%, had the highest growth (y-o-y growth of 65.8%). At the same time, the high y-o-y growth of *Bulky Exports*, which was much more intensive than in Q2 2006, was partially a consequence of their fall in Q3 2005, that is, of the start from a low base (a y-o-y decline of 3.5%). In the group *Bulky Exports*, exports of iron and steel grew at the fastest pace (y-o-y growth of 92.5%), as well as those of non-ferrous metals (y-o-y growth of 58.8%).<sup>7</sup> These products contributed the most to the growth of total exports in Q3 2006, with shares in export growth of 27.4% and 12.2% respectively. Furthermore, cereals and sugar and sugar preparations had quite a good growth (y-o-y growth of 21.2% and 13.8% respectively), although it should be underlined that the growth in exports of sugar and sugar preparations is linked to their very low base in Q3 2005 because of the cancellation of the preferential status for domestic sugar exports to the European Union.

**...while the Core Group and Other exports also grew, but more slowly**

*Underlying Exports* (72.1% of total exports) grew at a much slower pace in Q3 2006 than *Bulky Exports* (y-o-y growth of 26.3%); however, their contribution to the increase in total exports is higher (57.5% as against 42.5%). The growth of *Underlying Exports* was by 2% higher than the growth in Q2 2006, as a consequence of the acceleration of the growth in the component *Other*.

The fastest growing exports in the *Core Group* in Q3 2006 were: vegetables and fruit (70.5%), footwear (68.8%), clothing (35.7%), oil and petroleum products (29.6%) and rubber products (25.9%), while the weakest growth performance was that of plastics in primary forms (-4.5%), general industrial machinery and equipment (5.2%) and medicinal and pharmaceutical products (7.2%). Still, the greatest contribution to the growth in total exports was made by manufactures of metals (7.2%), vegetables and fruit (4.4%), electrical machinery, apparatus and appliances (4.4%) and clothing (3.0%).

<sup>4</sup> It is necessary to take into account that data on Serbia's foreign trade in Q3 2005 and 2006 includes trade with Montenegro. Moreover, growth rates of foreign trade aggregates are different from the rates published by the SBS due to the fact that data published for 2005 does not include trade with Montenegro and retrospective adjustments of data made by the SBS.

<sup>5</sup> Exports to the EU in the first nine months of 2006 relative to the same period of the previous year were increased by 37.4%, which is substantially more intensive than the increase in total exports.

<sup>6</sup> On the method for breaking down total exports into these groups, see section "Balance of Payments and Foreign Trade, Box 2", QM4.

<sup>7</sup> Iron and steel export growth is to a large extent the result of its decline in Q3 2005 (a y-o-y fall of 14.8%) and the startup of the second blast furnace at US Steel Serbia. Exports of non-ferrous metals grew due to the privatization and restructuring of companies in this field (Seval – Impol and Sevojno Copper Mills), the positive economic trends in the EU, and movements in metal prices on world exchanges.

**Table T6-3. Serbia: Merchandise Exports (y-o-y), Growth rates, 2005–2006<sup>1)</sup>**

	in % Exports share in 2005	mil.euros 2006	y-o-y growth in %						
			2005				2006		
			Q2	Q1	Q2	Q3	Q4	Q1	Q2
Total	100.0	1,092.7	50.2	40.3	28.5	9.2	26.2	21.6	35.3
Bulky exports	29.7	352.8	144.3	139.7	0.0	2.7	32.7	13.1	65.8
Iron and steel	13.6	169.2	146.2	83.0	-13.6	4.6	2.2	24.7	92.5
Non ferrous metals	8.0	103.9	103.7	66.2	76.1	67.3	79.9	53.5	58.8
Cereal and cereal products	4.3	38.0	64.5	119.4	130.5	59.3	88.0	31.9	21.2
Sugar and sugar products	3.9	41.7	1,509.3	3,558.9	-92.2	-64.2	18.5	-47.7	13.8
Core exports	70.3	739.9	27.0	14.9	40.3	12.2	23.2	26.2	26.3
Core	44.6	438.5	36.1	23.3	40.4	42.9	29.6	24.0	22.7
Organic chemicals	5.9	43.6	9.0	7.9	19.2	4.3	8.6	1.4	20.5
Manufactures of metals, n.e.s.	5.4	53.7	75.7	68.6	69.9	52.1	34.8	21.8	19.1
Medicinal and pharmaceutical products	5.0	48.3	20.6	16.0	40.5	19.0	24.1	14.7	7.2
Electrical machinery, apparatus and appliances	4.5	45.1	20.0	20.3	36.2	16.8	19.7	9.5	10.0
Footwear	3.4	44.6	-1.1	16.3	37.1	28.8	61.4	69.6	68.8
Clothes	1.0	10.5	19.2	44.1	57.4	39.7	30.2	11.7	20.6
Oil and oil products	2.8	29.5	229.5	21.9	14.4	146.3	45.2	19.4	29.6
Paper, paperboard and articles of paper pulp	2.7	22.2	151.8	-30.2	20.0	29.2	20.2	72.1	16.9
Miscellaneous manufactured articles, n.e.s.	2.7	30.5	89.1	87.7	55.0	56.0	32.5	33.8	21.6
General industrial machinery and equipment	2.4	23.9	6.8	24.2	58.9	90.4	11.5	48.4	5.2
Plastics in primary forms	2.1	18.1	49.8	40.1	71.4	136.5	39.1	5.8	-4.5
Rubber products	2.2	19.4	8.2	13.1	93.2	72.3	8.0	14.1	25.9
Machinery specialized for particular industries	2.2	23.6	44.4	31.1	36.2	50.8	63.0	16.3	18.0
Fruits and vegetables	2.2	25.5	6.2	13.4	49.6	66.7	70.5	53.6	70.5
Other	25.7	301.4	15.3	4.3	40.2	-26.3	13.4	29.4	31.9

Source: SBS.

In the group *Other*, the fastest export growth in Q3 2006 was that of non-monetary gold (413.5%), telecommunications apparatus and equipment (206.3%), other transport equipment (149%), tobacco and tobacco manufactures (117.8%), inorganic chemicals (117.5%) and power-generating machinery and equipment (117.1%), while the sharpest drop in exports in this category was in fertilizers (79.4%), coal, coke and briquettes (54.9%), live animals (50.5%), fixed vegetable fats and oils (50.1%) and textile fibers and waste (39.1%).

The further pace of exports will depend predominantly on the realization of hitherto and future processes of privatization and restructuring, domestic and foreign (especially EU) economic trends, changes in the balance of supply and demand on the foreign exchange market, the policies of the exchange rate and reference interest rate pursued by the NBS.<sup>8</sup> Likewise, we believe that the signing of the CEFTA agreement of eight Balkan countries<sup>9</sup> will have no major effect on foreign trade. Why? First, 31 bilateral trade agreements have already been signed,<sup>10</sup> and the multilateral agreement is designed to facilitate their implementation, rather than ensure additional liberalization. Second, the CEFTA market will shrink after 1 January 2007, when Bulgaria and Romania become EU members.

## Imports

### Imports grew steadily

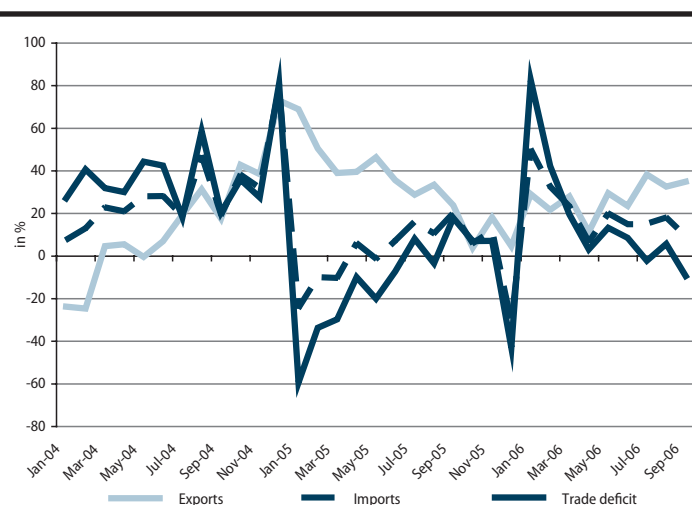
Total imports of goods in Q3 2006 continued to grow steadily at a y-o-y rate of 13.9% (Graph T6-4, Table T6-5). At the same time, imports excluding energy accelerated growth. The y-o-y growth rates for the periods December 2005–March 2006, Q2 and Q3 2006 of 6.3%, 14.3% and 16.6%, respectively, point to that fact. There is no doubt that a significant slowdown in energy import growth is the reason for the stagnation of the growth in total imports.

<sup>8</sup> The NBS announced as early as end-2005 its gradual withdrawal from the foreign exchange market and exchange operations, which it started to implement this year. In the coming period, no sizeable NBS interventions are expected on the interbank foreign exchange market, except to the extent to which it is necessary to prevent dramatic appreciation or depreciation of the dinar. Further, the reference interest rate policy, which has been fixed as the key instrument pursuant to the new monetary policy framework, will affect the pace of exports of goods through the foreign exchange transmission mechanism.

<sup>9</sup> Bosnia and Herzegovina, Croatia, Bulgaria, Romania, Moldova, Republic of Macedonia, Albania, Serbia, Montenegro and Kosovo.

<sup>10</sup> See: Olivier Lamotte: "Trade integration in South-eastern Europe" in which the author uses a gravity model to prove that CEFTA will have a limited effect on growth in regional trade, QM4, Spotlight on: 2.

## 6. Balance of Payments and Foreign Trade

**Graph T6-4. Serbia: Merchandise Exports, Imports and Trade Deficit, Y-o-y Growth Rates 2004–2006**

Source: SBS.

The largest share in total goods imports, from the standpoint of economic purpose,<sup>11</sup> was that of intermediary goods (37.6%), followed by capital goods (23.9%), energy (18.7%), non-durable consumer goods (14.6%), and durable consumer goods (3.4%).

The data disaggregated according to EU economic purpose shows that in Q3 2006 the growth in imports of intermediary goods was the fastest, rising at a y-o-y rate of 22.5%, and contributing to the increase in total imports with 56.5%. This growth was also driven by a rise in industrial production, the appreciation of the real effective exchange rate, real growth of gross wages, growth of total goods exports and a considerable increase in foreign borrowing. A stable and high import growth was also recorded in the case of capital goods, (a y-o-y growth rate of 15.4%), which augurs technological modernization of the domestic economy and the strengthening of its micro and macro competitiveness. Capital goods contributed with 26.1% to the increase in total imports. Imports of non-durable consumer goods had the third highest growth (a y-o-y rate of 11.2%), contributing with 12% to the increase in total imports. Energy imports recorded a modest y-o-y growth of 3.6% and a slight contribution of 5.4% to the increase in total imports. The slowdown in energy imports in Q3 2006 was the consequence of the slower rise in the oil price<sup>12</sup> and a moderate growth in the physical volume of energy products imports<sup>13</sup>. Finally, imports of durable consumer goods recorded the lowest growth (a y-o-y rate of 1.7%), which resulted in a modest 0.5% contribution to the increase in total imports.

**Table T6-5. Serbia: Imports, Y-o-y Growth Rates, 2004–2006**

In %	2004		2005		2006			
	Oct-Nov	Dec-Mar	Q2	Q3	Oct-Nov	Dec-Mar	Q2	Q3
Total	35.2	12.1	3.9	15.7	8.8	4.2	14.0	13.9
Energy	103.0	21.5	22.4	66.0	16.7	-5.1	12.3	3.6
Imports excluding energy	26.6	10.1	0.8	7.3	7.2	6.3	14.3	16.6
Intermediate products	26.2	18.4	18.8	14.5	12.1	15.9	11.4	22.5
Capital products	41.0	11.4	-12.6	-2.0	3.1	-9.8	17.9	15.4
Durable consumer goods	13.1	2.5	-17.9	-0.3	4.2	-2.5	14.5	1.7
Non-durable consumer goods	15.0	1.3	-12.0	6.5	4.5	17.4	18.7	11.2
Other	-6.6	-19.1	28.5	38.0	7.2	8.1	2.9	-2.9

Source: SBS.

The future pace of goods imports will be impacted by the exchange rate and the reference interest rate policies, the level of economic activity, movements of real wages, changes in tariff rates (in particular in relation to the signing of the Stabilization and Association Agreement with the European Union and accession to the World Trade Organization), medium-term and long-term foreign borrowing, the price of oil on international markets, and the level of public spending, with special emphasis on the probable effects of the implementation of the National Investment Plan.

<sup>11</sup> Import classification according to economic purpose in line with the EU methodology.

<sup>12</sup> Y-o-y growth rates for prices of Ural oil in the periods December 2005–March 2006, Q2 and Q3 2006, were 39.5%, 36.9% and 15.3%, respectively.

<sup>13</sup> According to the published SBS data, y-o-y growth in mineral fuel and lubricant imports in the first nine months of 2006 was 5.7%.



## 7. Fiscal Flows and Policy<sup>1</sup>

After the restrictive Q2, consolidated general government expenditure in Q3 was indicative of the announced turnaround in fiscal policy. Expansive fiscal policy will be evident as soon as Q4 2006, but the main concern are the possible effects of the new legal and constitutional arrangements slated to come into force next year.

**Table T7-1. Serbia: Consolidated General Government Fiscal Operations<sup>1</sup>, 2005–2006**

	2005		2006			
	Q3	Q1-Q3	Q1	Q2	Q3	Q1-Q3
	<b>in billions of dinars</b>					
I TOTAL REVENUE	176.9	491.3	175.3	201.6	208.8	585.7
II TOTAL EXPENDITURE	-167.2	-472.8	-174.9	-185.2	-197.6	-557.7
III "OLD" DEBT REPAYMENT AND NET LENDING	-8.9	-28.79	-4.4	-17.1	-10.4	-31.8
<i>o/w III.3 Net lending<sup>2</sup></i>	-2.4	-3.4	-1.8	-0.8	-1.3	-3.9
IVa CASH BALANCE (I+II), MoF definition <sup>3</sup>	9.8	18.6	0.3	16.4	11.2	28.0
IVc ANALYTICAL BALANCE (I+II+III), FREN's definition <sup>3</sup>	0.8	-10.2	-4.0	-0.7	0.8	-3.9
V FINANCING ( FREN's definition)	11.9	20.8	8.5	1.4	102.0	111.8
<b>VI ACCOUNT BALANCE CHANGE (IVc+V)</b>	<b>12.7</b>	<b>10.6</b>	<b>4.4</b>	<b>0.7</b>	<b>102.8</b>	<b>107.9</b>
<b>MEMORANDUM ITEMS</b>						
Government net position in banking system, change (NBS)	-4.2	16.0	10.5	6.6	90.1	107.2
Enterprises' claims on VAT (FREN's estimate) <sup>4</sup>	3.5	9.6	-1.6	2.1	..	0.5
License fee <sup>5</sup>	..	..	..	..	27.0	27.0

Source: Table P-7 in Analytical Appendix.

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

2) The item corresponds to the item "Net acquisition of financial assets for policy purposes" in the PFB (in accordance to GFS 2001), i.e. to the item "net lending" or "lending minus repayment" in the IMF presentation (i.e. GFS 1986). It comprises loans to students, financing of the National Corporation for Housing Loan Insurance and the like. 3) See Table P-7 in Analytical appendix and/or Box 1. in QM3. 4) FREN's estimate based on informal information regarding VAT credits and on analysis of VAT redemption PFB data. 5) Regarding to the fact that fee from license for mobile is one off revenue, this fee was regarded in our table as financing item, despite the definition of MoF, that treats this license as a non-tax revenue. Note: Details are given in Table P-7 in Analytical appendix.

*License revenues are treated as expenditure financing, due to its one-off nature...*

Consolidated general government ran a surplus in Q3 – a very substantial one if the inflow from the sale of the license for "063" mobile telephony – around 40 bn dinars – is treated as current non-tax revenue (as the Ministry of Finance does), and if it is perceived as a financing item. Considering the one-off nature of this inflow, namely, that it is not a recurrent budget revenue and that spending it has the same macroeconomic consequences as the spending of privatization proceeds, we believe it more appropriate to treat this revenue as a deficit financing source. From that perspective, the consolidated general government surplus in Q3 amounted to 11.2 bn dinars (Table T7-1)<sup>2</sup>.

*...however, consolidated government budget is in surplus*

The analytical balance of general government (result IVc in Table T7-1), which includes budget loans and old debt repayments and excludes the license revenue, also had a positive value – around 800 mn dinars. In real terms it was lower than in the same period last year.

The central budget and the Pension and Disability Insurance Fund of the Self-Employed ran surpluses<sup>3</sup>. This Fund has been running a substantial surplus from quarter to quarter since Q4 last year, owing to steadily rising contributions. It is interesting to note that the number of entrepreneurs has not increased relative to 2005, according to the SBS data. Local governments also ran a surplus (340 mn), although at a considerably lower level relative to the first two quarters, which is in line with experience – in the sense that local governments increase spending in the second semester of the year, particularly in the last quarter.

1 In the previous issues of QM we kept being surprised by the unusual and unplanned low interest payment in Q1 2006. The Public Finance Bulletin (PFB) for August published revised figures of the budget, with over three billion dinars higher interest payment in Q1 than shown during the year, as well as over a billion dinars higher employee expenditures. This changes the consolidated fiscal balance for Q1 – the surplus did not actually exist, while the analytical balance (FREN definition) was in deficit for the amount of 4bn dinars. For these reasons the data for Q1 2006 is different from the data in the previous issues of QM.

2 The spending of resources not previously collected from taxpayers increases aggregate domestic demand.

3 Formally, the Pension and Disability Insurance Fund of Employees and the Health Insurance Fund also run surpluses, but these are not real surpluses of those organizations; instead, they were accumulated after transfers or borrowing from the Republic, which, in practical terms boils down to a surplus of the central budget.



**Table T7-2. Serbia: Consolidated General Government Fiscal Operations<sup>1)</sup>, 2005–2006**

	in billions of dinars					real growth (in %)				
	2005		2006			y-o-y			in comparison to previous period	
	Q3	Q1-Q3	H1	Q3	Q1-Q3	2006			2005	2006
						H1	Q3	Q1-Q3	Q3/Q2	Q3/Q2
<b>I PUBLIC REVENUES</b>	<b>176.9</b>	<b>491.3</b>	<b>376.9</b>	<b>208.8</b>	<b>585.7</b>	<b>4.2</b>	<b>5.1</b>	<b>4.5</b>	<b>1.5</b>	<b>2.7</b>
<i>o/w: Public revenues excluding VAT liabilities to enterprises and offsets with SDF<sup>2)</sup></i>	172.7	478.1	376.3	205.6	581.9	7.1	5.9	6.7	1.9	2.2
1. Current revenues	174.9	485.9	372.5	204.8	577.3	4.7	3.7	4.1	12.2	11.1
Tax revenues	162.6	453.1	344.5	188.5	533.0	2.6	3.4	3.0	11.3	12.1
Personal income taxes	24.1	67.1	55.1	29.2	84.2	15.7	7.6	11.3	17.4	9.3
Corporate income taxes	1.8	7.6	10.9	3.5	14.3	75.2	43.6	65.7	-56.6	-64.5
VAT and retail sales tax	54.4	153.8	104.2	57.0	161.2	-14.8	-3.6	-9.0	6.7	20.7
<i>o/w: Net VAT and retail sales tax<sup>2)</sup></i>	50.9	144.2	103.7	57.0	160.7	-5.9	-1.2	-3.5	7.1	12.4
Excises	19.7	51.2	35.7	21.7	57.5	-3.2	-0.3	-1.6	34.8	38.8
Custom duties	10.4	26.7	22.3	9.9	32.2	20.4	18.1	19.1	30.0	27.5
Social contributions	46.4	129.5	102.6	59.4	162.0	9.6	5.4	7.4	11.9	7.6
<i>o/w: contributions excluding offsets with SDF<sup>3)</sup></i>	45.7	125.8	102.5	56.2	158.7	13.3	9.3	11.2	11.9	7.9
Other taxes	5.8	17.3	13.8	7.9	21.6	-2.9	9.7	3.3	-5.6	6.6
Non-tax revenue	12.3	32.7	28.0	16.2	44.2	35.5	7.2	19.5	26.0	-0.4
2. Capital revenues	2.0	5.5	4.4	4.0	8.4	10.2	7.3	8.7	9.3	6.5
<b>II TOTAL EXPENDITURE</b>	<b>-167.2</b>	<b>-472.8</b>	<b>-360.1</b>	<b>-197.6</b>	<b>-557.7</b>	<b>2.5</b>	<b>5.2</b>	<b>3.4</b>	<b>-1.9</b>	<b>5.8</b>
1. Current expenditures	-159.3	-450.5	-341.7	-184.4	-526.4	2.2	3.0	2.5	-1.0	4.9
Wages and salaries	-41.5	-118.6	-91.8	-47.1	-139.0	3.5	1.1	2.7	-2.4	2.1
<i>Wages and salaries excluding severance payments<sup>4)</sup></i>	-41.0	-117.6	-88.5	-47.1	-137.3	0.3	2.2	2.3	-3.5	2.3
Expenditure on goods and services	-23.2	-62.6	-47.6	-29.0	-76.6	5.2	11.4	7.4	1.0	14.0
Interest payment	-5.7	-16.6	-10.6	-8.8	-19.4	-15.0	37.6	2.5	9.6	78.1
Subsidies	-14.0	-38.6	-22.8	-13.6	-36.4	-19.5	-13.7	-17.4	0.2	6.3
Social transfers	-70.8	-202.8	-161.0	-81.7	-242.6	6.0	2.8	4.9	-2.1	-0.1
<i>o/w: pensions<sup>5)</sup></i>	-46.9	-134.6	-108.4	-58.5	-166.9	7.5	10.9	8.7	-1.0	4.2
Other current expenditures	-4.2	-11.2	-8.1	-4.1	-12.2	0.7	-13.0	-4.2	4.3	-11.7
2. Capital expenditures <sup>6)</sup>	-7.8	-22.3	-18.2	-13.2	-31.3	9.2	49.8	23.0	-16.3	20.5
<b>III "OLD" DEBT REPAYMENT AND GOVERNMENT NET LENDING</b>	<b>-8.9</b>	<b>-28.8</b>	<b>-21.5</b>	<b>-10.4</b>	<b>-31.9</b>	<b>-5.8</b>	<b>3.2</b>	<b>-3.1</b>	<b>-50.2</b>	<b>-40.0</b>
1. Debt repayment-FFCDs and LRS	-5.1	-21.1	-15.6	-4.8	-20.4	-15.5	-16.1	-15.7	-67.6	-67.6
2. Pensions	-1.5	-4.2	-3.3	-4.3	-7.6	2.6	155.0	54.2	-2.8	152.4
3. Net lending <sup>7)</sup>	-2.4	-3.4	-2.6	-1.3	-3.9	118.1	-50.0	3.1	191.6	60.4

Source: Table P-7. in Analytical Appendix. 1) See footnote 1) in Table T7-1. 2) Retail sales tax/VAT minus new tax credits to enterprises.

3) Social contributions reduced by refunds between Pension Fund, Serbian Development Fund and enterprises that are debtors of the Pension Fund.

4) FREN's estimate, for details see Table P-7 in Analytical appendix. 5) Refers to the current expenditures on pensions.

6) Capital expenditures exclude projects financed from abroad (apart in 2004, see footnote 16 in Table P-7). 7) See footnote 2) in Table T7-1.

Note: Real growth is obtained comparing 2003 constant prices quarterly data.

Consolidated revenue (excluding the license) in Q3 grew in real terms by 5.1% relative to the same quarter of the previous year, but in this quarter consolidated expenditure went up by the same amount (5.2%), unlike in the previous quarter, which saw fairly strong tightening, i.e. a slower growth of expenditure than of revenue. When the first three quarters of 2006 are observed, relative to the same period of 2005, it is noticeable that revenue grew somewhat faster (4.5%) relative to expenditure (3.4%), thanks to the restrictive Q2.

Consolidated revenue in Q3 2006 increased by 5.1%, compared to Q3 2005. Non-tax revenue grew faster (even excluding the license) than tax revenue. The growth in tax revenue of 3.2% relative to Q3 2005 was driven by the personal income tax and contributions, as well as the corporate income tax and other taxes. The VAT and customs revenue underperformed in this period, recording a decline – both in relation to Q3 2005 and to Q2 2006.

**Revenues from contributions, personal income and corporate profit tax still increasing**

Personal income tax and contribution revenues have continued to grow strongly relative to the same quarter of the previous year. Particularly high is the increase in contribution revenue of the Pension and Disability Insurance Fund of the Self-Employed, which has been growing strongly ever since Q4 2005 – more than 45% in real terms in the first three quarters relative to the same period last year.

The corporate income tax revenue went up relative to the same period of the previous year, as well as relative to Q2 of the current year. This tax revenue is traditionally high in Q1 since the final calculation of the tax liability and its payment are made in March of the current year for the previous year. In Q2 and the following quarters taxpayers make prepayments whose amounts are set on the basis of the corporate income tax liability for the last year. Thus, the growth in Q3 may be a signal of a higher inflow in the coming year, if businessmen are paying higher prepayments based on their current performance, because they expect a higher tax liability after the final calculation in March. Such growth would reflect a lively and cost-effective economic activity, were not a reflection of an overemphasized fiscal incentive to report income instead of real costs.

**Custom tax and VAT on imports lower than expected in Q3 due to dinar appreciation**

The VAT underperformed throughout the year<sup>4</sup>, for which reason the VAT revenue in the revised budget is lower by 18 bn than originally planned (Table T7-3). The import VAT, however, owing to which the VAT revenue recovered a bit in the previous quarter, underperformed in Q3, primarily due to the strengthening of the dinar. The situation with customs revenue is similar. The dinar's appreciation against the euro underlies a shortfall in customs and import VAT revenues, since the dinar equivalent of the value of imported goods serves as the base for their calculation.

In comparison with the same period of the previous year, the excise revenue fell slightly, the reason being that 10% of excises was redirected to the Road Fund; nevertheless, in the course of 2006, it recorded growth. Non-tax revenue (excluding the license) grew in Q3, both relative to the same period last year and relative to Q2 of the current year.

**Expenditures in Q3 are insinuating the announced turnaround of fiscal policy**

Consolidated general government expenditure in Q3 is indicative of the announced turnaround in fiscal policy. After a moderate first semester (a rise of 1% in real terms relative to the same period of 2005), its increase accelerated to 5.2% relative to Q3 of the previous year. All expenditure items in Q3 2006 relative to Q3 2005 recorded growth, with the exception of subsidies and other current expenditures.

A rise in expenditure for employees in Q3 2006 relative to the same period of the previous year was 1.1%. Somewhat stronger wage growth is expected in the last quarter of 2006, based on the announced pay raises, which were projected in the revised budget (Table T7-3). Thus, Q4 is expected to see an increase of almost seven billion dinars on top of the usual seasonally strong growth of expenditure for employees.

A high increase compared to the previous year occurred in the category of purchases of goods and services – up 11.4% relative to Q3 last year. The increase in expenditure in this category is the highest in the central budget, as was the case in previous quarters.

The high increase in interest payment (in Q3 2006 relative to Q2) was due to the seasonality of that expenditure, i.e., of the defined payment period. If the period reviewed is Q1–Q3 2006, interest payment went up by 2.5% relative to the same period last year.

Among other categories, strong growth was recorded in capital expenditure. It was primarily the consequence of higher capital expenditures of local governments, which now account for more than half of the total capital expenditure of general government.

## Fiscal Situation in 2007

**Consolidated government balance will turn into a deficit...**

An increase in expenditure for employees in Q4 of nearly seven billion dinars has already been announced in the revised budget for 2006. This rise in “regular” fiscal expenditure in 2006 can still be financed out of current fiscal revenue. Nevertheless, the wage growth, that is, the increase in expenditure for employees, will be carried over to next year, which means that total expenditure for employees in 2007 will be over 30 bn dinars higher than in 2006. At the same time, the recently adopted Law on Personal Income Tax will enter into force in January 2007, on account of which around 30 bn dinars will be lost on the revenue side. The consolidated general government balance will thus go from a surplus into a deficit of around 30 bn dinars.

The situation with the 2007 central budget is a source of major concern due to a set of newly adopted legal arrangements (including the constitutional arrangement for Vojvodina). The entire increase in expenditure for employees is related to budget beneficiaries (defense, education, etc.), hence this expenditure in the draft budget of the Republic of Serbia has been increased by around 32 bn dinars<sup>5</sup>. At the same time, the central budget will lose the revenue from the payroll tax – although it will not bear the entire loss of this revenue, only a proportionate part<sup>6</sup> amounting to some nine billion dinars less than in 2006<sup>7</sup>.

<sup>4</sup> It was also inadequately projected, a topic discussed in previous issues of QM.

<sup>5</sup> The difference between the 2007 budget proposal and the 2006 revised budget is there for methodological reasons – public sector wages of the Serbia and Montenegro state union for the first 5 months of 2006 were registered as a transfer in the revised budget, and not as employee expenditure. This is why 11.2 bn dinars should be added to the employee expenditures in 2006, and only then be compared to the employee expenditures in 2007.

<sup>6</sup> 55% of the payroll tax goes into the budget of the Republic of Serbia, 40% to local governments, and 5% into the Vojvodina budget.

<sup>7</sup> Or around 15 bn less than the revenue for 2007 were it not for the new legal arrangements.

## 7. Fiscal Flows and Policy

## T7-3. Serbia: Republic Budget 2006–2007, and Consolidated General Government Balance 2006

	Republic (central) budget			Consolidated government	
	Budget 2006 (adjusted) <sup>1)</sup>	Budget rebalance	2007 Budget	Memorandum Nov06	Projections FREN
<b>I TOTAL REVENUE</b>					
1. Current revenue	<b>487.9</b>	<b>521.3</b>	<b>574.8</b>	<b>855.1</b>	<b>849.1</b>
Tax revenue	487.9	521.3	574.8	846.5	837.2
Personal income tax	465.7	454.4	501.7	756.0	737.2
Corporate income tax	73.6	81.0	80.2	135.7	136.5
VAT and excises	338.7	322.3	363.3	318.8	302.5
Custom duties	48.0	45.9	52.5	45.2	44.4
Other taxes	5.4	5.1	5.6	28.0	30.3
Contributions	..	..	..	228.3	223.5
Non-tax revenue (including license) <sup>2)</sup>	22.2	66.9	73.1	90.5	100.0
2. Capital revenue	..	..	..	8.6	12.0
<b>II TOTAL EXPENDITURE</b>	<b>-448.3</b>	<b>-505.8</b>	<b>-606.9</b>	<b>-827.1</b>	<b>-815.2</b>
1. Current expenditure	-422.9	-446.7	-528.3	-764.6	-758.1
Wages and salaries	-110.2	-117.6	-161.4	-198.1	-200.2
Expenditure on goods and services	-28.8	-32.7	-43.7	-118.5	-112.2
Interest repayment	-22.8	-21.3	-18.6	-36.6	-39.1
Subsidies	-28.2	-30.9	-26.8	-51.7	-52.2
Social transfers	-48.3	-53.9	-59.7	-340.3	-337.1
<i>o/w: pensions</i>	..	..	..	-228.3	-230.1
Donations and transfers	-177.3	-182.8	-208.0	..	..
Other current expenditures	-7.3	-7.4	-10.1	-19.4	-17.3
2. Capital expenditures	-25.3	-59.1	-78.6	-62.5	-57.1
<i>o/w: NIP</i> <sup>3)</sup>	..	-33.0	-55.4	-10.0	-5.0
<b>III "OLD" DEBT REPAYMENT AND GOVERNMENT NET LENDING</b>					
Debt repayment (including pensioners)	-32.4	-28.4	-37.6	-34.7	-42.7
Net lending	-7.1	-7.8	-10.5	-7.2	-7.2
<b>IVa CASH BALANCE (I+II), MoF definition</b>	<b>65.0</b>	<b>74.6</b>	<b>46.5</b>	<b>81.9</b>	<b>79.1</b>
<b>IVc ANALYTICAL BALANCE-without license<sup>4)</sup></b>	<b>25.5</b>	<b>11.4</b>	<b>-94.1</b>	<b>-48.8</b>	<b>-42.9</b>

Source: MoF.

1) Budget for 2006, adopted in October 2005., envisaged 55 billion dinars for Federal budget in form of donations and transfers. MoF has adjusted this original 2006 Budget after Montenegro succession (8th of June). This is the reason why, for example, transfers are higher in original budget and wages and salaries lower. 2) According to MFIN license fee is classified as non-tax revenue.

3) With the 2006 Budget Rebalance, MoF classified NIP as capital expenditures (above the line) while in the 2007 Budget is classified below. We have classified NIP above the line in both cases.

4) When expenditures and old debt repayment is simply subtracted from revenues, a deficit of 106.1 billion dinars occurs. However, obviously transfer to Vojvodina of 12 billion should be consolidated with NIP.

which is, in fact, 1.2% of GDP in 2007. In all likelihood, that transfer will not fully cover the loss of part of the payroll tax revenue at the local level of government.

Under the new Serbian Constitution, "The Budget of the Autonomous Province of Vojvodina shall amount to no less than 7% of the budget of the Republic of Serbia, with three sevenths of the budget of the Autonomous Province of Vojvodina being used to finance capital expenditure». Bearing in mind own-resource revenues of the Vojvodina budget and past transfers, the central budget will need to transfer a total of 31.5 bn in 2007, or 17 bn dinars more than last year. The budget has, however, defined that 12 bn out of the total amount of Vojvodina's budget is to be used for the financing of projects under the National Investment Plan in the territory of the Autonomous Province of Vojvodina.

All the above changes, taken cumulatively, will probably exert very high pressure on the budget, which shift from a surplus from regular activities to a considerable deficit of more than 2% of GDP (excluding the license). The analytical balance – which measures the effect of government operations on the liquidity in the economy, i.e., on aggregate demand, and which includes the repayment of

#### Table T7-4. Serbia: Government Position in the Banking Sector, 2004–2006

	2005			2006		
	Mar	Jun	Sep	Mar	Jun	Sep
	<b>in billions of dinars, stocks</b>					
Total	-28.3	-24.4	-45.7	-56.2	-62.9	-153.0
Republics and State Union	-9.4	-4.1	-30.4	-33.7	-36.5	-126.6
Municipalities	-18.9	-20.3	-15.3	-22.5	-26.4	-26.4
	<b>cumulative, from the beginning of the year</b>					
Total	-20.1	-16.2	-37.5	-10.5	-17.1	-107.2
Republics and State Union	-14.3	-9.0	-35.3	-3.2	-6.0	-96.1
Dinar position	-7.2	-10.0	-27.9	-3.1	-16.3	-13.1
Fx position	-7.0	1.0	-7.4	-0.1	10.3	-83.0
Municipalities	-5.8	-7.3	-2.2	-7.3	-11.1	-11.1
NBS	-5.3	-3.2	-0.8	-6.1	-5.1	-5.5
Commercial banks	-0.6	-4.0	-1.4	-1.2	-5.8	-5.6

Source: NBS

In July 2006, the Serbian Parliament, at the proposal of the Ministry of Finance, adopted a new Law on Local Government Finance under which "the annual amount of the total non-earmarked transfer, which is distributed to local government units, shall amount to 1.7% of the gross domestic product realized, according to the most recent data of the republican authority in charge of statistical affairs". The primary purpose of the increase was to offset the losses local budgets incurred because of the cut in the payroll tax revenue. The base used for the calculations in the draft budget was GDP for 2005, so transfers to local governments in 2007 will be around 30 bn dinars, instead of the hitherto 19 bn dinars,

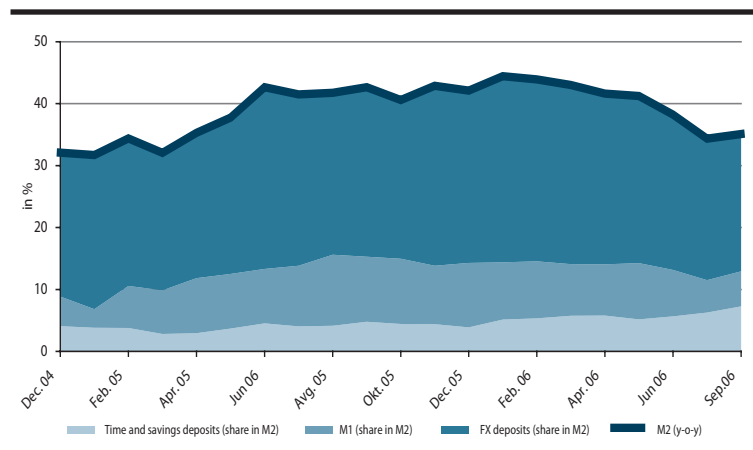
which is, in fact, 1.2% of GDP in 2007. In all likelihood, that transfer will not fully cover the loss of part of the payroll tax revenue at the local level of government. Under the new Serbian Constitution, "The Budget of the Autonomous Province of Vojvodina shall amount to no less than 7% of the budget of the Republic of Serbia, with three sevenths of the budget of the Autonomous Province of Vojvodina being used to finance capital expenditure». Bearing in mind own-resource revenues of the Vojvodina budget and past transfers, the central budget will need to transfer a total of 31.5 bn in 2007, or 17 bn dinars more than last year. The budget has, however, defined that 12 bn out of the total amount of Vojvodina's budget is to be used for the financing of projects under the National Investment Plan in the territory of the Autonomous Province of Vojvodina. All the above changes, taken cumulatively, will probably exert very high pressure on the budget, which shift from a surplus from regular activities to a considerable deficit of more than 2% of GDP (excluding the license). The analytical balance – which measures the effect of government operations on the liquidity in the economy, i.e., on aggregate demand, and which includes the repayment of the public debt to households – will go up to over 90 bn dinars, i.e., 3.8% of GDP. Furthermore, the projections of VAT and excise revenues seem to be over-optimistic (by 40 bn dinars higher than in 2006), and it is our estimate that the amount of the overprojection is at least 20 bn, which increases the budget deficit to more than 4.5% of GDP.

## 8. Monetary Flows and Policy

In Q3 2006 monetary policy finally began to have an effect on reducing inflation, due mainly to the nominal appreciation of the exchange rate as the result of major sterilization of dinars by way of repo operations. Monetary policy measures also led to slower growth of domestic credit to the non-government sector, while short-term credit to enterprises came to a complete standstill. Both the growth of company deposits and balance of payments data, however, show that companies made up for the lack of credit at home by borrowing directly abroad. The mounting inflow of foreign capital and the NBS's activities in withdrawing dinars through repo operations generated major pressure on the exchange rate. Hence, in Q4, the NBS for the first time sought to stop further appreciation by resorting to net purchases of foreign exchange on the interbank market. Additionally, the high yields on repo instruments began to attract foreign exchange from abroad (uncovered interest rate parity). This was purchased by the NBS, which then sterilized the issued dinars with fresh repo transactions in order to maintain the stabilized inflation rate. Since privatization revenue amounting to approximately 1 bn euros was paid into government accounts in August, how and at what cost monetary policy will tackle the challenges of the fiscal expansion announced for Q4 and 2007 will merit careful monitoring.

**Graph. T8-1. Serbia: Money and Component Aggregates<sup>1)</sup>, 2004–2006**

*Growth of nominal M2 continues slowing...*



Source: Table P-8, in Analytical Appendix.

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

*... as did also the growth of credit to the non-government sector.*

Growth of nominal and real credit to the non-government sector also slowed relative to Q2: the nominal 12-m rate at the end of Q3 was 43.8% compared to the massive 57.9% in June. The 12-m growth of credit to enterprises and households slowed at almost the same pace (Table T8-2). Although credit growth did slow down compared to its record nominal value in May 2006 (59.5% on annual basis), a measure of caution must be exercised when interpreting the slower growth of credit to the non-government sector in Q3 relative to Q2 in view of the methodology used to measure total credits (Box 2). The problem is that changes in the exchange rate hinder estimation of the volume of new credits (increase of claims) as the exchange rate alters the stock of foreign exchange-indexed claims. Provided that the correct exchange rate has been applied to indexed loans (estimated at around 70% of the total) in bank balances, credit growth was not all that much slower in Q3, especially when compared with the same period in 2005.

The slower growth trend of nominal M2, which started in June, continued in Q3, so that in late September this aggregate grew 35% on annual basis (Table T8-2). In September, the 12-m real growth remained at the June level. Noticeable in money structure was the mild growth of the share of dinar savings and time deposits at the expense of a lower share of foreign exchange deposits, with the share of M1 remaining unchanged.



**Table T8-2. Serbia: Monetary Survey, Selected Indicators, 2004–2006**

*Corrected flows indicate a milder slowing of credit in Q3.*

	2004		2005				2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	
	<b>y-o-y, in%</b>								
M2 <sup>1)</sup>	32.1	32.1	42.7	42.7	42.1	43.0	38.2	35.1	
Credit to the non-government sector <sup>2)</sup>	51.6	54.8	51.5	50.0	57.1	58.5	57.9	43.8	
Credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	37.4	41.5	39.6	39.9	51.4	52.7	55.1	47.5	
Households	106.7	98.8	90.9	85.9	87.8	95.7	93.3	78.0	
Enterprises	23.7	29.6	27.4	27.0	39.6	39.0	41.6	35.2	
	<b>real y-o-y, in %</b>								
M2 <sup>1)</sup>	16.1	12.5	22.1	22.4	20.8	24.9	20.1	20.1	
Credit to the non-government sector <sup>2)</sup>	33.3	31.9	29.7	28.8	33.5	38.4	37.1	27.8	
Credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	20.0	19.5	18.6	19.3	28.2	32.9	34.4	31.0	
Households	80.9	68.1	62.4	58.7	59.1	70.5	67.5	58.1	
Enterprises	8.0	9.4	8.2	8.3	18.2	21.1	22.7	20	
	<b>cumulative, in % of opening M2<sup>2)</sup></b>								
M2 <sup>1)</sup>	32.1	2.6	15.9	30.8	42.1	3.2	12.7	24.3	
M2 dinar <sup>1)</sup>	8.9	-0.8	4.4	10.5	14.3	-0.4	3.8	9.2	
Foreign deposits (households and enterprises)	12.8	2.5	9.2	16.1	22.4	2.7	8.5	18.2	
Valuation adjustments <sup>5)</sup>	10.5	0.8	2.3	4.3	5.4	1.0	0.4	-3.1	
NFA, dinar increase	-3.7	1.0	6.8	16.1	16.5	-3.2	3.4	32.0	
NFA, fx increase	-12.1	0.4	5.1	12.7	12.5	-3.8	3.1	35.2	
Valuation adjustments <sup>6)</sup>	8.4	0.6	1.8	3.4	3.9	0.6	0.3	-3.2	
NDA	35.8	1.6	9.0	14.7	25.6	6.4	9.3	-7.7	
o/w: credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	26.5	7.5	14.0	24.8	41.9	9.2	18.4	24.9	
o/w: net credit to government <sup>7)</sup>	5.5	-4.4	-2.8	-5.4	-10.8	-0.7	-1.3	-21.8	
o/w: NBS and com. banks capital and reserves	-9.6	-2.7	-6.6	-9.0	-11.8	-4.6	-10.8	-15.1	
	<b>cumulative, in % of GDP<sup>8)</sup></b>								
Net credit to government <sup>7)</sup>	1.0	-0.9	-0.6	-1.0	-2.0	-0.2	-0.3	-4.8	
o/w: dinar credits	0.0	-0.5	-0.6	-1.0	-1.6	-0.2	-0.9	-0.7	
Credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	4.5	1.6	2.9	4.8	7.7	2.3	4.4	5.7	

Source: Table P-8. in Analytical Appendix.

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

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

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

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

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

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

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

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

**Monetary growth in Q3 was the result of credit growth and the accumulation of foreign exchange reserves**

Monetary growth reached the value of 24.3% of opening M2 (Table T8-2) up to Q3. In this movement of money supply, the growth of credit, corrected for the effects of fluctuations in the exchange rate, accounted for 24.9% of opening M2. Credit growth (6.5% of opening M2) was financed mainly from the increase of banks' capital (4.3% of opening M2). Owing to the privatization revenues flowing into government's foreign exchange account with the NBS, Q3 saw a major shift in the ratio between NDA and NFA. Thus NFA recorded a 35.2% increase of opening M2 (Table T8-2), of which 32.1% in Q3. In the first three quarters of the year, NDA fell by 7.7% of opening M2 due to the reduction in Q3 of 17% of opening M2, which was the result of the increase of net credit to government in late Q3 of -21.8% of opening M2.

Household foreign exchange savings grew faster in Q3 than in the first two quarters of the year. New savings in Q3 were 385 mn euros (Table T8-3), almost double the figure in the same period of 2005 (211 mn euros).



### Box 1. NBS Ceases Increasing Reserve Requirement on Foreign Exchange Base and Relaxes Requirement on Dinar Base

Since the recent increase of the reserve requirement on short-term foreign borrowing by banks produced the desired effect, the NBS desisted from such a measure in Q3. In November, it reduced the reserve rate on the dinar base from 18% to 15% (Table T8-4) and took decisions aimed at better management of banks' liquidity – e.g. reduction of the minimum daily reserve from 80% to 50%.

**Table T8-3. Banks' Reserve Requirements with NBS<sup>1)</sup>, 12/ 2004–11/ 2006**

	12/2004	05/2005	07/2005	10/2005	11/2005	03/2006	04/2006	05/2006	11/2006
<b>Rate on:</b>									
					<b>in %</b>				
DINAR DENOMINATED BASE	21	20	20	18	18	18	18	18	15
non-resident accounts with maturity up to 2 years:								60	60
non-resident accounts with maturity over 2 years:								40	40
FX DENOMINATED BASE	21	26	29	35	38	40	40	40	40
foreign borrowing with maturity up to 2 years <sup>2)</sup>							60	60	60
NEW FX SAVINGS DEPOSITS <sup>3)</sup>	47	47	45	41	38	40	40	40	40
SUBORDINATED CAPITAL						20	20	20	20
Key regulation changes:		Introduction of required reserves on foreign borrowing	Separation of the dinar denominated from the fx denominated base			The 38% ratio applies to new fx savings deposits	Introduction of required reserves on subordinated debt		

Source: NBS.

1) Effective from the 10th of the next month and applied to the book value on the last day of that month

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

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

Note:

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

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

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

**Table T8-4. Serbia: Monetary Survey, 2004–2006**

*The system's  
foreign exchange  
reserves were  
considerably  
larger in Q3*

	2004			2005			2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	
<b>STOCK</b>									
	<b>in millions of dinars, end of period</b>								
NFA	141,120	144,478	163,230	193,028	194,397	179,886	209,994	341,473	
o/w: NBS gross reserves	244,837	272,654	302,596	358,226	420,769	461,414	545,592	645,627	
o/w: commercial bank foreign liabilities	-83,225	-98,169	-114,781	-131,089	-191,124	-229,082	-302,170	-300,781	
NDA	182,147	187,226	211,299	229,820	265,051	294,481	307,761	229,781	
Net credit to government <sup>1)</sup>	4,866	-9,400	-4,098	-12,510	-30,447	-33,667	-36,464	-126,556	
Net dinar credit	4,506	-2,720	-5,475	-12,150	-23,386	-26,501	-39,734	-36,446	
Net fx credit	360	-6,680	1,377	-360	-7,061	-7,166	3,270	-90,110	
Credit to the non-government sector <sup>2)</sup>	263,292	290,513	316,028	356,294	413,615	460,370	499,011	512,298	
Other items, net	-86,011	-93,887	-100,631	-113,964	-118,117	-132,222	-154,786	-155,961	
M2 <sup>3)</sup>	323,267	331,704	374,529	422,848	459,448	474,367	517,755	571,254	
M2 dina <sup>3)</sup>	146,604	144,144	160,778	180,452	192,758	190,872	210,046	235,131	
Fx deposits (households and economy)	176,663	187,560	213,751	242,396	266,690	283,495	307,709	336,123	
<b>MEMORANDUM ITEMS</b>									
Currency outside banks/Dinar deposits (households and economy), in %	44.52	37.57	35.72	35.51	38.57	31.59	30.37	28.47	
Fx deposits (households and economy) / M2 (%)	54.65	56.54	57.07	57.32	58.05	59.76	59.43	58.84	
Velocity (GDP <sup>4)</sup> / M2)	3.91	4.04	3.78	3.52	3.41	3.45	3.30	3.04	
M2 / GDP <sup>4)</sup>	0.26	0.25	0.26	0.28	0.29	0.29	0.30	0.33	
Credits to the non-government sector / GDP <sup>4)</sup>	0.21	0.22	0.22	0.24	0.26	0.28	0.29	0.30	
<b>FLOW</b>									
	<b>in million of euros, cumulative from the beginning of the year <sup>4)</sup></b>								
NBS gross reserves	229.2	299.3	591.0	1,164.7	1,856.6	388.4	1,422.8	2,952.2	
Foreign liabilities of commercial banks	-685.3	-169.4	-344.9	-505.9	-1,193.6	-400.8	-1,278.2	-1,432.7	
Fx deposits (households and enterprises)	457.3	102.7	371.0	650.5	907.9	143.1	458.8	979.9	
o/w: households fx deposits	365.0	145.4	323.3	534.7	838.0	165.2	358.8	744.7	
Government-fx deposits	156.3	-98.7	7.0	-56.3	-114.8	-32.8	89.0	-993.6	
Credit to non-government sector <sup>2)</sup> , adjusted <sup>6)</sup>	895.8	303.8	561.0	977.3	1,619.8	483.1	969.8	1,329.4	

Source: Table P-8 in Analytical Appendix.

1) See footnote 7) in Table T8-2.

2) See footnote 2) in Table T8-2.

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

4) See footnote 8) in Table T8-2.

5) For instance, the figure in the December 2004 column represents the change (in euros) in the December 2003- December 2004 period.

6) See footnote 3) in Table T8-2.

## Box 2. Measuring Loans

With the current appreciation of the dinar, it is hard to draw reliable conclusions on the growth of total claims due to the prevalence of their indexation to foreign exchange, a practice originating from the time when the dinar continually depreciated in nominal terms. Total dinar-denominated credits in nominal terms stopped growing in Q3 while those expressed in euros recorded only a mild slow-down relative to Q2, though their growth was still higher than in the same period last year.

To obtain a clearer picture of how effective the almost draconian monetary policy measures were and how they impacted on the growth of total credits, *QM* observed the *nominal growth of credit to the non-government sector and the growth corrected for the effects of exchange rate fluctuations*. The latter was calculated on the basis of the *increase of credits in euros* (Table T8-5) derived from the available dinar balances as the sum of: 1) the difference between dinar balances at the month-end converted into euros at the month-end exchange rate, for 70% of the balance, and 2) the difference in dinar balances at the end of the two periods converted into euros at the average exchange rate in the period, for 30% of the total balances. The 12-m corrected growth for credits to the non-government sector was 47.5%, while the 12-m growth of the purely dinar balance was 43.8% (Table T8-2). Analysis of credit growth brings out that real growth was closer to the corrected rate, but with some reservations because of: 1) the corrected credit growth was calculated on the assumption that banks consistently apply the indexation clause – some clearly apply it selectively, i.e. only when the dinar depreciates and not when it appreciates - and, 2) the 70% share of indexed claims in the total is also an assumption.

Another factor blurring the picture of the real growth of bank claims on the basis of the aggregated balance of the banking sector is the *treatment of provisions for potential losses*. The manner in which this is done is prescribed by the NBS and constitutes an accounting technique whereby expenditures for potential losses are entered as expenses in the current period and, simultaneously, the claims are reduced by the amount of these expenditures. Banks form provisions in accordance with the prescribed rates, but it happens that the NBS sets new rates for certain kinds of loans/clients. The net credit balance can therefore change from one period to another while the gross credit balance remains the same.

Analyses featured in QM so far have been based on data on so-called net credits to the non-government sector – gross credits less the reserve for potential losses. In October this year, the NBS started publishing more precise data in which the gross credit balance and the amount of reserves for potential losses are presented separately (up to now the difference between the two was the only available figure for the net amount of credits). As of the next issue, QM will be using the more clear-cut data for its analyses.

***Slowing of credit to enterprises continued in Q3***

Total dinar-denominated bank credits to companies and households rose by only 12 bn dinars in Q3, three times less than in Q2, which was a major slowdown in growth (Table P-9, Analytical Appendix). This only appears to indicate that the restrictive monetary policy managed to rein in credit expansion. Expressed in euros with flows corrected for the effects of exchange rate fluctuations and, again, on the assumption that 70% of total claims are euro-indexed (Table T8-5), the net growth of credit to the non-government sector in Q3 amounted to some 430 mn euros, almost the same as in Q3 2005, which represents a less drastic slowing of 12-m growth. The previous difference in flows expressed in dinars and in euros is the result of the strong nominal appreciation of the dinar during Q3 (more details in Box 2). In both cases, the slowest growth was recorded by claims to enterprises which, by the end of Q3, rose by 730 mn euros (of which 150 mn euros in Q3, corrected flows) compared to 590 mn euros in the same period in 2005 (210 mn euros in Q3 2005). Noticeable in the structure of claims on enterprises was the complete standstill of short-term loans. By contrast, these in Q2 increased almost as much as long-term loans and in earlier quarters were far ahead. Balance of payment data, however, shows that companies compensated for the shortfall in Q3 by directly borrowing abroad. Credits to households also recorded a slower, but still high growth (Table T8-5).

***Repos become much more prominent in banks' portfolios***

In the course of Q3, banks invested 24 bn dinars (approximately 300 mn euros) in new repo transactions (table T8-5). This record increase made up about one-half of the total increase in lending Q3 (in Q2, the increase in repos constituted 40% of the total increase in bank lending, and was negligible in Q3 2005).

***The share of deposits in bank funding rose...***

For the first time, the increased bank lending in Q3 was predominantly financed from the rise in deposits. These grew by 780 mn euros in the quarter (Table T8-5). The jump (440 mn euros in Q2, 430 mn in Q3 2005) was mainly the result of the growth of enterprises' deposits (390 mn euros in Q3), and constitutes almost half of the total increase in deposits in the quarter, as opposed to only one-third previously. The high rise in household deposits ensued from the surge in foreign exchange savings. Dinar deposits recorded the largest increase where company deposits were concerned, increasing in Q3 by 240 mn euros (80 mn in Q2, 100 mn in Q3 2005, adjusted flows). For their part, foreign currency deposits recorded more moderate growth (150 mn euros in Q3, 100 mn in Q2, 70 mn in Q3 2005). The unusual surge in enterprises' deposits reflects the rise in direct foreign borrowing. Banks are increasingly directing their clients to borrow from their offices in other countries to avoid the rising costs of domestic credits. Dinar deposits are also increasing because of the attractive yields they provide, so that banks too withdrew the interest on their dinar deposits in Q3. In Q3, banks' foreign borrowing continued at the slower pace of Q2. Bank lending is also financed from the increase in capital (about 340 mn euros in Q3 – the same level as in Q2 and against 40 mn in Q3 2005). In addition to the usual growth of foreign banks' capital, banks in predominantly state ownership and domestic private ownership are more and more increasing their capital through issuing of shares. In Q3, government added to liquidity by increasing its deposits with banks by 50 mn euros (adjusted flows).

***... and the growth of enterprises deposits came as a surprise***

**Table T8-5. Serbia: Funding, Credit and Investment Activity, Adjusted<sup>1)</sup> Flows, 2004–2006**

	2004		2005			2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>in millions of euros, cumulative from the beginning of the year</b>							
<b>Funding(-, increase in liabilities)</b>	-1,229	-318	-948	-1,573	-2,693	-661	-2,347	-3,612
Domestic deposits	-624	-73	-489	-914	-1,316	-116	-551	-1,324
Households deposits	-356	-144	-351	-575	-884	-178	-413	-796
dinar deposits	9	1	-27	-40	-46	-13	-55	-51
fx deposits	-365	-145	-323	-535	-838	-165	-359	-745
Enterprise deposits	-268	71	-138	-339	-431	63	-137	-528
dinar deposits	-177	28	-92	-224	-364	36	-52	-296
fx deposits	-92	43	-46	-115	-68	27	-85	-232
Foreign liabilities	-685	-169	-345	-506	-1,194	-401	-1,278	-1,433
Capital and reserves <sup>1)</sup>	80	-76	-114	-153	-184	-145	-518	-855
<b>Gross foreign reserves(-, decline in assets)</b>	-47	-96	-20	-47	-50	-155	-152	0
<b>Credits and Investment<sup>1)</sup></b>	1,099	295	689	1,190	1,830	624	1,351	2,015
Credit to the non-government sector, total	986	267	574	1,002	1,700	478	1,005	1,430
Enterprises	580	211	380	590	1,039	310	582	730
short term	420	188	281	461	673	182	307	301
long term	160	23	99	129	365	128	275	429
Households	406	56	194	412	662	168	422	699
short term	45	4	6	25	66	47	94	148
long term	362	52	187	387	596	122	329	551
Repo transactions <sup>2)</sup>	-7	21	197	223	189	165	453	743
Government, net <sup>3)</sup>	120	7	-82	-36	-59	-20	-106	-157
<b>MEMORANDUM ITEMS</b>								
Direct foreign liabilities of enterprises and banks' credits to enterprises	1,159	285	717	1,182	1,900	519	1,075	1,875
o/w: direct foreign liabilities of enterprises	579	75	337	591	861	210	493	1,144
Mid and long term	574	75	349	589	846	210	473	1,131
Short term	6	0	-11	2	15	0	20	14
Required reserves and deposits	193	51	267	472	951	260	1,205	1,499
Other net claims on NBS <sup>4)</sup>	12	-67	-33	-26	45	-104	-103	-13
o/w: Excess reserves	-16	-60	-49	-43	3	-103	-87	-39
Other items <sup>5)</sup>	31	97	61	16	13	35	83	192
Effective required reserves (in %) <sup>6)</sup>	25	25	26	27	30	32	38	37

Source: Table P-9. in Analytical Appendix.

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

2) Repo transactions include treasury bills and NBS bills, which were initially substituted by T-bills in January 2005, only to be introduced anew nine months later. Repo transactions include treasury bills and NBS bills, which were initially substituted by T-bills in January 2005, only to be introduced anew nine months later.

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

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

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

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

*At the end of Q3, base money was getting out of control*

In spite of the restrictive measures, primary money rose by 9.7% of opening H in Q3 (Table T8-6), of which 8 bn dinars in September alone (10 bn in all of Q3). Hence, in July 2006, all hopes of reducing it to the 2005 level were dashed. The rise in primary money originated on the foreign exchange market with NBS purchases of foreign exchange amounting to 370 mn euros in Q3 (29 bn dinars). Up to August, the NBS was able to sterilize all the created liquidity on the foreign exchange market with repo operations, reducing H by 5.9% of opening H in the period from early 2006 to the end of August. But, from September, sterilization by repo operations started lagging behind the creation of money through the interbank foreign exchange market and led to an increase of H by 4.1% of opening H at the end of Q3. Under the pressure of huge capital inflows from abroad, the NBS intensified its interventions and purchased a considerable quantity of foreign exchange (net) in a bid to stop the dinar appreciating further. Our estimate is that the increase in the NBS net own reserves will amount to some 1.7 bn euros in 2006 (of which about 750 mn euros in Q4), barring a possible conversion of government foreign exchange deposits with the NBS into dinars, which would make the increase even larger (Table T8-7).

*For the first time, deposits were dominant in the increase of bank funding*

*Short-term loans to enterprises came to a standstill in Q3...*

*... but was offset by direct foreign borrowing*

**Table T8-6. Serbia: NBS - Foreign Exchange Purchases and Dinar Sterilization, 2003–2006<sup>1)</sup>**

	2004		2005				2006			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec <sup>6)</sup>	
<b>FLOW</b>										
<b>in millions of dinars, cumulative from the beginning of the year</b>										
NBS own reserves <sup>2)</sup>	18,286	10,454	29,092	48,044	62,889	4,775	48,859	79,104	134,300	
NBS own reserves (in euros)	250	130	358	584	756	55	562	928	1,700	
NDA	-11,313	-21,723	-34,570	-44,819	-45,639	-20,845	-54,154	-75,216	-133,454	
Government, dinar credits	2,376	-192	-4,791	-5,414	-6,219	-1,501	-1,762	-1,765	-1,765	
Government, dinar deposits	-13,763	-12,527	-8,466	-14,783	-18,563	-4,797	-14,412	-15,189	-15,189	
o/w: municipalities	-3,789	-5,259	-3,213	-4,966	-821	-6,068	-5,339	-5,505	...	
Repo transactions <sup>3)</sup>	471	-1,454	-15,855	-18,052	-15,076	-14,259	-39,153	-63,336	-125,000	
Other items, net <sup>4)</sup>	-397	-7,550	-5,458	-6,570	-5,781	-288	1,173	5,074	8,500	
H	6,973	-11,269	-5,478	3,225	17,250	-16,070	-5,295	3,888	846	
o/w: currency in circulation	2,186	-5,797	-2,849	2,118	8,485	-7,825	-4,724	-1,540	...	
o/w: excess liquidity	46	-5,195	-3,531	-2,613	3,673	-8,587	-7,878	-2,129	...	
<b>INCREASE</b>										
<b>cumulative, in % of opening H<sup>5)</sup></b>										
NBS own reserves <sup>2)</sup>	44.0	15.4	42.9	71.6	92.6	7.9	52.3	73.6	142.5	
NDA	-34.0	-30.1	-50.0	-67.4	-70.2	-25.0	-58.0	-69.5	-141.6	
Government, dinar deposits	-19.7	-16.3	-11.0	-19.2	-24.1	-5.1	-15.3	-16.1	...	
Repo transactions <sup>3)</sup>	0.7	-1.9	-20.6	-23.5	-19.6	-15.1	-41.6	-67.2	...	
Other items, net <sup>4)</sup>	-15.0	-11.9	-18.4	-24.8	-26.5	-4.8	-1.1	13.9	...	
H	10.0	-14.6	-7.1	4.2	22.4	-17.1	-5.6	4.1	0.9	
o/w: currency in circulation	3.1	-7.5	-3.7	2.8	11.0	-8.3	-5.0	-1.6	...	
o/w: excess liquidity	0.1	-6.7	-4.6	-3.4	4.8	-9.1	-8.4	-2.3	...	
<b>MEMORANDUM ITEMS</b>										
Gross fx reserves (flow, cumulative from the beginning of the year, in euros)	229.2	299.3	591.0	1,164.7	1,856.6	388.4	1,422.8	2,952.2	...	
Gross fx reserves (in % of opening H in euros)	73.1	36.1	75.0	147.3	228.6	43.1	132.5	238.7	...	
H (growth rate, y-o-y, in %)	10.0	14.3	14.8	25.0	22.4	18.9	24.4	22.3	...	
Currency in circulation (growth rate, y-o-y, in %)	5.1	3.6	4.9	11.4	18.8	16.4	15.6	10.2	...	

Source: Table P-10. in Analytical Appendix.

1) Government include: Republic level and cities and municipalities.

2) Net own reserves definition - see Box 4 in QM5.

3) Up to December 2004, this category included NBS bills, in the January-February 2005 period NBS bills and repo transactions, and as of March 2005 only repo transactions.

4) Other domestic assets, net, include domestic credits (net claims on banks excluding NBS bills and repo transactions; net claims on enterprises together with other assets (capital, reserves and balance items; other assets and liabilities corrected by exchange rate differentials.

5) "Opening H" refers to stock of primary money (H) at the beginning of stated year (i.e. end of previous year).

6) FREN's estimate.

**The NBS managed to sterilize base money growth with high-yield repo instruments**

**In Q4, the NBS will be defending the exchange rate from further appreciation**

In Q3, the NBS withdrew 24 bn dinars by way of repo operations (Table T8-6). Since the repo market became even more active in October and November, the stock of bills sold through these operations may be expected to reach 130 bn dinars at end-2006. This means that the increase of repo transactions will amount to some 50 bn dinars in Q4, or double that recorded in Q3.

Although the rate on repo instruments was repeatedly reduced, banks still showed major interest in them as the yield increased in real terms and the appreciation of the dinar made exchange rate-interest rate arbitraging attractive (see Graph T9-4 in *Financial Markets*). Nonetheless, the interest rate on repos proved to be of limited power as an instrument of monetary policy. On the one hand, repo instruments become increasingly interesting when the exchange rate appreciates, which leads to an autonomous inflow of foreign exchange and this in turn creates an even higher supply and pressure for appreciation. On the other, the inflow requires fresh sterilization of the dinars created and makes pursuing this kind of monetary policy costlier. There is also a danger of a vicious circle in which yields on repos attract foreign capital, and which then generates pressures on the foreign exchange market. The NBS purchases the inflow in order to prevent the dinar from appreciating too much, thereby creating new dinars that it tries to sterilize with new repo operations to keep inflation at the targeted level.



## 8. Monetary Flows and Policy

**Table T8-7. Serbia: Foreign Exchange Reserves, Stock and Flow, 2004–2006**

	2004		2005				2006	
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>stock, in millions of euros</b>							
NFA of Serbia	1,766	1,783	1,972	2,279	2,274	2,070	2,442	4,164
Commercial banks, net	-367	-632	-732	-920	-1,610	-2,166	-3,041	-3,043
Gross foreign reserves	675	579	655	628	625	470	473	625
Foreign liabilities	-1,042	-1,211	-1,387	-1,548	-2,235	-2,636	-3,514	-3,668
NBS, net	2,133	2,414	2,704	3,199	3,884	4,236	5,482	7,207
Gross foreign reserves	3,065	3,364	3,656	4,229	4,921	5,310	6,344	7,874
Foreign liabilities	-932	-950	-952	-1,031	-1,037	-1,074	-862	-667
IMF	-698	-676	-657	-760	-737	-781	-571	-378
Other liabilities	-234	-274	-295	-271	-300	-293	-290	-288
<b>NBS, NET RESERVES-STRUCTURE</b>								
1. NBS, net	2,133	2,414	2,704	3,199	3,884	4,236	5,482	7,207
1.1 Commercial banks deposits	-825	-878	-1,083	-1,262	-1,725	-1,995	-2,858	-3,126
1.2 Government deposits	-125	-223	-79	-170	-220	-247	-123	-1,213
1.3 <b>NBS own reserves</b> (1.3 = 1 - 1.1 - 1.2)	1,183	1,313	1,541	1,767	1,939	1,994	2,501	2,868
	<b>in millions of euros, cumulative from the beginning of the year</b>							
NFA of Serbia	-433	16	206	513	507	-204	168	1,891
Commercial banks, net	-732	-265	-365	-553	-1,244	-556	-1,430	-1,432
Gross foreign reserves	-47	-96	-20	-47	-50	-155	-152	0
Foreign liabilities	-685	-169	-345	-506	-1,194	-401	-1,278	-1,433
NBS, net	300	281	571	1,066	1,751	352	1,598	3,323
Gross foreign reserves	229	299	591	1,165	1,857	388	1,423	2,952
Foreign liabilities	71	-18	-20	-99	-106	-36	176	371
IMF	33	22	40	-63	-39	-44	165	359
Other liabilities	38	-40	-61	-36	-66	8	10	12
<b>NBS, NET RESERVES-STRUCTURE</b>								
1. NBS, net	300	281	571	1,066	1,751	352	1,598	3,323
1.1 Commercial banks deposits	-190	-54	-259	-437	-900	-270	-1,133	-1,401
1.2 Government deposits	140	-98	46	-45	-95	-27	97	-993
1.3 <b>NBS own reserves</b> (1.3 = 1 - 1.1 - 1.2)	250	130	358	584	756	55	562	928

Source: NBS. Note:

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

### Box 3. The NBS promotes interest rate as the main instrument of the future monetary policy being on a track to the inflation targeting regime

In Q3, the NBS adopted a new Operational Framework for Monetary Policy – Inflation Targeting<sup>1</sup>. This in effect announced a transitional period, without time lines, toward the introduction of inflation targeting and, as the accompanying Memorandum states: “The NBS will formally adopt a regime of targeting inflation as soon as the prerequisites are fulfilled and the key elements established.” Until then, the role of the interest rate will be strengthened and it will be the main instrument of monetary policy, the Memorandum says. The rate on 14-day repos has been adopted as the reference interest rate fixed by the NBS. The Framework heralds wider fluctuations of the exchange rate (withdrawal of the NBS from the interbank foreign exchange market), but allows for the possibility of its use to achieve the target inflation rate when the scope of the interest rate as the main instrument of monetary policy has been exhausted. Inflation in 2006 has been targeted at an annual 7-9%, while the figures for 2007 are 4-8%.

The NBS reference rate was fixed at 18% in September, then lowered to 17.5% in early November, and further reduced to 16.5% on 16 November and to 15.5% in early December.

As the NBS offers a limited quantity of T-bills at repo auctions and, since September, the auctions were completed in full, it is not possible to say exactly where the equilibrium repo interest rate lies and if the NBS is paying too high price for the sterilization of excess dinars.

<sup>1</sup> For more details on Inflation Targeting see: The Experience of Romania,” Spotlight on: 2, QM5; “Targeting Inflation – New Challenge for General Economic Policy,” MAT 8, 2006.

## 9. Financial Markets

The equity market recovered in Q3 2006, with both official indices growing: BELEXfm went up by 8.42%, while BELEX15 grew by as much as 36.77%, with both reaching new all-time highs. In August, financial intermediation made it to the first position in terms of market capitalization on the Belgrade Stock Exchange, and has stayed there since. Nominal yields on repos continued falling, while real yields remained extraordinarily high, making them increasingly attractive to investors. Yields on FFCD bonds grew considerably in this quarter, after their long-term downward trend was interrupted in Q2, particularly the yield on A2007 bonds with the shortest time to maturity.

*Trade in shares reached an all-time high in Q3*

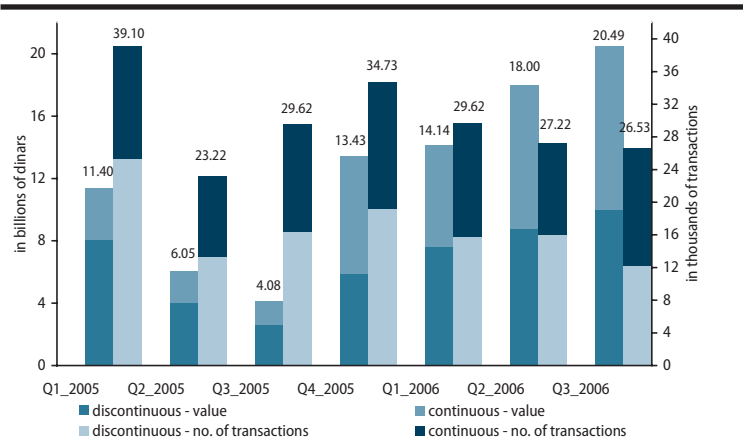
After reaching an all-time high in Q2 2006, the value of trading on the stock market (in dinars, measured since the beginning of 2004), continued this record-breaking trend in Q3 2006 with a turnover worth 20.49 bn dinars, five times higher than in Q3 of the previous year. On the other hand, the turnover on the equity market measured by the number of performed transactions continued on the downward trend that started at the beginning of the year, resulting in a drop in the number of transactions by 10.4% relative to the same period of 2005. As for the equity market turnover structure, the upward trend in the trading value was a consequence of the steady growth of both the continuous and discontinuous segments of trading. The continuous segment grew by 13.5% relative to Q2, while the growth in the discontinuous segment was 14.9%. In terms of the turnover structure, seen through the number of transactions on the continuous segment, the downward

trend which started in Q1 2006 was reversed; in Q3, the number of performed transactions was higher by 28.1% compared to Q2, which, however, was not enough to change the overall trend, since the discontinuous segment declined by another 23.9%.

The recovery of the stock market, initiated in July, continued quite evenly throughout Q3. Both official indices of the Belgrade Stock Exchange rose in Q3: BELEXfm by 8.42%, and the index of the most liquid shares BELEX15 by as much as 36.77%. At the very end of Q3, in fact on the same day, 25 September, both indices recorded new all-time highs: 1792.55 and 1426.16 index points respectively.

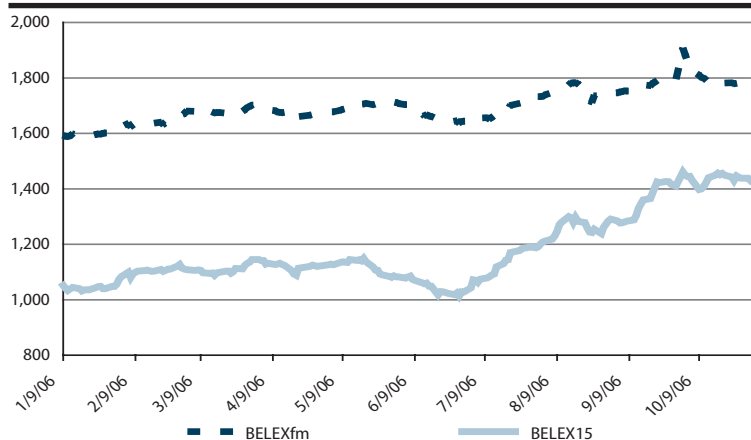
In August, the sector of financial intermediation made it to the first position in terms of market capitalization with 192.47 bn dinars (34% of the total

**Graph T9-1. Stock Trading Volume, Value and Structure, 2005–2006**



Source: www.belex.co.yu.

**Graph T9-2. Belgrade Stock Exchange BELEXfm and BELEX15 Indices, 2006**



Source: www.belex.co.yu.

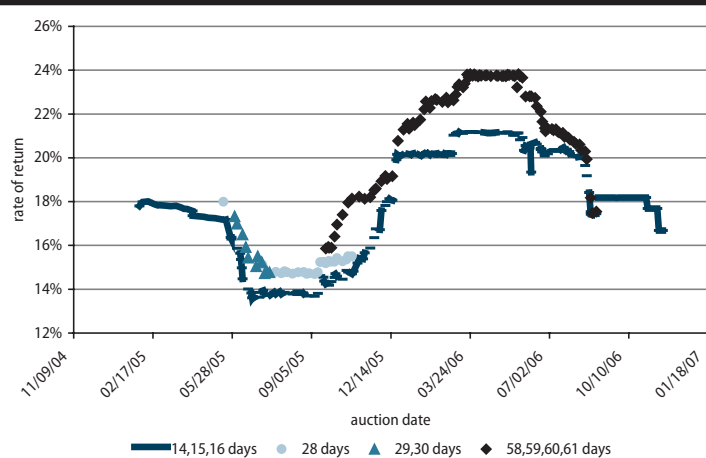
*Overall equity market turnover rose*

*The recovery of the stock market continued with new all-time highs of both official indices*

*Nominal yields  
on repos kept  
falling...*

stock market capitalization). This came after a long period characterized by the domination of the food, beverages and tobacco manufacturing sector (whose capitalization in August was 175 bn dinars). September and October confirmed the new trend on the market, because the domination of financial intermediation continued, with the sector increasing its market capitalization to 251.26 bn dinars. The new trend was without doubt boosted by the listing of Komercijalna Banka shares on the Belgrade Stock Exchange in the latter half of August, while their continuous trading started in the second half of September.

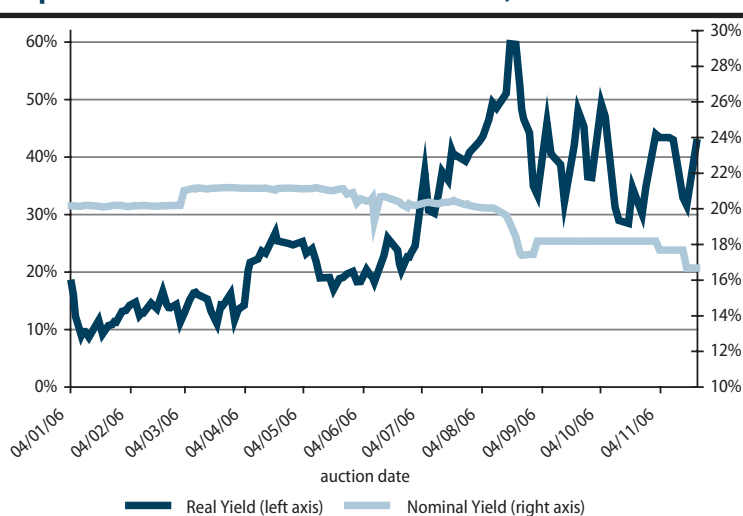
**Graph T9-3. Repo Yields by Maturity, November 2004 - September 2006**



Source: NBS and MoF.

real yields calculated on the basis of the dinar/euro rate (the change in the previous three months), rather than on the basis of inflation movements, continued growing to reach almost 60% in the second half of August (Graph T9-4). As the decline in nominal yields and a slight depreciation of the dinar coincided in late August, real yields on repo instruments also fell to a still high level of around 33%, after which they ranged, roughly speaking, within a band of 30–50%. This high real yield is the main reason for the extraordinary attractiveness of 14-day repo instruments, which is confirmed by their realization rate – since September it has always been 100%.

**Graph T9-4. Real and Nominal REPO Yields, 2006**



Source: NBS and MoF.

*...while real yields  
remained very high*

in early December to 15.5%. The probable cause is the estimate of the NBS that it can achieve the same objective – mopping up of excess liquidity – even with a lower rate.

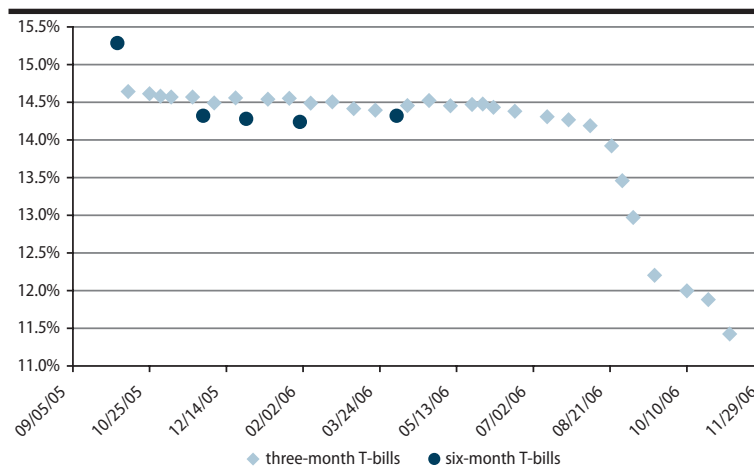
In Q3 2006, the decline in nominal yields on repo instruments of all maturities (which started in Q2) continued, but real yields, calculated on the basis of the dinar/euro rate,<sup>1</sup> kept rising (Graphs T9-3 and T9-4). The drop in nominal yields was the sharpest in the second half of August, when instruments with maturities of 58, 59, 60, and 61 days lost almost 2.75 percentage points, while 14-day instruments lost 2.20 percentage points. Despite the further fall of nominal yields on repo instruments,

The Memorandum of the National Bank of Serbia of 30 August 2006 has made the 14-day repo instruments the key monetary instrument whose interest rate is set by the NBS as a fixed rate (for more details see the section on Monetary Policy and Trends, Box 3). The stabilization of nominal yields (the interest rate) as of September is in line with the new policy of the National Bank. These yields were 18% up until November, and then they decreased: first to 17.5%, then to 16.5%, and

<sup>1</sup> The rationale for this approach to the calculation of real rates of return was set out in *Spotlight on 1: "The Exchange Rate and Policy of the National Bank of Serbia: 2002-2006"* in QM5.

*A sharp drop in return rates on the T-bill market*

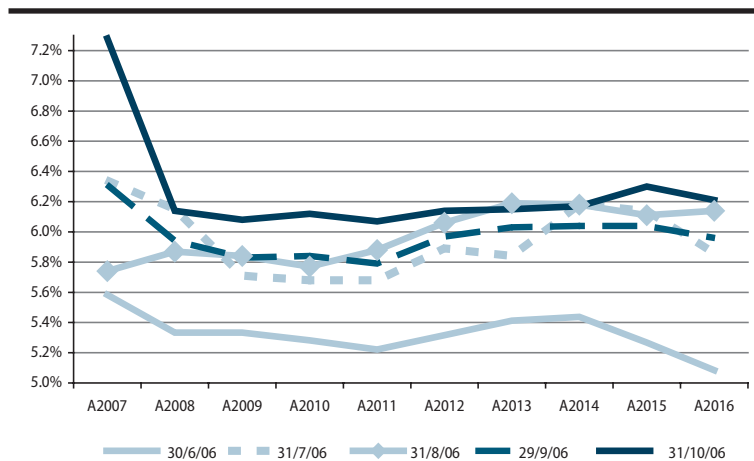
**Graph T9-5. Yields in T-Bill Market, 2005-2006**



Source: NBS and MoF.

**Graph T9-6. FFCD Yield Curves**

*Yield on A2007 rose by 170 basis points between July and October*



Source: www.belex.co.yu.

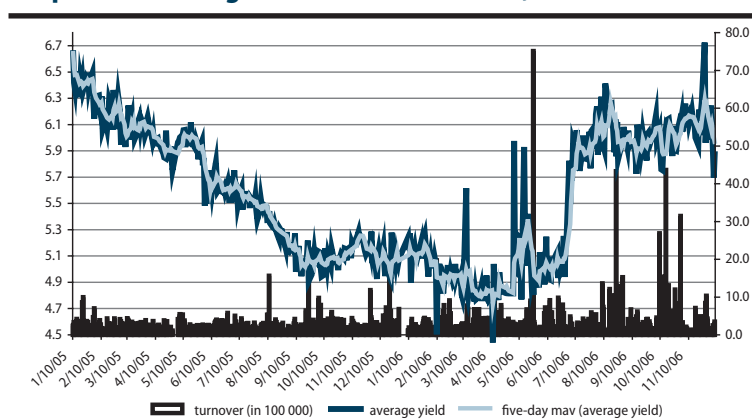
The trend of gradual decline in the rate of return on the T-bill market from the previous quarter continued in early Q3, until early August when a sharp drop was recorded, which continued up until the end of the quarter and even beyond, in Q4 (Graph T9-5). The highest rate of return (14.31%) was on the three-month T-bills from early Q3 (11 July) – worth 500 mn dinars and with a realization rate of 100%, as well as all offered three-month T-bills in Q3. The values of the three-month T-bill issues ranged from 500 mn to 1 bn dinars, while no six-month T-bills were offered in Q3.

After the reversal of the downward trend in yields on the FFCD bond market in Q2 2006, yields continued to grow in Q3 (Graph T9-7). They rose relatively evenly from end-June to end-September – from 50 to 80 basis points – depending

on maturities, but if the period from end-June to end-October is observed, the bond with the shortest time to maturity (A2007) had a growth of as many as 170 basis points, while the rise in returns on other bonds in the same period ranged from 70 to 100 basis points. Three factors can explain such a high rise in returns. The first is the extraordinary attractiveness of repos. Banks have started turning increasingly to repos because of their high real returns, which, in view of the thinness of the market, caused a sharp drop in demand for FFCD bonds (particularly those with the shortest time to maturity, A2007) and thus a drop in their prices, i.e., to rising returns. The second factor is related to investor expectations regarding the dinar/euro rate movements. Since investors expect the dinar to stagnate, or even further appreciate by the maturity date of A2007 – they also want higher premiums. The absence of such a strong rise in returns on other bonds (the next in terms of maturity, A2008, had a growth of 80 basis points in the same period) shows that investors do not expect the stagnation and appreciation of the dinar to last. This hypothesis is corroborated by the fact that yield curves on FFCD bonds are inverted, with the exception of the one from end-August (Graph T9-6). Still, if it is recalled that the dinar depreciated briefly in the second half of August, the normalization can be explained by investors' belief that the dinar had returned to the depreciation trend. When it turned out in early September that the dinar was appreciating again, investor expectations changed correspondingly and the curve was again inverted as of September. Finally, the third factor is the continuation of restrictive monetary policy in the euro area. In early August, the European Central Bank increased the reference interest rate on the euro by another 25 basis points, to 3%. Such movements certainly contributed to the parallel rise of the whole FFCD bond yield curve. The expectations discussed in the previous

*Average yield on  
FFCD bonds grew  
strongly in Q3*

**Graph T9-7. Average Yield on FFCD Bonds<sup>1)</sup>, 2005–2006**



Source: www.belex.co.yu.

1) The graph does not depict extraordinary yield of A2006 bond of 42% on March 10, 2006.

Note: The graph was derived as the weighted average yield on securities from A2006 to A2016. The turnover values for each of securities were used as weights. Left axis refers to average yield, while the right axis refers to total FFCD trade volume.

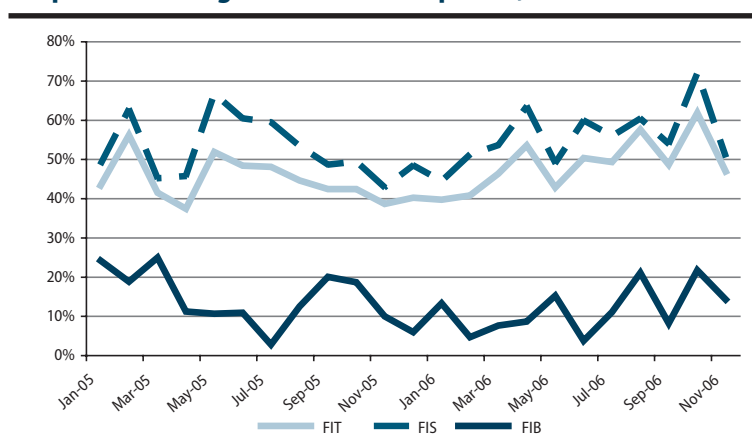
issue of *QM* regarding the movement of the reference interest rate in the euro area were confirmed: it was increased on 11 October and 13 December, to 3.25% and 3.5% respectively.

In Q3 2006, the total reported turnover of FFCD bonds fell relative to the 28.5 bn dinars achieved in Q2, and amounted to 25.3 bn dinars, which was nevertheless an increase of 26.2% relative to Q1, that is, of 28.7% relative to the same period last year.

In August 2006, the participation of foreign investors in the bond and stock markets came close to its all-time high, and set a new record of 57.6% on the T-bill market. September saw a fall in the participation on all three markets. Furthermore, in Q3 an interesting change occurred in the trend of foreign investors' participation on domestic financial markets<sup>2</sup>. In the previous quarters the participation of foreign investors in the stock market (FIS curve) and in the T-bill market (FIT curve) moved along very similar trajectories, while their participation in the bond market (FIB curve) was almost negatively correlated with the FIS and FIT curves. As of Q3 the participation of foreign investors in all three markets are almost completely in sync – higher participation in one of the markets is accompanied by higher participation in the others and vice versa (Graph T9-8).

**Graph T9-8. Foreign Investor Participation, 2005–2006**

*Foreign investors'  
activity close to its all-  
time high in August*



Source: www.belex.co.yu.

Legend: FIT- foreign investors participation in T-bill market, FIS-foreign investors in equity market, FIB-foreign investors in bond market.

<sup>2</sup> The data on foreign investors' participation was obtained from the Belgrade Stock Exchange website. According to unofficial information from the BSE, the term foreign investors refers to individuals and corporate entities with trading orders opened with the Central Securities Depository on the basis of businesses registered abroad or foreign passports. This implies that the group of foreign investors may actually include local investors owning companies registered abroad (e.g. in some tax havens), or small investors holding dual citizenship.



## SPOTLIGHT ON:

### Non-performing Loans in Serbia – What Is the Right Measure?

Jasna  
Dimitrijević\*

On the basis of data provided exclusively to *QM* by the Credit Bureau of the Association of Serbian Banks, we have learned that non-performing loans make up no more than 9.1% of total bank claims. The figure is much more favorable than the one taken as the measure of the stability of the Serbian financial system by the international community and foreign investors – that bad loans account for over 20% of total outstanding loans. The latter indicator was calculated in accordance with the methodology prescribed by the NBS which, however, defines non-performing loans ambiguously and not in line with international practice. This article explains why we consider the first figure to be the more credible one. Now that the Credit Bureau has started monitoring this essential indicator, we point out that its further development should be watched carefully, in particular because of the current credit boom in the Serbian banking system.

#### 1. Definition of Non-performing Loans

**Non-performing loan or bad loan** is bank claim on the extended loan once the borrower fails to make payment on the due date and/or the value of the collateral has been eroded or disappeared for economic reasons.<sup>1</sup> The IMF definition<sup>a)</sup> is more precise, saying that non-performing loans are all claims on extended loans where payments of principal and interest are overdue by 90 days or more, or less than 90 days when there are other reasons to believe that the bank will not be able to collect the total claim on loan. The IMF also recognizes the stricter definitions of local supervisory guidance, i.e. a delay of less than 90 days if, for example, debtor files for bankruptcy. Not all countries use the same definition of non-performing loans (NPL), but they tend to converge under the indicator calculated as the ratio of gross loans with overdue payments by 90 days or more to total claims on loans in the whole banking system.<sup>b)</sup>

a) IMF, *Compilation Guide on Financial Soundness Indicators, 2004*

b) Freeman (2004)

#### 2. Macroeconomic Significance of the Non-performing Loans Indicator

This indicator is among the most illustrative synthetic indicators of the quality of financial intermediation, stability of the financial system and, to an extent, the credit risk of an entire economy. This is why it is attentively followed by international financial institutions<sup>c)</sup> and investors. Non-performing loans in the banking system of a country are one of the factors that have an effect on that country's credit rating (e.g. ratings of international agencies such as Fitch, S&P).

Studies of banking crises have shown that the accumulation of NPL in bank balances is one of the main signals of a crisis.<sup>d)</sup> According to empirical studies, episodes of major credit expansion prompted by liberalization of financial systems and opening of capital accounts, were the

c) *The IMF is moving toward including statistics on non-performing loans in the System of National Accounts* (Freeman, 2004).

d) See, e.g. Demirguc-Kunt, Detragiache (1997).

\* The author thanks Kori Udovički and Mirko Španović for their valuable suggestions, the management of the Association of Serbian Banks and the staff of its Credit Bureau for providing summarized data for the needs of this analysis. The author alone is responsible for any remaining errors.

1 The OECD Economic Outlook: Sources and Methods

## Non-performing Loans in Serbia – What Is the Right Measure?

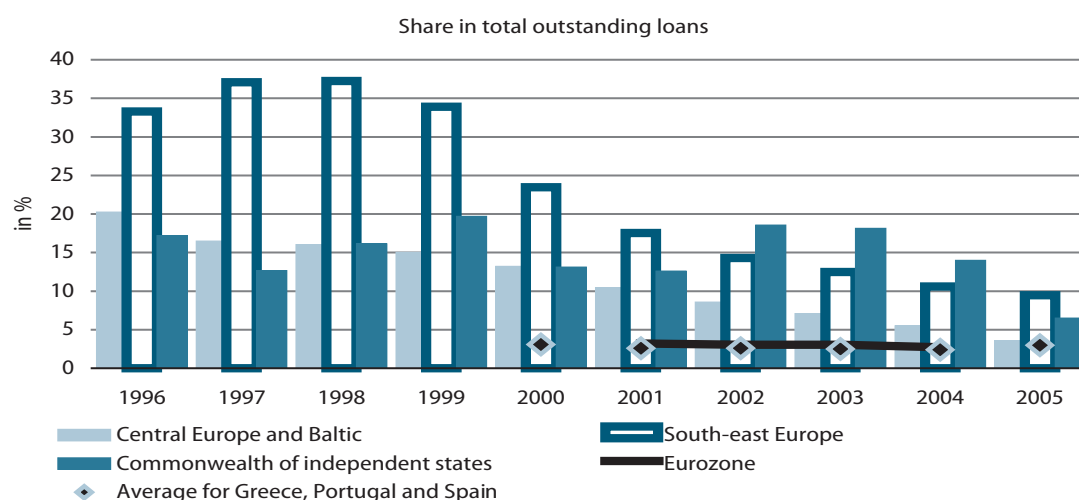
e) Kaminsky (1998). precursors of banking crises.<sup>e)</sup> An outstanding example is the South-east Asia crisis of 1997, which, coupled with a balance of payments crisis, came once the financial markets of these countries were flooded with foreign capital and following the relaxation of loan approval standards.

### 3. Non-performing Loans in Transition Economies

Banking in transition countries has a specific history and non-performing loans are an inextricable part of it. When they embarked on transition, all these countries had high levels of accumulated NPLs, a legacy of the era of centrally planned economies when little heed was paid to credit risk when extending loans. As transition evolved and their banking systems were reformed, the share of NPLs fell. Some countries, however, still experienced major or minor crises even in the later stages of transition, during which the level of non-performing loans always rose. These periods occurred most frequently during so-called credit booms (with total credit growing at double- and even triple-digit annual rates) when banks, as a rule, relaxed their criteria and granted loans to riskier categories of borrowers. Though a direct causal relationship between credit expansion and banking crises, i.e. increase in NPLs, has not been proven, above-average growth of total loans to the non-government sector in an economy is a signal of alert and of the necessity to carefully monitor the NPLs indicator, especially if a tightening of the monetary policy is in the offing.

Nonetheless, viewed as a whole, the countries in transition have cut back to a moderate level the share of non-performing loans in total loans to the non-government sector. In central Europe and the Baltic countries, NPLs have come close to the euro-zone level of 3%-4% of total loans, while the average in South-east Europe, including Serbia, was slightly below 10% in 2005 (Graph L1-1).

**Graph L1-1. Non-performing Loans in Transition Countries**



Source: EBRD, Transition Report 2006.

**Table L1-2. NPLs in Comparable Countries**

	2005
	in %
Bulgaria	3.8
Croatia	7.2
Czech Republic	4.0
FYR of Macedonia	22.2
Hungary	3.1
Poland	12.9
Romania	6.1
Slovenia	6.4

Source: EBRD, Transition Report 2006.

#### 4. Microeconomic Significance of NPLs and Monitoring Methodology

f) *The risk of the borrower failing to make payment on his loan.*

The level of NPL in the total loans of a *particular bank* is the result of **credit risk management**.<sup>f)</sup> The quality of risk management depends on the quality of a bank's management and how prone it is to taking risks.

Supervisory bodies of banking systems also monitor and check the soundness of banks, i.e. the level of undertaken credit risk within individual banks as a part of prudential supervision (monitoring the financial soundness of the *entire financial sector*). Prudential supervision is present in all market economies and is performed by a variety of institutions (central bank, independent supervisory and regulatory bodies, agencies, commissions and the like). In Serbia, it is entrusted to the National Bank, specifically its Division for Control and Supervision of Banks and Other Financial Organizations.<sup>2</sup> More and more countries are basing their prudential supervision on the recommendations of the Bank for International Settlements (BIS) in Basle.<sup>g)</sup> As part of the conduct of prudential supervision, besides other indicators of risks to bank operations (largest loans, loans to related parties and similar), the level of non-performing loans is monitored regularly.

g) *BIS, Core Principles for Effective Banking Supervision.*

**Regular classification of credit portfolios** of banks in accordance with the degree to which repayment is likely is one of the main instruments of credit risk management.<sup>3</sup> The classification rules are in some countries left to each individual bank, with the provision that they must respect the International Accounting Standards in assessing the probability of payment and value of claims. In other countries, the rules are laid down by the institution charged with regulating the banking sector. Though there are no uniform criteria at the international level, overdue payments are usually the main criterion, with the loan most often being classified as non-performing when the delay exceeds 90 days. Loans are classified at the time of their approval (e.g. low-risk category) and reclassified during the period of repayment. A loan will change its category if there is any change in the conditions affecting payment (e.g. the borrower is late in making payments) in the view of the bank management or the regulatory body if the criteria for classification are prescribed.

#### 5. Non-performing Loans in Serbia

In Serbia, the NBS lays down the criteria for classification of loans, which banks are obliged to implement at the end of each quarter. Appendix 1 sums up the criteria upon which bank claims are categorized into five groups (A, B, C, D, E) according to the probability of repayment. These criteria are: *delays in making payments on loans, harmonized cash flows of the borrower, the financial result of the company in the preceding period, the structure and level of capital of the company, the quality of the loan collateral.*

Though exact figures are not available, it is believed that bad loans made up some 80% of the banking sector's assets in early 2001. Rehabilitation, bankruptcies, and liquidation – primarily of the four largest state-owned banks, cleansed the banking sector's portfolio of the inherited non-performing loans. Enforced implementation of existing and introduction of new measures of prudential supervision in accordance with the developed countries' standards strengthened banks' risk management by imposing stricter criteria. In parallel, the role of the NBS and supervision of banks was also reinforced. Nonetheless, credit expansion since 2002 calls for caution with regard to the level of non-performing loans in Serbia.

<sup>2</sup> Supervision of bank operations, a part of the goal of preserving the stability of the financial system, which is entrusted to the NBS in Serbia, is laid down in Article 3, Law on the National Bank of Serbia, Official Gazette No. 72/2003.

<sup>3</sup> Another instrument that relies on this classification are provisions for potential losses. The purpose is to prevent reduction of banks' capital and distribution of current profits from lending if there is a risk that part or the total amount of a loan will not be recouped. In developed countries, the choice of the policy of provisioning is left to individual banks, while in countries with less developed institutions and legal systems it is prescribed by the regulatory body. As a rule, in the latter case, an adequate level of loan-loss provisions (percentage of every category of assets) is determined on the basis of relevant factors affecting payment of credit portfolios (prior experience with losses, going to the courts to ensure payment through the sale of collateral, quality of management in loan approval, changes in the business and economic climates in the country and region, etc.). Practically speaking, provision is a current-period expenditure for the bank and therefore also plays another role – to make a specific loan more expensive if the borrower was placed in a risk category when his loan was approved, and thus discourage banks from risking their funds.

## Non-performing Loans in Serbia – What Is the Right Measure?

*h) IMF, Country Report No. 06/384, Article IV, p. 16.*

In a March 2006 report<sup>h)</sup>, the IMF cited the figure 20.7% and warned of the high level of NPL in Serbia. As the non-performing loans ratio, it used the indicator of the share of loans classified in categories C, D, and E (according to the NBS criteria) in total loans.

Since (a) calculation of this indicator of non-performing loans involves loans on which payment is delayed and a variety of other criteria, and (b) regulations envisage that all loans of a borrower be classified in the same category of risk of the least favorably classified loan of that borrower,<sup>4</sup> we consider the indicator inappropriate and endeavor below to establish a better measure of non-performing loans based only on delays in payment.

Besides the measurement of NPLs being ambiguous and not comparable with the internationally accepted methodology, this indicator also poses a problem with regard to monitoring developments over time. Because the NBS occasionally changes or introduces new criteria for classifying certain loans as risky,<sup>5</sup> it can happen that the loan from one period is classified more strictly in a next period.<sup>5</sup> This results in an increase of the value of the indicator calculated on the basis of the same loans.

We therefore consider that the indicator measures something other than non-performing loans, which could be called “average apparent risk of borrowers” or “evident legal-financial quality of borrowers.” Table L1-3 shows that the indicator has not been reduced appreciably in the last three years in spite of the undeniable progress of financial sector reform. The level fell only in state-owned banks, and rose in the other two ownership categories. Especially surprising is that foreign banks’ share of risky loans has risen from year to year, as they were expected to introduce more effective risk management into the domestic banking system.

**Table L1-3. Serbia: Non-performing Loans<sup>1)</sup>**

	Dec 04	Dec 05	Mar 06
	<b>in %</b>		
Total	22.2	23.8	20.7
State-owned banks	41.2	37.7	25.0
Domestic private banks	46.6	51.8	49.7
Foreign owned banks	10.0	16.0	16.1

Source: IMF Country Report No. 06/384.

1) Ownership structure on 31 March 2006; non-performing loans include categories C, D, and E for which loan-loss provisions amounting to 25%, 50% and 100% respectively are required.

their clients better and are less wary and more open to grant loans to borrowers who, on the basis of information available to all (financial statements, accounting records, and their payment record) may not seem creditworthy at first sight, but are seen by banks to have potential and to be trustworthy. In that case, banks are prepared to pay the price of granting loans to clients classified as risky by the NBS classification, in the form of loan-loss provision.<sup>6</sup>

The level of this indicator and its failure to drop with the advance of the reform of the financial sector is a reason for caution. There is a possible explanation for why this is happening, i.e. why the financial picture of the whole non-government sector is not improving on average: since banks are recording market expansion, it may be that the number of borrowers is becoming bigger; banks now know

<sup>4</sup> This practice would be understandable in developed countries, but in the Serbian economy where delays in payment are usual and tolerated, it does not seem very justifiable to classify loans which are being regularly repaid as non-performing if the borrower is late in making payments on only one of his loans.

<sup>5</sup> It seems that, with these measures, the NBS is using prudential supervision as an instrument of monetary policy when it deems necessary. In other words, since classification is the basis for provisions, in the concrete example the loan becomes more expensive for the bank and discourages it from lending to that category of clients.

<sup>6</sup> An amended Decision on the Classification of Banks’ Balance-sheet Assets and Non-balance Items entered into force on 1 October 2006. Besides the setting of level of loan-loss provisions by banks themselves, it also introduces allocation of reserves from profit. The percentage of the required reserves and provisioning for categories from A to D remained unchanged: 2%, 10%, 25%, 50% and 100% respectively.

*i) E.g. loans to households where the monthly installment exceeds 30% of income were first in category A, and then moved to category C in late 2004 and to category E in July 2006. In its report, the IMF too expresses reservations about this.*

## Credit Bureau – a Factor of Stability of the Financial Sector and Source of Precise Information on Non-performing Loans

Credit bureaus collect information on the creditworthiness of banks' clients - enterprises and households. They are important because they enable banks to be better informed when approving loans, thereby upgrading their assessments of potential clients and ultimately, by reducing the costs of banks not having proper information on borrowers, raising the effectiveness of financial intermediation.

In Serbia, Credit Bureau was founded by the Association of Serbian Banks in late 2004, what was – one can say - in the early stage of the development of the banking sector. The Bureau's first task was to establish a register of loans to households and, as of 2006, of all loans to companies and entrepreneurs. Banks report all their approved loans to the Bureau, as well as changes that occur with regard to the remaining claims on extended loans. In this way, every delay in making payments on loans to households exceeding 60 days, and on loans to enterprises and entrepreneurs exceeding 15 days, is registered. Every bank may request information on a client, with the prior approval of the client, and receives reports on his indebtedness and regularity in meeting payments owed to all banks. The information is kept for three years after loans have been repaid in full, so that banks are able to obtain information on clients' past records. The data is confidential and protected with effective IT support.

The existence of such a complete and reliable data base in Serbia is important for the stability of the whole financial system, particularly at a time of high credit growth.

For the first time, the Credit Bureau synthesized for this analysis data on the total bank credit, its structure and, most importantly, the total amount of delayed payments (Tables L1-4 and L1-5). *QM* will henceforth monitor developments in these indicators.

According to the Credit Bureau's data, credit to companies dominates in total credit to the non-government sector (30% of GDP) with 65.9%, while credit to households accounts for 31.7%, and to entrepreneurs for only 2.5% (Table L1-5, column 2). Almost half the credit to households consists of very short-term cash loans granted for unspecified purposes (14.9% of total credit to the non-government sector), while housing loans account for only 7.8% of the total loans to non-government sector. Loans to enterprises average 8.7 mn dinars (110,000 euros), and to households 163,000 dinars (2,000 euros), while the average housing loan stands at 1.8 mn dinars, or 23,000 euros (Table L1-4, column 3).

Though, on the one hand, the delay in payments on loans to enterprises and entrepreneurs is at least 15 days and, on the other, at least 60 days on loans to households, the share of loans with delayed payments in the total amount of overdue loans to the non-government sector is 9.1%. Enterprises owe the largest share, 11.9%, of the outstanding debt on loans with payments overdue by 15 days and more (Table L1-4, column 7), which represents 85% of the total loans with delays in payments of the whole non-government sector (Table L1-5, column 4). The figure for entrepreneurs is 8%. Households have the least amount of outstanding loans on which payment is delayed (60 days and more), and their share in total outstanding loans to households is only 3.7%. The share of loans on which payments are overdue by 90 days and more, which is the most frequently used measure of non-performing loans in other countries, would be, both for the whole non-government sector in Serbia and for individual types of borrowers (enterprises, entrepreneurs and households) significantly lower. Hence, as we see, NPLs are certainly below 20% of total claims as believed thus far.



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**Table L1-4. Outstanding Debt and Overdue Payments on Bank Loans to the Non-government Sector, as of 8 December 2005**

	No. of loan contracts	Total outstanding loans	Average claim by loan (1 : 2)	Loans with overdue payments	Total loans with overdue payments	Total overdue payments	Share of loans with overdue payments in total loans (5 : 2)	Share of overdue payments in total loans (6 : 2)	Loan contracts with overdue payments in total loans contracts (4 : 1)
		in millions of dinars	in dinars		in millions of dinars	in millions of dinars	in %	in %	in %
	1	2	3	4	5	6	7	8	9
<b>Total loans (to non-gov. sector)</b>	<b>1,095,125.0</b>	<b>605,657.6</b>	<b>553,048.8</b>	<b>47,800.0</b>	<b>55,647.5</b>	<b>25,457.4</b>	<b>9.1</b>	<b>4.2</b>	<b>4.4</b>
o/w:									
To enterprises	45,792.0	399,069.8	8,714,837.3	6,867.0	47,306.5	22,647.4	11.9	5.7	15.0
To entrepreneurs	30,571.0	14,872.9	486,503.9	2,567.0	1,186.7	551.9	8.0	3.7	8.4
To households, total loans	1,018,762.0	191,714.9	188,184.2	38,366.0	7,154.3	2,258.1	3.7	1.2	3.8
Cash loans	550,637.0	90,227.9	163,860.9	23,256.0	3,306.3	999.0	3.7	1.1	4.2
Consumer	274,596.0	17,043.1	62,066.1	9,550.0	802.3	378.8	4.7	2.2	3.5
Adaptation	2,003.0	785.5	392,161.8	122.0	42.6	29.1	5.4	3.7	6.1
Mortgage loans	25,466.0	47,160.7	1,851,908.0	494.0	1,254.6	155.3	2.7	0.3	1.9
Other	164,008.0	35,070.9	213,836.5	4,863.0	1,712.7	687.0	4.9	2.0	3.0
Agriculture	2,052.0	1,426.8	695,316.8	81.0	35.8	8.9	2.5	0.6	3.9

Source: Credit Bureau, Association of Serbian Banks.

**Table L1-5. Structure of Total Debt and of Debt with Overdue Payments**

	No. of loan contracts	Total outstanding loans	Total loans with overdue payments	Total claim on loans with overdue payments	Total overdue payments
	1	2	3	4	5
	<b>share in total, in %</b>				
<b>Total loans (to non-gov. sector)</b>	100.0	100.0	100.0	100.0	100.0
o/w:					
To enterprises	4.2	65.9	14.4	85.0	89.0
To entrepreneurs	2.8	2.5	5.4	2.1	2.2
To households, total loans	93.0	31.7	80.3	12.9	8.9
Cash loans	50.3	14.9	48.7	5.9	3.9
Consumer	25.1	2.8	20.0	1.4	1.5
Adaptation	0.2	0.1	0.3	0.1	0.1
Mortgage loans	2.3	7.8	1.0	2.3	0.6
Other	15.0	5.8	10.2	3.1	2.7
Agriculture	0.2	0.2	0.2	0.1	0.0

Source: Credit Bureau, Association of Serbian Banks.

It should be kept in mind, however, that there exist ostensibly good loans which are probably not included in the indicator used by the IMF (calculated by the NBS) or the indicator of the Credit Bureau brought out here. In the Serbian economy there are several major hotspots of the so called “illiquidity” (toleration of delayed payment of debt), namely large public companies and some government bodies. Their delays have a ripple effect, spreading to their creditors – banks and suppliers, with the latter also being late in paying their own creditors. Because of the size and market power of these major borrowers, banks endeavor to solve the problem by rolling-over the loans, or with annexes to contracts that alter the initial terms (primarily the maturity date). Due to the implicit government guarantee, these loans are classified as the least risky. Until this burning issue is dealt with, no improvement in collectibility of debt can be expected.

## 6. Conclusion

In this article, *QM* brings out the NPLs indicator which, based on the data of the Credit Bureau, though not using the same overdue criterion for household and for enterprise loans, is 9.1%. The indicator would certainly be considerably lower if, instead of 15 and 60 days, the criterion of 90 and more days had been applied, which is the prevailing criterion and the internationally accepted definition of a non-performing loan.

Exercising maximum caution, the NBS has tried to identify all possible sources of credit risk and has come up with a classification of outstanding claims according to the degree of their collectibility that does not allow for unambiguous measuring of non-performing loans. Publication of that figure is a disservice since it sends out a worse picture to the international community about the credit risks in the Serbian economy than is really the case. Now that calculation and monitoring of the indicator for overdue loans in the entire banking sector has been established, its further development should be closely followed. Based on the practice in developed countries, it is also recommendable to make it obligatory for banks to publish data on the share of non-performing loans in their portfolios. The object is to enhance transparency of bank operations, which, as a rule, encourages market discipline of banks since it enables clients to keep an eye on how their banks are working. In developed countries, this is a credible complementary mechanism to the supervision of banks by regulatory bodies.

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## Non-performing Loans in Serbia – What Is the Right Measure?

**Appendix 1: Criteria for Classification of Bank Claims in Accordance with Degree of Collectibility**

Criteria <sup>1)</sup>	Risk categories				
	A	B	V	G	D
Overdue payment by	30 days, exceptionally	31 to 90	91 to 120	121 to 180	over 180 days
Assessment of borrower's cash flows	harmonized	appropriate (i.e. positive cash flow in the previous business period) but actual financial picture point out to potential future problems	inappropriate, assets and liabilities maturity structure does not correspond to the borrower's activity	illiquid borrower	borrower is under bankruptcy
Borrower's capital structure and level			capital structure and level do not correspond to the borrower's activity	unsound borrower	
Borrower's disclosed profit				disclosed loss	
Legal status of the claim					legally disputed
Borrower's file with bank					uncompleted and not up to date
Household loans collateralization and provision with adequate income					loan collateralized with deposit of less than 20% of outstanding loans, monthly payment exceeds 30% of monthly household's income

Source: NBS, Decision on the Classification of Bank Balance-sheet Assets and Off-balance-sheet Items.

1) All claims on a single borrower (except when legally disputed) are put into one category – the least favorable one for that borrower.

## Environmental Impact of Privatization in Serbia

Lidija Udovički\*  
Goran  
Radosavljević\*\*

The Economic Development Strategy of the Republic of Serbia up to 2012, recently adopted by Parliament, envisages the completion of the restructuring and privatization of all state-owned enterprises by early 2008. As the country is yet to embark on privatizing companies that are major polluters, such as the mining and smelting plants of RTB Bor, the national oil company NIS, the Pančevo Chemical Plant, and others, the question must necessarily be raised – whether and how the state will fulfil its obligations under Art. 41g of the Privatization Law and provide funds to remedy the damage caused by these companies in the past and if privatization revenue will be invested in infrastructure and if privatization revenue will go for infrastructure for preventing uncontrolled pollution on a priority basis? The authors believe that in the mid-term, Serbia's successful integration with the European market will depend on these decisions.

### 1. Pollution Damage and Necessary Investment into the Environment

Several reasons make it difficult to estimate the damage to the environment in the latter part of the 20<sup>th</sup> century because of the lack of an environmental protection policy: a) the absence of a good information system to track waste and pollution flows, b) the fact that the so-called 'environmental legacy' and pollution in Serbia requires the committal of significant funds and engagement of a large number of experts, and c) the fact that the benefits of such an investment become apparent only in the long term. This is why dealing seriously with these problems is constantly being put off.

Several partial studies into the state of the environment in Serbia performed after 2000<sup>1</sup> paint a very heterogeneous picture, with many severe 'black spots', mainly the consequence of industrial activity. In addition, total environmental damage is difficult to estimate as there is no institutional political will, but current annual pollution can be approximated. Annual damage from pollution in Serbia ranges from 5% to 15% of GDP<sup>a)</sup> or, between 115 and 330 euros annually per capita. However, when the estimate is broadened to include the damage caused by hazardous substances in rivers and the soil, dumping of industrial waste, and the pollution of the soil by pesticides and mineral fertilizers, the estimated damage to the environment comes to at least 50% of annual GDP. Still, this pollution is, in essence, 'stock', and does not compare adequately with a year's GDP.

The same authors estimate that slightly over 4 bn euros needs to be invested into environmental improvements over the next 10 years to achieve EU standards. Analyses conducted in countries that have already gone through transition show that the annual benefits of implementing EU environmental protection directives<sup>2</sup> range from 2.61% to 3.1% of GDP.<sup>b)</sup> Romania and Bulgaria

a) Radmilo Pešić and Jochem Jantzen. Estimate obtained in personal communication with the authors.

b) Ecotec et al, 2001: *The Benefits of Compliance with the Environmental Acquis for the Candidate Countries, in cooperation with EFTEC, IEEP, TME and Metroeconomica, London.*

\* Dually qualified lawyer (Solicitor, UK and Abogado, Spain) a member of corporate law department at Karanovic&Nikolic Law Firm, Belgrade.

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1 International and domestic reports (UNDP, UNECE, SNC-Lavalin, World Bank, Ministry of Science and Environmental Protection, ERM). The reports were prepared to address specific and targeted problems and fields. There have been no attempts to conduct integrated pollution studies and basic remediation assessments in Serbia, nor have there been estimates of funding needed for priority soil and water remediation and removal of hazardous waste dumped throughout Serbia, or rehabilitation of urban and municipal landfills.

2 EU Directive on large combustion plants (88/609/EC LCPD); EU Directive on integrated pollution prevention and control (97/11/EC IPPC); EU Directives relating to fuel quality (2003/17/EC) and petrol and diesel fuel quality (99/32/EC), and the content of sulphur in certain liquid fuels (97/68/EC); EU Directive relating to the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (97/68/EC); and EU Directive 96/62/EC relating to air quality.

are reaping the greatest benefits, followed by the Czech Republic, Slovakia, and Poland (Table L2-1). Following the same logic, and bearing in mind that many of these directives have either been adopted already, or will be in 2007, we estimate that the benefit to Serbia of properly implementing EU directives and standards would not be lower than the level mentioned.

**Table L2-1. Implementation of EU Environmental Protection Directives and Standards - Benefits**

EU Accession Candidate Countries and New Members	Annual benefit			
	euro per capita		in % of GDP	
	high price	low price	high price	low price
Bulgaria	36.0	273.0	2.5	19.3
Cyprus	98.0	471.0	0.8	3.7
Czech Republic	232.0	702.0	4.8	14.5
Estonia	53.0	340.0	1.7	10.7
Hungary	98.0	703.0	2.2	15.6
Latvia	39.0	233.0	1.7	10.0
Lithuania	79.0	353.0	2.9	13.1
Malta	62.0	329.0	0.7	3.7
Poland	109.0	553.0	2.9	14.8
Romania	57.0	436.0	4.0	30.7
Slovakia	128.0	624.0	3.9	19.0
Slovenia	124.0	563.0	1.3	6.0
Turkey	49.0	233.0	1.7	8.2
TOTAL	81.0	412.0	2.6	13.1

Source: Ecotec et al, 2001.

A *cost and benefit* analysis makes it clear that investment into ameliorating the environment and harmonizing Serbia's system with European regulations and standards would pay off within four to five years. However, to bring this about, the country needs an appropriate legal framework and effective implementation of legal and economic instruments through multisector policies, as well as the political will to apply established standards in practice.

## 2. Legislation

In parallel with the intensive privatization processes, Serbia's legislation is being harmonized with EU regulations governing *measures, conditions, and standards* for environment protection and sustainable growth. These efforts are being undertaken in line with the strong demands and expert supervision of the EU and the wider international community. The problem of so-called 'environmental legacy' and 'pollution in the past' is especially sensitive when viewed in the context of the restructuring and privatization of socially-owned enterprises, as the question of *who* is to take responsibility for financing amelioration of the damage caused by pollution remains open. Learning from the example of other transition countries, in the early years of privatization the international community and experts financed the establishment of a legislative framework to resolve these issues. As a result, Serbia's legislation, since 2003, contains provisions setting out the *necessary principles for allocating liability* for pollution and environmental remediation.

However, privatization has outstripped Serbia's institutional capacities, which were unable to follow up on the legislative changes by applying sectoral policies and implementing the adopted environmental regulations. The privatization process has failed to take into account the development of an integrated environment protection system in cases where the law and Serbia's long-term interests call for it. Article 41g of the 2003 Privatization Act<sup>c)</sup> states that the Republic of Serbia, as the entity exercising overall control over privatization, is obliged to provide funding to remediate damage caused to the environment by an entity undergoing privatization until the privatization process is complete.<sup>3</sup> The Environmental Protection Act<sup>d)</sup> foresees the obligation of both the seller and the buyer to allocate liability for pollution, and for settling the former owner's 'environmental' charges (debts);<sup>4</sup> it also regulates the establishment of the Environmental Protection Fund, and provides for the payment of part of privatization revenue into it. In addition, the law also governs the integration of environment protection regulations, principles

c) Official Gazette of the Republic of Serbia, Nos. 38/2001, 18/2003, and 45/2005.

d) Official Gazette of the Republic of Serbia, No. 135/2004.

3 Article 41g: 'Funds to remedy damage caused to the environment by an entity undergoing privatization until the signing of a sale contract for its capital or assets shall be provided from the budget of the Republic of Serbia. The Government of the Republic of Serbia shall further define the manner and conditions for using the funds referred to in Paragraph 1 of this Article.'

4 Art. 9(1)(5), last section, Environmental Protection Act.



and policies in all fields of law and sectoral policies, and obligates all sectoral policy-makers to take an active part in planning strategic environmental investment and setting of priority projects in the field. It can safely be said that this legislation has established the legal framework needed to develop an integrated environment protection system in Serbia. But, in the course of privatization so far, economic policy has failed to systematically support a single strategic document relating to *environmental protection, sustainable use of natural resources, or energy efficiency*; finally, and most crucially, annual programs of investment into basic infrastructure, designed to stop uncontrolled pollution and establish an information system to monitor waste flows, were not adopted. The priorities were properly set out in the National Waste Management Strategy, adopted as part of the 2003 EU integration program. However, systematic investment has failed to materialize in fields such as the development of municipal infrastructure for communal waste sorting, treatment, and disposal, or central hazardous waste treatment and recycling plants.<sup>5</sup> Some municipalities have seen, to be sure, both successful and failed attempts to build appropriate waste disposal systems, but what is worrisome is that each of these examples is an isolated case. It is evident, to emphasize again, that there is no capacity or political will in Serbia to attempt a sustained, systematic, economically and strategically justified approach to dealing with environmental problems. Generally speaking, this is where the vicious circle begins, with the Serbian government avoiding responsibility and passing the buck to local authorities, and vice versa.

Bearing in mind the complexity and financial aspects of the problem, it is completely useless to shift the responsibility for the unacceptable situation in the environment to managers of state- and socially owned enterprises. Even when they are ready to change something, their hands are most often tied. Therefore, it is essential to systematically address the following issues at the national level:

**1. Allocating liability for pollution in the past and remedying environmental damage.**

This would deal with one of the major concerns of reliable investors – inheriting liability for the consequences of pollution. At the same time, it would make it possible for the citizens to enjoy the right to live and work in a healthy environment – as enshrined in the Constitution and legislation – as well as ensure a better balance between economic development and the environment protection in Serbia.

**2. Enhancing legal certainty by ensuring administrative and judicial enforcement of legal and economic measures relating to environment protection and the use of natural resources,** regardless of whether the industrial plant in question is privately or state-owned,<sup>6</sup> or whether its capital is domestic or foreign.<sup>7</sup> This would create conditions for attracting reliable investors rather than speculators.

**3. Systematic investments into management and information infrastructure relating to environment protection; determining priorities.** This would foster a more competitive and attractive investment climate, and raise the competitiveness of domestic products in foreign markets.

A comparative analysis of legal experiences in the field of remedying environmental damage (caused by the activities of the military, and state-owned companies and institutions) in Central and East European countries, such as Hungary, Poland, Bulgaria, the Czech Republic, and Slovenia, shows that they faced the same problems and had to adopt a systematic approach in dealing with them. The issues and experiences of countries in the region are valuable guidelines for creating, integrating, and implementing sectoral environmental policies. There is, however, one important difference: Serbia is not burdened with a problem of such magnitude as the Warsaw Pact's nuclear and military waste, an important item in calculating the remediation investment necessary in nations of the former eastern bloc.

<sup>5</sup> It should be stressed that only 18 communities in Serbia have communal waste water treatment systems, while Belgrade and Novi Sad discharge theirs directly into the Danube. Contrary to regulations, hazardous waste is deposited in communal landfills, including organs and medical waste from hospitals, as well as oils and other substances that can cause cancer when incinerated, or permanently contaminate the eco system by filtering into the soil.

<sup>6</sup> In spite of their low level of compliance with environmental legislation, state-owned companies hardly ever face enforcement of administrative or court measures. The same applies when it comes to paying fees for use of natural resources and the pollution surcharge.

<sup>7</sup> Legal practice has shown that administrative and court measures for non-compliance with environmental regulations are generally enforced only against companies in majority foreign ownership. One of the reasons is that claims can be settled without forcing the company into bankruptcy.

Viewed from a legal and economic standpoint, problems that need to be solved are: 1) whether the state should finance and engage in remediation directly, or should deduct the estimated sum from the proceeds from privatization of companies and subsequently monitor remediation efforts undertaken by the new owners; 2) what if the assessed damage remediation costs exceed the entire sum obtained through privatization (a frequent case in Serbia); 3) how should damage be assessed, i.e. are all factors included in the calculation (should past damage caused by airborne emissions or groundwater pollution be estimated, and, if so, how), or should analysis focus only on soil pollution and accumulation of hazardous, non-hazardous and inert waste; does pollution relate only to factory grounds, or the wider area; and, finally, 4) the most significant legal problem in comparative practice is liability for the consequences of pollution that appear at a later date, (such as, for example, severe illnesses that become manifest only after a certain period of time has elapsed) caused by the pollution done by a state-owned company before its privatization. It is eminently clear that such consequences exist, or could exist, but they are impossible to quantify at the time of purchase. Provided a direct causal relationship can be proven, there is no reason why the state should not assume explicit liability for payment of damages. Article 41g does not contemplate this, while Article 9(1)(5) leaves the matter open to negotiation by the parties to a contract. It needs to be said that such a contract would not be effective *erga omnes*, but would only bind the parties to the agreement.<sup>e)</sup>

e) This means that a member of the public falling ill would have to sue the polluter company for damages, while the new owner of the company would have to sue the state to obtain a refund of the damages paid.

The greatest step since 2000 in harmonizing domestic legislation on environmental protection with EU Directives and standards was made through the YUGOLEX program.<sup>8</sup> This project focused on developing regulations on environmental impact assessment (EU Directive 97/11/EC EIA) and strategic environmental impact assessment (EU Directive 21/427/EC SEA), integrated pollution prevention and control (EU Directive 96/61/EC IPPC), and access to environmental information pursuant to the Århus Convention. In parallel with this project, environmental regulations were integrated into economic policy regarding privatization and encouraging foreign direct investment (FDI). Taking into account Serbia's major pollution problem, the World Bank initiated a project aimed at drafting regulations to elaborate in more detail Article 41g of the Privatization Act and provide for its more effective implementation.

The 2004 Environmental Protection Act was adopted after the Privatization Act. Under Article 9(1)(5) of this Law, change of ownership over a legal entity must include an environmental assessment and allocation of liability, as well as settlement of the former owner's debts (charges) on account of pollution and/or damage to the environment.<sup>9</sup> We must emphasize that this article is a general rule, and that in the context of change in ownership in privatization, Article 41g of the Privatization Act completes this general rule with an additional obligation to be complied with by the Republic of Serbia in the course of privatization.

As mentioned above, the Environmental Protection Act contains provisions establishing the Environmental Protection Fund. Under the Act, the Fund is financed from, among other sources, privatization proceeds. Decrees further defining and ensuring implementation of Article 41g of the Privatization Act and Article 9(1)(5) of the Environmental Protection Act have never been passed; the Fund has yet to obtain any funds from privatization proceeds.<sup>f)</sup>

f) Source: Environmental Protection Fund data as of 9 November 2006.

Although the necessary decrees were never passed – an oversight on the part of the Serbian government that is hard to explain – this is no excuse for the failure to implement the provisions of the legislation referred to above. This is further borne out by several isolated cases where state-owned companies were privatized, and where there was enough political will to embark on a technological analysis of existing pollution and quantify the damage, using an accurate, integrated and systematic interpretation of regulations. Liability for pollution was then allocated, with the

<sup>8</sup> This project, funded by the Finnish Government, operated from 2002 to 2005, and was implemented by the Regional Environmental Center for Central and Eastern Europe (REC) in cooperation with the Serbian Ministry of Science and Environmental Protection.

<sup>9</sup> We draw the reader's attention to the legal and technical problems caused to the doctrine of 'corporate veil' by this wording of this article. It is not clear how this article will be implemented in practice in the case of joint-stock companies whose stock is owned by numerous shareholders and associated entities, as well as whether a change in ownership entails the transfer of any percentage of the share in the company's capital. In any case, this is a contractual division of liabilities and obligations between the new and the old owner which, under general legislation governing contracts and torts, and Articles 102-108 of the Environmental Protection Act, has no effect on third parties' rights (see Footnote 12 above for an additional explanation).

state taking responsibility for remedying the damage to the environment, as well as for the direct consequences of such damage that may arise at a later date. For his part, the investor assumed liability for damage that may arise at a later date, under current regulations, as well as the very important obligation of implementing a corrective plan and ensuring that the company's activities are brought into line with current regulations and standards over the coming three to five years.

The problem is that, given the lack of a decree defining and integrating all the necessary elements of a detailed regulation, the actual realization of current legislation is mainly based on good will of the competent public authority, however arbitrary they may be. In addition to possible mistakes this sort of *ad hoc* approach may entail, the process is expensive, time-consuming, and does not provide enough legal certainty— in short, it is not transparent enough from the buyer's point of view, as it is only at the post-tender stage that the buyer incurs these expenses. On the other hand, the competent government bodies cannot devote so much time to each individual case, but rather need institutionalized procedures – while investors need legal certainty.

Serious investors would like to see correct and thorough implementation of this legislation, since universal principles of corporate liability toward third parties apply in Serbia.<sup>10</sup> Also, it is convenient to recall that the Serbian Law on Obligations is specific in one respect: if a property or part of a property is transferred to a party by virtue of an agreement, that party is jointly and severally liable (together with the previous owner) for any liabilities and encumbrances attached to the property (or part), but only up to the value of the property, regardless of whether it knew or could have known of the existence of such liabilities or encumbrances.<sup>9</sup> No legal consequences may operate against creditors pursuant to contractual provisions excluding or limiting liability set out in this article of the Act.<sup>11</sup>

*g) In other jurisdictions, if a buyer did not know about the existence of burdens (debts) and obligations, and can demonstrate that he acted with due diligence and took all steps necessary to collect legally available information (i.e. if he complied with the caveat emptor principle), he may be discharged of liability for obligations discovered at a later date.*

However, in order to eschew its responsibility for remediation, Serbia's ploy has so far been to absolve investors from their obligation to implement corrective plans. In several cases, this led to desirable (i.e. the most responsible) investors withdrawing their offers in the last phase of the tender, and has attracted adventurers ready to engage in incomplete negotiations and risky deals. This is hardly an acceptable foundation for attracting serious investors, mainly from the EU countries, or multinational corporations that cannot allow themselves to be involved in unethical, environmentally unfriendly, or scandalous practices. Such investors also feel the need to protect themselves from responsibility for pollution that, although originating in Serbia, can result in lawsuits in their home countries.

Finally, the question must also be raised of responsibility for failing to adhere to statutory requirements relating to *protection of the public interest and citizens' rights* in privatization. This issue gains in importance when viewed in the light of the growing number of class actions,<sup>12</sup> a procedure of common law that is lately becoming a part of the legal systems of EU countries. In Sweden, for example, NGOs have since 2002 been able to sue government entities bodies and seek compensation for non-compliance and the resultant harm to the environment. A similar law came into force in Spain in 2001, and has started yielding results that were unthinkable only 10 years ago from the perspective of Spain's legal tradition at that time. In principle, Serbia is irrevocably moving in that direction. It is probably only a matter of time before people living in polluted areas (and hence having standing to sue) where companies have been privatized without proceeds being channeled into environmental remediation file similar actions to seek damages from the state for non-compliance with Article 41g and other statutory obligations.

<sup>10</sup> The Companies Act foresees that, where corporate entities are organized as limited liability companies and joint-stock companies, any change in ownership of a company does not affect its permanent rights and obligations. A company has unlimited liability, while company members or shareholders enjoy liability limited to the amount of any agreed but unpaid contribution into the company.

<sup>11</sup> This formulation of the principle of joint and several liability that operates automatically without the need to first prove winding up in fraud of creditors, insolvency, or inability to pay creditors, is not usual in comparative legislations; it has a negative influence on transfer of ownership in ordinary market conditions. Other nations' law on contracts and torts following the Napoleonic-Roman tradition uses forms of the *Actio Pauliana*, which, to protect market interests, is always subsidiary. We are of the opinion that the adoption of the Bankruptcy Proceedings Act (Official Gazette of the Republic of Serbia, No. 85/05), especially its Articles 100-105, and the Companies Act (Official Gazette of the Republic of Serbia, No. 125/04), especially its Article 15, has made Article 452 of the Law on Obligations (Official Gazette of the Federal Republic of Yugoslavia, No. 15/98) an excessive measure of legal security, and one that is more harmful than useful to Serbia's market, as well as being anachronistic in relation to creditor protection mechanisms developed in Napoleonic-Roman and common law.

<sup>12</sup> A lawsuit where a large number of persons are in the position of plaintiff, or a lawsuit on behalf of an undefined or unknown number of persons.

### 3. In Conclusion

In Serbia the state will have to play the major role in dealing with environmental protection issues, unlike other countries where the economy spontaneously arrived at solutions – primarily in order to maximize profits and avoid very *expensive liability* for damage caused to the environment and its consequences. Economic and legal instruments and other measures ensuring financing of and fostering investment into eco-friendly industrial activity can be classed into four categories:

1. *Directly profitable* measures (e.g. those introducing modern equipment that makes a product cheaper, or recycling);
2. *Indirectly profitable* measures (e.g. company would rather invest in water filters than pay high environmental taxes);
3. Measures *profitable in the long run*, but where costs cannot be immediately shifted to the market (development of sustainable energy sources as oil runs out);<sup>13</sup> and
4. Measures that will *never be profitable*, but are being planned and implemented intensively by governments and supra-governmental organizations (because the polar icecap is melting).

On the other hand, economic policy will have served its purpose only if it provides visible and continuous results when it comes to achieving the following goals:

1. Rational use of renewable and non-renewable natural resources;
2. Introduction of technologies and measures to increase energy efficiency;
3. Prevention and reduction of pollution;
4. Remediation of existing pollution and damage to the environment; and
5. Introduction of standards in response to requirements imposed by a high degree of environmental and health awareness, and the market's economic strength (from controlled and labeled product contents and certified systems ensuring management, product and process quality (best practices certificates), to eco-production.

The state will urgently have to direct its efforts at ensuring that the private and public sector catch up with the world's developed markets, at least with respect to elements of the integrated environmental protection system where we can with some certainty say that no serious outside financial aid can be expected in the coming 20 years.<sup>h)</sup> Besides promoting the health of the population and attracting FDI, this effort is necessary for the following reasons:

1. For Serbia's economy to be successfully restructured and rehabilitated, and for its competitiveness in Western markets to be ensured in the medium- to long-term. When considering the production process, these markets take into account the use of sustainable natural resources, energy efficiency, and costs associated with industrial liability for pollution;
2. To meet quality standards necessary for trade in products, and primary and secondary raw materials;
3. To reduce costs of treating illnesses resulting from pollution of the environment;
4. To ensure that Serbia is – at least partially – able to fulfill pressing international obligations, primarily those arising from UNFCCC and the Kyoto Protocol,<sup>14</sup> the Cross-Border Pollution Liability Convention, and numerous other treaties Serbia must ratify in the next two years.

Serbia has, therefore, established a framework of economic and legal instruments that can be used to plan, encourage, and finance environmental protection, energy efficiency, and sustainable use of natural resources. What is needed, however, is a cross-sectoral policy that would integrate measures and implement economic instruments. Perhaps the next step should be the formation of a body to coordinate the activities of appropriate government agencies.

<sup>13</sup> The difference between 2 and 3 is exactly where economic policy and law converge to create the point of highest economic efficiency. If policy leans too much towards 2, measures may not be implemented or executed due to real inability (i.e. they would come too early). This is the situation prevailing today with most environmental protection regulations in Serbia. If policy leans too much towards 3, the introduction of environmental measures and conditions may be unduly slowed down, or the costs of their introduction may be shifted to the private sector, which, ultimately, brings production prices and economic competitiveness into question.

<sup>14</sup> Belgium, Denmark, Finland, Ireland, Italy, Luxembourg, the Netherlands, and Spain) have set aside about EUR 3 billion to subsidize technology changes in less developed countries, a cheaper way of achieving the same global CO2 emission reduction targets by 2012 than reducing emissions in these EU countries. Emission limits will be introduced into national legislation, based on ever more sophisticated models, to regulate and plan reductions, under the 'who, when, how, and how much' principle.

*h) We can expect developed countries to provide financial and expert assistance for remedying greenhouse pollution (NOx and CO2 emissions). We shall have to fend for ourselves where other – mostly local – forms of pollution are concerned.*

# **ANALYTICAL APPENDIX**



## Analytical Appendix

**Table P-1. Serbia: Retail Price Index (RPI), 2002–2006**

	RPI			RPI components				
	Dec. 2002=100	y-o-y index	cumulative index <sup>1)</sup>	GOODS	Agricultural products	Food	Non-food	SERVICES
				cumulative index <sup>1)</sup>				
<b>annual indices<sup>2)</sup></b>								
<b>2002</b>	93.2	121.4	114.8	109.4	113.8	98.8	114.1	133.0
<b>2003</b>	104.1	111.7	107.8	106.6	93.6	106.0	107.8	111.1
<b>2004</b>	114.3	110.1	113.7	112.8	108.1	113.9	113.2	116.1
<b>2005</b>	134.0	116.5	117.7	115.4	136.1	115.9	114.0	124.1
<b>quarterly indices<sup>2)</sup></b>								
<b>2004</b>								
Q1	109.1	107.6	101.8	101.0	105.1	101.6	100.4	103.9
Q2	111.9	108.5	105.1	105.1	125.6	104.6	103.8	105.3
Q3	116.1	110.6	109.2	109.4	105.7	110.7	109.3	108.5
Q4	120.1	112.3	113.7	112.8	108.1	113.9	113.2	116.1
<b>2005</b>								
Q1	127.5	116.9	105.1	103.8	115.0	104.7	109.6	106.6
Q2	131.2	117.2	108.0	107.0	147.8	107.1	104.6	110.7
Q3	135.9	117.1	111.8	110.7	119.2	110.1	111.2	115.3
Q4	141.6	117.8	117.7	115.4	136.1	115.9	114.0	124.1
<b>2006</b>								
Q1	146.4	114.8	102.2	102.6	111.0	101.5	103.3	101.1
Q2	151.6	115.6	105.7	106.8	129.9	103.7	107.4	102.6
Q3	152.8	112.5	106.0	106.7	96.1	105.9	108.2	104.2
<b>monthly indices</b>								
<b>2005</b>								
March	128.8	117.4	105.1	103.8	115.0	104.7	109.6	106.6
June	132.4	116.8	108.0	107.0	147.8	107.1	104.6	110.7
July	135.0	117.5	110.1	109.3	133.0	107.6	109.2	112.6
August	135.6	117.2	110.6	109.3	126.0	108.3	109.2	114.3
September	137.1	116.5	111.8	110.7	119.2	110.1	111.2	115.3
October	139.4	117.9	113.7	112.8	122.7	113.1	112.6	116.3
November	141.1	118.0	115.1	114.1	128.5	114.7	113.5	118.1
December	144.2	117.7	117.7	115.4	136.1	115.9	114.0	124.1
<b>2006</b>								
January	144.9	115.1	100.5	100.4	103.5	100.7	100.7	100.3
February	146.9	115.0	101.9	102.3	107.8	100.7	103.5	100.6
March	147.4	114.5	102.2	102.6	111.0	101.5	103.3	101.1
April	150.0	115.5	104.0	105.1	116.3	102.0	106.4	101.3
May	152.4	116.0	105.7	107.0	132.4	102.8	108.0	102.3
June	152.4	115.1	105.7	106.8	129.9	103.7	107.4	102.6
July	152.3	112.8	105.6	106.6	106.4	104.7	108.0	102.8
August	153.3	113.1	106.3	107.3	99.9	105.4	109.3	103.6
September	152.9	111.6	106.0	106.7	96.1	105.9	108.2	104.2
October	152.4	109.3	105.7	106.0	92.4	106.1	106.4	104.4
November	153.6	108.8	106.5	106.6	102.4	106.4	106.4	106.0

Source: SBS.

1) Cumulative is the ratio of given period and December of previous year.

2) Twelve-month averages for annual data, three-month averages for quarterly data.

**Table P-2. Serbia: Selected Price Indices, 2002–2006**

	RPI		Consumer price index		Industrial producer's price index		Agricultural producer's price index	
	Dec. 02=100	y-o-y	Dec. 02=100	y-o-y	Dec. 02=100	y-o-y	Dec. 02=100	y-o-y
	<b>annual indices<sup>1)</sup></b>							
<b>2002</b>	93.2	121.4	94.5	119.5	96.4	110.7	101.2	101.3
<b>2003</b>	104.1	111.7	103.8	109.9	102.1	105.9	102.3	101.1
<b>2004</b>	114.3	110.1	115.2	111.0	111.8	109.5	118.4	115.7
<b>2005</b>	134.0	116.5	133.8	116.1	127.2	113.7	131.1	110.7
	<b>quarterly indices<sup>1)</sup></b>							
<b>2004</b>								
Q1	109.1	107.6	109.5	108.5	106.7	106.4	113.7	114.5
Q2	111.9	108.5	113.4	110.2	110.5	109.5	118.0	117.6
Q3	116.1	110.6	117.1	112.3	113.6	110.3	118.7	117.5
Q4	120.1	112.3	121.0	112.9	116.6	111.9	123.1	113.4
<b>2005</b>								
Q1	127.5	116.9	126.9	116.0	119.8	112.3	127.6	112.2
Q2	131.2	117.2	132.0	116.4	123.3	111.6	129.2	109.6
Q3	135.9	117.1	135.2	115.5	129.7	114.2	131.8	111.0
Q4	141.6	117.8	141.1	116.6	136.0	116.7	135.8	110.3
<b>2006</b>								
Q1	146.4	114.8	145.5	114.6	138.5	115.6	137.7	107.9
Q2	151.6	115.6	150.8	114.2	144.2	116.9	140.2	108.5
Q3	152.8	112.5	150.6	111.4	147.2	113.5	...	...
	<b>monthly indices</b>							
<b>2005</b>								
March	128.8	117.4	128.7	116.9	120.9	112.0	129.69	112.00
June	132.4	116.8	133.5	115.8	124.9	112.0	129.40	108.48
July	135.0	117.5	134.7	116.0	128.1	113.5	129.27	112.65
August	135.6	117.2	134.8	115.7	128.8	113.9	130.83	111.44
September	137.1	116.5	136.1	114.7	132.2	115.0	135.27	109.12
October	139.4	117.9	139.2	116.2	134.9	116.3	134.33	109.56
November	141.1	118.0	141.0	116.6	136.2	117.1	135.80	109.45
December	144.2	117.7	143.2	117.0	136.8	116.5	137.16	111.77
<b>2006</b>								
January	144.9	115.1	144.3	115.3	137.4	116.3	137.26	110.31
February	146.9	115.0	145.7	114.8	138.7	115.1	137.13	106.58
March	147.4	114.5	146.5	113.9	139.4	115.3	138.70	106.95
April	150.0	115.5	148.8	114.5	142.7	117.0	138.18	107.84
May	152.4	116.0	151.7	114.4	144.8	117.6	140.41	107.85
June	152.4	115.1	151.7	113.6	145.0	116.1	142.11	109.82
July	152.3	112.8	150.4	111.7	146.9	114.7	142.50	110.23
August	153.3	113.1	150.8	111.9	147.3	114.3	146.17	111.73
September	152.9	111.6	150.7	110.7	147.3	111.4	147.35	108.93
October	152.4	109.3	150.1	107.9	146.9	108.9	...	...
November	153.6	108.8	151.6	107.5	146.4	107.5	...	...

Source: SBS.

1) Twelve-month averages for annual data, three month averages for quarterly data.

## Analytical Appendix

**Table P-3. Serbia: Dinar / Euro Exchange rate, 2002–2006**

	Nominal				Real				CPI in Euro area <sup>4)</sup> (Dec. 02=100)
	Exchange rate (FX) <sup>1)</sup>	Base index (Dec. 02=100)	y-o-y index	cumulative index <sup>2)</sup>	real FX <sup>3)</sup> (Dec. 02=100)	y-o-y index	cumulative index <sup>2)</sup>	USD/EUR rate	
<b>annual exchange rate<sup>5)</sup></b>									
<b>2002</b>	60.6763	98.6	102.0	102.8	104.8	85.7	91.5	0.9397	99.1
<b>2003</b>	64.9743	105.6	107.1	110.5	102.4	97.8	104.4	1.1241	101.0
<b>2004</b>	72.6215	118.0	111.8	115.6	106.3	103.8	103.9	1.2392	103.0
<b>2005</b>	82.9188	134.7	114.2	109.3	105.8	99.5	94.9	1.2433	105.3
<b>quarterly exchange rate<sup>5)</sup></b>									
<b>2004</b>									
Q1	69.2361	112.5	110.1	102.3	105.1	103.9	101.0	1.2382	101.9
Q2	70.8080	115.0	109.5	105.3	106.0	103.0	101.5	1.2084	103.1
Q3	73.4267	119.3	112.7	109.4	106.1	104.1	101.7	1.2113	103.2
Q4	77.0150	125.1	114.6	115.6	108.2	104.3	103.9	1.2993	103.9
<b>2005</b>									
Q1	80.2421	130.4	115.9	102.7	106.4	101.2	98.1	1.3145	104.0
Q2	81.8942	133.0	115.7	105.0	106.7	100.7	98.3	1.2606	105.2
Q3	83.8302	136.2	114.2	107.5	105.8	99.8	97.8	1.2199	105.6
Q4	85.7085	139.2	111.3	109.3	104.5	96.6	94.9	1.1898	106.2
<b>2006</b>									
Q1	87.0875	141.5	108.5	101.4	102.7	96.6	99.6	1.2031	106.3
Q2	86.8674	141.1	106.1	101.0	100.3	94.0	97.9	1.2552	107.7
Q3	83.2482	135.2	99.3	96.7	95.5	90.3	92.6	1.2745	108.0
<b>monthly exchange rate</b>									
<b>2005</b>									
March	80.7498	131.2	116.1	102.7	106.5	101.0	98.1	1.3074	104.5
June	82.5172	134.1	115.3	105.0	106.7	100.7	98.3	1.2180	105.3
July	82.9982	134.8	114.2	105.6	105.1	99.3	96.9	1.2040	105.3
August	83.9965	136.5	114.7	106.8	106.2	100.0	97.9	1.2294	105.5
September	84.4958	137.3	113.6	107.5	106.2	100.0	97.8	1.2265	106.0
October	85.1413	138.3	112.6	108.3	105.4	97.8	97.2	1.2026	106.3
November	86.0770	139.8	112.1	109.5	105.1	97.1	96.9	1.1809	106.1
December	85.9073	139.6	109.3	109.3	102.9	94.9	94.9	1.1861	106.3
<b>2006</b>									
January	86.9033	141.2	108.8	101.2	103.2	96.7	100.3	1.2122	105.9
February	87.2558	141.8	108.9	101.6	102.5	96.8	99.6	1.1960	106.2
March	87.1033	141.5	107.9	101.4	102.5	96.2	99.6	1.2013	106.7
April	86.5391	140.6	106.4	100.7	100.7	94.3	97.9	1.2239	107.4
May	87.3023	141.8	106.7	101.6	100.3	94.2	97.5	1.2750	107.8
June	86.7609	140.9	105.1	101.0	99.8	93.6	97.0	1.2677	107.9
July	83.7931	136.1	101.0	97.5	96.4	91.7	93.7	1.2684	107.8
August	82.8893	134.7	98.7	96.5	94.8	89.3	92.2	1.2803	108.0
September	83.0621	134.9	98.3	96.7	95.3	89.8	92.6	1.2748	108.1
October	80.9242	131.5	95.0	94.2	93.3	88.5	90.7	1.2615	108.1
November	78.9404	128.2	91.7	91.9	90.4	86.0	87.8	1.2876	108.2

Source: NBS, SBS, Eurostat (www.epp.eurostat.ec.eu.int)

1) Month average, official daily NBS mid rate.

2) Cumulative index-ratio of given period and December of previous year.

3) Real fx calculation include Euro area inflation. See footnote 5) in Table T3-5.

4) Harmonized indices of consumer prices. Due to official revisions, this index differs slightly from values published in previous QM issues.

5) Twelve-month averages for annual data, three-month averages for quarterly data.

**Table P-4. Serbia: Registered Employment, 2004–2006**

	Total No. of employed (employees and entrepreneurs)	Employees in legal entities	Employees with natural entities			Total No. of employees
			Total	No. of entrepreneurs	No. of employees within entrepreneurs	
			1 (=2+3)	2	3 (=4+5)	
<b>quarterly data</b>						
<b>2004</b>						
Q1	2,050	1,589	461	207	253	1,842
Q2	2,059	1,592	468	208	259	1,851
Q3	2,045	1,570	475	209	266	1,836
Q4	2,048	1,559	489	216	273	1,832
<b>2005</b>						
Q1	2,065	1,557	507	225	283	1,840
Q2	2,062	1,544	518	228	289	1,833
Q3	2,063	1,536	527	229	298	1,834
Q4	2,055	1,521	533	230	304	1,825
<b>2006</b>						
Q1	2,035	1,500	535	228	307	1,806
Q2	2,018	1,481	537	227	311	1,792
Q3	2,008	1,469	539	225	314	1,783
<b>monthly data</b>						
<b>2005</b>						
March	2,070	1,557	513	228	285	1,842
June	2,059	1,538	521	229	292	1,830
July	2,062	1,538	524	229	295	1,833
August	2,062	1,535	527	229	298	1,833
September	2,067	1,536	531	230	300	1,836
October	2,062	1,530	532	230	302	1,832
November	2,054	1,520	534	230	304	1,824
December	2,048	1,514	534	229	305	1,819
<b>2006</b>						
January	2,039	1,505	534	229	305	1,810
February	2,033	1,498	535	228	307	1,805
March	2,032	1,496	536	228	308	1,804
April	2,025	1,487	537	228	310	1,797
May	2,019	1,481	537	228	310	1,791
June	2,015	1,475	538	228	312	1,787
July	2,012	1,472	538	228	312	1,784
August	2,010	1,467	540	228	315	1,782
September	2,010	1,467	540	228	315	1,782

Source: SBS (March and September data).

Notes by column: Number of employed for months other than March and September is estimated with linear interpolation.

1) The total number of employed (employees and entrepreneurs) includes those employed by legal entities (enterprises, organizations, institutions) - Column 2, and small businesses i.e. natural entities - Column 3 (including store owners, self-employed professionals, etc., and those working for them). Employees of the Ministry of Defense of Serbia-Montenegro, and the Serbian Ministry of Internal Affairs are not included.

Source: Semi-annual Report on the Employed and Wages RAD-1/P; Additional Survey to the Semi-annual RAD-1 Report; Semi-annual Report on Small Businesses and Their Employees RAD-15.

2) Employees in legal entities (companies, organizations, institutions).

Source: Semi-annual Report on the Employed and Wages RAD-1/P (Column 10), and the Additional Survey to the Semi-annual RAD-1 Report.

3) Owners of small businesses and self-employed persons (natural entities) and their employees (Column 4 + Column 5).

4) Owners of small businesses.

5) Employees of small businesses (natural entities).

Source: Semi-annual Report on Small Businesses and their Employees RAD-15.





**Table P-6. Serbia: Balance of Payments, 2003–2005<sup>1)</sup>**

	2004		2005			2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>cumulative, in millions of euros</b>							
<b>CURRENT ACCOUNT</b>	<b>-2,197</b>	<b>-325</b>	<b>-615</b>	<b>-1,134</b>	<b>-1,790</b>	<b>-679</b>	<b>-1,149</b>	<b>-1,781</b>
GOODS AND SERVICES	-5,156	-709	-1,755	-2,970	-4,356	-1,132	-2,378	-3,535
Goods	-5,311	-684	-1,772	-2,987	-4,353	-1,101	-2,351	-3,523
Exports, f.o.b. <sup>2)</sup>	2,991	812	1,825	2,844	3,956	1,039	2,282	3,651
Imports, f.o.b.	-8,302	-1,497	-3,597	-5,831	-8,309	-2,139	-4,633	-7,174
Exports/Imports (%)	36	54	51	49	48	49	49	51
Services	155	-25	17	17	-3	-31	-27	-12
Receipts	1,171	251	594	951	1,312	306	697	1,188
Expenditures	-1,016	-276	-577	-934	-1,315	-338	-724	-1,200
Income, net	-172	-59	-141	-197	-255	-58	-154	-237
Earnings	64	12	32	53	80	32	66	105
Payments	-235	-71	-174	-250	-335	-91	-221	-342
Current transfers	2,728	410	1,200	1,886	2,553	474	1,302	1,867
Private remittances, net	340	35	167	225	284	-21	89	120
Inflow	796	184	424	683	954	95	94	200
Outflow	-456	-149	-256	-457	-670	-283	-450	-715
F/X accounts of non-residents	568	37	108	259	437	183	276	494
F/X purchases, net	1,592	320	884	1,329	1,631	289	882	1,166
Other <sup>3)</sup>	228	17	41	73	201	23	54	87
Official grants	403	33	82	148	268	36	82	124
<b>ERRORS AND OMISSIONS</b>	<b>168</b>	<b>-183</b>	<b>-76</b>	<b>-206</b>	<b>-139</b>	<b>-18</b>	<b>-37</b>	<b>-109</b>
<b>CAPITAL AND FINANCIAL ACCOUNT</b>	<b>2,377</b>	<b>711</b>	<b>1,174</b>	<b>2,277</b>	<b>3,604</b>	<b>1,072</b>	<b>2,828</b>	<b>5,260</b>
Financial account	2,377	711	1,174	2,277	3,604	1,072	2,828	5,260
Foreign direct investment (FDI)	773	262	502	998	1,234	164	709	2,380
Other investment	1,604	449	672	1,279	2,370	907	2,119	2,880
Medium/long term loans <sup>4)</sup>	1,221	159	603	989	1,571	415	1,666	2,425
Government	229	15	44	108	180	59	67	76
Commercial banks	417	68	209	292	545	146	1,125	1,219
Other	574	75	349	589	846	210	473	1,131
Short-term loans	164	94	28	33	320	212	192	33
Other assets and liabilities	187	120	11	186	379	136	115	446
Commercial banks F/X reserves (increase,-)	33	77	30	71	100	144	146	-25
<b>NBS reserves, net<sup>4)</sup>, (increase,-)</b>	<b>-349</b>	<b>-202</b>	<b>-483</b>	<b>-937</b>	<b>-1,675</b>	<b>-375</b>	<b>-1,642</b>	<b>-3,369</b>
IMF disbursements	192	0	0	151	151	75	75	75
IMF amortization <sup>5)</sup>	-188	-47	-93	-133	-166	-7	-196	-384
<b>MEMORANDUM ITEMS</b>								
Capital balance excluding com.banks deposits	2,188	640	1,000	2,027	3,269	981	2,608	5,039
Com. banks' foreign liabilities, net <sup>6)</sup>	581	162	238	325	865	358	1,317	1,252
NBS reserves excl. com. banks deposits	-159	-131	-309	-687	-1,340	-284	-1,422	-3,149
Total foreign loans minus com. banks deposits <sup>7)</sup>	1,195	183	458	772	1,556	536	1,637	2,238
	<b>in % of GDP</b>							
Exports of goods and services	21.1	20.1	22.9	24.0	25.0	24.0	26.6	28.8
Imports of goods and services	-47.2	-33.6	-39.5	-42.7	-45.6	-44.3	-47.9	-49.9
Balance of goods and services	-26.9	-13.0	-16.8	-18.9	-20.6	-19.7	-21.0	-21.0
Current account	-11.1	-6.2	-5.8	-7.2	-8.5	-12.1	-10.3	-10.6
GDP in euros	19,723	21,107	21,107	21,107	21,107	22,373	22,373	22,373

Source: NBS, SBS.

1) Original US dollars monthly data are converted to euros using monthly averages of official daily NBS mid rates.

2) Exports f.o.b. corrected for unregistered exports.

3) Includes payments settlement with Montenegro and Kosovo.

4) Excluding IMF.

5) Principal repayments.

6) Commercial banks' long term foreign debt, and inflow of short term foreign loans. Excludes statutory reserves on Fx liabilities.

7) Includes long term foreign debt and short term foreign loans.

## Analytical Appendix

**Table P-7. Serbia: Consolidated General Government Fiscal Operations<sup>1)</sup>, 2004–2006**

	in billions of dinars							in % of GDP		
	2005			2006			2003	2004	2005	
	total	Q1	Q2	Q3	Q1	Q2				Q3
<b>I TOTAL REVENUE</b>	<b>701.6</b>	<b>146.0</b>	<b>168.4</b>	<b>177.0</b>	<b>175.3</b>	<b>201.6</b>	<b>208.8</b>	<b>40.3</b>	<b>41.2</b>	<b>40.1</b>
<i>o/w: Public revenues excluding government VAT liabilities and offsets with SDF<sup>2,3)</sup></i>	679.0	141.7	163.7	172.7	176.8	199.5	205.6	40.3	41.2	38.8
1. Current revenue	693.7	144.4	166.6	174.9	173.2	199.3	204.8	39.9	40.8	39.6
Tax revenue	638.9	135.5	155.0	162.6	159.4	185.1	188.5	37.3	37.8	36.5
Personal income tax	94.3	19.5	23.5	24.1	25.8	29.2	29.2	6.5	5.4	5.4
Corporate income tax	10.3	3.9	1.8	1.8	7.9	2.9	3.5	0.5	0.5	0.6
Value added tax and retail sales tax	215.9	47.4	52.0	54.3	46.3	57.9	57.0	10.8	11.1	12.3
<i>o/w: Net VAT and retail sales tax<sup>2)</sup></i>	198.8	44.4	48.9	50.8	47.9	55.8	57.0	10.8	11.1	11.4
Excises	71.3	13.2	18.3	19.8	14.7	21.1	21.7	5.0	4.8	4.1
Custom duties	39.0	7.0	9.3	10.4	9.6	12.7	9.9	2.5	2.4	2.2
Social contributions	184.0	38.6	44.4	46.4	48.5	54.1	59.4	2.2	11.1	10.5
<i>o/w: contributions excluding offsets with SDF<sup>3)</sup></i>	179.1	37.2	42.9	45.7	48.4	54.1	56.3	9.9	10.5	10.2
Other tax	24.1	5.9	5.7	5.7	6.5	7.2	7.9	9.9	2.5	1.4
Non-tax revenue	54.8	8.9	11.5	12.4	13.8	14.2	16.2	2.6	3.0	3.1
2. Capital revenue	7.9	1.6	1.8	2.1	2.1	2.3	4.0	0.4	0.4	0.5
<b>II TOTAL EXPENDITURE</b>	<b>-667.8</b>	<b>-141.1</b>	<b>-164.5</b>	<b>-167.1</b>	<b>-174.9</b>	<b>-185.1</b>	<b>-197.6</b>	<b>42.7</b>	<b>40.0</b>	<b>38.2</b>
1. Current expenditure	-634.8	-135.7	-155.4	-159.4	-167.6	-174.3	-184.4	40.9	37.4	36.3
Wages and salaries	-166.3	-36.1	-41.0	-41.5	-46.1	-45.8	-47.1	9.9	9.6	9.5
<i>o/w: wages and salaries excluding severance payments<sup>4)</sup></i>	-1.31	-0.1	-0.4	-0.5	-1.5	-0.3	-0.4	..	..	0.1
<i>o/w: Health Insurance Bureau severance payments<sup>5)</sup></i>	-2.17	0.00	0.00	0.00	-0.9	0.0	-1.4	..	..	0.1
Expenditure on goods and services	-92.2	-17.2	-22.2	-23.1	-22.4	-25.3	-29.0	6.2	5.5	5.3
Interest payments	-24.5	-5.9	-5.0	-5.8	-5.7	-4.9	-8.8	0.9	1.7	1.4
Subsidies	-54.5	-11.1	-13.5	-14.1	-10.1	-12.7	-13.6	5.0	4.5	3.1
Social transfers	-281.5	-62.2	-69.8	-70.8	-79.8	-81.1	-81.7	18.0	15.2	16.1
<i>o/w: pensions<sup>6)</sup></i>	-186.1	-41.9	-45.8	-46.9	-52.7	-55.7	-58.5	10.8	10.6	10.6
Other current expenditure	-15.8	-3.1	-3.9	-4.2	-3.5	-4.6	-4.1	0.8	0.9	0.9
2. Capital expenditure <sup>7)</sup>	-33.0	-5.4	-9.0	-7.8	-7.3	-10.8	-13.2	1.9	2.6	1.9
<b>III "OLD" DEBT REPAYMENT AND GOVERNMENT NET LENDING</b>	<b>-36.7</b>	<b>-2.5</b>	<b>-17.4</b>	<b>-8.9</b>	<b>-4.4</b>	<b>-17.1</b>	<b>-10.4</b>	<b>2.7</b>	<b>1.8</b>	<b>2.1</b>
1. Debt repayment - FFCDs and LRS	-21.9	-0.9	-15.1	-5.1	-1.0	-14.6	-4.8	1.6	1.3	1.3
2. Pensions <sup>8)</sup>	-9.8	-1.3	-1.5	-1.4	-1.6	-1.7	-4.3	0.3	0.3	0.6
3. Budget credits, net <sup>9)</sup>	-4.9	-0.3	-0.8	-2.3	-1.8	-0.8	-1.3	0.8	0.1	0.3
<b>IVa CASH BALANCE (I+II), MoF definition<sup>10)</sup></b>	<b>33.8</b>	<b>4.9</b>	<b>3.9</b>	<b>9.8</b>	<b>0.4</b>	<b>16.5</b>	<b>11.2</b>	<b>2.4</b>	<b>1.2</b>	<b>1.9</b>
Republic budget	26.8	-0.9	4.7	6.0	-9.1	7.5	4.9	..	0.1	1.5
Pension and Disability Insurance Employee Fund	-0.5	-1.0	0.0	1.2	1.8	1.4	2.6	..	0.1	0.0
Pension and Disability Insurance Self-employed Fund	2.5	0.2	0.1	-0.1	0.6	1.2	1.3	..	0.2	0.1
Pension and Disability Insurance Farmers Fund	0.0	0.2	-0.1	0.0	0.1	0.0	0.0	..	0.0	0.0
Health Insurance Fund	-0.5	1.3	-0.7	1.1	0.9	2.5	3.1	..	0.1	0.0
National Employment Service	0.8	-0.3	0.3	-0.4	0.3	0.8	0.2	..	0.1	0.0
Vojvodina budget	-1.8	0.3	-0.1	-0.1	0.7	0.0	-1.1	..	0.0	0.1
Local government	3.8	5.4	0.0	1.3	5.7	3.4	0.3	..	..	0.2
<b>IVb OVERALL BALANCE (IVa+III.3.), IMF definition, MoF data<sup>11)</sup></b>	<b>28.9</b>	<b>4.6</b>	<b>3.1</b>	<b>7.5</b>	<b>-1.4</b>	<b>15.7</b>	<b>9.9</b>	<b>3.2</b>	<b>1.1</b>	<b>1.6</b>
<b>IVc ANALYTICAL BALANCE (I+II+III), FREN's definition<sup>12)</sup></b>	<b>-2.9</b>	<b>2.4</b>	<b>-13.4</b>	<b>0.8</b>	<b>-4.0</b>	<b>-0.6</b>	<b>0.8</b>	<b>5.1</b>	<b>0.5</b>	<b>0.2</b>
<b>V FINANCING (FREN's definition)</b>	<b>27.8</b>	<b>12.9</b>	<b>-3.9</b>	<b>11.8</b>	<b>8.5</b>	<b>1.4</b>	<b>102.0</b>	<b>3.8</b>	<b>1.7</b>	<b>1.6</b>
Grants <sup>13)</sup>	0.2	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.1	0.0
Privatization receipts <sup>14)</sup>	21.7	12.1	-2.1	14.0	9.1	1.3	103.0	2.8	1.0	1.2
Domestic financing <sup>15)</sup>	5.0	1.5	1.7	0.7	1.4	0.2	0.0	0.2	0.4	0.3
Foreign financing <sup>16)</sup>	6.7	0.0	1.5	1.9	-0.4	1.4	1.0	0.8	0.5	0.4
Expenditures for principal repayments to domestic and foreign creditors <sup>17)</sup>	-5.8	-0.7	-5.0	-4.9	-1.7	-1.7	-2.2	0.1	0.3	0.3
<b>VI ACCOUNT BALANCE CHANGE (IVc+V)</b>	<b>24.9</b>	<b>15.3</b>	<b>-17.3</b>	<b>12.6</b>	<b>4.5</b>	<b>0.7</b>	<b>102.8</b>	<b>1.3</b>	<b>1.1</b>	<b>1.4</b>
<b>MEMORANDUM ITEMS</b>										
Government net position in banking system, change:										
- based on recorded fiscal flows (IVc+V)	24.9	15.3	-17.3	12.6	4.5	0.7	102.8	1.3	1.1	1.4
- based on commercial bank's financial reports (NBS data)	38.1	20.2	16.0	-9.5	10.5	17.1	107.2	0.7	0.5	2.2
Enterprises' claims on VAT (FREN's estimate) <sup>18)</sup>	17.1	3.0	3.1	3.5	-1.6	2.1	..	..	..	1.0
Offsets with SDF <sup>19)</sup>	5.5	1.4	1.6	0.7	0.1	0.0	3.2	..	0.6	0.3
IVb Total fiscal result, IMF data <sup>20)</sup>	25.4	..	..	..	..	..	..	2.5	0.6	1.5
Investment projects (FLIPs), IMF data <sup>21)</sup>	-6.1	..	..	..	..	..	..	0.5	0.6	0.3

Source: Public Finance Bulletin (PFB), IMF Country Report No. 06/58, FREN's estimates, Memorandum on the Budget and Economic Policy for 2006 with Projections to 2009 and for 2007 with projections to 2009.

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

2) VAT revenue excluding government VAT liabilities given in Memorandum items (see footnote 16).

3) Contributions revenue reduced by the item "Offsets with SDF" in the Memorandum items (see footnote 19).

4) Account 414 - Social benefits for employees, including sick benefits, expenditure for training employed persons, and severance payments. This item refers only to the Republic budget.

5) FREN's estimate based on media reports and the MoF website, which tallies with item on receipts from borrowing (Account 91) Serbian Health Insurance Bureau from PFB.

- 6) Expenditures on current pensions, adjusted for the payment of the “old debt” and debt incurred through the delay in pension payments starting in December 2005. (See item III.2 and footnote 8).
- 7) Capital expenditure figures for 2003 and 2004 were taken from the Memorandum on the Budget and Economic Policy for 2006 with Projections to 2009. (see footnote 16).
- 8) In December 2002, payment started of the “old debt” to pensioners which was incurred in the April 1994–June 1995 period when only 83% of the due pension amounts was paid. Payment was envisaged in 43 installments (mid-2006). In addition, the delay in pension payments inherited from the 1990s was eliminated at the end of last year, with payment of the 1.5 pension arrears starting in December 2005.
- 9) The item corresponds to the item “Outlays for acquisition of financial assets” in the PFB, i.e. to the item “net lending” in the IMF presentation. This refers exclusively to credits deemed to be for public policy purposes. It comprises loans to students, financing of the National Corporation for Housing Loan Insurance and the like. A large amount in 2003 can probably be explained by the shift in financing of government spending for the period of the temporary budget in the first months of 2004.
- 10) Cash surplus/deficit under (GFS 2001) represents the difference between current revenue and receipts from the sale of non-financial property (i.e. capital revenues) and current expenditures and spending on acquisition of non-financial property (i.e. capital expenditures). See discussion on methodology in Box 1, QM 3 for more details. The unconsolidated (total of results at all levels of government) and consolidated results should, by definition, agree but differences exist due to inconsistencies in the fiscal data.
- 11) Overall fiscal balance (GFS 2001) - Cash surplus/deficit adjusted for transactions in assets and liabilities that are deemed to be for public policy purposes (i.e. lending minus repayment - GFS 1986), or what we named “budget credits”. See discussion on methodology in Box 1, QM 3 for more details.
- 12) Under FREN's definition, the analytical balance includes on the expenditure side the payment of old (domestic) debts, specifically payments for FFCDs, the Serbia Reconstruction Loan, debt to pensioners, etc. Defined in this way, the result measures the liquidity effect government transactions have on the economy.
- 13) Information from IMF CR 06/58. There is no data on grants in the PFB.
- 14) Estimate based on the reported republic's privatization proceeds, increased by 10% an account of the statutory allocations to the Pension Fund and the Restitution Fund. We have no explanation for the negative privatization proceeds in the PFB in Q4 2005.
- 15) Financing through the issuance of T-bills of the Republic of Serbia. There is a possibility that new loans to the government extended by domestic banks are included here, in which case they should be excluded from the item: “Change in Government Net Position in the Banking System on the basis of data from commercial bank's balance sheets (NBS data)” in Memorandum items.
- 16) Foreign financing in the budget of the Republic has been increased by 30% (an allowance for unknown local financing).
- 17) Expenses for debt amortization from the PFB, which are not included in Section III.
- 18) FREN's estimate, based on: unofficial information that tax credit of enterprises at end-2005 amounted to around 11 billion, and VAT refund flows presented in the PFB.
- 19) These are offsets of the Serbian Pension and Disability Insurance Funds debt to the Serbian Development Fund and contribution arrears of companies that are debtors of the Serbian Development Fund.
- 20) Line item “Overall balance, excluding project loans”, Table 8. Serbia: General Government Fiscal Operations, 2003–06, INF Country Report No. 06/58, February 2006, page 37.
- 21) FLIPs - Foreign loan financed investment projects, data from IMF Country Report No. 06/58. According to the IMF's methodology, FLIPs are classified as part of capital expenditure, while, according to the methodology used by the Ministry of Finance they are not. A comparison with the IMF data, however, suggests that this item may have been included in official capital expenditure figures in 2004 after all.
- Note: The figures do not always sum up due to rounding off.
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## Analytical Appendix

Table P-8. Serbia: Monetary Survey, 2004–2006

	2004		2005			2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	in millions of dinars, end of period <sup>1)</sup>							
<b>Net Foreign Assets (NFA)</b>	<b>141,120</b>	<b>144,478</b>	<b>163,230</b>	<b>193,028</b>	<b>194,397</b>	<b>179,886</b>	<b>209,994</b>	<b>341,473</b>
Net Foreign Assets (NFA) (in euros)	1,766	1,783	1,972	2,279	2,274	2,070	2,442	4,164
Assets	298,778	319,616	356,821	411,422	474,205	502,260	586,263	696,913
Assets (in euros)	3,740	3,943	4,311	4,857	5,546	5,780	6,817	8,499
NBS	244,837	272,654	302,596	358,226	420,769	461,414	545,592	645,627
NBS (in euros)	3,065	3,364	3,656	4,229	4,921	5,310	6,344	7,874
Commercial banks	53,941	46,962	54,225	53,196	53,436	40,846	40,671	51,286
Commercial banks (in euros)	675	579	655	628	625	470	473	625
Liabilities (-)	-157,658	-175,138	-193,591	-218,394	-279,808	-322,374	-376,269	-355,440
Liabilities (-) (in euros)	-1,973	-2,161	-2,339	-2,578	-3,273	-3,710	-4,375	-4,335
NBS	-74,433	-76,969	-78,810	-87,305	-88,684	-93,292	-74,099	-54,659
NBS (in euros)	-932	-950	-952	-1,031	-1,037	-1,074	-862	-667
Commercial banks	-83,225	-98,169	-114,781	-131,089	-191,124	-229,082	-302,170	-300,781
Commercial banks (in euros)	-1,042	-1,211	-1,387	-1,548	-2,235	-2,636	-3,514	-3,668
<b>Net Domestic Assets (NDA)</b>	<b>182,147</b>	<b>187,226</b>	<b>211,299</b>	<b>229,820</b>	<b>265,051</b>	<b>294,481</b>	<b>307,761</b>	<b>229,781</b>
Domestic credits	268,158	281,113	311,930	343,784	383,168	426,703	462,547	385,742
Net credits to government <sup>2)</sup>	4,866	-9,400	-4,098	-12,510	-30,447	-33,667	-36,464	-126,556
Credits	42,915	44,388	39,207	41,172	37,371	37,722	35,356	28,962
Dinar credits	28,991	29,304	24,352	22,379	20,099	17,307	15,269	14,258
NBS	21,427	21,235	16,636	16,013	15,208	13,707	13,446	13,443
Commercial banks	7,564	8,069	7,716	6,366	4,891	3,600	1,823	815
Fx credits	13,924	15,084	14,855	18,793	17,272	20,415	20,087	14,704
Fx credits (in euros)	174	186	179	222	202	235	234	179
NBS	0	0	0	0	180	183	181	0
NBS (in euros)	0	0	0	0	2	2	2	0
Commercial banks	13,924	15,084	14,855	18,793	17,092	20,232	19,906	14,704
Commercial banks (in euros)	174	186	179	222	200	233	231	179
Deposits (-)	-38,049	-53,788	-43,305	-53,682	-67,818	-71,389	-71,820	-155,518
Dinar deposits	-24,485	-32,024	-29,827	-34,529	-43,485	-43,808	-55,003	-50,704
NBS	-22,966	-30,234	-28,219	-32,783	-40,708	-39,437	-49,781	-45,768
Commercial banks	-1,519	-1,790	-1,608	-1,746	-2,777	-4,371	-5,222	-4,936
Fx deposits	-13,564	-21,764	-13,478	-19,153	-24,333	-27,581	-16,817	-104,814
Fx deposits (in euros)	-170	-269	-163	-226	-285	-317	-196	-1,278
NBS	-9,989	-18,088	-6,571	-14,392	-18,806	-21,464	-10,587	-99,498
NBS (in euros)	-125	-223	-79	-170	-220	-247	-123	-1,213
Commercial banks	-3,575	-3,676	-6,907	-4,761	-5,527	-6,117	-6,230	-5,316
Commercial banks (in euros)	-45	-45	-83	-56	-65	-70	-72	-65
Credit to the non-government sector	263,292	290,513	316,028	356,294	413,615	460,370	499,011	512,298
Households	64,441	69,844	82,569	102,707	124,930	141,352	161,981	178,173
Enterprises	198,851	220,669	233,459	253,587	288,685	319,018	337,030	334,125
Other item, net <sup>3)</sup>	-86,011	-93,887	-100,631	-113,964	-118,117	-132,222	-154,786	-155,961
o/w: Capital and Reserves (-)	-118,891	-127,754	-140,174	-147,854	-156,920	-177,927	-206,330	-226,095
NBS	-15,738	-15,735	-22,565	-22,562	-22,573	-22,570	-37,395	-37,396
Commercial banks	-103,153	-112,019	-117,609	-125,292	-134,347	-155,357	-168,935	-188,699
<b>Broad money: M2<sup>4)</sup></b>	<b>323,267</b>	<b>331,704</b>	<b>374,529</b>	<b>422,848</b>	<b>459,448</b>	<b>474,367</b>	<b>517,755</b>	<b>571,254</b>
Dinar denominated M2 <sup>5)</sup>	146,604	144,144	160,778	180,452	192,758	190,872	210,046	235,131
M1	111,235	110,049	120,456	134,514	144,884	137,741	148,510	158,395
Currency outside banks	45,165	39,368	42,316	47,283	53,650	45,825	48,926	52,110
Demand deposits (households and economy)	66,070	70,681	78,140	87,231	91,234	91,916	99,584	106,285
Time and savings deposits (households and economy)	35,369	34,095	40,322	45,938	47,874	53,131	61,536	76,736
Fx deposits (households and economy)	176,663	187,560	213,751	242,396	266,690	283,495	307,709	336,123
Fx deposits (households and economy), in euros	2,211	2,314	2,582	2,862	3,119	3,262	3,578	4,099
o/w: households <sup>6)</sup>	110,714	124,107	141,477	162,667	190,136	207,609	222,105	243,421
o/w: households <sup>6)</sup> (in euros)	1,386	1,531	1,709	1,921	2,224	2,389	2,583	2,965

Source: FREN, NBS: Statistical bulletin.

1) Unless otherwise indicated.

2) Government does not include cities and municipalities, these are treated as a non-government sector.

3) As mentioned in footnote 3 in Table T-22: Enterprises also include non-profit and other non-government economic entities.

4) M2 refers to M3 in accepted methodology in Serbia, and it includes: currency outside banks; demand deposits of households and enterprises; time and savings dinar deposits of households and enterprises; and time and savings fx deposits of households and enterprises; and time and savings fx deposits of households and enterprises. Enterprises also include non-profit and other non-government entities.

5) Dinar denominated M2 refers to M2 in accepted methodology in Serbia, and it includes: currency outside banks; demand deposits of households and enterprises; and time and savings dinar deposits of households and enterprises.

6) Household savings.

**Table P-9. Serbia: Commercial Banks Balance Sheet, 2004–2006**

	2004		2005				2006	
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>in millions dinars, end of period<sup>1)</sup></b>							
<b>Net foreign reserves</b>	<b>-29,284</b>	<b>-51,207</b>	<b>-60,556</b>	<b>-77,893</b>	<b>-137,688</b>	<b>-188,236</b>	<b>-261,499</b>	<b>-249,495</b>
Net foreign reserves (in euros)	-367	-632	-732	-920	-1,610	-2,166	-3,041	-3,043
Gross foreign reserves	53,941	46,962	54,225	53,196	53,436	40,846	40,671	51,286
<i>Gross foreign reserves (in euros)</i>	<i>675</i>	<i>579</i>	<i>655</i>	<i>628</i>	<i>625</i>	<i>470</i>	<i>473</i>	<i>625</i>
Gross reserve liabilities (-)	-83,225	-98,169	-114,781	-131,089	-191,124	-229,082	-302,170	-300,781
<i>Gross reserve liabilities (-) (n euros)</i>	<i>-1,042</i>	<i>-1,211</i>	<i>-1,387</i>	<i>-1,548</i>	<i>-2,235</i>	<i>-2,636</i>	<i>-3,514</i>	<i>-3,668</i>
<b>Net Domestic Assets (NDA)</b>	<b>29,284</b>	<b>51,207</b>	<b>60,556</b>	<b>77,893</b>	<b>137,688</b>	<b>188,236</b>	<b>261,499</b>	<b>249,495</b>
Domestic credits	105,021	126,333	143,467	169,729	233,400	295,040	395,203	395,626
Net claims on government <sup>2)</sup>	8,406	9,121	2,022	6,177	4,318	2,791	-4,882	-9,702
Claims	22,756	24,262	23,743	26,578	24,131	26,239	24,498	19,212
Dinar credits	8,832	9,178	8,888	7,785	7,039	6,007	4,592	4,508
Fx credits	13,924	15,084	14,855	18,793	17,092	20,232	19,906	14,704
<i>Fx credits (in euros)</i>	<i>174</i>	<i>186</i>	<i>179</i>	<i>222</i>	<i>200</i>	<i>233</i>	<i>231</i>	<i>179</i>
Liabilities (-)	-14,350	-15,141	-21,721	-20,401	-19,813	-23,448	-29,380	-28,914
Dinar deposits	-10,753	-11,431	-14,784	-15,599	-14,247	-17,287	-23,138	-23,580
Fx deposits	-3,597	-3,710	-6,937	-4,802	-5,566	-6,161	-6,242	-5,334
<i>Fx deposits (in euros)</i>	<i>-45</i>	<i>-46</i>	<i>-84</i>	<i>-57</i>	<i>-65</i>	<i>-71</i>	<i>-73</i>	<i>-65</i>
Net claims on NBS	97,570	99,401	136,504	159,417	204,890	235,988	340,147	382,527
Claims	99,325	101,154	137,023	160,153	205,625	236,445	341,953	382,971
Cash	4,281	3,812	4,430	4,822	7,053	6,793	6,799	8,654
Required reserves	20,953	20,676	21,855	24,673	26,046	26,387	33,352	33,602
Excess reserves	6,569	1,766	2,790	3,349	7,294	-1,505	-127	3,767
Deposits (-)	66,013	71,694	90,317	107,501	148,337	173,476	245,649	256,555
o/w: dinar deposits	156	95	140	120	155	147	116	159
NBS bills/repo <sup>3)</sup>	1,509	3,206	17,631	19,808	16,895	31,294	56,280	80,393
Liabilities (-)	-1,755	-1,753	-519	-736	-735	-457	-1,806	-444
Net claims on the rest of the economy	-955	17,811	4,941	4,135	24,192	56,261	59,938	22,801
Claims	261,826	289,156	314,487	354,522	411,171	457,662	495,943	508,301
Households	64,283	69,616	82,293	102,435	124,651	141,069	161,700	177,893
Long-term claims	48,848	53,801	66,112	84,542	103,234	115,492	132,102	144,201
Short-term claims	15,435	15,815	16,181	17,893	21,417	25,577	29,598	33,692
Enterprises	197,543	219,540	232,194	252,087	286,520	316,593	334,243	330,408
Long-term claims	87,347	90,442	98,695	103,549	124,713	137,844	149,074	154,772
Short-term claims	110,196	129,098	133,499	148,538	161,799	178,749	185,099	175,636
Liabilities (-)	-262,781	-271,345	-309,546	-350,387	-386,979	-401,401	-436,005	-485,500
Dinar deposits	-87,037	-84,710	-96,889	-109,007	-121,474	-119,500	-130,786	-150,773
Households	-12,737	-12,634	-14,970	-16,028	-16,564	-17,712	-21,304	-20,994
Enterprises	-74,300	-72,076	-81,919	-92,979	-104,910	-101,788	-109,482	-129,779
Fx deposits	-175,744	-186,635	-212,657	-241,380	-265,505	-281,901	-305,219	-334,727
Households <sup>4)</sup>	-110,714	-124,107	-141,477	-162,667	-190,136	-207,609	-222,105	-243,421
<i>Households (in euros)</i>	<i>-1,386</i>	<i>-1,531</i>	<i>-1,709</i>	<i>-1,921</i>	<i>-2,224</i>	<i>-2,389</i>	<i>-2,583</i>	<i>-2,969</i>
Enterprises	-65,030	-62,528	-71,180	-78,713	-75,369	-74,292	-83,114	-91,306
<i>Enterprises (in euros)</i>	<i>-814</i>	<i>-771</i>	<i>-860</i>	<i>-929</i>	<i>-882</i>	<i>-855</i>	<i>-966</i>	<i>-1,113</i>
<b>Other item, net<sup>5)</sup></b>	<b>-75,737</b>	<b>-75,126</b>	<b>-82,911</b>	<b>-91,836</b>	<b>-95,712</b>	<b>-106,804</b>	<b>-133,704</b>	<b>-146,131</b>
o/w: capital and reserves	-100,865	-108,453	-113,967	-119,871	-123,677	-138,281	-168,935	-188,699

Source: FREN and NBS: Statistical Bulletin.

1) Unless otherwise indicated.

2) Government include: Republic level and cities and municipalities.

3) Repo transactions include treasury bills and NBS bills, which were initially substituted by T-bills in January 2005, only to be introduced anew nine months later.

4) Household savings.

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



Table P-10. Serbia: National Bank of Serbia Balance Sheet, 2004–2006

	2004		2005				2006		
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	
	<b>in millions dinars, end of period<sup>1)</sup></b>								
<b>Foreign assets , net</b>	<b>104,530</b>	<b>124,514</b>	<b>134,123</b>	<b>164,055</b>	<b>184,618</b>	<b>194,752</b>	<b>225,710</b>	<b>317,488</b>	
Foreign assets, net (in euros)	1,308	1,536	1,620	1,937	2,159	2,241	2,625	3,872	
Gross foreign reserves	244,837	272,654	302,596	358,226	420,769	461,414	545,592	645,627	
<i>Gross foreign reserves (in euros)</i>	<i>3,065</i>	<i>3,364</i>	<i>3,656</i>	<i>4,229</i>	<i>4,921</i>	<i>5,310</i>	<i>6,344</i>	<i>7,874</i>	
Gross foreign liabilities (-)	-140,307	-148,140	-168,473	-194,171	-236,151	-266,662	-319,882	-328,139	
<i>Gross foreign liabilities (-) (in euros)</i>	<i>-1,756</i>	<i>-1,828</i>	<i>-2,035</i>	<i>-2,292</i>	<i>-2,762</i>	<i>-3,069</i>	<i>-3,720</i>	<i>-4,002</i>	
o/w: fx deposits of commercial banks	-65,874	-71,171	-89,663	-106,866	-147,467	-173,370	-245,783	-256,324	
<i>o/w: fx deposits of commercial banks (in euros)</i>	<i>-825</i>	<i>-878</i>	<i>-1,083</i>	<i>-1,262</i>	<i>-1,725</i>	<i>-1,995</i>	<i>-2,858</i>	<i>-3,126</i>	
<b>Net Domestic Assets (NDA)</b>	<b>-27,561</b>	<b>-58,814</b>	<b>-62,632</b>	<b>-83,861</b>	<b>-90,399</b>	<b>-116,603</b>	<b>-136,786</b>	<b>-219,381</b>	
Domestic credits	-13,944	-39,936	-41,262	-59,163	-63,828	-87,498	-110,773	-227,194	
Net claims on government <sup>2)</sup>	-16,630	-37,448	-26,469	-41,230	-50,049	-59,002	-58,003	-147,875	
Claims	21,427	21,235	16,636	16,013	15,388	13,890	13,627	13,443	
o/w: other dinar credits	21,427	21,235	16,636	16,013	15,208	13,707	13,446	13,443	
Deposits (-)	-38,057	-58,683	-43,105	-57,243	-65,437	-72,892	-71,630	-161,318	
Dinar deposits	-28,068	-40,595	-36,534	-42,851	-46,631	-51,428	-61,043	-61,820	
o/w: municipalities	-5,102	-10,361	-8,315	-10,068	-5,923	-11,991	-11,262	-11,428	
Fx deposits	-9,989	-18,088	-6,571	-14,392	-18,806	-21,464	-10,587	-99,498	
<i>Fx deposits (in euros)</i>	<i>-125</i>	<i>-223</i>	<i>-79</i>	<i>-170</i>	<i>-220</i>	<i>-247</i>	<i>-123</i>	<i>-1,213</i>	
Net claims on banks	2,554	-2,672	-15,080	-18,045	-13,834	-28,157	-51,913	-77,447	
Claims	4,594	3,644	2,671	2,907	3,126	3,012	4,172	2,879	
o/w: other dinar credits	3,007	1,576	371	505	856	409	1,625	426	
o/w: Fx credits	1,587	2,068	2,300	2,402	2,270	2,603	2,547	2,453	
<i>o/w: Fx credits (in euros)</i>	<i>20</i>	<i>26</i>	<i>28</i>	<i>28</i>	<i>27</i>	<i>30</i>	<i>30</i>	<i>30</i>	
Liabilities (-)	-2,040	-6,316	-17,751	-20,952	-16,960	-31,169	-56,085	-80,326	
o/w: NBS bills, repo transactions	-1,752	-3,206	-17,607	-19,804	-16,828	-31,087	-55,981	-80,164	
Net claim on the rest of the economy	132	184	287	112	55	-339	-857	-1,872	
Claims	198	248	369	353	296	301	299	304	
Dinar and fx credits	198	248	369	353	296	301	299	304	
Liabilities (-)	-66	-64	-82	-241	-241	-640	-1,156	-2,176	
Dinar deposits	-66	-64	-82	-241	-241	-640	-1,156	-2,176	
Other items, net <sup>3)</sup>	-13,617	-18,878	-21,370	-24,698	-26,571	-29,105	-26,013	7,813	
<b>Reserve money (H)</b>	<b>76,969</b>	<b>65,700</b>	<b>71,491</b>	<b>80,194</b>	<b>94,219</b>	<b>78,149</b>	<b>88,924</b>	<b>98,107</b>	
Currency in circulation	45,165	39,368	42,316	47,283	53,650	45,825	48,926	52,110	
Commercial bank's reserves	31,804	26,332	29,175	32,911	40,569	32,324	39,998	45,997	
Required reserves allocated	20,953	20,676	21,855	24,673	26,045	26,387	33,352	33,602	
Excess reserves	10,851	5,656	7,320	8,238	14,524	5,937	6,646	12,395	
Overnight deposits	5,076	2,825	3,004	3,394	4,759	590	2,321	7,184	
Giro account and cash	5,775	2,831	4,316	4,844	9,765	5,347	4,325	5,211	

Source: FREN, NBS: Statistical bulletin.

1) Unless otherwise indicated.

2) Government include: Republic level and cities and municipalities.

3) Includes: Other assets; Fx deposits of other financial institutions; Deposits of banks undergoing liquidation; Capital and reserves; and Other liabilities.



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