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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

CEFTA – Central European Free Trade Agreement

EU – European Union

FDI – Foreign Direct Investment

FFCD – Frozen Foreign Currency Deposit

FREN – Foundation for the Advancement of Economics

GDP – Gross Domestic Product

GVA – Gross Value Added

IMF – International Monetary Fund

LRS – Loan for the Rebirth of Serbia

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

NES - National Employment Service

NIP – National Investment Plan

NBS – National Bank of Serbia

OECD – Organization for Economic Cooperation and Development

PRO – Public Revenue Office

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

QM – Quarterly Monitor

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 start of 2008 augurs a period of political instability for Serbia, which could negatively impact economic movements and policies. Relations with the EU and USA have deteriorated over their recognition of Kosovo's declaration of independence, and the process of integration with the EU has been stalled. The governing coalition appears to be weak, which makes it vulnerable to populist pressures in economic policy. Elections are coming up, local in May and, possibly, parliamentary later in the year, and this too creates a climate conducive to economic populism. All this could significantly aggravate the economic situation in the country.

The main structural problem of the Serbian economy is the huge foreign trade deficit, which basically means low domestic savings and a pressing need for major investments. Coupled with this is another problem: instead of helping to build up domestic savings, the Government decreases them with the budget deficit and high public spending. Political turmoil could aggravate these problems and plunge the country into an economic crisis.

In 2007, Serbia recorded an extremely high balance of payments deficit of 16.7% of GDP, or €5 bn. This was considerably up on the already high deficit of over €3 bn in 2006. For four years in a row, Serbia has had a high current account deficit, and is in the group of transition economies with the biggest deficits.[1] In itself, this is a strong warning that even in ideal political conditions for an economy, a balance of payments crisis could erupt if spending, especially by the government, is not cut this year and in the years ahead.

Roughly speaking, the €5 bn deficit is offset by companies and households borrowing over €3 bn abroad, while FDIs make up for the rest. No reduction of the current account deficit can be expected this year as public spending continues to rise (see section 7, Fiscal Flows and Policy), and high wages in euro terms have been carried over into 2008 (see section 4, Employment and Wages). Both lead to a high foreign trade deficit, the main reason for the balance of payments deficit. Hence, this year too, some €3 bn in new credits and €2 bn in FDIs will have to be secured, which is a lot even when the political ambience is good. Serbia's chief problem is that the normal functioning of the economy requires a steady inflow of foreign savings – credits and investments – while a potential flight of foreign companies that have already established their presence is a secondary issue.

The bulk of FDIs arrive in Serbia through privatizations. Since there will probably be no major sales in 2008, we may be left only with what has been sold so far (RKB department store chain, RTB copper mining and smelting complex, DDOR insurance company...), which amounts to under €1 bn. The slump in privatization proceeds should be offset by new (greenfield) investments, and requires that they increase significantly. And that, in its turn, requires political stability in the country, faster integration with the EU, and normal relations with countries from which investments come. If it turns out that the necessary inflow of foreign investments is not forthcoming, foreign creditors could put new credit on hold out of fear that the Serbian economy may be heading for a crisis. And if a crisis did occur, it would entail heavy-handed reduction of the foreign trade deficit by way of a major depreciation of the dinar, inflation, and fall in production and wages. With its foreign exchange reserves, the NBS could alleviate and postpone a crisis, but not eliminate it.

If we are lucky and manage to pull through 2008, the foreign trade deficit and the potential for a crisis will nonetheless stay with us for the next four or five years, and must be tackled. The key difficult decisions include reduction of public spending to achieve a fiscal surplus, whereby the government would help the direly needed increasing of domestic savings. Political instability, however, tends to push matters in the opposite direction, toward increasing government spending and a rising deficit.

The medium term tendencies in public spending are indicative of its expansion, not the necessary tightening (see section 7, Fiscal Flows and Policy). From a surplus of 1.1% of GDP in 2005, there was a shift to a growing deficit in 2006 (-0.7%), and 2007 (-1.5%), while -1.9% is projected for 2008. Reversing such a trend is hard, even when the political conditions are favorable.

1 See: Peter Sanfey; "Current Account Deficits in Serbia: Causes, Concerns and Consequences," *QM*10, Spotlight On: 1.

The behavior of the governments preceding elections /then in power/ is also instructive: although different political coalitions were involved, what they all had in common was to increase public spending and cause huge fiscal deficits. The fiscal deficits in the quarters preceding elections were 7% of GDP in Q4 2007, 5% in Q4 2006 and probably around 5% in Q4 2003, all extremely high. An additional problem is that along with the spending, election promises were made, for which payment is exacted in the next years. Thus, the fiscal expansion driven by elections was carried over, which further increased appetites, in particular for higher wages.

There is a major risk of the high public spending and deficit projected for this year rising even more than planned. Elections are coming up, and the Finance Minister has not ruled out an increase in public spending because of Kosovo. Additional fiscal expansion in 2008 would worsen the current account deficit and increase the need for inflow from abroad in 2009, as well as underpin the current two-digit inflation. It is possible, therefore, that political instability could lead to an economic crisis along this fiscal line.

Finally, a potential fiscal expansion in 2008 would be carried over into 2009, which is what happened this year and the one before. Hence the problem of the high current account deficit and need for a major inflow from abroad would be shifted to 2009, which would raise the probability of a balance of payments crisis. Also, high public spending would continue pushing up inflation.

It is clear that a turn must be made toward a relative reduction of public spending in 2009 and 2010, with the government recording a fiscal surplus and increasing domestic savings. As a deficit of 1.9% of GDP is already projected for 2008, the growth of public spending in the next two years should be at least three percentage points slower than GDP if a surplus higher than 1% of GDP is to be achieved (see section 7, Fiscal Flows and Policy for possibilities regarding the reduction of spending). This, of course, means that there could be no succumbing to pressures this year since that would necessitate even deeper cuts in 2009. Maybe even more significant is that yielding to pressures to increase public spending now would cast serious doubt on the pledges to cut it in the years ahead.

One option the Government has at its disposal is to conclude a new agreement with the IMF. This would: a) indirectly allay the anxieties of foreign investors with regard to a potential balance of payments crisis in Serbia since, in addition to the NBS foreign exchange reserves, IMF funds would also be available, and b) foreign investors would have a credible guarantee that a sound economic policy would be pursued for the duration of the agreement, including the unpopular reduction of public spending. Both would have a positive effect on the inflow of foreign investments and maintenance of the credit rating the country needs to acquire new credits.

In this issue of *QM,* articles in the Spotlight On section analyze the functioning of two very distinct monetary regimes: inflation targeting and a flexible exchange rate on the one hand, and the adoption of a foreign currency in place of the national one on the other. The first case relates to Serbia and is treated by Diana Dragutinović, Vice-Governor of the National Bank of Serbia, and the second to Montenegro, and is analyzed by Nikola Fabris, Chief Economist of the Montenegrin central bank. Both have been /were/ directly involved in creating and/ or conducting these two different monetary policies.

TRENDS

1. Review

Where the basic three macroeconomic indicators are concerned - GDP growth, the inflation rate and the current account of the balance of payments - Q4 2007 will not be remembered fondly. Economic growth slowed, inflation picked up, and the current account deficit hit a record high. In addition to these problems, government spending was immoderate. Instead of exerting a positive influence on the maintenance of macroeconomic stability, the government did the very opposite. Some of the negative tendencies in Q4 could have been predicted, as mentioned in previous *QM* issues. Bearing all this in mind, the inertia of fiscal policy in Q4 is surprising; it was obviously unable to withstand the pressures and contractual obligations.

There was, however, some good news in the quarter, primarily in the labor market. The unemployment rate was cut to 18.8% from 21.6% in 2006. Regardless of some reservations as to the accuracy of the figures, it would seem that a turnaround has finally taken place in the labor market. Tentatively speaking, a positive slowing of the real growth of wages was recorded. In Q4, their y-o-y real growth was 8.2% (14.3% in Q3), which more or less equalled the achieved economic growth. On the margins of economic developments in a less than successful quarter, the continuing expansion of credit, both from the domestic system and abroad, was noticeable, which could give an impetus to further economic growth. Furthermore, the slowing of credit to households following the administrative measures taken by the monetary authorities in September had a positive effect on curbing the high personal spending.

When the macroeconomic trends broken down to economic growth, inflation and current account of the balance of payments over the whole of 2007 are observed, the impressions for each of the items are quite different. GDP growth was very high (7.2%), which is certainly good news. Total inflation was in the double digits (10.1%), but core inflation (5.4%) remained within the NBS band of 4% to 8%; hence the assessment of the achieved result is neutral. The current account deficit is the Serbian economy's most grievous problem, and 2007 saw it worsen further to an annual 16.7% of GDP.

The 2007 deficit amounted to €5 bn, which ranks Serbia in the group of transition countries with the highest deficits. In percentage of GDP, it was up 4.1% on 2006, chiefly as the consequence of the trade deficit, which stood at €6.4 bn in 2007, or 21.5% of GDP. The foreign trade imbalance was still offset by foreign borrowing and FDIs, so that the NBS foreign exchange reserves continued to grow. Nonetheless, in absolute terms, these reserves increased by four times less than in 2006.

The pronounced growth of the foreign trade deficit in Q4 2007 was determined chiefly by the slowdown in exports while the pace of imports did not change. The drop in exports (from 29.8% in Q2 and 26.3% in Q3 to 16.7% in Q4) appears to be temporary since it was mainly the result of exogenous factors. Bulky exports – iron and steel, non-ferrous metals, fruit and vegetables and cereals – also slowed, while other exports retained the same rates. On the other hand, imports continued to rise at a y-o-y rate of 27%. This reduced the coverage of imports by exports to only 44.6% in Q4, the lowest quarterly figure since Q3 2005.

Inflation in 2007 stood at 10.1%, but its acceleration in the second semester can be attributed partly to exogenous factors: the rising prices of food and energy products in the world. The pressures that pushed up prices on the expenditure side were, however, accomodated by the growing demand. Although total inflation was in the double digits, core inflation was only 5.4% and within the NBS band for 2007 of 4% to 8%. Inflation was kept under control, thanks primarily to the stabilization of the nominal exchange rate.

Inflation accelerated in Q4. Total inflation in the quarter stood at the annualized rate of 12.6% as against 10.9% in Q3. Owing to the high price rises in the second semester, it reached 10.1% y-o-y in December. It is noteworthy that the high growth of core inflation continued, reaching as much as 9.4% annualized rate in the second half of the year, compared to only 1.6% in the first semester.

Viewed as a whole, 2007 was a year of high economic growth. The real GDP growth is estimated at around 7.2% and, if the agriculture, which recorded a very poor season, is excluded, it was even higher (8.7%). This was the highest growth of non-agricultural GVA recorded since the transition process started.

Q4 2007 saw a major slowdown in economic growth. The y-o-y real GDP growth is estimated at around 6.2%, and the growth of non-agricultural GVA at some 7.7%. The economic growth in the quarter was a combination of the very high growth of services, and the drop in material production. There are indications that the slowdown, concentrated mainly in the production of tradables, can in part be ascribed to the declining international competitiveness of the Serbian economy.

The share of total labor costs in GDP was higher in 2007 than in 2006. Exclusion of government and the agriculture from the total economy, however, brings out that unit labor costs continued to decline mildly. The highest real wage growth in 2007 was recorded in health care and social welfare, i.e. the government sector, and there was a very high real growth also in the real estate sector (19.6%) and construction (17.2%). The real y-o-y growth of the average wage slowed down considerably in Q4, which *QM* ascribes to the high inflation since the nominal growth of wages remained high.

Observed at the annual level, fiscal policy went through two periods. It was midly restrictive in the first semester, albeit inadvertently because of the temporary financing regimen. But the second semester saw strong fiscal expansion and a high deficit of the consolidated budget. The level of macroeconomic imbalances in the Serbian economy, and the risks and costs they entail, will require strong fiscal adjustment in the years ahead.

Fiscal policy became considerably more expansive in Q4 2007. Relative to the same period in 2006, consolidated public expenditure rose by 9.9% in the quarter, while consolidated revenue rose by 5.1% in real terms. As a result, the deficit of the consolidated government sector amounted to 49.7 bn dinars in Q4, which raised the annual deficit to 37.3 bn dinars, or 1.5% of GDP. The increased expansiveness can be partly ascribed to previous undertakings with regard to wage rises, and partly to the discretionary components of expenditure, such as public investments, purchases of goods and services, subsidies, budget loans and the like.

Monetary policy in 2007 was on the whole restrictive and this led to a real appreciation of the dinar, which continued all year apart from occasional interruptions. Observed over the whole of 2007, the dinar appreciated by 5.4% against the euro, and depreciated nominally by 1.0%. In Q4, the dinar appreciated against the euro by 1.3% in real terms, while the average nominal rate in December was more or less the same as at end of Q3. Monetary supply in Q4 continued the trend of accelerated nominal and decelerated real growth. The expansive fiscal policy and growth of credit to the private sector contributed to the growth of monetary supply. Although the NBS raised its reference interest rate to 10% in December, monetary policy was not restrictive in Q4 2007. During the quarter, monetary supply increased by some 37 bn dinars because of the running down of government deposits (dinar deposit by about 35 bn dinars, and foreign exchange deposit by some 15 bn dinars), the creation of dinars by purchase of foreign exchange from the non-government sector (about 17 bn dinars) and withdrawal of some 34 bn dinars through repo transactions with banks. Credit to households slowed (a new €200 mn as against €400 mn in Q3), due to the measures taken by the NBS in September with respect to retail and cash loans. Credit to enterprises expanded, both from the domestic system (a new €400 mn) and through direct foreign borrowing (a new €900 mn). The burgeoning company dinar deposits (€840 mn), new foreign exchange savings (a record €500 mn due to the October Savings Week), and banks' capital increases were the main sources of credit.

The dinar value of turnover on the stock exchange in Q4 rose by 19.6%, but the number of transactions performed was down 13.2% on the preceding quarter. This resulted in the value of an average transaction rising by 37.8%, which indicates that major players again became more active. The discontinous segment of trading revived, recording a 67% rise in the value of turnover relative to Q3. After stagnating in Q3, the BELEX15, BELEXLine and SRX EUR indices lost 17.8%, 13.8% and 18% respectively, and became more volatile. The indices of stock exchanges in the region were on a similar trend. Real yields on repos declined in Q4 due to the rising inflation and depreciation of the dinar, in spite of the NBS raising its reference rate by 50 bp, to 10%, at the year-end. Real yields calculated relative to inflation fell 140 bp in Q4, while those calculated relative to the EUR/RSD exchange rate plunged from 29% at the beginning of Q4 to 4.5% at its end. On the FFCD bonds market, volume and turnover fell by 49.5% and 49.8% respectively, while the average yields on all maturities rose between 5 bp and 11 bp.

Serbia: Selected Macroeconomic Indicators, 2004–2007[1)]

	Annual Data				2006				2007			
	2004	2005	2006	2007	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Prices and the Exchange Rate							y-o-y[2)]					
Retail Price Index - total	10.1	16.5	12.7	6.8	14.8	15.6	12.5	8.2	5.8	4.7	6.5	9.1
Retail Price Index - core inflation[3)]	7.9	14.8	10.3	3.9	12.0	11.6	10.8	6.9	4.7	3.0	2.9	4.6
Real fx dinar/euro (avg. 2005=100)	100.5	100.0	92.1	98.4	97.1	94.8	90.3	86.4	86.2	86.3	83.2	80.8
Nominal fx dinar/euro (period average)[4)]	72.62	82.92	84.19	79.97	87.09	86.87	83.25	79.55	79.98	81.07	80.03	78.81
Economic Growth							y-o-y, real growth[2]					
GDP (in billions of dinars)	1,408	1,754	2,086	2,385	…	…	…	…	…	…	…	…
GDP	8.4	6.2	5.7	7.2	7.0	6.2	5.1	4.8	8.1	7.5	7.2	6.2
Non-agricultural GVA	7.5	6.3	7.9	8.7	9.8	7.9	7.1	7.2	8.9	9.5	9.0	7.7
Industrial production	7.1	0.8	4.7	3.7	5.3	6.1	3.9	2.9	4.8	5.2	3.5	0.4
Manufacturing	9.7	-0.7	5.3	4.2	7.5	6.2	4.4	2.9	8.5	4.9	3.3	-0.1
Average net wage (per month, in dinars)	14,108	17,478	21,745	27,785	19,284	21,126	21,986	24,585	25,103	27,165	28,019	30,855
Registered Employment (in millions)	2.050	2.061	2.022	1.998	…	2.032	…	2.019	2.002	1.999	1.994	1.998
Fiscal data			in % of GDP									
Public Revenues	41.2	40.1	38.9	40.2	4.8	3.8	4.4	5.9	15.9	8.0	7.8	5.1
Public Expenditures	40.0	38.2	38.3	40.8	8.1	-2.4	5.2	21.0	9.7	8.8	15.2	13.2
							in billions of dinars					
Consolidated balance	17.5	33.8	12.0	-14.6	0.4	16.3	9.9	-14.8	12.2	16.9	-4.2	-39.5
Analytical balance (GFS definiton)[5)]	11.2	19.1	-15.4	-37.2	-3.0	14.0	4.6	-31.0	2.7	15.7	-5.9	-49.7
Balance of Payments							in millions of euros, flows					
Imports of goods	-8,302	-8,286	-10,093	-12,858	-2,139	-2,494	-2,541	-2,910	-2,829	-3,098	-3,236	-3,695
Exports of goods	2,991	4,006	5,111	6,444	1,039	1,244	1,368	1,484	1,383	1,594	1,731	1,736
Current account	-2,197	-1,805	-3,137	-4,994	-679	-469	-633	-1,111	-1,186	-806	-1,346	-1,656
in % GDP	*-11.1*	*-8.6*	*-12.6*	*16.7*	*-13.1*	*-8.0*	*-9.5*	*-15.4*	*-18.4*	*-14.6*	*-15.6*	*-16.7*
Capital account	2,377	3,863	7,635	7,635	1,100	1,587	2,247	2,418	1,161	1,233	1,705	2,027
Foreign direct investments	773	1,248	4,348	1,942	164	545	1,671	1,668	614	-5	539	795
NBS gross reserves (increase +)	229	1,857	4,240	941	390	1,079	1,539	1,232	-191	407	465	260
Monetary data[6)]							in billions of dinars, e.o.p. stock[2)]					
NBS net own reserves[6)]	103,158	175,288	302,783	400,195	182,772	224,808	244,631	302,783	327,997	348,471	361,861	400,195
NBS net own reserves[6)], in mn of euros	1,291	2,050	3,833	5,051	2,103	2,614	2,983	3,833	4,021	4,410	4,589	5,051
Credit to the non-government sector	342,666	518,298	609,171	842,512	547,564	591,270	614,698	609,171	666,007	732,402	786,873	842,512
FX deposits of households	110,713	190,136	260,661	381,687	207,609	222,105	243,328	260,661	293,195	307,783	336,109	381,687
M2 (y-o-y, real growth, in %)	10.4	20.8	30.6	27.8	24.7	19.8	20.5	30.6	35.4	30.7	29.7	27.8
Credit to the non-government sector (y-o-y, real growth, in %)	27.3	28.6	10.3	24.9	26.9	25.4	20.7	10.3	15.2	17.8	19.1	24.9
Credit to the non-government sector, in % GDP	23.9	29.6	28.6	35.0	29.9	31.0	30.9	28.6	30.5	32.6	33.0	35.0
Financial Markets												
BELEXline (in index points) [7)]	1,161	1,954	2,658	3,831	2,107	2,036	2,342	2,658	4,220	4,456	4,431	3,831
Turnover on BSE (in mil. euros) [8)] [9)]	423.7	498.8	1,166.4	2,004.4	182.5	235.8	271.4	476.7	529.4	644.8	386.7	443.5

Source: FREN.

1) For more details (monthly series) see web page www.fren.org.yu.

2) Unless otherwise indicated.

3) Core inflation measures the price movements of goods and services that are not under administrative control, but formed freely on the market.

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

5) As of this issue, QM will be monitoring overall fiscal balance in accordance with GFS 2001. See Box 1 for more detailed explanation.

6) 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.

7) Index value at the last day of the given period

8) Total turnover on Belgrade Stock Exchange, includes turnover of stocks and FFCD bonds.

9) Dinar amounts for stocks turnover are converted into euros using the average exchange rate for the given period.

2. International Environment

The global economy decelerated in Q4, primarily due to the slowdown in the USA. The US economy recorded very modest growth in Q4, a mere 0.6%, which raised the chances of a recession in 2008 by 50%. The negative trends spilled over from the US into Europe and Japan. Economic growth remained high in the developing countries, but so did the risk of inflation there. The fourth quarter saw global inflation accelerate. Food prices remained high, and were the basic generator of inflation growth. After a temporary halt, oil prices rose again, this time breaking the psychological barrier of $100 per barrel. Downward adjustments were made in global economic growth forecasts for 2008.

Table T2-1. World: Economic Growth and Inflation, 2005–2007

	Real GDP growth							Inflation			
	over a year ago			over previous period, seasonally adjusted annual rate (saar)				over a year ago			
	2005	2006	2007	Q1 2007	Q2 2007	Q3 2007	Q4 2007	Q1 2007	Q2 2007	Q3 2007	Q4 2007
	in %										
World total	3.2	3.6	3.4	3.2	3.9	4.4	2.7	2.3	2.4	2.3	3.5
of which:											
USA	3.5	2.9	2.2	0.6	4.0	4.9	0.6	2.4	2.7	2.5	4.0
Canada	2.9	2.8	2.5	3.9	3.4	2.9	0.8	1.8	2.2	2.6	2.4
Japan	2.7	2.2	2.1	3.2	0.5	1.3	3.7	-0.1	-0.1	-0.1	0.5
China	10.2	11.1	11.4	13.6	15.7	8.9	9.1	2.7	3.6	4.2	6.6
India	8.4	9.4	8.7	11.3	9.6	8.4	5.3	7.0	6.3	5.8	5.5
Euro area	1.5	2.9	2.7	2.9	1.4	3.1	1.6	1.9	1.9	1.9	2.9
Germany	1.1	3.1	2.6	2.2	1.0	2.7	1.1	1.9	2.0	1.4	3.1
France	1.2	2.2	1.9	2.2	1.3	3.2	1.4	1.3	1.3	1.5	2.5
UK	1.9	2.8	3.1	2.8	3.4	2.7	2.4	2.9	2.6	2	2.1
Italy	0.1	1.9	1.7	1.1	0.4	1.7	-0.8	2.0	1.9	1.9	2.6
Russia	6.4	6.7	8.1	3.7	10.0	7.4	13.0	7.9	8.1	7.8	11.5
Bulgaria	5.5	6.0	6.1	6.2	...	4.5	…	5.3	4.7	11.1	11.2
Romania	4.1	6.9	6.0	5.8	5.6	5.7	...	3.8	3.8	5.5	6.7
Hungary	4.1	3.8	1.3	1.4	0.2	0.8	0.4	8.5	8.6	7	7.1
Croatia	3.8	5.0	…	4.9	...	5.1	…	1.8	2.1	2.9	4.9
Macedonia	3.8	4.0	…	…	...	…		1.6	...	…	…
BIH	5.0	…	…	…	...	…		0.8	0.3	0.9	4.5

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

World

Global growth slowed in Q4…

The fourth quarter saw a significant deceleration of global economic growth, the result of negative effects translating from financial markets (Table T2-1). Due to the US mortgage crisis, bank losses, and falling demand, the developed countries are undoubtedly slowing. The developing countries, especially India and China, have benefited from domestic demand growth trends and disciplined macroeconomic policies, and have retained high growth rates despite a certain slowdown in their economies.

…while inflation accelerated

Inflation levels have risen throughout the world. The US saw aggressive reductions in interest rates for fear of recession; rates in Japan and the euro zone remained steady, as these countries are less at risk from recession. The developing countries' central banks continued pursuing restrictive monetary policies, as the relative share of fuel and food in total consumption is greater than in developed countries, making the risk of inflation more serious.

Forecasts for 2008 have been adjusted

After robust worldwide growth in Q3 2007, the IMF adjusted its global growth forecast by 0.3% downward. It now stands at 4.1% annually in 2008.[1]

1 World Economic Outlook Update, 29 January.

United States

GDP growth slowed significantly in the US in Q4

US gross domestic product rose below expectations by a modest 0.6% in Q4,[2] as against 4.9% in the previous quarter (Table T2-1). Seasonally adjusted annual growth stood at 2.2% in 2007, showing a clear slowdown in comparison to previous years (the average growth rate for the period 2004-2006 stood at 3.2%).

Growth decelerated primarily because of (1) lower business inventories levels, (2) a lesser positive impact of net exports, and (3) a slump in domestic demand.

The fall in inventories also contributed to a slowdown in GDP growth in Q4 by as much as 1.3 percentage points, but it came about only after business inventories increased, in Q3, their contribution to GDP growth by 0.9 percentage points. Net exports continued to have a positive influence on economic growth, making a contribution of 0.4 percentage points to GDP growth in Q4 – but markedly less than in the previous quarter, when the figure stood at 1.4 percentage points. The weak dollar and high demand among the developing countries benefited exports, but this could not make up for the drop in domestic demand. The greatest slump among components of domestic demand was recorded by housing investment – it fell by 23.9% due to the mortgage crisis.

Domestic demand on a downward trend

Domestic demand has been on a downward trend due to the pressure of several factors. The weakness of the labor market has been slowing down the growth of nominal wages, while accelerating inflation has resulted in lower real incomes. The fall in the prices of real estate and stocks has been reducing wealth, and by extension creditworthiness, which was already facing the pressure of increasingly strict conditions imposed by banks on new loans. Consumer and small business confidence indicators have seen sharp drops: consumer polls carried out by the *Washington Post* and the University of Michigan point to the lowest level of consumer confidence since the early 1990s. A survey of small businesses also indicates that economic activity expectations are at a level similar to those during the 1991 recession. Over the previous several years, although consumer confidence was relatively low, personal consumption did not decline as savings also remained low. Now, however, business and consumer confidence has dropped sharply. Retail data also indicates a deceleration in the growth of personal consumption. Retail sales had been growing by some 0.5% at the monthly level over 2005 and 2006, but this figure has now dropped to 0.1%.[3]

Government spending was surprisingly low in Q4, particularly in the defence sector. Industrial construction increased, although investment in equipment and software saw a slight drop in relation to the previous quarter. Non-residential investment and consumption will remain affected by negative factors into the coming quarter – these pressures include lower demand, falling profits, stricter loan criteria, and low share prices.

Inflation also accelerated in Q4

Inflation stood at 4% annually in Q4, with core inflation amounting to 2.2% in January. Inflationary pressures remain strong. The prices of imported products grew by 1.7% at the monthly level in January, primarily due to the oil price rises, but consumer goods went up by 0.3%, while the prices of imported goods, excluding oil, rose by 0.7%. The primary factor behind these price hikes is the fact that Chinese imports became more expensive, by 0.8% at the monthly level in January. Chinese goods had exerted significant downward pressure on inflation over the past two years, but have recently begun to show exactly the opposite effect.

US export growth slowed in Q4, affected as it was by slowing economic growth abroad. The impact of falling domestic demand on slowing exports was more dominant than the slackening of export demand; exports decelerated more than imports, which is why the trade deficit remained steady. The ISM survey[4] indicates a slight growth in exports in January. The dollar is still very low, further boosting exports.

The US economy stands on the brink of a recession

The question most frequently asked about the US economy is whether or not it is entering a recession. Current US economic indicators have contradictory values. The dominant opinion is that the US economy is now in a "seesaw" phase, with the chance of recession put at 50%.

2 Seasonally adjusted annual rate (SAAR).
3 Source: JPMorgan.
4 Institute for Supply and Management (ISM). A value of over 50 indicates expansion; that under 50, contraction.

The situation in the labor market is usually a reliable indicator of a looming recession. The section of the ISM survey dealing with employment indicates that the US economy is already in recession. Non-farm payrolls dropped by 17,000 in January, although a rise of some 100,000 was expected. The January drop came after a December hike of 82,000. This payroll drop was completely unexpected, as there had not been one for over four years. Payrolls usually drop in recession, but as the December figure was higher than expected, this could simply be a temporary fluctuation.

On the other hand, industrial production, the unemployment rate (according to the household survey), and retail sales figures indicate that the economy is just close to zero growth, rather than that a recession has begun. Industrial production recorded a monthly growth of 0.1% in both December and January. The number of unemployment benefit requests, monitored through the household survey, which usually shows few fluctuations, dropped from 357,000 to 348,000. January saw a retail growth of 0.3% at the monthly level, as opposed to December, when it had recorded a drop of -0.4%. At any rate, a recession begins with sudden changes in business activity and employment levels; the data at hand is more likely an indicator of a temporary slowdown in economic growth.

Judging by the above, the US economy is probably undergoing a period of transition, to be followed by either a recession or a phase of slow growth.

The Fed has been taking aggressive measures…

The US Federal Reserve changed its doctrine, abandoning gradual changes to the reference interest rate, a method favored by Allan Greenspan even in emerging recession situations. The Fed slashed its reference interest rate by 1.25% over 10 days in January to 3%. This change in approach is yet to be tested, since the Fed will have to withstand financial market pressures to further reduce the reference rate. To avoid this, reference interest rate policy needs to be as transparent as possible to neutralize fluctuating expectations as to its level, which, for its part, also destabilizes markets.

…with fiscal policy following suit

Although monetary policy became aggressive in its efforts to reduce interest rates, the effects will not be immediate, and will also be unable to remedy all the negative factors that would appear in case of a recession. This is why President Bush has initiated a tax rebate plan, to the tune of $152 bn, intended to stimulate the economy. Individuals are to receive $600 checks, while families will benefit from a rebate of $1,200, plus $300 for each child. People with low incomes should also receive a minimum of $300. Some $100 bn in checks are to be sent out in May. Similar experiences from 1975, 2001, and 2003 indicate that about one-third of these checks should be spent within six months. Personal consumption should rise by some $40 bn in the second half of 2008, which would raise consumption by some 2%. Some analysts believe this will not be enough to avert a recession, and advise investments in infrastructure, food and fuel coupons, and an extension of the unemployment benefit period.

Euro Zone

The euro zone economy is gradually slowing

According to preliminary data, the y-o-y seasonally adjusted real GDP growth in the euro zone in Q4 stood at 1.6%, confirming the view that economic activity is slowing down gradually, since Q3 GDP growth was 3.1%. The available information[5] seems to indicate that the downturn in economic activity is primarily due to declining household consumption and falling business inventories, with a more serious drop prevented by growing investment in the economy. Two of the largest euro zone countries, Germany and France, both saw drops in economic activity.

Industrial production in the euro zone is declining. A drop in November was followed another in December. Italy currently shows the greatest weakness in industrial production, with drops in both November and December, mainly in manufacturing, which saw a major fall in December (0.5%), and recorded its fourth straight month of negative growth.

Total annual inflation grew by 2.9% in Q4, continuing a trend of acceleration after Q3 when it stood at 2.5%. According to European Central Bank (ECB) recommendations, the rate should

5 Eurostat is yet to publish more detailed data.

not exceed 2%, which means that the Q4 inflation was above the recommended values. Inflation in December amounted to 3.1% annually, the highest since May 2001. Core inflation, however, remained at the November level (1.9%).

The foreign trade balance is in equilibrium, mainly due to a surplus in Germany

The euro zone foreign trade balance remains in equilibrium. The fourth quarter saw a slight surplus, of €4.3 bn, as opposed to the €11.5 bn surplus in Q3. The picture becomes very different when viewed by country. From January to November 2007, Germany had a surplus of €184.8 bn, while the rest of the EU recorded a deficit of €134.5 bn. Therefore, it is primarily thanks to Germany that the euro zone avoided a substantial deficit. Germany is also an example of how a country can achieve a positive foreign trade balance even when the national currency appreciates, contradicting the argument put forward by some other euro zone countries, which blame their foreign trade deficits on the rise of the euro against the US dollar.

In Q4 2007, the unemployment rate remained at the same level as in Q3 (7.2%), declining from its December 2006 rate of 7.6%. The quarter has apparently seen a reversal in the downward trend of the unemployment rate, probably as a consequence of slowing economic growth.

Forecasts say negative trends are set to continue…

According to forecasts for early 2008, the economy will continue slowing. This downward trend will be caused by falling domestic demand, tighter borrowing requirements and a consequent drop in investment, weakening export demand, and relatively high inflation. The services sector is slowing. The PMI services survey[6] index stood at 50.6 in January, lower than December's 53.5. This is the most significant drop in the index after that caused by the 11 September terrorist attacks. In the circumstances, the services sector is especially important as a generator of domestic demand: with export demand weakening, a downturn in domestic demand would have an additional impact on slowing down the economy as a whole. Stricter borrowing conditions and a reduction in export demand cause companies to reduce demand and postpone investment. Both consumer and business confidence is on the decrease. The total PMI survey indicator stood at 52.7, its lowest value since June 2005 and five points lower than in August 2007, again bearing out the downward trend. Business and consumer confidence is under the negative influence of the credit crunch and the attendant restrictions on borrowing by households and businesses. In addition, any slowdown in US economic growth will spread through export channels and reduce the growth of other national economies.

Inflation is set to remain high over the coming months, although sudden food price hikes are not very likely – these prices have not yet been fully translated into the retail sector. Food prices will continue rising over the coming several months, keeping inflation high into the spring. Thereafter it can be expected that inflation will slowly decrease to a level of some 2% at the end of the year, barring any sudden rise in food and energy prices. Core inflation remained mainly unchanged throughout 2007, as there were no overspills during previous shocks, and is not expected to exceed 2% this year.[7]

This does not mean, however, that there are no inflationary risks. As food and fuel prices affect inflationary expectations, trade unions can be expected to call for higher wages, which could in turn trigger an inflationary spiral. This risk is highest in Germany. After several years of wage restrictions, which saw a drop in unemployment (to its lowest level in the past 15 years), German trade unions are now calling for raises that in some sectors exceed productivity gains. The ECB has thus decided to leave the reference interest rate at its current level. Still, if inflation does not get out of control, and growth slows down, the reference rate will likely be cut in the spring.

Unemployment is expected to remain at the current level or grow slightly over the coming months due to the slowdown in the economy. January's unemployment stood at 8.1% in Germany, the lowest level since 1992, but the unemployment reduction rate is dropping.

…but a recession is not predicted

However, bearing all of the above in mind, the chances of a recession are lower in Europe than in the US. There is no mortgage crisis (except in Spain and Ireland), as there was no expansion of derivatives linked to housing loans. Unemployment is still not on the increase, ruling out a sudden drop in spending, and company balances are still generally healthy.

6 The Purchasing Management Indices survey measures production and services activity. A value of over 50 indicates expansion; that under 50, contraction.

7 BNP Paribas, *Economic Market Monitor*, January-February 2008.

East, Central-east, and South-east Europe

Economic growth was high in most East European countries

Russia. East Europe's largest economy, Russia, recorded very high GDP growth in 2007, 8.1%, its highest rate since 2000. This was mainly the consequence of an investment boom resulting from the need to renew the pool of capital goods, as well as government investment into infrastructure. Investment into fixed assets grew by 20.8% in real terms in 2007. Russia's economic growth was also contributed to by personal consumption (with a rise in personal consumption of 13.1% in real terms), spurred by a 26.7% rise in nominal wages in 2007. Wage growth was especially large for public administration employees in the run up to elections.

Russia recorded high GDP growth, but also faced high inflation

At the same time, inflation accelerated tremendously. Russia's inflation reached 2.3% in January, and now stands at 12.6% at the y-o-y level. As it was driven by food prices, the government attempted to reach agreement with producers and retailers to freeze these prices, but with little or no result. Prices of foodstuffs recorded a y-o-y growth of 16.7% in January. Prices of non-food products are also rising at 6.8% annually; the same is true of services, all of which further fans inflationary expectations. Faced with these challenges, the Russian central bank resolved to focus on inflation, raising the reference interest rate by 0.25 percentage points on 4 February; the reserve requirement for deposits is also slated to increase in early March.

Hungarian economic growth was low

Hungary. This country's economy faces problems with both inflation and declining economic growth. Year-on-year GDP growth stood at 0.4% in real terms in Q4. Over the whole of 2007, GDP grew by 1.3%, the lowest rate in the past decade. A restrictive fiscal policy reduced domestic demand, while the euro zone economic slowdown had an adverse impact on Hungary's exports. Inflation in 2007 stood at a high 7%. Hungary's monetary authorities are faced with the choice of whether or not to raise the interest rate to combat inflation, as this would probably strengthen the domestic currency and adversely affect exports and economic growth.

Romania and Bulgaria could face problems in covering high deficits

Romania and Bulgaria. These countries are exceptionally interesting from the point of view of this paper, as their economies show strong similarities to Serbia's. According to a BNP Paribas survey, Romania and Bulgaria are countries most at risk from a more serious overspill of the US crisis into the EU. The main causes of their potential instability are their growing foreign trade deficits and high inflation. The risks and costs of any possible crisis are further compounded by the fact that both businesses and consumers have to repay their loans in euros while their income is the national currencies. In 2007, Bulgaria's foreign trade deficit stood at 19.5% of GDP; the figure for Romania was 13.7%. Exports from both countries saw robust growth, but imports have grown even more quickly, thus increasing the current account deficit. Average inflation in Bulgaria stood at 7.1% in 2007, while Romania's amounted to 4.8%; these figures still seem to be no cause for concern. It should be borne in mind that Romania is applying a pro-cyclical fiscal policy, which will, together with the food price rises recorded in late 2007, probably lead to a significant acceleration of inflation in 2008. Economic growth in Romania and Bulgaria has started to slow down, and, if rising inflation is accompanied by a contraction of monetary and fiscal policy, domestic demand will probably slump as a result. Together with a drop in global liquidity, and growing unwillingness of international investors to take risks, declining economic growth and falling demand will lead to a reduction in FDIs and credit, which will raise the issue of how to cover the deficit. Up to 2006 Romania was able to cover 90% of its high current account deficit with FDIs, but this ratio fell to 50% as early as 2007, with foreign credit gaining ground on FDIs. FDIs are a more secure way for a recipient country to cover its deficit than foreign credit.

A crisis scenario is, however, less than likely for both these countries, as they are protected by the so-called "EU halo effect," meaning more efficient economic policies and institutions, greater transparency, availability of EU funds, and political stability. Serbia is probably more at risk than either Romania or Bulgaria, as it not only shares their macroeconomic weaknesses, but also attracts a lower percentage of FDIs in relation to foreign loans. More importantly, not being an EU member, Serbia enjoys none of the protective factors referred to above.

Asia

The Japanese economy accelerated in Q4…

Japan. GDP in Q4 grew by 3.7% at the seasonally adjusted annual rate, outstripping forecasts that put expected growth at 1.5%. If it is taken into account that Japan saw plummeting construction activity levels in also in Q4 in the wake of a scandal over construction permits, this growth is truly significant. However, it is also probably unsustainable. Japan's growth was based on large-scale business investment, exports, and an active manufacturing industry. Still, surveys carried out in early 2008 indicate a slowdown, and possibly even a fall in industrial production in Q1. A possible recession in the US and the slowdown in European economies will push export growth down below the double-digit levels recorded in the previous two quarters. The main obstacle to further growth, according to surveys, is personal consumption, which rose by a mere 0.2% in Q4. The ESRI consumer confidence index has been falling for the fourth month running, due to rising oil and food prices, as well as a possible recession in the US. The speed of its decline is significant, and completely at odds with the GDP growth results in Q4. As capital investment and exports cannot continue growing at the same level, personal consumption will probably exert a decisive influence on growth in the coming period. Industrial production grew by 1.4% in Q4, much less than the 3% in Q3. Surveys stood at 40 points, indicating contraction. The reference interest rate was kept at 0.5%.

…but will probably slow down very soon

Unemployment is still respectably low (3.8%); employers, according to the survey, are feeling a shortage of available labor, a positive sign. However, the average wage has been falling, household surveys show that it is increasingly difficult to get a job, while the ratio of new employees to total job applicants is steadily becoming less favorable. The most probable explanation for this is that two different factors are at work. On the one hand, the "cooling" of the economy results in falling wages and fewer jobs, while, on the other hand, demographic changes (retirement of the "baby boomers") are causing a drop in the active workforce, keeping unemployment very low.

Domestic demand drove high growth in China

China. GDP growth in Q4 was 9.1% in relation to the same quarter in 2006, making total 2007 GDP growth amount to 11.4%. After a boom in the first half of the year, government measures, coupled with a decline in global demand, dampened growth in late 2007. Exports slowed, as did investment into fixed assets, while personal consumption remained high. As food prices stabilized, inflation dropped from an annual 6.9% (its highest level in the past 11 years) in November to 6.5% in December. Seasonally adjusted annual retail growth stood at 23.5% in the last quarter, an indication of very high consumption growth. Greater available income has been boosting personal consumption, as have government measures aimed at stimulating domestic demand.

Currencies and Commodities

The dollar remains very low

The dollar remains very low. The aggressive interest rate reduction policy pursued by the Fed has contributed to the dollar's further slide. The euro is also set to weaken if the euro zone economy slows due to US influences; if this does happen, a reduction in the reference interest rate by the ECB seems likely. According to BNP Paribas forecasts, the dollar/euro exchange rate will stand at 1.40 at the end of 2008.

After a slowdown, the price of oil began rising again

After a slowdown, the price of oil began rising again. Due to OPEC's plans to reduce oil production, markets became convinced that demand would exceed supply, and oil again broke the psychological barrier of $100/barrel. In addition, many investors began buying oil as a hedge against the falling dollar, further boosting demand. As oil impacts inflation and inflationary expectations, as well as personal consumption, these developments increase the likelihood of a recession in the US and the spread of its adverse effects throughout the world.

The value of gold continued to rise over the past few months. At the start of 2007 its price was $840, and has now reached some $940/oz. A slight fall, however, is expected, as supply is set to increase: unable to cover its expenses, the IMF has decided to start selling its gold reserves.

Unlike 1999, when the US Congress rejected a similar plan, the present US administration has now given its go-ahead, which is crucial since the US has the power of veto in the IMF.

3. Prices and the Exchange Rate

Inflation remained high in Q4. Total inflation in the quarter amounted to 12.6% (annualized rate), relative to 10.9% in Q3 (Table T3-1). Due to high growth rates in the second half of the year, inflation reached a y-o-y level of 10.1% in December. High core inflation growth continued, reaching 9.4% (annualized rate) in the second half of the year, compared to only 1.6% in the first half. In Q4, like in the previous quarter, the greatest contribution to price growth was made by industrial food products. In addition, rising prices of petroleum products significantly contributed to this in November and December. These shocks, pushing price growth up from the supply side, were accommodated by growing demand – the consequence of continuing credit expansion – as well as by the very high fiscal deficit in Q4. These conditions resulted in price growth accelerating and the output growth rate dropping. Inflation, especially core inflation, slowed slightly in January. The dinar appreciated by 1.3% against the euro in real terms in Q4, while the average nominal exchange rate stood at about the same level in December as at the end of Q3. When 2007 is considered as a whole, the dinar appreciated against the euro by 5.4% in real terms, and nominally depreciated by 1.0%.

Average inflation amounted to an annual 12.6% in Q4

Inflation remained high in Q4, driven by the rising costs of food and petroleum products. The average monthly inflation rate amounted to 1.0% in Q4, or 12.6% annualized (Table T3-1). The monthly price growth rate had been somewhat lower in the previous quarter, standing at 0.9%, or 10.9% annualized. The average y-o-y inflation rate amounted to 9.2% in Q4 while in Q3 it stood at 6.5%. Year-on-year inflation reached the psychological double-digit barrier at the end of 2007, standing at 10.1% (Graph T3-3).

Table T3-1. Serbia: Retail Price Index and Core Inflation, 2005–2008

	Retail Price Index				Core Inflation			
	base index (avg. 2005 =100)	y-o-y growth	monthly growth	3m moving average, annualized*	base index (avg. 2005 =100)	y-o-y growth	monthly growth	3m moving average, annualized*
2005								
Dec	107.6	17.6	2.2	22.5	106.3	14.6	0.9	18.6
2006								
Mar	110.0	14.4	0.3	9.1	108.1	11.7	0.8	7.0
Jun	113.7	15.1	0.0	14.4	110.4	11.3	0.6	8.7
Sep	114.1	11.6	-0.2	1.4	112.1	10.1	0.6	6.6
Dec	114.7	6.6	0.1	2.1	112.5	5.8	0.0	1.2
2007								
Mar	116.1	5.6	0.8	5.1	112.4	4.0	0.1	-0.4
Jun	119.5	5.1	0.6	12.0	113.4	2.7	0.5	3.7
Sep	122.6	7.4	0.8	10.9	115.9	3.4	1.0	9.4
Oct	123.3	8.5	0.6	10.9	116.7	4.0	0.7	11.4
Nov	124.7	8.8	1.1	10.4	117.5	4.5	0.7	9.7
Dec	126.3	10.1	1.3	12.6	118.6	5.4	0.9	9.5
2008								
Jan	127.5	10.7	0.9	14.2	118.9	5.7	0.3	7.7

Source: SBS

* Moving averages of monthly price increases for three months, annualized (e.g., the value for March was obtained through annualization of the average of monthly price increases in January, February and March).

Core inflation also high in Q4

Core inflation[1] was also high in Q4: the average monthly rate was 0.8%, or as much as 9.5% annualized (Graph T3-4). The rate was close to this figure in Q3 (9.4%), but the latest one denotes a major rise in core inflation in relation to the first half of the year (3.7% in Q2, and even a negative -0.4% in Q1). The average y-o-y core inflation rate stood as high 4.6% in Q4,

1 Core inflation measures the price movements of goods and services that are not under administrative control, but formed freely on the market. Thus prices of electricity, petroleum products, utilities etc. are excluded from core inflation. In addition, agricultural products fall outside the scope of core inflation, as their prices are strongly influenced by seasonal factors.

whereas it had been 2.9% in the previous quarter. Year-on-year core inflation amounted to 5.4% in December, which was inside the NBS target band of between 4% and 8% for 2007.

Price growth driven by non-core inflation in the first half of 2007

Non-core inflation[2] drove price growth in the first half of the year: the May rise in electricity prices, hikes in utility prices, and the rise in prices of tobacco products (Table T3-5). Rising petroleum product prices made their contribution – albeit a minor one – in the first half of the year. These four groups accounted for almost 70% of all the price growth in the first half of 2007. On the other hand, prices of agricultural products recorded very modest growth over the first six months of the year and industrial food products even saw a slight decrease.

Major increases in the price of food products make the biggest contribution to inflation in the second semester...

The second half of 2007 saw a sudden hike in the prices of agricultural and industrial food products (Table T3-5). These price rises were caused by several factors.[3] On the one hand, food price growth is a global trend; all markets have been recording accelerated price growth since the summer of 2007 (see Box 1, *QM10*). On the other hand, Serbia's agriculture performed poorly due to inclement weather (see section 5, Economic Activity). These two factors set the stage for the sudden rise in food prices in Serbia. But, and especially in the second half of the year, Serbia saw food prices grow at a markedly higher rate than in the region (or, for that matter, the rest of Europe), which experienced the same weather conditions (Table T3-2). Such high price growth in Serbia is most probably the consequence of the high concentration of ownership, i.e. weak competition, in both the food industry and retail. It seems as if retail chains and food producers have used objective circumstances as an excuse to raise prices more than market conditions would have demanded.

Table T3-2. Food Prices Increases in 2007 in Selected Countries (in %)

	Food Prices Increases		Increase in Consumer Prices excluding Food Prices		Food Prices Increases defleated with Increase in Consumer Prices excl. Food Prices	
	dec 07/dec 06	dec 07/jun 07	dec 07/dec 06	dec 07/jun 07	dec 07/dec 06	dec 07/jun 07
Bulgaria	21.1	19.9	6.7	3.9	13.5	15.4
Serbia	**18.4**	**15.9**	**4.7**	**1.6**	**13.1**	**14.0**
Romania	9.4	8.0	3.2	2.0	6.0	5.9
Czech Republ	11.2	7.7	3.5	1.0	7.4	6.6
Slovenia	12.0	7.0	3.7	1.4	8.0	5.6
Hungary	13.0	6.3	4.9	1.1	7.8	5.1
Spain	6.6	5.3	2.8	1.1	3.7	4.2
Greece	4.3	4.5	3.1	1.6	1.1	2.8
Poland	7.9	3.9	2.7	1.0	5.1	2.9
Germany	5.7	3.8	2.5	1.5	3.1	2.3
EU	5.7	3.9	2.3	1.1	3.4	2.8
Euro area	4.8	3.3	2.3	1.1	2.4	2.2
Slovakia	7.2	3.4	1.3	0.9	5.8	2.5
France	3.2	1.6	2.3	1.3	0.9	0.3

Source: Harmonized Consumer Price Index, Food and Beverages; Eurostat, SBS.

…along with the prices of agricultural produce and petroleum products

As few as three product groups can be credited with as much as 74% of all price rises in the second half of 2007. These are industrial food products, agricultural produce, and petroleum products (Table T3-5). At the same time, these groups time, make up only a third of the retail price index. The fact that by far the largest share in price growth is concentrated among a relatively narrow group of products indicates that inflation in the second half of 2007 was caused primarily by a supply-side shock.

Core inflation witnesses significant acceleration starting in the summer of 2007…

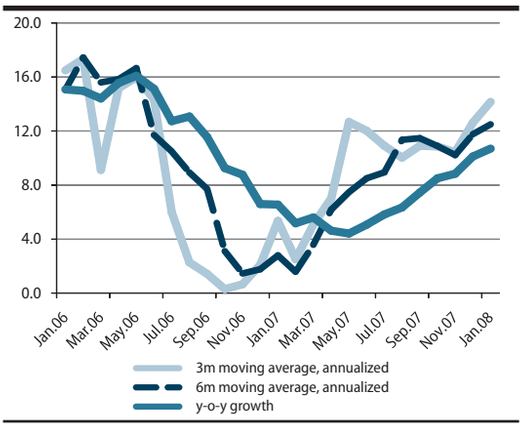
The acceleration of inflation in the second half of the year, a consequence of the supply shocks, becomes particularly evident when core inflation is taken into account. As much as two thirds of core price growth from June to December was caused by rising prices of industrial food products (Table T3-6). In consequence, core inflation grew in the second half of the year (Table T3-4).

2 Non-core prices are prices that are under direct administrative control (electricity, utilities, etc.) or are directly influenced by seasonal (agricultural produce) or exogenous factors (prices of petroleum products).
3 See the previous issue of QM for a detailed explanation.

…primarily due to supply-side shocks…

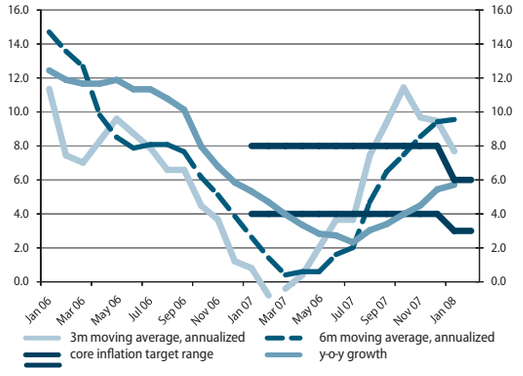
Monetary policy will be severely tested in attempting to hold inflation within the target 3%-6% band in 2008, as core inflation in the second half of 2007 stood at an average of 0.8% per month, or as high as an annual 9.4% – a good deal above the upper limit of the target band.

Graph T3-3. Serbia: Retail Price Index (in %), 2006–2008



Source: SBS.

Graph T3-4. Serbia: Core Inflation (in %), 2006–2008



Source: SBS.

…which were accommodated by growing demand

The supply-side price shock was accompanied by high (and growing) aggregate demand, which led to additional inflation growth. On the one hand, the pressure exerted on prices by costs had an effect equivalent to a contraction of aggregate supply. On the other hand, high aggregate demand was spurred by the continuing credit expansion (total credit growth in Q4 amounted to 18% of the quarterly GDP; see Table T8-4 and section 8, Monetary Flows and Policy) and a rise in government spending over the second half of 2007, and especially toward the end of the year (the fiscal deficit in Q4 amounted to as much as 7% of the quarterly GDP; see section 7, Fiscal Flows and Policy). The result of these trends in Q4 was, apart from an acceleration of inflation, a slowdown in output growth[4] (see section 5, Economic Activity). It seems, however, that the second round of effects of these price rises – accelerated wage growth as a consequence of rising inflation – is yet to become apparent. If this effect were indeed to materialize, the challenges faced by economic policy in 2008 would be even more complex.

Table T3-5. Serbia: Retail Price Index, Contribution to Growth by Selected Components, 2007

	Share in RPI	Contribution to RPI growth in Q4	Contribution to RPI growth in H1 2007	Contribution to RPI growth in H2 2007	Contribution to RPI growth in 2007
			in %		
Total	100.00	100.0	100.0	100.0	100.0
Goods	72.46	94.2	71.0	90.2	82.2
Agricultural products	3.35	10.5	4.8	9.9	7.9
Industrial products	69.11	83.0	65.9	80.2	74.1
Industrial food products	19.93	39.6	-1.1	47.4	26.0
Bread and pastry	2.11	3.9	0.3	10.3	5.7
Fresh meat	2.10	-2.9	-3.3	4.6	1.0
Milk and dairy products	3.39	17.7	2.5	16.0	10.3
Vegetable fats	1.03	6.8	-1.0	7.5	3.6
Tobacco products	3.48	9.2	15.0	5.1	9.6
Industrial non food products	41.22	32.2	49.1	26.5	36.0
Electricity	7.20	0.0	25.6	0.0	10.7
Liquid fuels and lubricants	9.39	19.4	10.7	16.7	14.2
Services	27.54	5.8	29.0	9.8	17.8

Source: SBS.
Note: H1 – first half of the year; H2 – second half of the year.

4 For a more detailed explanation of this mechanism, see Petrovic, P, Vasiljević, D. (2008): "Nova inflacija u Srbiji: Da li će šok na strani ponude biti akomodiran rastom tražnje?" ["New inflation in Serbia: Will the supply-side shock be accommodated by growing demand?"], in *Tekuća privredna kretanja, ekonomska politika i strukturne promene u Srbiji 2007/2008. godine, Naučno društvo ekonomista, Belgrade.* This paper is also posted on the FREN website at www.fren.org.yu.

Table T3-6. Serbia: Core Inflation, Contribution to Growth by Selected Components, 2007

	Share in Core Inflation	Contribution to Core Inflation growth in Q4	Contribution to Core Inflation growth in H1 2007	Contribution to Core Inflation growth in H2 2007	Contribution to Core Inflation growth in 2007
			in %		
Core inflation	100.0	100.0	100.0	100.0	100.0
Goods	76.6	90.8	61.9	88.3	83.6
Industrial food products	30.9	64.2	-22.4	66.8	50.9
Fresh meat	3.9	-7.3	-25.9	10.2	3.4
Milk and dairy products	2.9	18.1	4.5	13.7	12.2
Vegetable fats	2.1	17.2	-9.8	16.3	11.1
Beverages	8.3	2.0	16.6	3.9	6.1
Industrial non food products	38.0	24.6	67.7	17.7	26.6
Services	23.4	9.2	38.1	11.7	16.4

Source: SBS.
Note: H1 – first half of the year; H2 – second half of the year.

Core inflation lower in January…

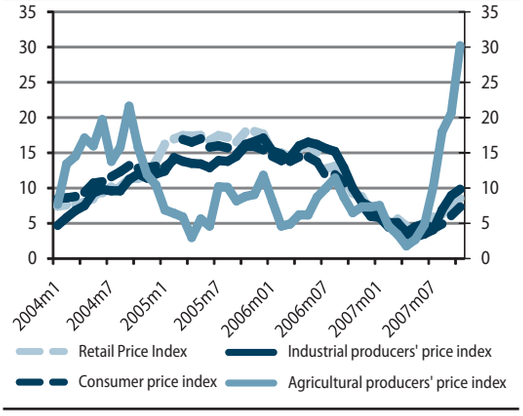
Inflation in January 2008 was somewhat lower than in previous months: 0.9% per month, as opposed to 1.3% in December and 1.1% in November (Table T3-1). The y-o-y inflation rate in January amounted to 10.7%.[5] The core inflation rate was significantly lower in January than in the previous months: it amounted to 0.3% at the monthly level, relative to 0.9% in December and 0.7% in November. The y-o-y core inflation rate stood at 5.7% in January.[6]

Petroleum products can be credited with almost half of all the January retail price growth. As opposed to the preceding months, the high food products price growth ceased. The lower rate of price growth for industrial food products is the main reason why total inflation – and especially core inflation – were lower than in the previous months. Prices of industrial food products rose by 0.8% in January relative to December, compared to a monthly rate as high as 2.5% over the last five months of 2007.

…but the NBS increases the reference rate to dampen accumulated pressure on price growth

Although core inflation was relatively low in January, on 6 February the NBS Monetary Board raised the reference interest rate from 10% to 10.75%. This decision was in all likelihood influenced by growing supply-side inflationary pressures over the preceding six months. It was primarily these pressures that led to core inflation rising from a y-o-y level of 3% in August 2007 (the lower edge of the 2008 target band) to 5.7% in January (the NBS target band for 2008 is 3%-6%). The average monthly core inflation over the three months ending with January stands at 0.6%, or an annual 7.7% (Table T3-1). This rate, a better indication of the trend, is above the upper limit of the 2008 target band, giving the NBS an exceptionally strong reason to react as quickly as it did and raise the reference interest rate.

Graph T3-7. Serbia: Selected Price Indices, 2004-2007 (Y-o-y growth)



Source: SBS.

Agricultural producers' prices record exceptional growth in Q4…

The agricultural producers' price index continued strong growth and accelerated further. The average monthly rate in October and November was 3.7% (Table T3-7), whereas it had been negative in the same period the year before (-0.6%). Year-on-year growth rates of agricultural produces' prices amounted to as much as 31.2% on average over the first two months of Q4, relative to the already substantial 16.3% in the preceding quarter (Graph T3-8).

…while the consumer price index slows slightly, but still remains high

The consumer price index slowed slightly in Q4, but nevertheless remained high. Its average

5 We can expect relatively high y-o-y inflation rates over the next several months due to comparison with a low base, i.e. because inflation was very low in Q1 2007.
6 As with total inflation, we can expect relatively high y-o-y core inflation rates in Q1 2008 because of the comparison with the low 2007 base.

monthly growth rate in Q4 was 1.2% (or an annual 15.1%), whereas in Q3 it had stood at 1.5% (or an annual 19.6%; Table T3-7). The average y-o-y rise in consumer prices was 10.8% in Q4, relative to 6.6% in Q3. On the other hand, the industrial producers' price index accelerated in Q4. Thus its average monthly rate rose to 1.0% in Q4 (an annual 12.7%) from 0.5% (an annual 5.8%) in the previous quarter. Average y-o-y growth of the industrial producers' price index amounted to 8.5% in Q4, as opposed to 5.1% in Q3.

Table T3-8. Serbia: Comparative Price Growth, Selected Indices, 2005–2007

	Retail Price Index			Consumer Price Index		Industrial Producers' Price Index		Agricultural Producers' Price Index	
	base index (avg. 2005 =100)	y-o-y growth	monthly growth	y-o-y growth	monthly growth	y-o-y growth	monthly growth	y-o-y growth	monthly growth
2005									
Dec	107.6	17.6	2.2	17.1	1.6	15.4	0.4	11.8	1.0
2006									
Mar	110.0	14.4	0.3	13.8	0.6	14.4	0.6	4.9	1.1
Jun	113.7	15.1	0.0	13.7	0.0	16.2	0.2	8.7	1.2
Sep	114.1	11.6	-0.2	10.7	-0.1	12.9	0.0	8.7	0.8
Dec	114.7	6.6	0.1	6.0	0.1	7.3	-0.2	7.3	1.1
2007									
Mar	116.1	5.6	0.7	4.2	0.4	5.1	0.6	3.4	-0.5
Jun	119.5	5.1	0.6	3.5	0.4	4.9	0.7	4.8	2.8
Sep	122.6	7.4	0.8	8.9	1.8	6.1	0.8	20.6	3.1
Oct	123.3	8.5	0.6	9.8	0.5	7.3	0.8	30.2	4.7
Nov	124.7	8.8	1.1	10.5	1.6	8.4	1.2	32.1	2.6
Dec	126.3	10.1	1.3	12.0	1.5	9.8	1.0	...	...

Source: SBS.

Exchange Rate

In Q4, the dinar appreciates against the euro by 1.3% in real terms

The dinar appreciated against the euro by 1.3% in real terms in Q4 (Table T3-9). Total 2007 appreciation was thus brought to 5.4% in real terms. After the Serbian currency depreciated by 1.9% in real terms in Q1, it appreciated slightly, in real terms, each month from April to October. The period from November 2007 to January 2008 saw the dinar appreciate again in real terms (Graph T3-10).

The new IMF Serbia report[7] provides an assessment of the dinar's real effective exchange rate. The authors conclude that the dinar is overvalued; depending on the methodology and assumptions used, the overvaluation range stands at between 5% and 16%. However, the authors consider that, notwithstanding the Serbian currency's overvaluation, depreciation – aimed at correcting the high current account deficit – would not provide a lasting solution, and would increase inflationary pressures. Thus, depreciation of the dinar is not a sustainable solution to the problem of the high foreign trade deficit. Rather, this problem can be solved by determined implementation of structural reforms, increasing the competitiveness of Serbia's economy (closely linked with FDIs), and pursuing a more responsible and tighter fiscal policy.

The exchange rate remains highly volatile in January

The nominal dinar/euro exchange rate fluctuated widely in Q4, exceeding 2% on several occasions (Graph T3-11). The dinar appreciated at the start of the quarter, reaching a high of 76.81 dinars for one euro. The Serbian currency then began to depreciate to reach a low of 84.75 dinars for one euro on 30 November. Thus the exchange rate shifted by as much as 10% over just one month. The dinar then strengthened over the first half of December, then weakened again in the second half of that month; this slide continued into January and early February 2008.

7 IMF Country Report No. 08/54 – Republic of Serbia: 2007 Article IV Consultation – Staff Report; Staff Statement; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for the Republic of Serbia; IMF Country Report No. 08/55 – Republic of Serbia: Selected Issues.

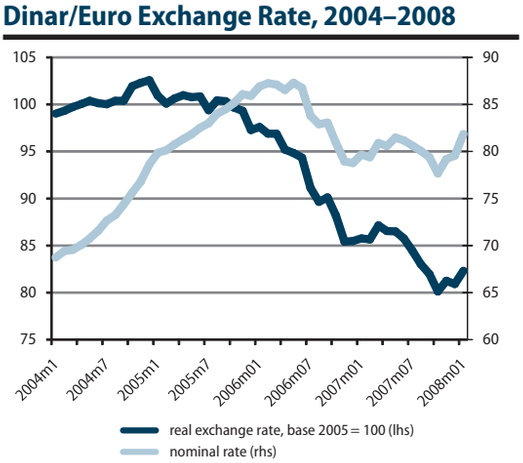
Table T3-9. Serbia: Dinar/Euro Exchange Rate, 2003–2008

	Nominal				Real			USD/EUR Rate[6]
	exchange rate (FX)[1]	base index[2] (avg.2005 = 100)	y-o-y index[3]	cumulative index[4]	real FX[5] (avg.2005 = 100)	y-o-y index[3]	cumulative index[4]	
	monthly exchange rate							
2005								
Dec	85.9073	103.6	109.3	109.3	97.3	94.9	94.9	1.1861
2006								
Mar	87.1033	105.0	107.9	101.4	96.9	96.3	99.6	1.2013
Jun	86.7609	104.6	105.1	101.0	94.4	93.6	97.0	1.2677
Sep	83.0621	100.2	98.3	96.7	90.1	89.8	92.6	1.2748
Dec	78.7812	95.0	91.7	91.7	85.5	87.9	87.9	1.3210
2007								
Mar	80.8968	97.6	92.9	102.7	87.1	89.9	101.9	1.3246
Jun	81.1665	97.9	93.6	103.0	85.8	90.9	100.3	1.3420
Sep	79.3999	95.8	95.6	100.8	82.0	91.0	95.9	1.3884
Oct	77.6627	93.7	96.0	98.6	80.1	90.9	93.7	1.4227
Nov	79.1979	95.5	100.3	100.5	81.2	95.1	95.0	1.4689
Dec	79.5669	96.0	101.0	101.0	80.9	94.6	94.6	1.4563
2008								
Jan	81.8460	98.7	102.7	102.9	82.3	96.0	101.7	1.4719

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 2005.
3) Ratio of fx in column 1 and fx for the same period in previous year.
4) Cumulative is the ratio of given month and December of previous year.
5) Includes Euro area inflation. Index calculation: RE=(NE/p) x p*
RE - real fx index NE -nominal fx index p - Serbia RPI index p* -Euro area CPI index
6) Period average.

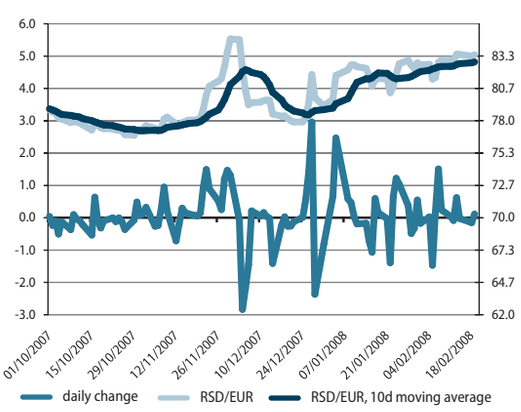
The high volatility of the exchange rate and the weakening of the dinar can be explained by three factors. The first is Serbia's political instability and uncertainty over the Kosovo issue and the outcome of the Serbian presidential election. The second factor is global financial trends: in Q4 almost all Eastern European currencies lost ground to the euro, a consequence of the second wave of effects of the financial crisis affecting the developed economies. This effect is explained in detail in the new NBS Inflation Report. The third factor, also covered in detail in the Inflation Report, involves increased demand for foreign currency by several large companies as the year end approached; these funds were to be used for repayment of liabilities due. As banks were unable to draw foreign currency abroad because of the Christmas holiday season, the only source was the domestic market. These pressures, coupled with the market's increasing shakiness, led to the further weakening of the dinar.

Graph. T3-10. Serbia: Nominal and Real Dinar/Euro Exchange Rate, 2004–2008



Source: Table P-3 in Analytical Appendix.
*Avg. 2005=100. See definition of real fx in Table T3-14.

Graph T3-11. Serbia: Dinar/Euro Daily Exchange Rate (rhs) and Daily Change in % (lhs)



Source: NBS.

4. Employment and Wages

The total number of employed fell by 3,000 between March and September 2007 and amounted to 2.001 mn. This was the lowest six-month fall since 2005. The steepest decline remained in the manufacturing industry – around 14,000 jobs lost (4% within the sector), while the highest rise of 3,000 new jobs (4.6%) was recorded in the real estate sector. The number of entrepreneurs and their employees rose by 6,000 and 1,000 respectively between March and September 2007. The unemployment rate was 18.8% in 2007, almost 3 percentage points lower than in 2006, according to the Labor Force Survey. This unemployment reduction finally indicates a U-turn in the labor market transition in Serbia. The real y-o-y rise in the average wage was halved to 8.2% in Q4, which can be attributed to high inflation, since its nominal growth remained high, though in a descending trend. In Q4, the largest real wage growth in the public sector was recorded in health care and social work – 12%, followed by education – 10.5%. In public utilities, wage growth decelerated sharply in Q4, while the highest real growth in the economy occurred in the real estate sector – 19.6%. The y-o-y real increase in gross wages for the whole 2007 was 14.6%. The share of the total wage bill in GDP in 2007 was higher than in 2006, but the perennial descending trend of unit labor costs in the economy continued. Overall, in 2007, the highest real wage growth occurred in health care and social work – 23.9%, followed by very high y-o-y real growth in the real estate sector – 19.6%, and in the construction industry – 17.2%.

Employment

The total number of employed in September 2007 fell to 2.001 mn...

The total number of employed declined by around 3,000 between March and September 2007, to amount to 2.001 mn in September (Table T4-1). On the basis of officially adjusted September employment data, this constituted the lowest six-month fall since 2005.

... constituting the lowest six-month fall since 2005

Table T4-1. Serbia: Registered Employment, 2003–2007

	Total No. of employed (employees and entrepreneurs)	Employees in legal entities	Entrepreneurs			Total no. of employees
			Total	No. of entrepreneurs	No. of employees with entrepreneurs	
	1 (=2+3)	2	3 (=4+5)	4	5	6 (=2+5)
			in thousands			
2003						
March	2,046	1,628	418	198	220	1,848
September	2,036	1,595	441	202	239	1,834
2004						
March	2,065	1,601	464	208	255	1,856
September	2,037	1,560	477	210	267	1,827
2005						
March	2,070	1,557	513	228	285	1,842
September	2,067	1,536	531	230	300	1,836
2006						
March	2,032	1,496	536	228	308	1,804
September	2,019	1,447	572	242	330	1,777
2007						
March	2,004	1,438	566	239	327	1,765
September	2,001	1,428	573	245	328	1,756

Source: SBS 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.

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. entrepreneurs - Column 3 (including store owners, self-employed professionals, etc., and those working for them). Employees of the Ministry of Defense of Serbia, and the Serbian Ministry of Internal Affairs are not included.

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

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

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

5) Employees of small businesses (entrepreneurs).

The sharpest drop in employment of around 14,000 was in the manufacturing industry

Employment in legal entities continued to decline, although since September 2006 the pace of this decline decelerated significantly. The sharpest drop was again recorded in the manufacturing industry, and it amounted to around 14,000 jobs (4% within the sector). In addition to the manufacturing industry, commerce and agriculture recorded a decline of 2,000 jobs each (1% in the commerce sector[1] and 3.5% in agriculture). Around 1,000 jobs were also cut in the education sector between March and September 2007 (Table P-5, Analytical Appendix).

The highest rise in employment of 3,000 was in the real estate sector

In all other sectors within "legal entities", the number of employees either remained the same or increased. The highest rise of 3,000 new jobs was observed in the real estate sector, which includes a number of activities falling under the new services sector[2]. This constituted a rise of 4.6% within the sector. Financial intermediation also recorded an increase of around 1,000 jobs (3.3% within the sector). In the public sector, the recorded increase in employment was some 1,000 jobs in the health care and social work sectors (Table T4-2), i.e. an increase of around 2,000 jobs in health care and social work after factoring in private medical and social work practice (Table T4-1).

Employment with entrepreneurs rises by 7,000

The number of entrepreneurs and their employees rose by 7,000 between March and September 2007. This latest, adjusted data shows that, after a drop in the number of entrepreneurs between September 2006 and March 2007,[3] their number went up again in September 2007. This is why the largest increase refers precisely to entrepreneurs, rather than to the number of their employees: in September 6,000 new entrepreneurs and 1,000 new jobs with them were recorded (Table T4-1).

Table T4-2. Serbia: Employees in Legal Entities, disaggregated, 2003–2007

	Employees in legal entities						
	Public sector						
	From the budget			Public enterprises		Public sector - total	Other[1)]
	Administration - all levels	Education and culture	Health and social work	National public	Local public		
	1	2	3	4	5	6	7
	in thousands						
2003							
March	60	116	147	129	54	506	1,122
September	62	114	147	127	55	505	1,090
2004							
March	63	117	147	125	57	509	1,092
September	63	116	148	124	57	508	1,052
2005							
March	63	119	148	122	61	513	1,044
September	61	117	147	112	61	498	1,038
2006							
March	60	118	141	105	61	485	1,011
September	58	117	138	102	60	475	972
2007							
March	58	121	138	100	59	476	962
September	59	120	139	100	58	476	952

Source: SBS.

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

Footnotes:

1) Private, socially-owned and mixed ownership enterprises. This column has not been disaggregated further due to absence of data. The number presented in column 7 is calculated by subtracting the total number of employees in public enterprises and those financed from the budget from the total number of employees in legal entities from the Table T4-1.

1 The commercial sector refers solely to legal entities; entrepreneurs' commercial activities are not included.

2 Under the statistical classification, this sector also includes equipment rentals, computer-based activities, research and development and other business activities (architectural firms, management, advertising and marketing, etc.).

3 In the previous issue of QM, we cautiously attributed this fall to the restrictive monetary policy, which arrested credit growth to small enterprises and entrepreneurs, while large companies were able to borrow from abroad in the same period.

The employment figures in the public sector remained largely stable between March and September 2007 (Table T4-2).

Table T4-3. Serbia: Registered Unemployment, 2004–2007

	Total number of unemployed (NES 15-64)	Unemployment rate (SBS 15-64)[1)]	Total number of unemployed (LFS 15-64)	Unemployment rate (LFS 15-64)[2)]
	1	2	3	4
2004				
March	...	26.0	…	…
September	842,775	23.9	664,002	19.5
2005				
March	884,111	25.0	…	…
September	897,724	25.3	718,773	21.8
2006				
March	920,031	26.6	…	…
September	914,564	26.6	691,877	21.6
2007				
March	913,299	26.7	…	…
September	808,200	24.5	585,472	18.8

Source: National Employment Service (NES); Labor Force Survey (LFS), SBS.
Remarks:
1) Population aged 15-64 is considered working-age population.
2) Active population consists of the total number of the working age employed + unemployed persons.
Footnotes:
1) The SBS unemployment rate stems from dividing the number of unemployed with the total active population, where the active population consists of the total number of employees from the SBS statistics (column 1 in Table T4-1), the number of unemployed 15-64 from the NES statistics (column 1 in this table) and the number of agricultural workers from the LFS.
2) Labor Force Survey is conducted in October each year (once per year), thus the September data are in fact October data for that same year.

The unemployment rate in 2007 was 18.8%, or by around 3 percentage points lower than in 2006

The unemployment rate according to the Labor Force Survey (LFS) from October 2007 stood at 18.8% (column 4, Table T4-3). This constituted a decline of almost 3 percentage points relative to the previous LFS[4] from October 2006, when the rate was 21.6%. The number of unemployed persons in this period went down by around 106,000, or more than 15%.

With the drop in the unemployment rate in 2007, there was finally a U-turn in the labor market transition

The unemployment rate trends from the Labor Force Survey in Table T4-3 indicate that the rate peaked at 21.8% in 2005, stagnated at around that level in 2006, only to finally start declining in 2007. Hence the conclusion is that the long-awaited U-turn in the labor market transition took place in 2007, and that a further decline can be expected in the future, with the continuation of reforms and economic integrations.

Wages

Real wage growth decelerated to 8.2% in Q4, from 14.1% in Q3

Real wage growth decelerated strongly. The average monthly gross wage went up by 8.2% in real terms on a y-o-y basis in Q4 relative to Q4 2006. The y-o-y real growth was thus halved compared to Q3, when it amounted to 14.1% (Table T4-4).

Deceleration in real wages is attributable to high inflation

The deceleration in the growth of real wages can be attributed to a strong y-o-y surge in inflation of 9.13% in Q4. Wages nevertheless remained at a higher level in nominal terms than it appears when observing real indices – 21.7% in Q3 and 19.8% in Q4. Hence, the strong hike in prices "chewed away" the still high nominal wage growth in Q4. An additional contribution to the decrease in the real wage growth index was made by the high wage growth in Q4 2006[5], which rendered the base for the y-o-y index in Q4 considerably higher than that for Q3.

4 Labor Force Surveys are carried out once a year.
5 Due to the budget revision and the pre-election December pay rises and bonuses.

Table T4-4. Serbia: Average Monthly Wage and Real Y-o-y Wage Indices, 2004–2008

	Average Monthly Wage				Average Gross Monthly Wage Index[2)]	
	Total labour costs[1)], in dinars	Net wage, in dinars	Total labour costs, in euros	Net wage, in euros	nominal	real
	1	2	3	4	5	6
2004	24,234	14,108	334	194	123.7	111.4
2005	30,142	17,478	364	211	124.4	107.1
2006	37,493	21,745	445	258	124.4	111.3
2007	45,723	27,785	572	347	121.9	114.6
2005						
Q4	33,932	19,680	396	230	125.3	107.5
2006						
Q1	33,258	19,284	382	221	127.3	111.0
Q2	36,447	21,126	420	243	123.5	108.1
Q3	37,882	21,986	455	264	122.3	109.7
Q4	42,387	24,585	533	309	124.9	116.6
Dec	48,686	28,267	618	359	128.1	120.9
2007						
Q1	41,319	25,103	517	314	124.2	118.5
Q2	44,684	27,165	551	335	122.6	118.6
Q3	46,108	28,019	576	350	121.7	114.1
Q4	50,781	30,855	644	392	119.8	108.2
Dec	56,736	34,471	713	433	116.5	104.1
2008						
Jan	46,371	28,230	567	345	116.5	103.5

Source: Serbian Bureau of Statistics (SBS).
Footnotes:
1) Total labor costs include employer's total average expense per worker, including all taxes and social security contributions. TLCs amount to around 164.5% of the average net wage.
2) Gross wage indices are equal to total labor cost indices, because the average TLC is larger than the average gross wage by a fixed 17.9%.

In January, the drop in nominal wages stopped – a response to inflation

By observing the data for January 2008, it is possible to see that the y-o-y index of the average nominal wage interrupted a mild downward trend typical of 2007, and that the nominal growth index in January was at the same level as in Q4 2007 – 16.5%. At the same time, real average wage growth continued to decrease from 4.1% in Q4 2007 to 3.7% in January 2008, though this decrease was considerably slower than the one between Q3 and Q4. On the basis of these trends, it seems that in Q1 2008 it is possible to expect a rise in nominal wages typical of the period before Q4 2007, once wage growth starts to gradually take inflation into account.

The December wage was higher by around 5,000 dinars than in November due to New Year bonuses

The average net wage in December 2007 was around 5,000 dinars higher than the November wage, a rise of around 15%, which can be attributed to seasonal increases that include different receipts at the end of the year, such as "the thirteenth salary", New Year bonuses, etc. (Table T4-4 and Table P-6, Analytical Appendix).

Total real gross wage growth in 2007 was 14.6%

At the annual level, the total y-o-y real gross wage increase in 2007 amounted to 14.6%. In relation to 11.3% in 2006, we consider this to be a steep rise: it was the highest annual leap of the y-o-y real index of gross wages since 2003 (Table T4-4).

The share of the total wage bill in GDP in 2007 was higher than in 2006

The share of the total wage bill in GDP for the whole 2007 was at a higher level than in 2006 (column 2, Table T4-6), which can be attributed to the high rise in the average wage that was not driven by an increase in productivity. However, a positive trend is the fact that the share of the total wage bill in GDP in Q4 2007 was not increased further, and remained at the same level as in Q3 (40.2%).

Table T4-5. Serbia: Labor Costs and Real Y-o-y Wage Bill Indices, 2004–2007

	Labour Costs			Wage Bill Index[4]	
	Wage bill, in 000 din[1]	Unit labour cost (GDP)[2]	Unit labour cost (GVA)[3]	nominal	real
	1	2	3	4	5
2004	534,294,604	38.6	41.7	123.4	111.2
2005	661,108,425	38.8	40.2	123.7	106.6
2006	805,517,464	40.0	39.3	121.8	109.1
2007	963,461,574	41.9	38.9	119.6	112.4
2005					
Q4	185,745,990	37.0	39.4	124.8	107.1
2006					
Q1	180,227,329	41.9	40.2	125.9	109.9
Q2	196,486,925	39.6	38.9	121.0	106.0
Q3	203,348,767	38.6	38.7	119.3	107.1
Q4	225,454,442	40.0	39.3	121.4	113.3
2007					
Q1	218,080,843	44.6	40.5	121.0	115.4
Q2	235,889,439	42.8	38.5	120.1	116.2
Q3	242,064,617	40.4	38.0	119.0	111.6
Q4	267,057,815	40.2	38.0	118.5	106.9

Source: Serbian Bureau of Statistics (SBS).
Footnotes:
1) Wage bill is an inferred value representing the multiple of the total number of employed and the average total labor cost, including all taxes and social security contributions. Data on employment and wages with legal entities are from SBS, whereas the average wage of the employed with entrepreneurs was gauged from the tax authorities' data.
2) Wage bill participation in total GDP.
3) Wage bill participation in GVA, without agriculture and government.
4) Gross wage indices are equal to total labor cost indices, because the average TLC is larger than the average gross wage by a fixed 17.9%.

The perennial downward trend of unit labor costs continues

When observing the share of the total wage bill in GVA, from which the state sector and agriculture are excluded, it is seen that the perennial downward trend of unit labor costs in the economy continued[6] (column 3, Table T4-5). Such a trend points to the fact that the state sector, characterized by a minimum number of layoffs and a high growth in the average wage, is actually the sector that largely contributed to the increase in unit labor costs at the aggregate level,[7] and that the start of its deceleration in Q4 2007 was also the beginning of the deceleration in the share of the total wage bill in GDP. A cut in the personal income tax, effective since January 2007,[8] also gave a positive contribution to the reduction of unit labor costs in 2007.

In the public sector, the largest wage growth in Q4 was in health care and social work – 12%, followed by education – 10.5%

In the public sector, the sharpest y-o-y real growth in gross wages in Q4 was recorded in health care and social work – 12%, followed by education – 10.5% (Table T4-6). The same sectors recorded a growth of 11% and 10.3% in budget-financed wages[9] (Table T4-7). A significant deceleration of wage growth was recorded in the public administration in Q4 relative to previous quarters and amounted to 2.2% in real terms on a y-o-y basis (Table T4-6), i.e., to 0.1% for budget-financed wages (Table T4-7).

6 With the exception of Q4 2006 and Q1 2007 when wages in the economy were also pushed upward by a huge increase in public sector wages, which in turn temporarily increased labor costs.
7 For more details on industry labor costs see section 5, Economic Growth in this issue of *QM*.
8 For more details on tax changes see section 4, Employment and Wages, *QM* 8.
9 To recall, budget beneficiaries also have their own revenues and manage them irrespective of the budget.

Table T4-6. Serbia: Average Gross Wages by Activities, Y-o-y Real Indices, 2005–2007

	2005	Q1 2006	Q2 2006	Q3 2006	Q4 2006	2006	Q1 2007	Q2 2007	Q3 2007	Q4 2007	2007
Total	106.8	110.9	108.0	109.7	116.4	111.3	118.6	118.6	114.2	108.2	114.6
Agriculture, forestry and water works supply	112.2	118.3	115.7	112.4	112.4	114.7	110.2	105.6	108.2	106.3	107.6
Fishing	116.2	105.5	70.8	93.6	100.5	92.6	78.8	63.6	101.5	103.0	86.7
Mining and quarrying	100.4	108.9	114.5	115.5	115.1	113.5	135.4	121.1	111.3	106.4	118.5
Manufacturing	109.1	114.4	110.9	113.8	115.8	113.7	114.9	114.7	109.7	106.8	111.6
Electricity, gas and water supply	104.1	104.0	99.4	107.1	114.9	106.3	143.0	117.7	110.1	103.8	118.7
Construction	104.5	108.7	111.0	112.7	119.4	112.9	123.9	126.0	112.9	106.1	117.2
Wholesale and retail trade, repair	111.6	114.2	113.9	112.0	117.9	114.5	118.7	115.1	113.5	105.1	113.1
Hotels and restaurants	108.3	112.0	111.0	106.4	108.6	109.5	112.0	114.7	115.6	109.2	112.9
Transport, storage and communications	104.2	110.0	111.0	104.0	109.1	108.5	108.5	111.9	108.4	106.9	108.9
Financial intermediation	110.5	112.9	111.5	113.9	111.3	112.4	112.9	111.4	105.2	106.7	109.1
Real estate, renting activities	111.6	101.5	99.1	105.8	107.3	103.4	122.0	120.8	116.6	119.0	119.6
Public administration and social insurance	105.0	112.6	104.3	107.6	112.5	109.2	111.5	118.3	113.2	102.2	111.3
Education	108.2	114.9	103.5	105.0	112.0	108.9	111.9	118.5	116.3	110.5	114.3
Health and social work	100.0	101.4	102.3	104.9	125.5	108.5	125.5	130.8	127.2	112.0	123.9
Other community, social and personal service	102.6	105.2	100.7	103.1	111.0	105.0	106.2	111.7	110.6	101.0	107.4

Source: Serbian Bureau of Statistics (SBS), RAD-1 Survey.

In public utilities, wage growth decelerates strongly in Q4

In public utilities, wage growth in Q4 decelerated strongly; y-o-y real growth in state-owned public utilities was 5.8%, while wages in local public utilities fell on a y-o-y basis by around 2.6%. The conclusion, therefore, is that in Q4 the state controlled the wage growth of some budget beneficiaries, but failed to do so in health care and education because of promises that were already incorporated into the budget (Table T4-6).

Table T4-7. Serbia: Gross Wage Y-o-y Real Indices - Public Sector, 2004–2007

	From the budget			Public enterprises		Other[1)]	Serbia Average
	Administration - all levels	Education and culture	Health and social work	National public	Local public		
	1	2	3	4	5	6	7
2004	107.4	107.7	110.9	107.9	113.4	114.9	111.4
2005	105.9	106.0	100.8	100.5	103.0	105.2	107.1
2006	109.1	107.2	109.4	110.8	102.9	112.5	111.3
2007	111.1	114.7	123.8	116.7	105.0	114.3	114.6
2005							
Q4	103.0	108.4	102.9	98.1	104.1	102.0	107.6
2006							
Q1	111.5	111.1	102.2	108.9	97.0	114.1	111.0
Q2	102.2	100.8	103.1	109.6	102.8	110.7	108.1
Q3	108.0	104.2	105.0	108.4	102.7	110.3	109.7
Q4	110.5	106.4	98.2	103.4	98.8	103.6	107.5
2007							
Q1	111.5	112.6	125.4	129.8	113.8	117.8	118.5
Q2	118.6	119.2	131.5	118.9	104.5	116.0	118.6
Q3	114.1	116.7	127.5	112.5	104.1	112.9	114.1
Q4	100.1	110.3	111.0	105.8	97.4	107.7	108.2

Source: SBS.
Footnotes:
1) Column 6 includes private, socially-owned and mixed ownership enterprises.

The steepest real wage growth in the economy was in the real estate sector – 19.6%

The steepest y-o-y real wage growth in the economy was recorded in the real estate sector and it amounted to 19.6%. Under the statistical classification, this sector also includes equipment rentals, computer-based activities, research and development, and other business activities (architectural firms, management, advertising and marketing, etc.). An above-average increase in wages was also recorded in the hotel and catering sectors, while in most other economic activities y-o-y real wage growth ranged between 6 and 7%, below the national average of 8.2% (Table T4-6).

Health care and social work sector saw the highest real wage growth throughout 2007

At an annual level, by far the highest y-o-y real wage growth in 2007 of 23.9% was in the health care and social work sector (Table T4-7), while budget-financed wages rose by 23.8% (Table T4-7). A large y-o-y real growth of 18.7% was also recorded in the electricity, gas and water supply sector, which was in line with the 16.7% y-o-y real growth of wages in state-owned public utilities in 2007 (Table T4-7). As for the private sector, the highest y-o-y real wage growth was in the real estate sector – 19.6%, followed by the construction industry 17.2% (Table T4-6).

In the private sector, the sharpest wage growth was in real estate, followed by construction

5. Economic Activity

Viewed as a whole, 2007 was a year of high economic growth. Real GDP growth in 2007 is estimated at about 7.2%; the figure would have been even higher (8.7%) if agriculture, which had a very poor season, were excluded. Growth slowed significantly in the last quarter. *QM* estimates y-o-y GDP growth in real terms at some 6.2%, while non-agricultural GVA grew by about 7.7%. The economic growth recorded in Q4 resulted from a combination of very high service growth and a drop in material production. In this issue, *QM* pays greater attention to the unfavorable trends registered and analyzes the competitiveness of Serbia's economy. Although the timeframe chosen for observation is too short for reliable and conclusive inferences, there are clear indications that a slowdown in economic activity, concentrated mainly in the production of tradable goods, is partly the consequence of a loss of competitiveness. Industrial production recorded a y-o-y growth of 0.4% in Q4, while manufacturing dropped by 0.1%. These were the poorest quarterly results recorded by the industry in the past two years. Construction declined in Q4 by an estimated 10%. This y-o-y drop can be partly explained by fewer working days in relation to Q4 2006 which is used for comparison, due to inclement weather.

Gross Domestic Product (GDP)

Q4 GDP growth estimated at 6.2%

According to preliminary *QM* estimates, based on data on economic results obtained by using the SBS methodology, y-o-y GDP growth in Q4 stood at about 6.2% (Table T5-1). This was lower than in the first three quarters of 2007. If total GDP – as well as non-agricultural GVA, which we consider a better indicator of economic activity – are taken into account, Q4 witnessed a major slowdown. Nevertheless, the y-o-y non-agricultural GVA growth of 7.7% in Q4 remained high, as a result of high service growth compensating for the poor results of material production.[1] Services grew by some 11.3% in Q4, while material production dropped by an estimated 4%.

Services record high growth, while material production drops

Transport and financial intermediation led services, with y-o-y growth of some 20% in real terms (Table T5-1). Wholesale and retail trade also contributed to high service growth, although it slowed slightly in Q4 to about 16.5%. On the other hand, both agriculture and construction recorded a y-o-y production drop of some 10%, while manufacturing remained at the level of Q4 2006.

Table T5-1. Serbia: Gross Domestic Product, 2005–2007[1)]

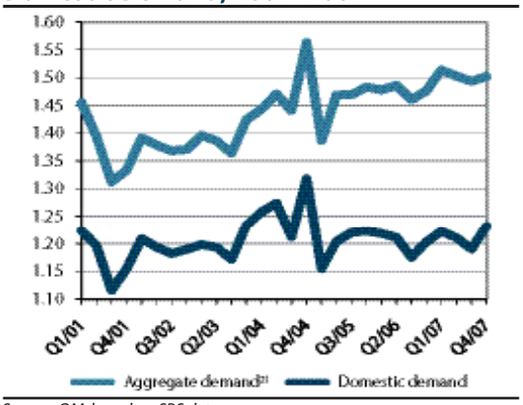
	Y-o-y indices							Base index	GDP share
	2005	2006	2007	2007				(jan-dec)$_{07}$/ (jan-dec)$_{02}$	2006
				Q1	Q2	Q3	Q4[2)]		
Total	106.2	105.7	107.2	108.4	107.7	107.2	106.2	133.7	100.0
Taxes minus subsidies	110.2	99.8	109.9	113.5	108.1	111.1	110.0	144.7	15.3
Value Added at basic prices	105.5	106.8	106.7	107.6	107.6	106.5	105.4	131.8	84.7
Non agricultural Value Added	107.3	107.9	108.7	109.0	109.3	109.0	107.7	137.9	87.1
Agriculture	95.1	99.8	91.9	94.5	93.4	91.3	91.0	96.6	12.9
Manufacturing	99.9	105.6	104.1	108.7	104.4	104.3	100.2	112.2	16.1
Construction	102.0	107.7	104.5	128.2	109.6	97.8	90.0	131.6	3.5
Transport	123.4	129.3	122.4	118.4	121.4	124.2	124.0	247.7	11.5
Wholesale and retail trade	122.0	110.3	118.7	121.5	119.3	118.1	116.5	208.5	12.9
Financial intermediation	117.4	117.2	119.8	119.2	120.0	120.0	120.0	197.7	7.4
Other	102.1	100.5	100.7	99.4	101.8	101.2	101.2	107.0	35.7

Source: SBS.
1) At 2002 constant prices.
2) *QM* estimate.

1 Material production – agriculture, industrial production and construction.

Domestic demand accelerates strongly

Graph T5-2. Serbia: Aggregate and Domestic Demand, 2001–2007[1)]



Source: *QM*, based on SBS data.
1) In relation to GDP.
2) Aggregate demand = domestic demand + exports.

Graph T5-2 shows movements in domestic and aggregate demand. Domestic demand accelerated in Q4, while exports slowed. Extremely high domestic demand saw additional growth in Q4 in relation to GDP. The reasons for this can be found primarily in the expansive fiscal policy initiated as early as Q3, which increased further in Q4. This expansion carried over into Q4 domestic demand (Graph T5-2). As for other components of domestic demand, loans to enterprises and households retained very high rates of growth, while the real growth of aggregate wages slowed substantially in Q4, and now stands at a level similar to the growth of the economy as a whole.[2] On the other hand, exports witnessed a deceleration, mainly due to a slowdown in the growth of *bulky exports*.[3] These trends led to a record foreign trade deficit in Q4.

Unit labor costs have dropped

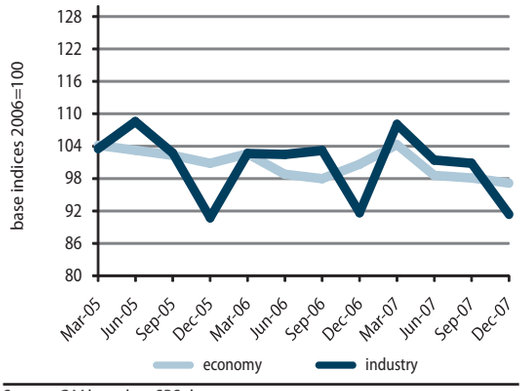
The economy's performance nonetheless improved somewhat in Q4. Unit labor costs (ULCs) dropped in Q4. There was a real reduction in wage growth as a consequence of accelerating inflation. Wages kept their high nominal growth, but this did not accelerate to accompany inflation in Q4. Graph T5-3 shows ULCs in the economy (excluding the government sector and agriculture) and industry. The Q1 incident involving a sudden hike in ULCs due to the high real growth of wages was completely amortized in Q4, leaving ULCs again following the mild downward trend established several years ago, with seasonal oscillations (Table T5-3).

The fall in competitiveness is halted

Unit labor costs expressed in euros (euro-ULCs) indicate how competitive Serbia's economy is in global terms, as they define the largest cost component (i.e. labor costs) in relation to value added. Euro-ULCs are calculated for the manufacturing industry, which produces by far the greatest proportion of tradable products, and for the economy as a whole.[4] Euro-ULCs have grown by between 10% and 15% since 2004, which can serve to quantify the fall in competitiveness suffered by the Serbian economy. It must be emphasized that this analysis records only relative changes in competitiveness (ULCs) in relation to the 2004 average, and that it is not the aim to state whether or not Serbia's economy is competitive in the global market.

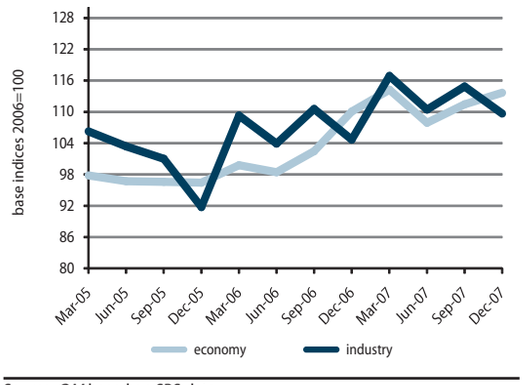
It seems as if the 2006 and early 2007 rapid euro-ULC growth trend has been reversed (Graph T5-4). The dinar depreciated nominally against the euro in Q4, but inflation far outstripped this rate, whereby the dinar actually appreciated in real terms. However, the acceleration of

Graph T5-3. Serbia: Unit Labor Costs, Economy and Industry, 2005–2007



Source: *QM* based on SBS data.

Graph T5-4. Serbia: Euro-ULCs, Economy and Industry, 2005–2007



Source: *QM* based on SBS data.

2 For more information see section 4, Employment and Wages, in this issue of *QM*.
3 For more information see section 6, Balance of Payments and Foreign Trade, in this issue of *QM*.
4 Excluding the government sector and agriculture.

inflation in Q4 also caused a slowdown in real wage growth; the cumulative effect of all this was that euro-ULC growth was halted (Graph T5-4). This trend of a slowdown, and possible drop, in the growth of euro-ULCs will most probably continue into this year, in view of the real depreciation of the dinar in early 2008.[5]

GDP grows by 7.2% in 2007, and non-agricultural GVA by 8.8%

When viewed at the annual level, GDP growth in 2007 amounted to a high 7.2% (Table T5-1), while non-agricultural GVA grew by an even higher 8.8%. The greatest influence on economic activity in 2007 was exerted by the macroeconomic framework defined early in the year: 2007 began by inheriting the Q4 2006 pre-election expansive fiscal policy, whose consequences translated into high domestic demand in Q1 (Graph T5-2). There was also an exceptionally high real growth of public-sector wages; in addition, agreements were reached to continue raising these wages throughout the year. Monetary policy was restrictive since the beginning of 2007, and affected the real appreciation of the dinar which lasted all year, with temporary slowdowns.

The year begins with economic growth picking up pace…

Economic activity accelerated strongly in Q1, especially in sectors with a domestic market orientation. The greatest acceleration was recorded by commerce: after Q4 2006 y-o-y growth of 10% in real terms, commerce saw y-o-y real growth of 21.5% in Q1 2007 (Table T5-1). Manufacturing, especially production of consumer goods, saw a record y-o-y growth in Q1.[6] In addition, the unusually warm winter meant that the expected seasonal drop in several sectors (construction and related activities) failed to materialize, which contributed to the already high Q1 growth. Along with economic activity, increased domestic demand also led to a robust acceleration of imports.

…which lasts only two quarters

It became apparent in Q2 that the agricultural season would be very poor. The annual drop in agriculture in 2007 has been estimated at some 8%. Economic growth remained very high into Q2: GDP slowed in relation to Q1, but non-agricultural GVA recorded its highest growth in 2007, some 9.5%. In Q3, however, signs of a more serious slowdown in economic activity became evident. A part of this downturn can be ascribed to a slowing in domestic demand (Graph T5-2), which was in turn probably a delayed result of the unintended fiscal restrictiveness over the first half of the year, when temporary financing was in effect.

The slowdown in the economy is caused by a combination of exogenous disturbances…

When Q4 economic activity is considered, it immediately becomes apparent that the expected exogenous disturbances did in fact happen: agricultural production was very low. Corn production was 35% lower than in 2006. The production of sunflower seed and soybeans saw a similar y-o-y drop, and only sugar beet production kept its 2006 level. The renovation of a blast furnace at US Steel Serbia affected both exports and brought about a slowdown in the entire manufacturing industry, more so than in Q3 (Table T5-5). Construction saw a y-o-y drop in Q4, partly also due to weather conditions (leading to fewer working days than in Q4 2006).

…and a downward trend in economic activity…

However, even when these disturbances are discounted, a slowdown in economic activity in Q4 becomes apparent. The real reason behind this slowdown cannot yet be identified with certainty, but it may be a consequence of the Serbian economy's loss of competitiveness at the global level. Indications supporting the view that the country is facing a loss of competitiveness are (1) the deep gap between the growth of mainly non-tradable services and the production of tradable goods, and (2) the divergence between the upward trend of export growth and the trend of tradable goods production.

…possibly due to a loss of competitiveness

The loss of competitiveness assumption is supported by an analysis of euro-ULCs, which, in 2007, stood at their highest level since 2004 (Graph T5-4). The impact of changing euro-ULCs (as a measure of global competitiveness) is transferred to economic activity with a delay, which is why we cannot be completely certain that the four quarters of 2007 is a sufficiently long period for past negative tendencies to become apparent. At this time, there are more indications that this has in fact happened, but caution must be exercised in interpreting the slowdown in economic activity until more data becomes available.

5 We lack information on wage movements and economic activity in 2008 to be able to give a final assessment, but our estimates indicate that euro-ULCs are dropping, since dinar ULCs have remained more or less constant for a longer period (Table T5-3), which means euro-ULC movements have practically been affected only by the real exchange rate.

6 Year-on-year growth in industrial production of consumer goods amounted to 22.4% in Q1.

Robust economic growth can be expected in 2008…

What can be expected from economic activity in 2008? *QM*'s forecasts are moderately optimistic. The economy grew a great deal in 2007, and it does not seem as if major changes will occur in early 2008. Domestic demand is likely to remain very high. Its structure, inherited from Q4, will now make tighter control by monetary and fiscal authorities possible, as the share of wages has been reduced in comparison with the structure of similarly sized domestic demand from late 2006 and Q1 2007. Also, if previous several years' experience is anything to go by, we are aware that Serbia will in 2008 run the risk of another fiscal expansion by revision of the budget; this could translate into an additional rise in demand.

On the export demand side, the slowdown in global economic growth will certainly have an impact on demand for a part of Serbia's exports. The consequences of the downturn in the global economy may be seen in the drop in prices of basic metals. However, prices of foodstuffs, the sector where the Serbian economy records a positive foreign trade balance, stand at an all-time high, with 2008 expected to see their further growth. This food price growth will probably be enough to dampen the negative impact on Serbia's economy of the global slowdown in demand for intermediary goods. Exports slowed significantly in Q4 2007, but there are factors indicating that the deceleration is only temporary and that exports will recover as early as Q1 2008: (1) only *bulky exports* slowed, while *underlying exports* continued growing at the same pace,[7] and (2) an analysis of unit labor costs in Q4 and expectations for Q1 2008 does not indicate any dramatic swings that could cause changes in the export trend.

…but serious risks remain

It should be kept in mind, however, that 2007 was an extremely poor year for agriculture. It would, nonetheless, take nothing more than an average agricultural season in 2008 to offset the poor results of the rest of the economy. Last, but certainly not least, is the issue of political stability, generally difficult to predict, which could lead to dramatic changes in economic activity.

Industrial Production

Industrial production grows by 0.4% in Q4...

In Q4, industrial production stood at a level similar to that achieved in Q4 2006, with a y-o-y growth of 0.4%. This growth was the lowest y-o-y growth rate recorded in the past two years (Table T5-6). Production and distribution of electricity, water and gas stood out from the general structure of industrial production growth with a somewhat better result (a y-o-y growth of 4.3%). Manufacturing saw a slight y-o-y drop in production, of 0.1%, while mining and quarrying fell by 4.4% in relation to the same period the previous year. Data on small enterprises' industrial production shows that their growth in Q4 far outstripped the rest of industry – which has been usual since 2002.[8]

Table T5-5. Serbia: Industrial Production Indices, 2005–2007

	Y-o-y indices							Base index	Share
	2005	2006	2007	2007				(jan-dec)07/ (jan-dec)02	2006
				Q1	Q2	Q3	Q4		
Total	100.8	104.7	103.7	104.8	105.2	103.5	100.4	113.7	100.0
Mining and quarrying	102.1	104.1	99.4	102.1	101.4	99.2	95.6	105.7	6.3
Manufacturing	99.3	105.3	104.2	108.5	104.9	103.3	99.9	114.0	75.4
Electricity, gas, and water supply	106.6	102.2	102.8	94.2	108.7	106.5	104.3	114.6	18.3
Total industry without basic metals	98.9	103.1	104.2	103.9	104.9	104.4	102.3	105.0	91.8
Manufacturing without basic metals	96.6	103.2	105.0	107.7	104.4	104.6	102.5	102.1	64.5

Source: SBS.

…which represents a significant slowdown

If production of basic metals is excluded from total industrial production and manufacturing, the picture becomes slightly more favorable, but this picture clearly shows negative trends, too

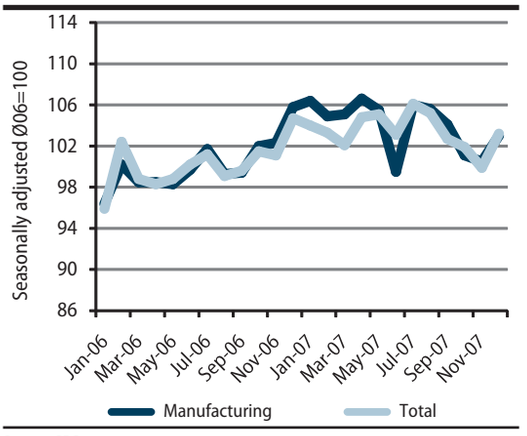
7 For more information see section 6, Balance of Payments and Foreign Trade, in this issue of *QM*

8 Data on industrial production growth for small enterprises is published by the SBS in its IN 10 announcement and is based on a sample of 300 enterprises. This data is not included in the total industrial production growth index.

(Table T5-5). Production of basic metals can be expected to recover as soon as Q1 2008, as the renovation of a blast furnace at US Steel Serbia has been completed. But, as worldwide demand for basic metals slumped at the same time, the extent of the recovery is uncertain. Double-digit growth rates, which characterized basic metals production over the past several years, will in all likelihood not return.

Seasonally adjusted indices also indicate a slowdown

Graph T5-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2006–2007



Source:SBS.

Seasonally adjusted indices provide the clearest insight into trends in industrial production as a whole, particularly manufacturing (Graph T5-6). High growth is apparent over the first half of the year, followed by a substantial slowdown from Q3 onwards. The graph shows that the slowdown was halted in December, when industrial production again began climbing, but we still cannot say whether this was a real recovery or just a blip in the downward trend. *QM* is more inclined to see it as a real positive impulse that will lead to an acceleration of industrial production in early 2008.

Industrial production grows by 3.7% in 2007

When viewed at the annual level, total industrial production recorded growth of a respectable 3.7% (Table T5-5). As it slowed appreciably over the second half of 2007, this result is significantly below expectations aired in the first half of the year, when we forecast an industrial production growth of some 5%. At the annual level, manufacturing saw the best results, growing as it did by 4.2%. Production and distribution of electricity, water and gas grew by 2.8%, while only mining and quarrying declined (0.6% lower than in 2006).

Manufacturing has decelerated

In Q4, manufacturing recorded a slight y-o-y production drop of 0.1%, a decline in relation to the growth of 3.3% in Q2). Table T5-7 shows sub-sectors contributing the most to manufacturing in 2006, namely food and beverages, chemicals and chemical products, basic metals, non-metallic mineral products, coke and petroleum products, and rubber and plastic products.

Table T5-7. Serbia: Sub-Sectors with Highest Growth Rates in 2006, 2005–2007

	y-o-y indices							base index	share
	2005	2006	2007	2007				(jan-dec)07/ (jan-dec)02	2006
				Q1	Q2	Q3	Q4		
Manufacturing	99.3	105.3	104.2	108.5	104.9	103.3	99.9	114.0	100.0
Total-selected sectors	106.5	108.3	103.8	109.7	104.0	102.0	99.9	138.5	68.1
Food and beverages	104.6	105.3	105.8	112.2	107.7	104.2	100.6	117.9	30.0
Chemicals and chemical products	103.8	108.3	105.0	105.6	95.3	104.1	115.0	158.5	12.9
Basic metals	121.8	122.7	98.0	115.1	108.7	92.2	78.9	211.2	10.9
Non-metal mineral products	97.7	106.6	100.3	123.4	98.0	91.9	90.6	92.9	5.4
Coke and refined petroleum products	97.7	106.6	100.3	81.0	93.5	110.2	105.8	118.4	4.7
Rubber and plastic products	109.2	95.8	108.0	105.0	111.0	107.5	108.1	117.8	4.2
Other	83.9	98.9	105.1	105.9	106.8	106.2	99.8	61.8	31.9

Source: SBS.

Various sectoral trends are beginning to converge

Table T5-7 shows that, in Q4, sub-sectors with the highest share in manufacturing grew at almost identical rates as the rest of the industry. A higher convergence of trends across various sections of manufacturing marked 2007 as a whole. Before 2007, the total industrial production index in the manufacturing industry was the sum of completely divergent movements, where

on the one hand there were the few successful sections seeing high growth, and on the other the rest of manufacturing industry, in decline (Table T5-7). When the 2002-2007 period is considered, it can be seen that six sub-sectors with the highest share in manufacturing increased their output by some 40%, while the remaining sub-sectors dropped by an identical 40%. These two groups recorded similar growth in 2007, which indicates that transitional restructuring of the manufacturing industry is now at an end.

When production is considered by use, investment goods are in the lead

When production is observed by use (Table T5-8), the highest Q4 y-o-y growth, 3.3%, was recorded by the production of investment goods. The only other sub-sector to record a positive y-o-y growth index was energy production, with 3%. On the other hand, production of intermediary goods recorded a y-o-y drop of 4.3%, under the influence of the fall in production of basic metals. If basic metals were excluded from production of intermediary goods, this component would be seen to have recorded a y-o-y growth of 1.5%. Production of consumer goods also saw a y-o-y fall, of 2.8%. When the food industry is excluded from this component, its fall is even more apparent, and amounts to 8.2%.

Table T5-8. Serbia: Components of Industrial Production, 2005–2007

	y-o-y indices							base index	share[5]
	2005	2006	2007	2007				$(jan\text{-}dec)_{07}/$ $(jan\text{-}dec)_{02}$	2006
				Q1	Q2	Q3	Q4		
Total	100.6	104.7	103.7	104.8	105.2	103.5	100.4	113.7	100.0
Energy[1]	103.9	102.5	101.2	93.0	104.9	105.6	103.0	112.8	23.6
Investment goods[2]	74.2	90.0	105.4	97.1	99.1	117.8	103.3	68.1	7.5
Intermediate goods[3]	104.9	106.7	104.9	113.6	108.4	102.4	95.7	129.2	32.2
Intermediate goods without basic metals	101.5	101.3	107.3	113.1	108.3	105.9	101.5	101.1	24.0
Consumer goods[4]	101.6	112.0	107.1	122.4	109.1	102.3	97.2	126.0	36.7
Consumer goods without food industry	96.3	128.3	109.2	138.7	111.4	99.3	91.8	139.0	14.1

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, 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 chemical, furniture and various other products.

5) Share in total industrial production.

Industrial production shows signs of slowing even when exogenous influences are discounted

An analysis of production excluding basic metals and food helps to better understand underlying trends in industrial production. It is apparent that the slowdown over the second half of the year, indicated by both seasonally adjusted and y-o-y industrial production indices, can only partially be ascribed to exogenous influences – the drop in the production of basic metals, or the slowdown in the food industry, whose physical volume had to have been influenced by the more restricted offer of agricultural products.

The rest of the industry also decelerated. Table T5-8 shows production of industrial products by use, where we have considered the production of intermediary products excluding the production of basic metals, as well as production of consumer goods, with the food industry excluded. It is apparent that the slowdown in industrial production in 2007 was wide-ranging and deep-rooted: production of intermediary goods slowed even when basic metals are excluded, as did production of consumer goods not including the food industry (Table T5-8). It is still difficult to establish the causes behind this slowdown, but the most probable reason seems to be a loss of competitiveness of Serbia's industry, already referred to in the section dealing with general economic activity.

Reduced competitiveness may well be the real cause

We have here additionally analyzed trends in industrial production and import of consumer goods in 2007. Production of consumer goods grew at a y-o-y rate of 22.4% in Q1, while the same component fell by 2.8% as early as Q4 (Table T5-8). Imports of consumer goods also saw a high y-o-y growth of 25.7% in Q1, only to see a trend completely divergent from the rest of domestic production in Q4. Imports of consumer goods recorded y-o-y growth of 30% in Q4. These movements in industrial production and imports may indicate that imported products have become more attractive to Serbian buyers.

Construction

Construction sees a drop of an estimated 10% in Q4 probably due to exogenous influences

Construction recorded a y-o-y drop estimated at about 10% in Q4. As this sector has a pronounced seasonal character, Q4 (like Q1) is marked by significantly lower construction activity than Q2 and Q3. Sharp y-o-y fluctuations in Q1 and Q4 quarterly growth are nothing new, as construction activity in these quarters depends primarily on the number of working days, which can vary depending on weather conditions. Q4 was somewhat colder than the same period the previous year, and this is probably why construction saw a y-o-y drop. Because of less construction due to seasonal factors, Q4 also had less of an impact on total annual construction growth in 2007, which was nevertheless positive (4.5%).

Of the several unadjusted indicators used to describe construction trends we consider the cement production index the most reliable[9] (Table T5-9). Cement production in Q4 was 15% lower than in the same period the previous year.

Cement production index considered a reliable indicator of construction activity

Table T5-9. Serbia: Cement Production, 2001–2007

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

Source: SBS.

As for other construction indicators released by the SBS, the value of construction works in Q4 was nominally higher by 10.4%, or 5.6% at constant prices, in relation to the same period the previous year. The number of workers on construction sites fell by 6.9%, while the y-o-y decline in work hours stood at 4.5%.

The lack of harmony between cement production, recording a y-o-y fall of 15% in Q4, and the value of construction works reported by the SBS, which saw a y-o-y growth of 5.6% in real terms, is probably caused by the SBS bias toward large companies. It is highly likely that large construction companies were more affected by the Q4 fiscal expansion than smaller ones, but there is still not enough information to support this assumption. Our construction activity estimate (a fall of some 10%) is primarily based on the cement production index, which we consider comprehensive and reliable.

Construction growth in 2007 estimated at some 5%

Observed at the annual level, construction saw robust growth in 2006, which we estimate at about 5%. High growth was especially characteristic of Q1 (Table T5-9), because of the unseasonably warm winter. It is likely that the somewhat higher construction activity in Q1 was also responsible for the slowdown over the following period (Q2 and Q3), since further growth was bound to be adjusted to demand. Q4 spoiled the favorable impression somewhat, primarily, we believe, due to exogenous influences. We estimate the underlying trend in construction at a respectable 5% to 10%, notwithstanding the somewhat lower level of construction activity.

9 The correct indicator would be cement consumption, but this information is unavailable at the quarterly level. Research shows that cement production is relatively reliable in approximating consumption.

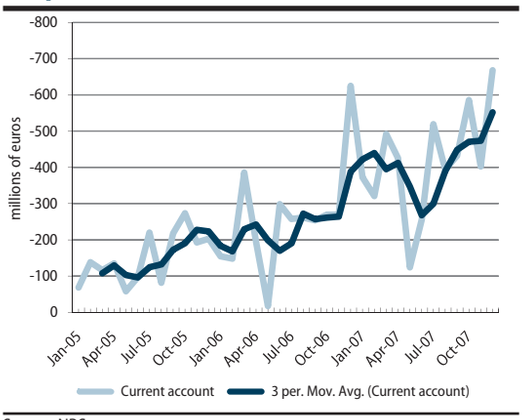
6. Balance of Payments and Foreign Trade

The pronounced growth of the foreign trade deficit that marked Q4 2007 was for the most part caused by exports significantly slowing and imports remaining unchanged. The slowdown in exports (from 29.8% in Q2 and 26.3% in Q3 to 17.1% in Q4) that began in the third quarter seemed to be temporary, since it was primarily caused by exogenous factors. On the other hand, imports continued to grow at a y-o-y rate of 27%. This led to a very low exports/imports ratio, with coverage declining to 44.6% in Q4, the lowest quarterly level since Q3 2005. Capital inflows, mainly FDIs and loans to households, still managed to offset the high current account deficit, even exceeding it by €260 mn – the amount by which the foreign currency reserves increased.

A current account deficit of €1,656 mn in Q4 (19.3% of GDP)

Serbia's current account and balance of payments deficit was €1,656 mn in Q4. This was 19.3% of GDP, significantly more than in the previous quarters of 2007 (11.3% and 17.5% of GDP in Q2 and Q3, respectively). In relation to the same quarter the previous year, when the deficit was 16.2% of GDP, this quarter's deficit was higher by 3.1 percentage points. This y-o-y worsening of the current account deficit was for the most part caused by a less favorable trade balance.

Graph T6-1. Serbia: Current Account Deficit



Source: NBS.

The current account deficit grew as exports slowed (their y-o-y growth rate fell from 26.3% in Q3 to 17.1% in Q4), while imports continued growing strongly. This indicates that the trade balance was mainly to blame for the deterioration of the deficit in Q4. Net interest paid contributed to a minor extent to the worsening of the current account, while remittances and current transfers had an impact on the y-o-y change in the current account.

Trade balance reached a level of €1,960 mn, as much as 23% of GDP

The foreign trade deficit is what contributed to the poor showing of the current account: the deficit reached €1,960 mn over the last three months of 2007, and stood at 23% of GDP. If the impact of exogenous factors is excluded and it is assumed that the y-o-y total export growth rate was equal to the y-o-y increase in underlying exports[1] of 31.7% in Q4 (see Exports, Table T6-7), total exports would amount to approximately €1,940 mn, thus making the foreign trade deficit lower than the current level by 2.5% of GDP.

The sudden deceleration in export growth was caused by exogenous factors, and is, hopefully, only temporary…

Y-o-y export growth in Q4, according to NBS methodology, stood at 17.1%,[2] a drastic deceleration in relation to previous quarters (y-o-y growth of 34.4% in Q1, 29.8% in Q2, and 26.3% in Q3). This trend was for the most part caused by exogenous factors (a reduction in metal exports due to overhaul of a US Steel Serbia blast furnace, and a drop in agricultural exports),[3] and therefore only temporary (which is also borne out by the underlying export growth rate, which remained high).[4]

Import trends remain unchanged

The y-o-y import growth rate remained unchanged in relation to the previous quarter (27.0%). This trend – 27.0% over Q3 and Q4 – was lower compared to Q1, when y-o-y imports grew at a rate of 32.2%, and higher relative to the y-o-y increase in Q2 (24.1%). Imports amounted to

1 Total exports excluding iron and steel, non-ferrous metals, fruit and vegetables, and cereals (see Exports).

2 The balance of payments section uses adjusted imports and exports data (f.o.b.) released by the NBS and expressed using IMF Methodology (*Balance of Payments Manual, Fifth Edition*, IMF (wttp://www.imf.org/external/np/sta/bop/BOPman.pdf). The section on imports and exports uses SBS data, which differ in methodology from those published by the NBS. This is the reason for differing data on exports, imports and growth.

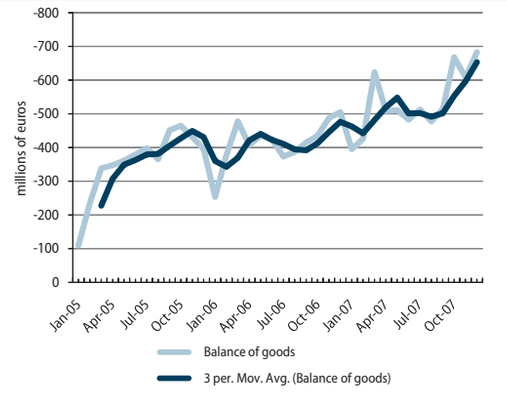
3 As the previous issue of QM makes clear, the reduced export of agricultural produce was caused by drought and administrative prohibitions on export of staple cereals (see QM 10). The government decree imposing this ban is expected to be extended until this year's harvest results are known.

4 See Exports in this section.

€3,695 mn, or as much as 43.2% of GDP (resulting in an almost unchanged share in GDP over the entire year).

In absolute terms, imports rose by €785 mn in relation to Q4 2006, while exports grew, again in absolute terms, by €255 mn, leading to a deterioration of €530 mn in the foreign trade deficit.

Graph T6-2. Serbia: Foreign Trade Deficit



Source: NBS.

The balance of services was also negative, and amounted to almost €30 mn. At the 12-month level, both imports and exports of services showed low growth rates (8% and 6%, respectively). The growth in exports was mainly contributed to by transport (80%) and investment activity (42%). Transport kept to the trend evidenced in Q3 (with a 31% y-o-y growth rate), while income from investment activity grew by 75.5% in relation to Q4 2006. On the other hand, transport made the greatest contribution to the rise in imports of services (114%), while communications saw the greatest y-o-y growth (49%). Taken together, balances of goods and services make up 23% of GDP, with the service balance deficit amounting to an almost negligible 0.3% of GDP.

Current transfers in Q4 amount to €402 mn

Current transfers in Q4 amounted to €402 mn (4.7% of GDP), an increase of €81 mn in absolute terms over Q4 2006. Outflows from household foreign currency accounts were somewhat higher, although this was offset by greater Q4 inflows. The inflows of remittances and cash into household foreign currency accounts amounted to €385 mn. Thus the balance on the whole was negative (-€17.4 mn), lower by some €30 mn in relation to late 2006. Net foreign exchange cash purchases from exchange offices accounted for €230 mn. Net non-residents' foreign currency accounts reached a level of €78 mn (Table T6-3).

Net interest payments recorded a y-o-y drop of 79.3%, and now stand at the absolute Q3 level – net interest paid abroad amounted to €140 mn.

The capital account surplus of €2 bn covered the high current account deficit

The capital account surplus amounted to €2,027 mn in Q4 2007; this served to cover the pronounced current account deficit and increase the NBS foreign exchange reserves by €260 mn.

Borrowing increases

Net short-term and long-term borrowing in Q4 totalled €1,011 mn (see Table T6-3). New mid-term and long-term loans amounted to a high €1,750 mn (a y-o-y increase of 50%), while €739 mn of old long-term loans was repaid to foreign lenders. The strong growth of mid- and long-term loans to enterprises continued in Q4; of the total amount of new credit, new borrowing by enterprises accounted for by far the greatest part (€928 mn net).

Net short-term credits also grew in Q4 (€313 mn in total over the three months). Banks saw net loans grow over this period, while companies generally settled their foreign liabilities. The amount of €330 mn taken out by banks as new net short-term borrowing was twice as high as in the same period the previous year, and 2.6 times higher than in Q3 2007.

The most pronounced growth of net borrowing by banks – both short- and long-term – was recorded in December (mid- and long-term loans grew by €800 mn, while short-term credit increased by €232 mn).

Savings Week was the main reason for the considerable growth in new foreign currency savings

The amount of other capital inflows in Q4 was, in absolute terms, a significant €513 mn, primarily due to the growth in new foreign currency savings (especially in November, at the time of the Savings Week promotional drive, when inflows reached €307.6 mn – twice as much new foreign currency savings as attracted in October and December).[5]

5 The increased volume of foreign currency savings was prompted by the high interest rates offered by banks during the Savings Week (for more details see Section 8, Monetary Flows and Policy – Banking Sector: Credits and Sources of Financing).

Table T6-3. Serbia: Balance of Payments, 2005–2007[1)]

	2005	2006	2007	2006 Q3	2006 Q4	2006 Q1	2006 Q2	2006 Q3	2006 Q4	2007 Q1	2007 Q2	2007 Q3	2007 Q4
						in million of euros							
CURRENT ACCOUNT	-1,805	-3,137	-4,994	-519	-671	-689	-511	-773	-1,165	-1,186	-806	-1,346	-1,656
Balance of goods	-4,280	-4,983	-6,413	-1,216	-1,292	-1,110	-1,268	-1,176	-1,428	-1,445	-1,504	-1,505	-1,959
Exports of goods	4,007	5,111	6,444	1,020	1,163	1,030	1,228	1,371	1,482	1,383	1,594	1,731	1,736
Growth rate (12-m, in %)	*34.0*	*27.5*	*26.1*	*23.6*	*19.0*	*26.7*	*21.5*	*34.4*	*27.4*	*34.4*	*29.8*	*26.3*	*17.1*
Imports of goods	-8,287	-10,093	-12,858	-2,236	-2,455	-2,140	-2,496	-2,547	-2,910	-2,829	-3,098	-3,236	-3,695
Growth rate (12-m, in %)	*-0.2*	*21.8*	*27.4*	*15.3*	*-7.9*	*43.0*	*18.9*	*13.9*	*18.5*	*32.2*	*24.1*	*27.1*	*27.0*
Balance of services	-5	-41	-11	0	-22	-19	2	14	-38	6	-6	17	-28
Income, net	-260	-330	-498	-56	-62	-65	-99	-88	-78	-106	-110	-142	-140
Current transfers	2,472	2,031	1,729	687	586	468	808	434	321	318	776	233	402
F/X purchases, net	1,632	1,447	1,103	445	303	289	593	284	281	194	412	201	296
Non-resident's accounts	460	259	378	151	202	175	61	32	-10	111	163	26	78
Grants	268	185	200	66	120	37	46	43	59	42	38	51	69
ERRORS AND OMISSIONS	-384	-258	-192	-130	-179	-57	-19	-47	-134	-165	-20	105	-111
CAPITAL AND FINANCIAL ACCOUNT	3,863	7,635	6,126	1,104	1,587	1,129	1,616	2,359	2,531	1,161	1,233	1,705	2,027
Foreign direct investment (FDI)	1,248	4,348	1,942	496	250	180	608	1,778	1,782	614	-5	539	795
Other investments	2,615	3,286	4,184	608	1,337	949	1,008	581	749	547	1,238	1,166	1,233
Medium and long-term loans, net	1,820	3,156	3,149	388	819	456	1,239	777	683	534	954	649	1,011
Extraordinary debt and interest repayment[2)]	...	...	...	0	0	0	-188	-188	-683	-143	45	12	29
Other[3)]	795	130	1,036	220	518	493	-43	-9	749	156	239	505	192
NBS Reserves, net[4)], (increase +)	-1,675	-4,240	-941	-454	-738	-382	-1,086	-1,539	-1,232	191	-407	-465	-260
MEMORANDUM ITEMS													
NBS reserves excl. com. banks deposits	-680	-1,666	-1,016	-185	-225	-85	-347	-180	-1,052	276	-373	-347	-572
						in % of GDP							
Exports of goods	19.0	20.5	21.6	18.5	19.8	19.9	20.7	20.9	20.6	21.5	22.3	22.6	20.3
Imports of goods	-39.3	-40.6	-43.1	-40.5	-41.7	-41.3	-42.1	-38.8	-40.4	-43.9	-43.3	-42.2	-43.2
Balance of goods	-20.3	-20.0	-21.5	-22.0	-21.9	-21.4	-21.4	-17.9	-19.9	-22.4	-21.0	-19.6	-22.9
Current account	-8.6	-12.6	-16.7	-9.4	-11.4	-13.3	-8.6	-11.8	-16.2	-18.4	-11.3	-17.5	-19.3
GDP in euros	21,108	24,877	29,845	5,517	5,888	5,180	5,932	6,569	7,196	6,449	7,158	7,673	8,563

Source: Table P-8 in Analytical Appendix.
1) Original US dollars monthly data are converted to euros using monthly averages of official daily NBS mid rates.
2) Includes extraordinary repayment of principal and interests on WB and IMF loans
3) Includes short term trade credits, unpaid imports of oil and gas, short-term loans, other assets and liabilities and gross reserves of commercial banks.
4) Excluding IMF tranches.

FDIs amounted to €795 mn in Q4

Foreign direct investments amounted to €795 mn in Q4, down 55% on Q4 2006. Portfolio investments accounted for €100 mn of the total FDIs.

High capital inflows led to an absolute rise in foreign currency reserves of €260 mn. This growth in Q4 is comparatively low relative to Q2 and Q3, when the figures were €465 mn and €406 mn, respectively. The increase in foreign currency reserves in Q4 2007 was only a quarter of that in Q4 2006: even with a respectable €795 mn in FDIs and a very high volume of loans, the reserves' declining growth trend was mainly caused by the current account deficit, and especially by the ever-present problem of low exports and high imports, which was even more pronounced in Q4.

The current account deficit reached €5 bn in 2007 (16.7% of GDP)…

According to NBS data, the 2007 current account deficit amounted to €4.994 mn, or 16.7% of GDP. This was 4.1 percentage points up on the 2006 deficit (12.6% of 2006 GDP). Such a high deficit does not pose a danger to Serbia's real sector in the short run.[6] But it is grounds for concern, especially since the deteriorating current account balance will require greater borrowing, which in turn means a higher risk of not being able to repay those liabilities.

…mostly due to the €6.4 bn trade deficit

Other characteristics of 2007 were a downturn in exports (caused by exogenous factors) and the continuing trend of import growth. This led to a very high trade deficit of €6.4 bn[7] in 2007, or 21.5% of annual GDP (Table T6-3). Exports decelerated, with this trend primarily caused by a y-o-y fall in bulky exports, including a y-o-y drop in exports of iron and steel, non-ferrous metals and cereals, as well as by a slowdown in the exports of fruit and vegetables (see Exports). On the other hand, the y-o-y growth of imports can partly be explained by the high y-o-y growth of GDP. If it is borne in mind that the nominal GDP expressed in euros was 20% higher in 2007 than in 2006, the growth in imports of 27% becomes understandable. Therefore, import growth trends in 2007 slightly exceeded annual nominal euro-GDP growth, which led to a consistently high share of imports in GDP (50.3% at the annual level). The share of imports in GDP of 50.3%

6 See Peter Sanfey, "Current Account Deficits in Serbia: Causes, Concerns and Consequences", Spotlight on: 1, QM 10.
7 NBS methodology (f.o.b.).

was at about the average for this indicator in neighbouring countries, while exports in 2007 made up 28.8% of GDP, which is lower than in other countries. (Table T6-4).

Table T6-4. Neighbouring Countries: Imports, Exports, and the Trade Deficit

	Croatia	Bosnia	Bulgaria	Romania	Hungary	Serbia
			in % of GDP			
Exports (goods and services)	49.3	36.0	60.8	33.3	68.1	27.9
Imports (goods and services)	-56.5	-80.1	-77.4	-43.5	-68.9	-48.1
Trade deficit	-7.2	-44.1	-16.6	-10.3	-0.8	-20.2

Source: Respective Central Banks, NBS.
Note: Serbia: 2006 data; other countries: 2005 data.

The annual current transfers balance stands at €1,730 mn (5.8% of GDP), while the annual volume of grants, at €200 mn, accounts for 0.7% of GDP.

Capital inflows, €6,123 mn in 2007, were large enough to cover the high current account deficit and even lead to a rise in NBS foreign currency reserves of €914 mn. New mid- and long-term net borrowing in 2007 amounted to €3,150 mn, while net short-term borrowing amounted to €337 mn. Remaining capital inflows at the annual level stood at €1,315 mn. Over the course of 2007 as a whole, FDIs amounted to €1,942 mn. This capital inflow and structure covered the high current account deficit in 2007, but there do remain questions as to what can be expected in the future.

Foreign Debt

The foreign debt reached €17.8 bn, with the public debt falling and private debt rising

Serbia's foreign debt amounted to €17,789 mn at end-2007 (Table T6-6). Its share in GDP rose to 59.6%, two percentage points more than only three months before.

According to the first indebtedness indicator (foreign debt/GDP) shown in Table T6-5, Serbia is a moderately indebted country. However, if another indicator is considered, total debt/exports of goods and services,[8] a different picture presents itself. Serbia's foreign debt, almost 2.2 times higher than the total annual export of goods and services, means the country is highly indebted (Table T6-5).

Table T6-5. Serbia and Countries in the Region: Total Foreign Debt in % of GDP and in % of Exports of Goods and Services, 2006

	Albania	Hungary	Romania	Bulgaria	Croatia	Bosnia and Herzegovina	FYR Macedonia	Serbia*
					in %			
External debt/GDP	19.2	94.0	34.3	82.3	89.7	54.0	40.4	59.8
External debt/exports of goods and services	85.7	121.4	106.1	128.8	170.9	152.6	87.1	218.4

Source: EBRD, Transition Report (2007)
* Data on Serbia, NBS.

The public foreign debt continued to decline, and now stands at 20.6% of GDP (Table T6-6). The share of the public foreign debt in the total foreign debt amounted to 34.5% in December 2007, significantly lower than the 43.1% recorded at the end of 2006. However, this may be misleading, since part of Serbia's public debt is indexed in US dollars, a currency whose value has gone down sharply over this period.

On the other hand, the private foreign debt has kept its trend of growth, and at the end of this period stood at €11,660 mn, a share of 39.1% in GDP.

8 This indicator has of late often been cited when assessing a country's indebtedness. The World Bank and the IMF use a more accurate ratio of net present value of debt/exports. "Low indebtedness" is defined as the net present value (NPV) of debt lower than 100% of exports, "medium indebtedness" involves NPV of debt of between 100% and 150% of exports, while NPV of debt above 150% of exports is considered "high indebtedness". Net present value of debt is the sum of all short-term debts plus the discounted amount of all future repayments of public and private long-term debt (World Development Indicators 2002).

The long-term private foreign debt amounted to €10.4 bn, of which 73% is owed by the enterprises, with the remainder by the banking sector.

Table T6-6. Serbia: Foreign Debt by Structure, 2005–2007

	2005	2006	2007			
			Mar	Jun	Sep	Dec
Total foreign debt	13,064	14,884	14,858	15,689	16,361	17,789
(in % of GDP)	*61.9*	*59.8*	*56.8*	*57.3*	*57.5*	*59.6*
Public foreign debt	7,714	6,420	6,241	6,253	6,210	6,130
(in % of GDP)	*36.5*	*25.8*	*23.9*	*22.6*	*21.5*	*20.6*
Long term	7,630	6,363	6,185	6,197	6,157	6,096
o/w: to IMF	732	185	0	0	0	0
Short term	84	57	56	56	53	34
Private foreign debt	5,350	8,464	8,617	9,436	10,151	11,659
(in % of GDP)	*25.3*	*34.0*	*33.0*	*34.5*	*35.6*	*39.1*
Long term	4,156	7,263	7,669	8,532	9,152	10,372
Banks	1,260	2,929	2,906	2,704	2,628	2,801
Enterprises debt	2,895	4,334	4,763	5,828	6,524	7,571
Short term	1,194	1,201	948	904	999	1,287
Banks debt	924	942	701	808	875	1163
Enterprises debt	271	259	247	96	123	124
Net foreign debt (in % of GDP)	38.4	23.4	23.1	23.5	24.0	27.2

Source: NBS.
[1)] Total foreign debt less NBS fx reserves.

Short-term borrowing by the banking sector saw a sharp rise in Q4. Banks borrowed more than twice as much as they did in the previous quarter. This growth trend of short-term borrowing can be partly explained by the equalization of the reserve requirement for long- and short-term bank loans in the second half of 2007.

Banks contributed by 30.6% to the total increase in private debt, with the remaining 69.4% contributed by borrowing on the part of the rest of the economy.[9]

Exports

Export growth is slowing…

Merchandise exports slowed appreciably in Q4 (15.2% in Q4 as compared to 27.3% in Q3, Table T6-7). This declining trend in merchandise exports first became apparent in August, only to culminate in November and December[10] (respective y-o-y growth rates starting with August were 25.4%, 19.8%, 19.1%, 13.0%, and 13.5%). Due to the slowdown in growth of merchandise exports, the imports/exports ratio plummeted to a mere 44.6% in Q4, the lowest level since Q3 2005. The slowdown in exports was mainly caused by the decline in bulky exports[11] (Table T6-7).

Merchandise exports also slowed at the annual level (25.9% in 2007, as opposed to 34.1% in 2006), but this becomes much less drastic if we discount plant refurbishment at US Steel and the ban of cereal exports (28.4% in 2007 in relation to 32.9% in 2006).

9 We calculate contribution to debt growth as the share of absolute changes to its components in its absolute change.
10 The time series analyzed also include foreign trade with Montenegro (since July 2005).
11 Bulky exports: iron and steel, non-ferrous metals, fruit and vegetables, and cereals.

Table T6-7. Serbia: Export, Y-o-y Growth Rates, 2005–2007

	Exports share in 2007 (%)	2007				2006				2007			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	%	mil.euros								y-o-y growth (%)			
Total	100.0	1,391	1,594	1,728	1,698	38.0	36.7	35.3	28.7	34.6	29.8	27.3	15.2
Bulky exports	29.7	455	481	556	409	32.7	13.1	55.0	45.9	36.1	29.1	19.4	-17.4
Iron and steel	12.5	213	222	221	149	2.2	24.7	92.5	43.4	61.5	29.1	9.7	-20.6
Non ferrous metals	7.9	120	129	137	121	79.9	53.5	58.8	73.3	11.9	18.6	17.6	-21.5
Fruits and vegetables	5.3	57	75	118	89	88.0	31.9	20.5	26.9	30.3	59.2	29.7	17.1
Cereal and cereal products	3.9	65	55	80	50	88.0	31.9	21.2	29.6	26.6	23.2	40.7	-35.3
Underlying exports	70.3	936	1,113	1,171	1,289	23.2	26.2	26.8	21.4	33.9	30.1	31.5	31.7
Core	32.7	444	515	559	581	29.6	24.0	26.8	26.0	30.9	35.2	28.6	24.0
Clothes	5.1	77	74	86	88	8.6	1.4	19.1	28.0	31.6	31.0	28.1	19.4
Miscellaneous manufactured articles,n.e.s.	4.3	51	64	79	84	34.8	21.8	7.2	4.5	6.0	17.1	34.2	39.4
Manufactures of metals, n.e.s.	4.8	60	81	83	87	24.1	14.7	68.8	50.8	76.6	60.5	33.1	24.7
Rubber products	3.3	55	54	50	51	24.1	14.7	10.0	17.7	16.2	17.9	4.8	0.0
Electrical machinery, apparatus and appliances	3.6	42	58	63	71	19.7	9.5	70.5	56.1	77.6	81.2	66.7	48.8
Organic chemicals	3.0	43	39	50	59	61.4	69.6	16.9	36.0	42.8	71.4	46.3	30.4
Plastics in primary forms	2.2	30	36	35	38	30.2	11.7	35.7	3.8	-7.4	8.2	8.3	13.6
Footwear	2.3	35	37	41	36	45.2	19.4	21.6	22.2	34.9	18.1	10.9	11.2
Paper, paperboard and articles of paper pulp	2.0	27	34	34	34	20.2	72.1	18.0	22.1	12.3	35.6	23.0	21.0
Non-metal mineral produce	2.1	25	37	39	34	32.5	33.8	34.2	26.0	55.3	32.0	28.1	22.4
Other	37.6	492	598	612	708	13.4	29.4	26.8	17.5	36.7	26.0	34.2	38.7

Source: SBS.

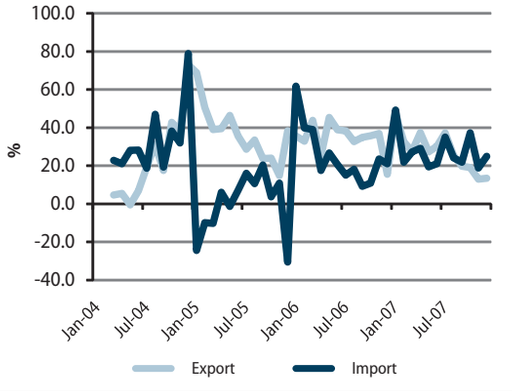
…primarily as a consequence of a deceleration in bulky exports

Total exports have been disaggregated into two large segments – *Bulky exports* and *Underlying exports*. *Bulky exports* include sections (categories) of exports disaggregated in accordance with the SITC classification, whose share in overall exports in 2006 exceeded 4% and whose growth rate was significant. This category comprises iron and steel, non-ferrous metals, fruit and vegetables, and cereals and cereal products. When *bulky exports* are excluded from overall exports, the result is *Underlying exports*, which can then be disaggregated further into *Core* and *Other*. The *Core* category comprises sections with an individual share in overall exports in 2006 greater than 2% and an annual growth rate of more than 15%. Finally, the *Other* category is made up of a very broad range of products not categorized into either *Bulky exports* or *Other*.

Iron and steel exports fell markedly in Q4 due to plant renovation at US Steel Serbia

The slowdown in overall export growth was primarily caused by a significant decline in *iron and steel* exports (-20.6% in Q4, as opposed to 9.7% in Q3, Table T6-7). This negative trend became evident starting with August (y-o-y rates of, respectively, 4.1%, -5.5%, -18.6%, -22.4% and -20.9%), and was caused by the overhaul work on No. 2 Blast Furnace at US Steel Serbia, but another possible cause is falling demand on the global market.[12] This caused a marked decline in the growth of iron and steel exports at the annual level (16.2% in 2007 as opposed to 38.9% in 2006), reducing the contribution made by these goods to overall export growth from 14.9% in 2006 to 8.5% in 2007. Work on the furnace was completed at the end of 2007, making a recovery in both production and exports likely.

Graph T6-8. Serbia: 12-m Growth Rates of Exports and Imports, 2004–2007



Source: SBS.

Exports of non-ferrous metals have also declined, due to falling demand for aluminium and a significant decline in the quantity of copper exported

Exports of *non-ferrous metals* also performed poorly (-21.5% in Q4, as opposed to 17.6% in Q3, Table T6-7). This export component has been following a markedly negative trend since August (y-o-y growth rates of, respectively, 9.8%, 4.6%, -14.7%, -31.0%, and -17.2%). The reasons behind the fall in exports of non-ferrous metals are two-fold: the first is a decline in aluminium demand, indicated by the y-o-y drop in its prices of some 8% for quarterly deliveries. The second reason is the drop in actually exported quantities of copper, which caused a sharp fall

12 For coverage of the renovation of the US Steel Serbia blast furnace in greater detail see QM 10, Economic Activity, Box 3.

in its value. This argument is further borne out by the fact that the y-o-y price of copper has remained more or less the same. The negative trend in the exports of non-ferrous metals in the second half of 2007 contributed greatly to their deceleration at the annual level (4.2% in 2007 in relation to 67.2% in 2006).

Exports of fruit and vegetables are also slowing

The third significant component of bulky exports whose growth has slowed is *fruit and vegetables* (17.1% in Q4 as opposed to 29.7% in Q3, Table T6-7), as a result of slower export growth in November and December (y-o-y growth rates of 16.3% and 8.1%, respectively). It is also possible that Q4 saw a temporary fluctuation in the usually very high growth trend of *fruit and vegetable* exports, which recorded robust acceleration at the annual level (31.5% in 2007 as opposed to 19.1% in 2006).

Exports of cereals saw a sharp decline in Q4 due to administrative measures

Finally, the last component of bulky exports – exports of *cereals and cereal products* continued a downward trend that began as early as September (-35.3% in Q4 in relation to 40.7% in Q3, Table T6-7). The y-o-y growth rates for these products have, since September, been (respectively) -40.0%, -15.3%, -37.3%, and -46.5%. This negative growth is a direct consequence of a government decree temporarily restricting exports of certain goods, covered in greater detail in the previous issue of *QM*. As the unprecedented drought resulted in a greatly reduced crop, on 3 August 2007 the Serbian Government adopted a decree banning the export of certain cereals.[13] The Minister of Agriculture, Forestry and Water Management recently implied the decree would be extended until the results of this year's harvest were known. There are two motives for keeping the restriction in place: (1) to prevent inflation from accelerating by keeping the Serbian market well-supplied with foodstuffs, and (2) to stop livestock from being depleted because of a shortage of the or cost of feed. The administrative measure, however, resulted in a significant deceleration of cereal exports at the annual level (8.6% in 2007 in relation to 43.5% in 2006).

The wide range of products comprising underlying exports keeps growing at a high and stable rate

Underlying exports, accounting for 70.3% of all exports, continued their robust growth in Q4 (31.7% in Q4; 31.5% in Q3). The structure of underlying exports showed divergent deceleration trends for the *Core* and *Other* components.

As for the broad range of products comprising the *Core* category, the situation was the same as in Q3: growth of this component slowed again (24.0% in Q4 in relation to 28.6% in Q3). The greatest downturn was recorded by electrical machinery, organic chemical products, clothing, and metal products. It is also interesting to consider rubber products, which recorded zero growth in Q4, and saw a reduction of as much as 25.0% in December. At the annual level, a slight deceleration in *Core* component growth was noticeable (29.3% in 2007 as opposed to 33.0% in 2006).

The *Other* component again accelerated (38.7% in Q4 in relation to 34.2% in Q3). Its growth was especially spurred by exceptional export levels in November and December (with y-o-y rates of 40.4% and 41.8%, respectively). At the same time, data at the annual level showed an acceleration of this export component (33.8% in 2007 relative to 27.9% in 2006).

13 Owing to the critical shortage of important goods due to a long-lasting drought, and the need to eliminate its consequences, the government temporarily banned export of goods within the following tariff marks: 1001 – wheat, 1005 – corn, 1201 00 – soybeans, including granulated and pulverized, and 1206 00 – sunflower seed, including granulated and pulverized. On 25 October 2007 the government amended the decree and repealed the ban on sunflower and soybean exports, as the entire market surplus had already been purchased from farmers. The ban on wheat and corn exports was extended by another 120 days. In addition, the government gave the green light for the export of wheat and corn products, such as flour and meal.

Table T6-9. Serbia: Exports, Structure by Countries of Destination, 2006–2007

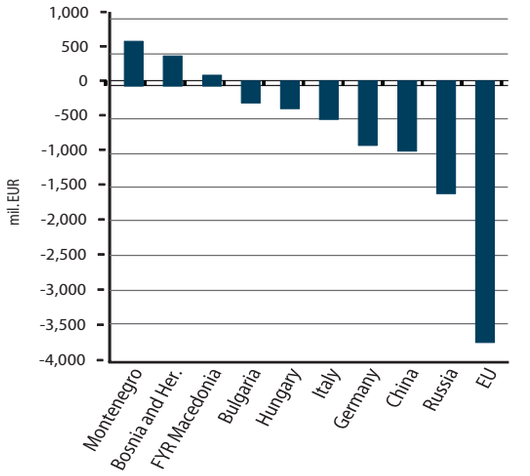
	Q4 2006	Q4 2007	Q4 2006	Q4 2007	Q4 07 / Q4 06
	share in %		mil.euros		%
EU	58.6	51.9	864	893	3.4
Montenegro	8.6	12.2	127	209	65.5
Italy	15.5	11.9	228	204	-10.4
Bosnia and Herzegovina	11.6	11.8	172	203	18.5
Germany	10.5	11.6	154	199	29.1
Russia	4.7	6.3	69	108	56.2
FYR Macedonia	4.6	5.2	68	90	30.8
Slovenia	4.3	4.6	63	79	26.0
Croatia	3.9	3.8	58	66	14.6
Austria	3.2	3.1	47	53	13.0
France	3.4	3.0	51	51	1.2
Other countries	29.7	26.5	437	456	4.5

Source: SBS.

Montenegro was the most important export partner in Q4

The structure of exports by country changed slightly in relation to the previous quarter (Table T6-9).[14] Two of the most important export destinations in Q4 were Montenegro and Italy, followed by Bosnia-Herzegovina, Germany, and Russia. These five countries absorb about half of Serbia's merchandise exports, which is an indicator of a high geographical concentration of exports, a potential danger to their stability and, by extension, the balance of payments as well. The European Union remains the most important trading partner, accounting for 51.9% of total exports. In addition, it should be noted that total export growth was contributed to primarily by exports to Montenegro (35.5%), Germany (18.2%), Russia (15.8%), and Bosnia-Herzegovina (8.5%). In 2007, Serbia recorded surpluses in trade with Montenegro, Bosnia-Herzegovina, and Macedonia; the largest deficits were recorded in trade with Russia, China, Germany, Italy, Hungary, and Bulgaria (Graph T6-10).

Graph T6-10. Serbia: Countries with Highest Trade Surpluses and Deficits, 2007



Source: SBS.

Imports

Imports slow somewhat in Q4, but still accelerating at the annual level

Total merchandise imports slowed somewhat in Q4 (26.7% as opposed to 27.8% in Q3, Table T6-11). It is important to note that this slowdown is all the more significant if energy imports are excluded, because of their variable nature, from total imports (26.7% in Q3 in relation to 32.6% in Q3). The slowdown in total export growth in Q4 was primarily the result of a slower growth of imports of intermediate goods, as well as those of durable consumer goods. A slight acceleration of merchandise imports was recorded at the annual level (27.7% in 2007 against 22.7% in 2006), mainly as a consequence of the strong acceleration of imports of capital goods, followed by imports of durable consumer goods and intermediate goods.[15]

14 The data on total exports and imports, obtained by adding up exports by country, differs from the monthly data used in the analysis because of retroactive corrections applied by the Serbian Bureau of Statistics.

15 This acceleration would be seen to be much higher if a part of 2005 exports had not spilled over into 2004 as companies sought to avoid paying VAT, introduced on 1 January 2005.

Table T6-11. Serbia: Imports, 12-m Growth Rates, 2006–2007

	Import share in 2007 (%)	2007				2006				2007			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	in %	in mil.euros				y-o-y growth (%)							
Total	100.0	2,943	3,220	3,366	3,811	44.4	21.7	13.9	18.5	32.9	24.4	27.8	26.7
Energy	17.4	594	499	526	696	42.3	43.1	3.6	24.1	14.3	-3.0	7.0	26.8
Intermediate products	36.4	1,033	1,241	1,298	1,287	42.5	14.0	22.5	21.1	36.3	34.0	31.0	17.0
Capital products	25.8	711	832	893	999	54.1	21.4	15.4	13.7	55.1	34.8	41.9	39.3
Durable consumer goods	3.8	101	117	127	156	45.2	16.2	1.7	6.0	29.6	35.0	42.2	32.0
Non-durable consumer goods	14.2	408	448	456	578	45.9	22.1	11.2	19.3	25.0	21.3	18.8	29.6
Other	2.5	94	83	66	95	20.0	6.8	-2.9	7.0	29.6	12.7	37.4	24.5
Imports excluding energy	82.6	2,348	2,721	2,840	3,115	45.0	17.3	16.6	17.3	38.6	31.2	32.6	26.7
Capital products without road vehicles	17.6	509	559	587	695	43.5	16.3	11.9	10.8	66.0	33.1	32.6	38.9

Source: SBS.

Before the structure of merchandise imports was analyzed, the data was disaggregated by merchandise in accordance with its economic use. The resulting analysis covers imports of energy, intermediate goods, capital goods, and durable and non-durable consumer goods.

Energy imports grow at an accelerated rate, due to oil price rises and higher demand

Imports of *energy* accelerated their growth[16] (26.8% in Q4 as opposed to 7.0% in Q3, Table T6-11), primarily due to the faster imports of oil and oil products (34.2% in Q4 in relation to 5.4% in Q3). The acceleration of energy imports in Q4 was mainly caused by the significant y-o-y rise in oil prices. A sharp drop in energy imports was recorded at the annual level (11.6% in 2007 in contrast to 26.4% in 2006)[17] despite the rise in oil prices.

Imports of intermediate goods slow significantly

Q4 also saw a sharp reduction in imports of *intermediate* goods (17.0% in contrast to 31.0% in Q3, Table T6-11). There were several reasons for the deceleration in imports of these products, primarily (1) the renovation of No. 2 Blast Furnace at US Steel Serbia, which caused a slowdown in imports of intermediate goods used by the company, (2) trends in the global non-ferrous metals market, which affected both the value and the quantity of intermediate goods imported by the Serbian non-ferrous metals sector, and, probably, (3) the general downward trend of industrial production excluding basic metals.[18] Imports of intermediate goods saw an acceleration at the annual level (28.7% in 2007 as opposed to 23.3% in 2006).

Imports of non-durable consumer goods accelerate significantly, while imports of durable consumer goods slow down

Imports of *non-durable consumer goods* accelerated significantly in Q4 (29.6% in Q4 relative to 18.8% in Q3). This export component recorded a slight acceleration at the annual level (23.9% in 2007 relative to 22.5% in 2006). Imports of *durable consumer goods* decelerated in Q4 (32.0% in Q4 in relation to 42.2% in Q3), reducing the pace of their growth to a more acceptable level. At the annual level, imports of durable consumer goods accelerated greatly (34.6% in 2007 as opposed to 13.6% in 2006), probably a consequence of growing aggregate demand.

Capital goods imports retain a brisk pace of growth

Imports of *capital goods* slowed somewhat in Q4 (39.3% in Q4 compared to 41.9% in Q3, Table T6-11). The monthly trends of imports of this group of products throughout Q4 (with y-o-y growth rates of 48.7%, 32.1%, and 37.3%, respectively) show that, after the exceptionally high October growth, November saw a slowdown, followed by a new increase, and then a return to a brisk pace of imports.

The acceleration in capital goods imports, excluding vehicles, is important

It is important to underline that imports of *capital goods excluding motor vehicles* accelerated significantly (38.9% in Q4 in contrast to 32.6% in Q3, Table T6-11), which dispels the notion that imports of private cars spur the fast growth of capital goods imports. Rather, it is an indication of the technological modernization of the economy, as well as an improvement in the structure of merchandise imports. The growth in imports of capital goods excluding motor vehicles remained high and stable throughout the year, which is why robust acceleration was recorded at the annual level (40.8% in 2007 relative to 17.4% in 2006).

Germany is the Serbian economy's most important supplier in Q4

Slight changes become apparent when imports in Q4 are considered by country of origin (Table T6-12): since 2004, Serbia's most significant trading partners were, almost traditionally, Russia,

16 The acceleration in energy imports was especially pronounced in October (y-o-y growth of 53.6%), while the November and December growth was much more modest (with rates of 12.8% and 22.5%, respectively).

17 The slowdown is apparent for both oil and oil products and other forms of energy.

18 For more details, see Section 5, Economic Activity.

Germany, Italy, and China. This time the situation was somewhat different. Russia was no longer the most important partner, as measured by the volume of imports; the title is now claimed by Germany, whose exports to Serbia rocketed by 57.1%, thus contributing the most (by 28.5%) to overall import growth. Italy remained third, followed by Slovenia, which joined the leading four countries for the first time. The four leaders accounted for 53.9% of all merchandise imports into Serbia (38.3% in Q3), showing an increase in the degree of geographical concentration of imports.[19] The European Union, where 53% of all merchandise imports originate, remains the most important region for Serbia's economy.

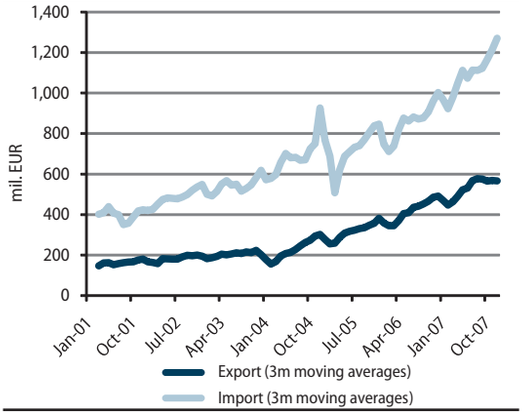
Table T6-12. Serbia: Imports, Structure by Countries of Origin, 2006–2007

	Q4 2006	Q4 2007	Q4 2006	Q4 2007	Q4 07 /Q4 06
	share in %		mil.euros		%
EU	53.2	53.0	1,603	2,058	28.4
Germany	14.3	17.5	432	679	57.1
Russia	15.7	15.2	474	589	24.3
Italy	11.9	13.6	360	529	46.9
Slovenia	6.7	7.6	203	296	45.9
Austria	6.8	7.5	204	292	43.5
China	6.6	7.4	198	288	45.5
Hungary	5.7	7.3	171	284	66.0
France	3.7	4.7	113	184	62.8
Bulgaria	4.1	4.1	125	158	26.7
Croatia	3.2	3.7	97	142	46.0
Other countries	21.2	11.3	639	441	-31.0

Source: SBS.

Exports accelerate since early 2004 while imports rise relatively steadily

Graph T6-13. Serbia: Quarterly Moving Averages, Merchandise Import and Export Series, 2001–2007



Source: SBS

An analysis of quarterly import and export moving averages (Graph T6-13) clearly shows that exports began to increase appreciably in early 2004. On the other hand, merchandise imports rose relatively steadily. The increasing gap between the import and export series is indicative of a growing foreign trade imbalance.

19 Still, additional quantitative and comparative research is needed before a more reliable conclusion can be reached on the degree of geographical concentration of imports.

7. Fiscal Flows and Policy

Fiscal policy became much more expansive in Q4 2007. Relative to the same period of the previous year, consolidated public expenditure in Q4 increased by 9.9% in real terms, while consolidated revenue went up by 5.1% in real terms. As a result of these developments, the consolidated general government deficit in the last quarter of 2007 amounted to 49.7 bn dinars (7% of GDP in Q4 2007), contributing to the annual deficit figure of 37.3 bn dinars, or 1.5% of GDP. The increase in expansiveness was partly a result of the meeting of previous commitments regarding wage growth, and partly of the rise in the discretionary components of expenditures, such as public investment, purchases of goods and services, subsidies and budget loans, etc. The actual spending in Q4 (predominantly in December) to a great extent depleted the savings made on these components earlier in 2007. A positive thing is that in December 2007 future obligations of the state to pensioners were paid in the amount of 4.4 bn dinars, thus reducing future expenditures.

General Trends and Macroeconomic Implications

Expansiveness of fiscal policy was greatly intensified in Q4

In Q4 2007, the deceleration continued of the y-o-y consolidated public revenue growth rate, partly as a consequence of the high level of revenue collected in the benchmark Q4 2006. The high growth rate of the real level of consolidated public revenue relative to the previous quarter was due to seasonal factors. The y-o-y growth rate of current revenue in Q4 was a slightly higher than the growth of total consolidated revenue (5.3% against 5.1%), predominantly because of the high growth rate of non-tax revenue (24%). The y-o-y growth rate of tax revenue in Q4 was relatively low, which can be explained by cuts in certain rates and the enlargement of tax exemptions in mid- 2007, as well as by the weaker pressure from the state to promptly pay tax liabilities at the end of the year.

Mainly discretionary expenditure went up, no carry over effect of expenditure growth is expected

Consolidated public expenditure[1] increased in Q4 by 9.9% in real terms relative to the same quarter of the previous year. What is relevant here is that in Q4 2006, the basis for comparison, a high level of consolidated spending was also attained, in the run-up to the then parliamentary election. Relative to the same period of the previous year, capital expenditure grew the most rapidly (34.9%), but current expenditure, too, grew faster (10%) than the estimated GDP growth in Q4 (see Economic Activity, Trends). From among major items on the expenditure side, the fastest growth relative to the same period of the previous year was that of expenses for purchases of goods and services, subsidies and budget loans. The structure of the increase in the last quarter of 2007 was dominated by expenditure whose growth is temporary (capital expenditure, purchases of goods and services and the like), while the respective shares of items whose increase is permanent (wages and the like) were relatively low. Hence, the fiscal expansion in the last quarter of 2007 will not be carried forward to the next period to any large extent, which, of course, does not rule out the possibility of public expenditure growing for other reasons (adjustment of the replacement ratio, etc.).

The consolidated general government deficit in Q4 2007 stood at 49.5 bn dinars, which was around 7% of estimated GDP in that quarter. The actual deficit in Q4 2007 was much higher than the deficit run in the last quarter of 2006 (31 bn dinars, accounting for 5.4% of the GDP in that quarter).

1 In line with the GFS methodology, expenditure includes an increase in budget loans, as well as the repayment of the debt to pensioners (see Box 1. Changed Classification of Budget Expenses).

Table T7-1. Serbia: Consolidated General Government Fiscal Operations[1], 2005–2007

	2005	2006					2007				
	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4
						in billions of dinars					
I TOTAL REVENUE	701.6	175.4	201.6	207.5	240.6	825.0	215.1	228.1	238.4	276.2	957.8
II TOTAL EXPENDITURE, MoF	-667.8	-174.9	-185.3	-197.6	-255.4	-813.2	-203.0	-211.2	-242.6	-315.7	-972.5
III CONSOLIDATED BALANCE (I+II), MoF definition[3]	33.8	0.4	16.3	9.9	-14.8	11.8	12.1	16.9	-4.2	-39.5	-14.7
IV "OLD" DEBT REPAYMENT, NET LENDING AND RECAPITALIZATIONS	-14.7	-3.4	-2.5	-5.3	-16.2	-27.4	-9.5	-1.2	-1.7	-10.2	-22.6
o/w Net lending [2]	*-4.9*	*-1.8*	*-0.8*	*-1.3*	*-3.2*	*-7.1*	-0.6	-1.2	-1.7	-5.8	-9.2
V TOTAL EXPENDITURE, GFS (II+IV)	-682.6	-178.3	-187.8	-202.9	-271.6	-840.6	-212.5	-212.4	-244.2	-325.9	-995.1
VI CONSOLIDATED BALANCE (III+IV), GFS definition[3]	19.0	-2.9	13.8	4.6	-31.0	-15.5	2.6	15.7	-5.9	-49.7	-37.3
VII FINANCING (FREN's definition)[4]	5.8	7.5	-13.3	98.4	7.3	100.0	20.3	-5.3	-6.8	5.2	13.4
VIII ACCOUNT BALANCE CHANGE (VI+VII)	24.8	4.5	0.5	103.0	-23.7	84.4	22.9	10.4	-12.7	-44.5	-23.9
MEMORANDUM ITEMS											
Government net position in banking system, change (NBS)	16.0	10.6	6.6	90.1	-31.9	75.9	36.7	25.2	-6.1	-48.1	7.7
Enterprises' claims on VAT (FREN's estimate)	17.1	-1.6	2.1	-1.7	1.9	0.7	1.4	2.7	1.0	…	…
License fee[4]	…	0.0	0.0	27.0	0.0	27.0	25.5	0.0	0.0	0.0	25.5

Source: Table P-9 in Analitical Appendix

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

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

3) 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).

4) 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 threats this license as non-tax revenue.

Note: Details are given in Table P-9 in Analytical appendix.

Fiscal expansion aggravates internal and external imbalances

The above data indicates that fiscal policy in Q4 2007 was extremely expansive and that it strongly contributed to the rise in domestic demand. Such a fiscal policy contributed *ceteris paribus* to the deepening of the already deep internal (inflation) and external imbalances (trade and current account deficits). The adverse circumstance is the fact that other flows of money creation (foreign exchange transactions) also contributed to a rise in monetary aggregates (see Section 8 *Monetary Flows and Policy*). Consequently, and despite the withdrawal by the NBS of 33 bn dinars through repo operations in Q4, monetary aggregates grew strongly.

Sterilization costs grew – their coverage may contribute to an increase in public spending

A high level of investment in NBS securities and its fast growth during the last quarter of 2007, brings to the fore the issue of monetary policy costs, of their financing, as well as the issue of the liquidity of the NBS. At a stock of securities worth 220 bn dinars and an annual interest rate of, say, 10%, the annual costs of servicing amount to 22 bn dinars, which is more than 250 mn euros at the current exchange rate. Maintaining NBS sterilization costs at such a high level could have severe fiscal implications, bearing in mind that the state, as the owner of the NBS, under the Law on the NBS, has an obligation to cover its losses and ensure the statutory level of its capital.

Box 1. Changed Classification of Budget Expenses

As of this issue, QM will be monitoring a changed classification of budget expenses of the Republic of Serbia for the servicing of frozen foreign currency savings deposits. Namely, the costs of servicing FFCDs are treated as repayment of the principal of the public debt, not as regular budget expenditure. This is in line with international statistical standards in public finance (the GFS[1] methodology). After the change, the classification of expenditure for the servicing of FFCDs in QM has been aligned with the classification applied by the IMF in its reports and analysis relating to Serbia.

1 Government Finance Statistics (GFS) Manual issued by the IMF

The coverage of expenditure and, consequently, the deficit/surplus as defined in QM, is still not fully aligned with the methodology applied by the IMF. The difference lies in the fact that QM does not include in the consolidated balance the financial result of the Serbian Roads company, the financial result of budget beneficiaries arising from their own revenue and expenditure (data on these two items is not available at the quarterly level, while at the annual level it becomes available with a considerable lag). It is estimated that the inclusion of these two items would result in an increase in the deficit of the consolidated general government balance in 2007 from the estimated 1.5% of GDP to 1.8–1.9% of GDP.

For the first time local governments run a deficit, which is expected in the coming years as well

When observed by levels of government in 2007, the Republic ran a deficit (35.2 bn dinars), as did local governments (8.7 bn dinars), while Vojvodina ran a surplus. The deficit at the level of local governments reflects a change in their institutional position, manifested in the possibility accorded to them of borrowing for the purpose of financing investment. Considering the strong need for investment at the local level on the one hand, and the enhanced capacity of local governments to borrow on the other, their borrowing is expected to grow strongly in the coming years. The expected adoption of the Law on Public Property in the near future, on the basis of which local governments will become owners of the property – will additionally enhance their capacity to borrow. Accordingly, they can be expected to run deficits rather than surpluses in the years ahead, and will not be covering with their surplus part of the central budget's deficit in the consolidated general government balance, as up to now. The high probability of a deficit at the level of local governments additionally increases the need to cut the deficit at the level of the Republic, in order to achieve desirable results at the level of the consolidated general government balance.

Analysis of Individual Tax Instruments and Individual Expenditure Items

During Q4 2007 the y-o-y revenue growth rates of all tax instruments decelerated, with the exception of the corporate income tax. The deceleration could, for the most part, be a consequence of the deceleration of economic activity (see estimates on the y-o-y growth rates of GDP and GVA), and, to a lesser extent, was probably due to the loosening of financial discipline in the period of political instability and the election campaign. In addition to the corporate income tax, customs revenue also had an above-average y-o-y growth rate.

Growth of the most important tax instruments decelerates...

The real level of revenue from the personal income tax in Q4 2007 was lower by 10.1% than in the same quarter of the previous year, which was the sharpest y-o-y drop in the personal income tax revenue in the course of 2007. Such a sharp drop was a consequence of the reduced tax wedge, the deceleration in the real wage growth in late 2007 (see Section 4, Wages and Employment), as well as of the high level of the revenue raised in the quarter that serves as a basis for comparison (Q4 2006). The personal income tax revenue went up considerably relative to the previous quarter of 2007 owing to the operation of seasonal factors (clearance of wage arrears at the end of the year, payment of the thirteenth salary, bonuses and the like.).

Contribution revenue increased relatively modestly compared to the same quarter of the previous year, while its growth relative to Q3 2007 was of a seasonal nature.

...only revenue from the corporate income tax and customs duties keeps growing rapidly

Revenue from the corporate income tax in Q4 2007 was higher in real terms by as much as 52.1% relative to the same quarter of the previous year. The rise reflects the improvement in the business performance of the Serbian economy. Likewise, it is possible that some other incomes are presented as corporate income due to its favorable tax treatment. A relatively high rate of real growth, in addition to the corporate income tax, was also recorded by customs revenue. Its rise was a consequence of a steep increase in imports. However, it is not sustainable in the long run – both because it is necessary to slow down import growth, and because of the expected tariff cuts in trading with EU countries.

Total VAT revenue slowed down its growth considerably – the y-o-y growth rate in Q4 was the lowest in the whole of 2007. The deceleration may be a signal of the deceleration in economic activity toward the end of the previous year. Similarly, the slower growth of VAT revenue can be a consequence of the deceleration in the rise of the population's purchasing power, which arose from the movements in real wages, but even more from the movements in real pensions during 2007.

In Q4 a *fast rise in non-tax revenue* (revenue from fees, fines, etc.) continued both in relation to the same quarter of the previous year, and to the previous quarter.

Within the high growth rate of *consolidated public expenditure* in Q4 2007, the fastest growth relative to the same period of the previous year was that of: subsidies, expenditure for purchases of goods and services, capital expenditure and budget loans.

Subsidies, purchases of goods and services, capital expenditure and budget loans grow at an accelerated pace

An intensive rise in subsidies and budget loans was a consequence of the turnaround in economic policy as a result of delivering on the pre-election promises by the ruling parties (in the campaign for the most recent parliamentary election). As of mid-2007, subsidies and budget loans include a whole set of new items such as new subsidies for agriculture and tourism, all kinds of budget loans, etc. Bearing in mind that the new forms of subsidizing budget loans were introduced in the middle of 2007, a certain period of time was necessary to prepare their implementation. Hence, the bulk of annual appropriations for the new forms of subsidies and budget loans was spent late in the year, resulting in a strong leap in the total amount of subsidies and budget loans in Q4 2007.

An intensive rise in capital expenditure and expenditure for purchases of goods and services in the last quarter of the previous year – was partly a consequence of their low level in the first semester of the year, due to the implementation of the temporary financing regimen, and a relatively modest increase in Q3 2007. In the circumstances, the bulk of annual appropriations approved for the cited items in the budgets of the Republic and local communities was spent in Q4. In addition, capital expenditure has its seasonal peak in Q4.

Table T7-2. Serbia: Consolidated General Government Fiscal Operations[1], 2006–2007

	2006	2007	2007				2006	2007	2007				2007
	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q1-Q4	Q1-Q4	Q1	Q2	Q3	Q4	Q4/Q3
	in bn. dinars						real growth, in %						
I PUBLIC REVENUES	**825.0**	**957.8**	**215.1**	**228.1**	**238.4**	**276.2**	**4.7**	**8.9**	**15.9**	**8.0**	**7.8**	**5.1**	**12.8**
o/w: Public revenues excluding VAT liabilities to enterprises and offsets with SDF[2), 3)]	*815.0*	*952.2*	*213.7*	*225.3*	*237.6*	*276.0*	*6.8*	*9.6*	*14.2*	*7.8*	*8.5*	*8.4*	*13.2*
1. Current revenues	814.8	946.0	211.9	225.4	235.9	272.8	4.6	8.9	15.5	8.0	8.1	5.3	12.6
Tax revenue	751.3	865.5	194.9	208.8	215.1	246.8	4.6	8.1	15.5	7.7	7.1	3.6	11.7
Personal income taxes	118.6	115.8	24.9	28.2	29.1	33.6	11.9	-8.4	-8.9	-8.0	-6.7	-10.1	12.6
Corporate income taxes	18.3	29.7	11.7	5.6	4.6	7.8	58.0	52.1	39.2	82.4	25.0	79.0	64.9
VAT and retail sales tax	225.1	265.4	60.5	65.0	66.9	73.1	-7.3	10.6	23.4	7.2	10.1	4.6	6.4
o/w: Net VAT and retail sales tax[2)]	*224.6*	*260.2*	*59.1*	*62.2*	*65.8*	*73.1*	*0.3*	*8.8*	*16.5*	*6.6*	*5.3*	*7.8*	*8.1*
Excises	81.6	93.2	19.1	22.8	24.5	26.8	1.8	7.2	23.1	3.2	6.3	1.4	6.5
Custom duties	45.3	57.4	12.0	13.9	14.6	16.9	3.7	18.9	18.1	4.4	38.7	18.3	12.6
Social contributions	232.2	271.4	58.8	65.0	67.8	79.8	12.3	9.7	14.5	14.8	7.1	4.2	14.5
o/w: contributions excluding offsets with SDF[3)]	*222.7*	*270.8*	*58.7*	*64.9*	*67.8*	*79.4*	*11.0*	*14.2*	*14.6*	*14.6*	*14.7*	*12.6*	14.2
Other taxes	30.1	32.6	7.9	8.3	7.6	8.8	11.0	1.6	14.4	10.0	-9.5	-5.1	12.3
Non-tax revenue	63.5	80.6	17.0	16.7	20.8	26.0	4.1	19.1	15.8	12.4	19.8	24.8	21.4
2. Capital revenues	10.3	11.7	3.2	2.6	2.4	3.4	15.7	7.2	48.2	10.6	-13.3	-4.8	36.4
II TOTAL EXPENDITURE	**-813.2**	**-972.5**	**-203.0**	**-211.2**	**-242.6**	**-315.7**	**8.3**	**12.2**	**9.7**	**8.8**	**15.2**	**13.2**	**26.7**
1. Current expenditures	-749.3	-873.1	-187.5	-196.1	-221.8	-267.7	5.0	9.3	5.7	7.3	12.9	10.1	17.5
Wages and salaries	-198.6	-231.9	-51.9	-56.2	-57.9	-65.8	6.2	9.6	6.5	17.3	15.4	1.1	10.7
Wages and salaries excluding severance payments[4)]	*-195.8*	*-230.9*	*-51.9*	*-56.2*	*-57.9*	*-64.9*	*6.2*	*10.7*	*8.7*	*17.3*	*15.4*	*1.3*	*9.1*
Expenditure on goods and services	-114.1	-145.9	-25.6	-31.1	-35.5	-53.6	10.3	19.9	8.3	17.6	14.7	31.1	47.1
Interest payment	-28.9	-16.4	-5.7	-3.1	-4.3	-3.3	5.0	-46.7	-5.6	-39.3	-54.4	-68.3	-26.0
Subsidies	-54.4	-62.9	-9.3	-10.4	-17.8	-25.5	-11.2	8.5	-13.4	-21.8	22.8	29.4	39.3
Social transfers	-335.8	-395.8	-91.1	-91.8	-101.8	-111.2	6.1	10.6	7.8	7.9	16.9	9.4	6.3
o/w: pensions[5)]	*-227.7*	*-259.9*	*-62.0*	*-63.3*	*-64.9*	*-69.7*	*8.8*	*7.1*	*11.0*	*8.5*	*4.1*	*5.0*	4.6
Other current expenditures	-17.4	-20.2	-3.9	-3.5	-4.5	-8.3	-2.0	8.9	4.5	-27.9	3.7	46.4	79.0
2. Capital expenditures[6)]	-63.9	-99.4	-15.5	-15.1	-20.8	-48.0	71.8	45.9	100.3	32.8	48.2	34.9	124.9
III "OLD" DEBT REPAYMENT, GOVERNMENT NET LENDING AND RECAPITALIZATIONS	**-27.4**	**-22.6**	**-9.5**	**-1.2**	**-1.7**	**-10.2**	**64.6**	**-22.5**	**165.9**	**-52.9**	**-70.9**	**-42.1**	**500.1**
1. Pensions	-20.3	-13.4	-8.9	0.0	0.0	-4.4	83.2	-38.1	431.7	-100.0	-100.0	-68.9	-100.0
2. Net lending[7)]	-7.1	-9.2	-0.6	-1.2	-1.7	-5.8	27.8	21.9	-70.1	41.8	15.8	68.1	240.3
IV TOTAL EXPENDITURE, GFS (II+III)	**-840.6**	**-995.1**	**-212.5**	**-212.4**	**-244.2**	**-325.9**	**9.4**	**11.1**	**12.6**	**8.0**	**13.0**	**9.9**	**29.9**

Source: Table P-9 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-9 in Analytical appendix.
5) Refers to the current expenditures on pensions.
6) Capital expenditures exclude projects financed from abroad (apart in 2004, see footnote 16 in Table P-10).
7) See footnote 2) in Table T7-1.
Note: Real growth is obtained comparing 2003 constant prices quarterly data.

In Q4, the rise in expenditures for employees and for social purposes strongly decelerates

A relatively modest rise in expenditure for employees in Q4 2007 relative to the same quarter of the previous year – was in part a consequence of the reduction in the fiscal burden on wages at the beginning of 2007 (an effect of 7–8 percentage points), and partly a consequence of the high wage level in Q4 2006, which served as a basis for comparison. An extremely restrictive policy vis-à-vis the payment of the thirteenth salary, bonuses and the like also helped to cut the rise in the real level of expenditure for employees.

Social transfers, including pensions grew slower than consolidated public expenditure. The slower growth of these items was mainly the result of the application of the indexation rule according to which their growth is indexed, predominantly or fully, to price increases, and to a smaller extent to wage growth.

Consolidated General Government Balance in 2007

The ratio of consolidated general government revenue[2] to GDP in 2007 was 38.5%, consolidated expenditure stood at 40% of GDP, while the consolidated deficit to GDP ratio was 1.5%.

The share of consolidated general government revenue in GDP was lower by 0.3 percentage points in 2007 relative to the previous year. The reduction was a consequence of tax rate cuts: of the payroll tax rate cut to the largest extent, and to a lesser extent of the cut in the rate of the tax on sales of used apartments, as well as of a cut in the VAT rate on computers and new apartments. A strong reduction in the share of public revenue in GDP in 2007 relative to the previous year – was achieved only in the case of the personal income tax, by 0.9 percentage points. On the other hand, a stronger increase in the revenue to GDP ratio, in 2007 relative to 2006, occurred in the case of the corporate income tax (0.3 percentage points), non-tax revenue (0.25 percentage points) and customs duties (0.2 percentage points).

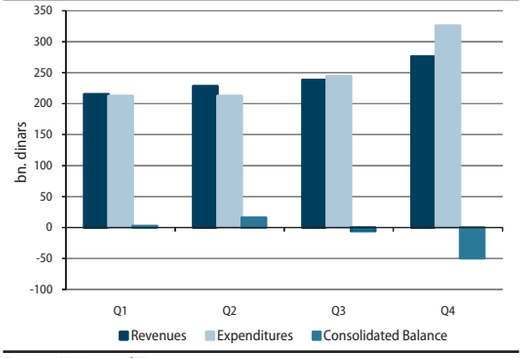
Real revenue growth decelerates in the course of the year...

Because of the rise in domestic demand – generated by the strong fiscal expansion in the last quarter of 2006 – the real level of consolidated public revenue in the first half of the year rose relatively quickly (a rise of 11.9% relative to the same period of the previous year). In the course of the second half of 2007 the real growth of public revenue decelerated, slightly in Q3, when the y-o-y growth was 7.8%, and more intensively in Q4, when the y-o-y growth was 5.1%. The real level of consolidated public revenue in the second semester of 2007 relative to the first – was higher by 10.2%, which was somewhat lower than the normal seasonal rise. The deceleration of the public revenue growth in the second half of 2007 was driven by numerous factors, with the most important being: a slowdown in economic growth due to the restrictive fiscal and monetary policies in the first half of the year, tax rate cuts around the middle of the year, and the loosening of financial discipline later in the year.

...while real expenditure growth accelerates

The share of consolidated general government expenditure in GDP in 2007 increased by 0.5% relative to the previous year. The largest growth of the share in GDP was that of capital expenditure, about 1 percentage point, and of expenditure for purchases of goods and services, in the amount of 0.5 percentage points, while the share of interest expense went down by 0.7 percentage points. Consequently, the increase in the public expenditure to GDP ratio was for the most part a result of a strong growth in public investment, without a simultaneous cut in current public expenditure.

Graph. T7-3. Consolidated Revenues, Expenditures and Balance in 2007



Source: Ministry of Finance.

In the first half of the year the temporary financing regimen was in place, which restricted the expenditures of the Republic of Serbia's

2 Proceeds from the mobile licenses were not included in the revenue in 2006 and 2007.

budget and those of most local communities. However, in the first half of 2007 a relatively high real growth of public expenditure was nevertheless recorded, compared to the same period of the previous year, as a result of the high carried-over level of public expenditure from the end of 2006.

In the second half of 2007, the upsurge of the real level of public expenditure accelerated strongly. Relative to the same period of the previous year the real level of public expenditure in Q3 was raised by 13%, and in Q4 by 9.9% (the GFS definition). More specifically, the fact that is relevant is that the growth in Q4 occurred despite a very high level in the same quarter of the previous year. The real level of consolidated public expenditure in the second half of 2007 was by 27% higher than in the first half of the same year, which exceeds the normal seasonal growth of around 15%. The accelerated upsurge in the second half of 2007 was a result of the operation of many factors, among which the most prominent were: an increase in the discretionary components of public expenditure whose execution had been postponed during the first half of the year, wage growth in accordance with the protocols signed between the state and trade unions, early repayment of the debt to pensioners, etc.

A moderate surplus in the first half of the year and a high deficit in the second half of the year

As a result of these movements in revenue and expenditure – the consolidated general government deficit to GDP ratio in 2007 was higher by 0.8 percentage points over the previous year. The actual general government deficit in 2007 constituted a net result of extremely diverging trends in the course of the year. In the first half of 2007, a surplus was run in the amount of 18.3 bn dinars (0.7% of annual GDP), and in the second half of the year a deficit was run in the amount of 55.5 bn dinars (2.2 of annual GDP).

Central Budget in 2007: Plan and Outturn

Revenue at the planned level, expenditure much lower …

An analysis of the execution of the Republic of Serbia's budget for 2007 is of special interest. The actual revenue in 2007 was approximately at the level of the plan, or more precisely, lower than the planned amount by 1.4 bn dinars, or -0.2%. The revenues collected from individual tax instruments were relatively close to the target – only in the case of non-tax revenue and customs revenue the difference between the outturn and the planned revenue was higher than 5%. VAT and excise revenues were lower by 2.9% than the plan, while non-tax and customs revenues were higher than the planned level by 7.5% and 5.7% respectively.

The executed expenditure of the Republic of Serbia's budget, under the Ministry of Finance's methodology, was lower than planned in the Budget Law by 27.9 bn (4.7%), while the executed expenditure that includes expenditures for servicing the debt to pensioners and budget loans (the GFS methodology) were lower by 23.9 bn dinars, i.e., 3.9% below the planned level. Consequently, it is possible to conclude that very significant savings were made on the side of budget expenditure, which would have been even larger had the December expansion been more moderate.

.. savings would have been even larger had it not been for the December expansion

The largest savings relative to the plan were made in capital expenditure (11.3 bn or 16%), expenditure for employees (5.3 bn or 3.5% – the savings refer to the part of the expenditure not related to wages and salaries, such as severance payments, Christmas bonuses to employees, rewards, etc.), expenditure for purchases of goods and services (3.5 bn or 8.1%) and interest payments (2.5 bn or 14.6%). Higher expenditure than planned[3] was executed in the item domestic debt repayment, recapitalization and budget loans, due to the early repayment of the debt to pensioners in the amount of 4.4 bn dinars. According to estimates, the savings made on the expenditure side were in large part a consequence of specific factors that existed in 2007 (temporary financing in the first half of the year, the "initiation period" of the ministries in the first months of the new government), and which cannot be counted on in 2008.

The net result (deficit/surplus) of the Serbian budget, as a consequence of the above, was more favorable than planned – by 26.5 bn (the Ministry of Finance's methodology), or, by 22.5 bn (the GFS methodology).

3 Under the methodology of the Ministry of Finance this item is treated as part of the public debt servicing costs, so it can also be higher than planned, which is not the case with other budget items.

Table T7-4. Republican Budget and Consolidated General Government, 2007 and 2008

	Central Government Budget - Republic of Serbia			Consolidated General Government	
	2007 Budget	2007 Actual	2008 Budget	2007 Actual	2008 Plan
	bn of dinars				
I Public revenues	**581.8**	**580.4**	**639.6**	983.2	1,102.3
Tax revenue	581.8	580.4	639.6	971.5	1,085.8
Personal income taxes	517.3	511.0	596.2	865.5	1,005.5
Corporate income taxes	88.7	90.0	106.0	145.5	169.1
VAT	369.2	358.6	422.8	358.6	422.8
Excises	54.3	57.4	61.6	57.4	61.6
Custom duties	5.1	5.0	5.8	32.6	35.8
Other taxes	…	0.0	0.0	271.4	316.2
Non-tax revenue	64.5	69.4	43.4	106.0	80.4
of/w liscence	25.4	25.4	0.0	25.4	0.0
Capital Revenue	…	…	…	11.7	16.4
II Total expenditure	**595.5**	**567.6**	**654.4**	**972.5**	**1,129.0**
Current expenditures	524.8	508.2	588.6	873.1	1,019.9
Wages and salaries	152.9	147.6	176.7	231.9	282.4
Expenditure on goods and services	42.9	39.4	45.8	145.9	158.4
Interest payment	17.4	14.9	17.0	16.4	18.8
Subsidies	35.5	35.5	39.6	62.9	66.9
Donations and transfers	61.6	61.7	66.7	395.8	469.4
Social transfers from budget	…	…	…	259.9	…
of/w pensions	203.6	201.6	233.2	…	…
Other current expenditures	10.8	7.5	9.6	20.2	24.0
Capital expenditures	70.7	59.4	65.9	99.4	109.1
o/w National Investment Plan	*44.4*	*39.3*	*34.6*	*39.3*	*34.6*
III Balance (I-II), MFIN	**-13.7**	**12.8**	**-14.8**	**10.8**	**-26.7**
IV "OLD" DEBT REPAYMENT, NET LENDING AND RECAPITALIZATIONS	**18.6**	**22.6**	**28.1**	**22.6**	**28.4**
V TOTAL EXPENDITURE, GFS (II+IV)	**614.1**	**590.2**	**682.5**	**995.1**	**1,157.4**
VI CONSOLIDATED BALANCE (III+IV), GFS definition	**-57.7**	**-35.2**	**-42.9**	**-37.3**	**-55.1**

Source: Ministry of Finance.

Medium-term Trends in Serbia's Fiscal Policy

For the second year in a row the expansiveness of fiscal policy in Serbia has been strongly growing

The consolidated general government balance in the period 2005–2007 continuously manifested a rise in the expansiveness of fiscal policy. After a surplus of 1.1% of GDP in 2005, a deficit in the amount of 0.7% of GDP was run in the subsequent year, while in 2007 the deficit[4] reached 1.5% of GDP. The ascending trend in the expansiveness of fiscal policy continues into 2008, for which a deficit of 1.9% of GDP is planned. The increase in the deficit is primarily a consequence of the increase in public spending, whose share in GDP grew over the entire period 2005–2007, and whose growth is planned in 2008 as well.

Expansive fiscal policy continues into 2008

The higher expansiveness of fiscal policy was driven primarily by an intensive growth of capital expenditure, which was not accompanied by a slowdown in current expenditure. The capital expenditure to GDP ratio went up from 1.9% in 2005 to 3% in 2006, and to 4% in 2007.

The increase in expansiveness, without government borrowing, was enabled by high privatization receipts in the course of 2005–2006.

The increase in fiscal policy expansiveness in 2006 and 2007 coincided with the parliamentary and presidential elections. The link between the fiscal expansion and elections is very conspicuous in both years. By far the highest upsurge in public spending and the deficit occurred in the quarter that immediately preceded the elections. Moreover, commitments (pay rises, tax cuts, etc.) were made in election campaigns which considerably contributed to increasing the expansiveness of fiscal policy in the subsequent years.

The expansiveness started after the conclusion of the arrangement with the IMF. The arrangement expired in February 2006, and a strong fiscal expansion started several months later.

4 After including the Serbian Roads company and net own revenue and expenditure, the 2007 deficit goes up to 1.8–1.9% of GDP.

Table T7-5. Consolidated Revenues, Expenditures and Balance, in % of GDP

	2005	2006	2007	2008
REVENUES	40.1	38.8	38.5	38.9
EXPENDITURES definition GFS	39.0	39.5	40.0	40.8
- o/w capital exp.	1.9	3.0	4.0	3.8
Consolidated balance, definition GFS	1.1	-0.7	-1.5	-1.9

Source: Ministry of Finance.

Macroeconomic imbalances are deep, and the stability of the economy fragile

The macroeconomic implications of the increase in fiscal expansiveness during the last two years are reason for concern. The current account deficit in 2007 reached the level of 16.8% of GDP, with the share of the deficit in GDP that year having an upward trend. Although the high and rising external deficit is a result of a number of factors, it is certain that the fiscal expansion during the previous two years contributed greatly to it. The attained level of the external deficit renders Serbia's macroeconomic stability very fragile, because it crucially depends on a high and stable foreign capital inflow.

Core inflation deteriorated, but remained within the planned limits owing to the intensive cash withdrawal operations of the NBS. However, cash withdrawals through high interest rates on NBS securities contributed to the appreciation of the dinar, which further exacerbated the trade and current account deficits. Furthermore, sterilization costs have reached such proportions that they lead to losses, capital depletion and deterioration of the NBS's liquidity, which, at the end of the day, results in additional public expenditure to cover the losses of the NBS.

High external deficits, mounting inflationary pressures and the rising costs of their containment – give rise to a need for significant changes in fiscal policy over the coming years. Along with these factors, the need for changes will also be imposed by the expected reduction in privatization proceeds over the coming years[5]. The lower level of privatization proceeds will required government borrowing both to cover the fiscal deficit and to make repayments of the public debt principal[6]. In such circumstances, the lack of fiscal adjustment would result in a relatively rapid growth of Serbia's public debt.

It is necessary to cut the share of public spending in GDP by at least 2.5 percentage points in the coming two years

The level of macroeconomic imbalances in Serbia's economy, and the risks and costs arising from them, require strong fiscal adjustment. Considering the level of imbalances on the one hand and entitlements and other obligations of the state on the other, the estimate is that in the period 2009–2010[7] it will be necessary, and possible, to cut the share of public spending in GDP in Serbia by at least 2.5 percentage points, with the public revenue to GDP ratio remaining unchanged. Such gradual cutting of the share of public spending implies higher macroeconomic risks relative to the alternative one-time cut in the share of public spending in GDP, as proposed by the IMF[8]. The assessment is, however, that in the given political and social circumstances (a coalition government in which partners do not accept strong expenditure cuts in their respective line ministries, frequent elections, the unwillingness of the government as a whole to resist the exaggerated requests of trade unions, etc.) – one-time adjustment is not very likely.

A high inflow of foreign capital enables a gradual reduction in public spending; lack of such inflow gives rise to the need for an abrupt reduction in public spending

A gradual reduction in public spending relative to GDP imposes an obligation on the government to minimize all the factors which could underlie a considerable reduction of the foreign capital inflow to Serbia. A combination of gradual fiscal adjustment and a considerable reduction of the foreign capital inflow – would result in macroeconomic instability (a rise in the exchange rate and inflation as well as a forcible cut in the external deficit) and/or recession. If the government is not able or willing to minimize these risks, the maintenance of macroeconomic stability will require a one-time cut in the share of public spending in GDP by at least 2.5 percentage points.

5 Privatization of socially owned enterprises is fading out, while the proceeds from the privatization of public utilities are very uncertain due to the absence of a clear concept of their privatization.

6 As of next year, the expenses of the state for the servicing of the principal of the external debt will go up. Likewise, additional obligations of the state can be expected to emerge for servicing the public debt which will be incurred in the process of denationalization.

7 The estimate is that the likelihood of a budget revision in this year aimed at cutting public spending and the deficit relative to GDP is rather low. It would be desirable to secure through austerity programs a below-the-plan level of public spending in this year as well.

8 IMF (2008), „Republic of Serbia – Staff Report for the 2007 Article IV Consultation"

In that case, however, deceleration of economic growth and a rise in unemployment are very likely – both due to reduced investment and lower demand.

Current public spending should grow by 2–3% a year in real terms, and a rise in public investment should follow GDP growth

From the economic standpoint, it would be desirable to achieve a cut in the public spending to GDP ratio entirely by means of strong deceleration of the growth in current expenditure, while capital expenditure should grow at the same rate as GDP. The accomplishment of the mentioned objective implies a real increase in current expenditure at a rate of 2% to 3% a year, with a GDP growth of 6% to 7% annually. In that way, public spending would be restructured toward an increase in the share of public investment, and a decrease in the current expenditure to GDP ratio. The key measure for reducing the share of public spending in GDP is strong deceleration of the wage bill growth in the coming two years, which would mean that the public sector wage bill could not grow by more than some 2% a year in real terms. Essentially, that would mean the continuation of the 2008 wage policy. In addition to wages, it is necessary to reduce the shares in GDP of subsidies and expenditure for purchases of goods and services. Furthermore, a considerable cut in budget loans (which have the character of subsidies to a large extent) is necessary, as is the abandonment by the government of its participation in bank recapitalization.

A new arrangement with the IMF would help to achieve the necessary adjustment

Considering that in 2007 the government announced in official documents plans for reducing the share of public spending in GDP in 2008[9], and that such plans never materialized, the question arises of how to avoid a similar scenario in the coming years. The danger that this scenario could be repeated increases with the higher frequency of elections and with the absence of political will in the government to significantly slow down the rise in public spending. The obligation to adopt three-year revenue and expenditure plans, provided for in a new draft of the Budget System Bill, may to a certain extent constitute a barrier to excessive fiscal expansion in future pre-election periods. However, based on the assessment that Serbia will over a longer period ahead probably have coalition governments whose willingness to take unpopular measures, such as halting the growth of wages and other forms of public spending, will not be high, it follows that an arrangement with the IMF would be very desirable. A new arrangement with the IMF would help in adopting appropriate plans for cutting the public spending to GDP ratio, and then, more importantly, to actually implement those plans. The last significant reduction of public spending in Serbia was made precisely in the period between mid-2004 and mid-2006, owing to a great deal to the commitments undertaken toward the IMF[10]. Fiscal expansion, which is still ongoing, occurred immediately after the expiry of that arrangement.

9 In the Budget Memorandum, published in June 2007, an objective was set to cut the share of public spending in GDP in 2008 by 1.2 percentage points. That plan was accompanied by specific measures which were supposed to ensure its implementation. In the Budget Memorandum of October 2007, the target related to the cutting of the public spending to GDP ratio in 2008 was set at 0.8 percentage points, with the definition of specific measures for achieving this target. From the adopted budget and financial plans of social insurance funds, however, it follows that the share of public spending in 2008 will be approximately the same as the planned share in 2007. Considering the fact that in 2007 executed expenditures were considerably lower than the planned, the planned expenditure in 2008 is by about 0.8 percentage points higher than the 2007 execution.

10 It is necessary to point out that in the future the IMF will not have such a strong instrument for influencing the economic policies of the Serbian government, as was the case with the conditional write-off of 15% of Serbia's debt to the Paris Club of creditors.

8. Monetary Flows and Policy

The trend of accelerated nominal and decelerated real growth of monetary supply continued in Q4 2007. The factors contributing to the growth were the expansive fiscal policy and expansion of credit to the private sector. When the quarter is observed as a whole, it is obvious that monetary policy was not restrictive, in spite of the NBS having raised its reference interest rate to 10% in December. In the course of Q4, monetary base increased by some 37 bn dinars as the result of running down of the government deposits (the dinar deposit by some 35 bn dinars, and the foreign exchange deposit by around 15 bn dinars), creation of dinars through purchase of foreign exchange from the non-government sector (about 17 bn dinars) and withdrawals through repo transactions with banks (34 bn dinars). Credit to households slowed (a new €200 mn, compared to €400 mn in Q3), owing to the measures taken by the NBS in September relating to retail and cash loans. Credit to companies increased, both from the domestic system (a new €400 mn), and through direct foreign borrowing (a new €900 mn). Dominant in the bank sources were the increases of company dinar deposits (€840 mn), new foreign currency savings (a record €500 mn due to the October Savings Week) and banks' capital increases (€500 mn).

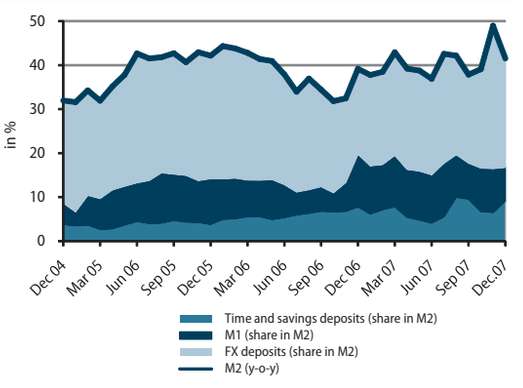
Monetary System: Structure and Flows of Monetary Supply

Growth of nominal M2 accelerates, while real M2 continues to slow

In Q4, the 12-m growth of total monetary supply (M2) continued picking up speed. Nominal M2 recorded a 12-m growth of 41.5% (39.4% in Q3 2007). For its part, real M2 continued on the slower trend established in the preceding two quarters, a 12-m rate of 27.8% (29.7% in Q3, and 30.2% in Q2, Table T8-2). Observing the contribution of the different forms of use of monetary supply brings out a minor increase in the share of savings and dinar time deposits in the structure of M2, while the biggest contribution to M2 growth came from the rise in foreign exchange deposits (Graph T8-1).

The monetary growth in Q4 is the consequence of the rise in net foreign exchange reserves...

Graph T8-1. Serbia: Money and Component Aggregates[1], 2004–2007



Source: Table P-10. 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).

... running down of government deposits...

... and expansion of credit to the non-government sector...

The total increase of monetary supply in Q4 2007 (17.6% of M2 at the beginning of the year, calculated as the difference between the 41.5% cumulative increase from the beginning of the year to end-Q4 and the 23.9% cumulative increase to end-Q3) was the result of the rise in NFA in Q4 (by 10% of opening M2) and the rise in NDA by 7.6% of opening M2. The rise in NDA in the quarter helped to decrease net credit to government (running down of deposits) by 5.1% of opening M2 and increase credit to the non-government sector by 4.3% of opening M2 (the difference between the cumulative increases at end-Q4 and end-Q3, expressed in percentage of M2 at the beginning of the year). On the negative side, the growth of M2 was impacted by the capital increase of the monetary sector by -6.3% of opening M2 (Table T8-2).

Growth of credit to the non-government sector continues to accelerate

As in all the preceding quarters of 2007, credit to the non-government sector continued to accelerate in Q4. The nominal y-o-y growth of credit was a high 38.3% (28% in Q3), while the real growth was 24.9% (19.1% in Q3, Table T8-2). The acceleration is noticeable also when observed on the basis of flows adjusted for exchange rate differentials,[1] with the 12-m growth at end-Q4 standing at 39.9% (36.7% at end-Q3 2007). Where components of credit to the non-government sector are concerned, the y-o-y growth of credit to enterprises and slowing of credit

1 For details on methodology of the adjustments see footnote 3 in Table T8-2 or Box 2, section 8, Monetary Flows and Policy, *QM6*.

to households was evident. Since the base at the end of 2006, when credit to enterprises was almost completely halted, is very low, the impression is that these credits grew at a fast pace in Q4 2007, which is correct when observed at the y-o-y level. In absolute terms, however, the increase was the same as in Q3 (Table T8-5). On the other hand, credit to households slowed its y-o-y growth to 52.5% nominally, adjusted for exchange rate differences (37.5% in real terms) as against the nominal 60.2% at end-Q3 (49.2% in real terms). The slowing of the growth of credit to households was most probably the result of the measures of September 2007 when the NBS limited the repayment terms for consumer and cash loans to households.[2]

Table T8-2. Serbia: Monetary Survey, Selected Indicators, 2005–2007

	2005	2006				2007			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
					y-o-y, in%				
M2[1]	42.1	42.8	37.9	34.4	39.2	42.9	37.4	39.4	41.5
Credit to the non-government sector[2]	51.3	45.3	44.4	34.6	17.5	21.6	23.9	28.0	38.3
Credit to the non-government sector[2], adjusted[3]	45.6	39.6	41.6	38.0	24.1	26.3	30.2	36.7	39.9
Households	92.5	100.6	96.6	80.8	62.2	58.4	54.7	60.2	52.2
Enterprises	34.3	25.0	26.9	24.7	11.1	14.2	20.2	26.2	33.7
					real y-o-y, in %				
M2[1]	20.8	24.7	19.8	20.5	30.6	35.4	30.7	29.7	27.8
Credit to the non-government sector[2]	28.6	26.9	25.4	20.7	10.3	15.2	17.8	19.1	24.9
Credit to the non-government sector[2], adjusted[3]	28.2	21.5	22.7	23.6	16.4	19.8	24.1	27.4	26.3
Households	59.1	74.8	70.4	61.9	52.2	50.2	47.4	49.2	37.5
Enterprises	18.2	8.8	9.9	11.7	4.2	8.3	14.5	17.6	20.7
					cumulative, in % of opening M2[4]				
M2[1]	42.1	3.1	12.4	23.8	39.2	5.9	11.0	23.9	41.5
M2 dinar[1]	14.2	-0.5	3.6	8.8	19.8	-0.1	0.8	6.8	16.8
Foreign deposits (households and enterprises)[5]	22.5	2.6	8.4	18.1	25.7	4.0	10.1	17.3	24.5
Valuation adjustments[6]	5.4	1.0	0.4	-3.1	-6.4	1.9	0.0	-0.1	0.2
NFA, dinar increase	18.0	-4.0	2.4	30.9	41.1	5.2	12.0	14.5	24.4
NFA, fx increase	13.5	-4.7	2.1	34.3	48.4	3.1	12.0	14.7	24.2
Valuation adjustments[6]	4.4	0.7	0.3	-3.4	-7.3	2.2	0.0	-0.1	0.3
NDA	24.2	7.1	10.0	-7.1	-1.9	0.6	-1.1	9.4	17.1
o/w: credit to the non-government sector[2], adjusted[3]	34.1	5.1	15.6	25.0	27.3	6.6	19.6	33.7	38.0
o/w: net credit to government[7]	-10.4	-0.7	-1.3	-21.8	-17.4	-4.1	-7.7	-7.0	-1.9
o/w: NBS and com. banks capital and reserves	-12.1	-1.2	-7.5	-8.5	-13.2	-2.2	-7.4	-11.6	-17.9
					cumulative, in % of GDP[8]				
Net credit to government[7]	-1.9	-0.2	-0.3	-4.8	-3.4	-1.3	-2.2	-1.9	-0.5
o/w: dinar credits	-1.6	-0.2	-0.9	-0.7	0.6	-1.2	-2.4	-2.0	-1.1
Credit to the non-government sector[2], adjusted[3]	10.0	1.6	3.8	4.8	4.3	2.6	5.5	7.5	9.8

Source: Table P-10. 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.

2 For details on the measures, see section 8, Monetary Flows and Policy, Box 1, *QM9*.

Table T8-3. Serbia: Monetary Survey, 2005–2007

	2005	2006				2007			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	in millions of dinars, end of period								
STOCK									
NFA	218,886	200,462	229,984	360,685	407,565	441,048	484,388	500,302	563,524
o/w: NBS gross reserves	424,844	465,497	549,529	648,946	715,114	719,381	730,668	751,920	765,615
o/w: commercial bank foreign liabilities	-191,124	-229,081	-302,170	-300,781	-307,742	-318,598	-286,848	-290,860	-299,659
NDA	239,985	272,642	285,856	207,195	231,055	234,991	224,279	291,193	340,174
Net credit to government [1]	-27,831	-31,129	-33,954	-124,159	-100,061	-128,909	-149,081	-144,385	-112,290
Net dinar credit	-22,332	-25,479	-38,649	-35,438	-8,776	-35,782	-62,290	-56,369	-34,251
Net fx credit	-5,499	-5,650	4,695	-88,721	-91,285	-93,127	-86,791	-88,016	-78,039
Credit to the non-government sector [2]	518,298	547,564	591,270	614,698	609,171	666,007	732,402	786,873	842,512
Other items, net	-250,482	-243,793	-271,460	-283,344	-278,055	-302,107	-359,042	-351,295	-390,048
M2 [3]	458,870	473,103	515,840	567,881	638,620	676,039	708,667	791,495	903,698
M2 dinar [3]	192,180	189,911	208,606	232,506	283,116	282,299	288,329	326,341	390,307
Fx deposits (households and economy)	266,690	283,192	307,234	335,375	355,504	393,740	420,338	465,154	513,391
STRUCTURAL INDICATORS									
Currency outside banks/Dinar deposits (households and economy), in %	38.7	31.8	30.6	28.9	31.9	26.2	29.1	25.1	24.6
Fx deposits (households and economy) / M2 (%)	58.1	59.9	59.6	59.1	55.7	58.2	59.3	58.8	56.8
Velocity (GDP [4] / M2)	3.8	3.9	3.7	3.5	3.3	3.2	3.2	3.0	2.6
M2 / GDP [4]	0.26	0.26	0.27	0.29	0.30	0.31	0.32	0.33	0.38
Credits to the non-government sector / GDP [4]	0.30	0.30	0.31	0.31	0.29	0.30	0.33	0.33	0.35
Non-perofrming loans [5] (in % of total loans)	..	..	..	..	4.7	4.9	4.7	5.2	5.1
Money multiplier (dinar M2/H)	1.9	2.1	2.1	2.1	2.0	2.4	2.0	2.3	2.3

Source: Table P-10. 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) The figure for December 2006 relates to Januarz, 31 2007 and represents the ratio of loans with overdue payments of 90 days and more to total outstanding loans. The source for data in this row is The Credit bureau, Association of Serbian banks. For details, see QM6, Spotlight on No.1.

Banking Sector: Credits and Sources of Financing

In Q4, banks granted a new €630 mn in credit to enterprises and households...

Banks granted less new loans to enterprises and households in Q4 than in Q3 (€630 mn in Q4 as against €800 mn in Q3). About €400 mn of these new credits went to enterprises (the same amount as in Q3), and only €200 mn to households (€400 mn in Q3), Table T8-4. In keeping with a trend that has lasted for more than a year, enterprises accelerated their foreign borrowing – taking about €900 mn in new credits in Q4 and avoiding the domestic banking system (details in Box 1).

... which was somewhat less than in Q3

Finally, an increase in the balances of the domestic banking system's foreign exchange accounts abroad was recorded, whereby some €600 mn was immobilized in Q4 (Table T8-4).

Banks continued investing significantly in NBS papers in Q4...

... a new €410 mn

In Q4, banks invested in repo instruments and 6-m NBS papers to the tune of some €410 mn (€420 in Q3). Real yields dropped in Q4 relative to Q3. From mid-Novemver, yields on repos expressed as the combination of the nominal interest rate and nominal exchange rate (Graph T9-6, section 9, Financial Markets), plunged and at times even became negative (in December and mid-January).

Record rise in company deposits is the source of new bank credit...

The rise in company deposits, new household foreign exchange savings and capital increases by banks were the dominant sources of lending in Q4 2007. The major inflow of €840 mn into company deposits, of which €800 mn refers to dinar deposits, was surprising (€400 mn in Q3, €450 mn in Q4 2006). The surge can only partly be explained by the fact of the year-end when liquidity is usually high, as reflected in the rise of dinars deposited with banks for the purpose of settling claims before the submission of annual financial statements. Furthermore, the growth of company deposits was accompanied by the growth of their foreign borrowing as, to an extent, they kept some of the new funding in their accounts with the domestic banking system. Exceptionally in Q4 2007, a major transaction contributed to the inflow: payment by a Greek company that purchased the state-owned Robne Kuće Beograd (RKB) store chain, which was in the process of bankruptcy, at a price of some €400 mn. The payment was made in dinars into the RKB deposit (Rise in Enterprise Deposits with Banks, Funding, Table T8-4), and the bank that received it converted the funds and put them into its foreign exchange deposit abroad

... along with capital increases and new foreign exchange savings

(Rise in Bank Accounts Abroad, Gross Foreign Reserves, Table T8-4). From the aspect of the foreign exchange market, the transaction was neutral and, although a relatively large sum was involved, there was no impact on the exchange rate of the dinar.

High foreign borrowing by enterprises continues in Q4

Table T8-4. Serbia: Funding, Credit and Investment Activity, Adjusted Flows[1], 2005–2007

	2005	2006				2007			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
	in millions of euros, cumulative from the beginning of the year								
Funding(-, increase in liabilities)	-2,783	-539	-2,208	-3,468	-5,237	-325	-1,061	-2,574	-4,582
Domestic deposits	-1,314	-116	-550	-1,322	-2,245	-339	-757	-1,819	-3,254
Households deposits	-884	-178	-413	-795	-1,200	-329	-652	-1,059	-1,652
dinar deposits	-46	-13	-54	-51	-124	-35	-57	-97	-135
fx deposits	-838	-165	-359	-744	-1,076	-295	-595	-963	-1,518
Enterprise deposits	-430	63	-137	-527	-1,045	-10	-105	-760	-1,602
dinar deposits	-363	36	-52	-295	-739	23	112	-324	-1,138
fx deposits	-68	27	-85	-232	-307	-33	-218	-437	-464
Foreign liabilities	-1,194	-401	-1,278	-1,433	-1,660	-10	266	207	114
Capital and reserves	-275	-22	-380	-713	-1,331	25	-569	-962	-1,441
Gross foreign reserves(-,decline in assets)	-29	-190	-191	-36	-77	-14	5	-17	695
Credits and Investment[1)]	2,058	417	1,193	1,906	3,100	687	1,294	2,488	3,626
Credit to the non-government sector, total	1,893	272	847	1,320	1,541	575	1,508	2,315	2,945
Enterprises	1,172	85	390	557	536	313	865	1,271	1,660
short term	835	85	254	258	194	195	549	699	939
long term	337	1	136	299	341	118	315	572	722
Households	721	187	457	763	1,006	263	644	1,044	1,285
short term	81	50	106	169	194	36	101	148	221
long term	640	137	351	594	811	226	543	896	1,064
Placements with NBS (Repo transactions and treasury bills)	185	162	448	740	1,637	200	-11	438	849
Government, net[2)]	-43	-20	-107	-157	-79	-89	-203	-264	-168
MEMORANDUM ITEMS									
Direct foreign liabilities of enterprises and banks' credits to enterprises	2,035	325	897	1,599	2,102	791	2,567	3,822	5,005
o/w: direct foreign liabilities of enterprises	863	239	507	1,043	1,567	478	1,702	2,551	3,345
Mid and long term	846	224	479	979	1,523	446	1,637	2,362	3,284
Short term	17	15	29	64	43	32	65	190	60
				increase in stock, in % of GDP[7)]					
Ukupni plasmani privredi i stanovništvu	17.4	9.9	14.2	15.3	10.3	16.3	30.1	21.7	17.9
Plasmani privredi iz domaćeg sistema	8.1	1.6	5.1	2.5	-0.3	4.8	7.7	5.3	4.5
Direktno zaduživanje privrede u inostranstvu	4.8	4.6	4.5	8.1	7.3	7.4	17.1[6)]	11.1	10.6
Plasmani stanovništvu	4.6	3.6	4.6	4.7	3.4	4.1	5.3	5.2	2.8
Required reserves and deposits	945	216	1,182	1,535	1,813	-146	242	349	441
Other net claims on NBS[3)]	54	-56	-75	-46	0	13	-44	-104	-44
o/w: Excess reserves	12	-55	-59	-73	-50	20	-56	-103	-92
Other items[4)]	-158	168	130	166	499	-110	-464	-57	-78
Effective required reserves (in %)[5)]	31	32	38	38	36	34	37	34	31

Source: Table P-11. 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) Credits to government, net: difference between credits to the government and government deposits held in commercial banks; negative sign means that deposits increase is larger that the growth of credits. Government include: Republic level and cities and municipalities.

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

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

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

New household foreign exchange savings increased by €550 mn in Q4, as against €400 mn in Q3 (Table T8-4). This large increase within a single quarter was aided by the Savings Week (last week of October), when banks were encouraged to offer higher interest rates on new savings since all deposits collected during that week are exempt from the NBS reserve requirement.

Banks reduced their foreign liabilities and liabilities toward non-residents (item Foreign Liabilities, Table T8-4) by around €100 mn in Q4. When this figure is compared with data in the balance of payments, which states that banks' foreign borrowing in Q4 amounted to some €400 mn, it becomes evident that they thus secured additional sources of financing. This method of securing financing had virtually not been resorted to since mid-2006 as it carries a high reserve requirement. Hence, banks reduced their liabilities to non-residents and other smaller liabilities abroad, which are included in the item Foreign Liabilities, Table T8-4, by a total of some €300 mn in Q4.

The overall banking sector increased its capital by €500 mn in the quarter (€400 mn in Q3). Banks were stimulated to do so by an NBS measure under which credit to households could not exceed 150% of their capital. The increase in net credit to government by some €100 mn in Q4 (-€60 mn in Q3) led to the shrinking of bank sources, mainly because of the running down of government deposits with the banking sector.

Banks' investments in repos in spite of the low and, at times, even negative yields, coupled with the accumulation of company dinar deposits and depositing of funds in accounts abroad, as well as in excess reserves with the NBS, indicate a growth of liquidity in the system in Q4, probably due to the expectations of both companies and investors with regard to the outcomes of burning issues (uncertainty as to the results of the presidential election and the status of Kosovo). It was reassuring that there was no major converting of this liquidity into euros and their withdrawal abroad because of the political uncertainties that elevated the risks on the domestic market.

The political situation did, however, have an impact on the foreign exchange market. It can be assumed that those with major excess funds in dinars turned to the euro as the more stable currency and thereby weakened the dinar. To preclude a drastic drop in the dinar's value and increase liquidity on the foreign exchange market, the NBS, intervened for the first time in several months (on 7 February and the week starting on 18 February) on the interbank foreign exchange market, selling a total of €40 mn.

Central Bank: Balance and Monetary Policy

Primary money increases significantly in Q4 ...

Primary money (H) rose considerably at end-Q4 relative to end-Q3, but its nominal y-o-y growth rate was reduced to 18.8% as against 24.2% at end-Q3 because of the exceptionally high level of primary money at the end of 2006 (Table T8-10).

Table T8-5. Serbia: NBS – Foreign Exchange Purchases and Sterilization, 2005–2007[1]

	2005	2006				2007			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
FLOW									
				in millions of dinars, cumulative from the beginning of the year					
NBS own resreves[2]	63,136	4,628	49,014	78,899	145,315	15,055	46,176	60,267	97,182
NBS own reserves (in euros)	*759*	*53*	*564*	*933*	*1,783*	*188*	*577*	*756*	*1,218*
NDA	-46,040	-20,755	-54,348	-74,989	-105,744	-46,267	-57,974	-72,100	-71,986
Government, dinar credits	-6,077	-1,595	-1,856	-1,858	120	-710	-735	-735	-5,639
Government, dinar deposits	-18,576	-4,789	-14,422	-10,572	17,540	-30,939	-56,748	-44,985	-10,107
o/w: municipalities	-824	-6,068	-5,339	-5,505	-3,500	-6,768	-13,485	-11,933	-516
Repo transactions[3]	-16,829	-14,258	-39,152	-63,335	-132,903	-16,675	-2,094	-34,961	-67,950
Other items , net[4]	-4,558	-113	1,082	776	9,499	2,057	1,603	8,581	11,710
H	17,096	-16,127	-5,334	3,910	39,571	-31,212	-11,798	-11,833	25,196
o/w: currency in circulation	8,485	-7,825	-4,724	-1,540	14,811	-9,792	-3,395	-3,088	8,488
o/w: excess liquidity	3,518	-8,643	-7,916	-2,106	16,516	-13,061	-3,309	-6,293	20,605
INCREASE									
				cumulative, in % of opening H[5]					
NBS own resreves[2]	93.4	7.9	52.5	73.5	135.1	11.2	34.5	45.0	72.6
NDA	-71.2	-25.0	-58.1	-69.4	-93.2	-34.6	-43.3	-53.8	-53.8
Government, dinar deposits	-24.0	-5.1	-15.3	-11.2	19	-23.1	-42.4	-33.6	-7.5
Repo transactions[3]	-21.8	-15.1	-41.5	-67.1	-141	-12.5	-1.6	-26.1	-50.7
Other items , net[4]	-25.4	-4.8	-1.4	9.0	29	1.5	1.2	6.4	8.7
H	22.1	-17.1	-5.7	4.1	41.9	-23.3	-8.8	-8.8	18.8
o/w: currency in circulation	11.0	-8.3	-5.0	-1.6	16	-7.3	-2.5	-2.3	6.3
o/w: excess liquidity	4.6	-9.2	-8.4	-2.2	18	-9.8	-2.5	-4.7	15.4
MEMORANDUM ITEMS									
Gross fx reserves (flow, cumulative from the beginning of the year, in euros)	1,860.0	387.7	1,420.9	2,945.0	4,083.1	-233.3	193.9	482.7	610.4
Gross fx reserves (in % of opening H in euros)	228.4	43.1	132.1	237.5	307.6	3.2	11.6	27.5	37.7
H (growth rate, y-o-y, in %)	22.1	13.7	24.3	20.8	41.9	31.3	37.2	24.2	18.8
Currency in circulation (growth rate, y-o-y, in %)	18.8	16.4	15.6	10.2	27.6	28.0	33.0	25.5	12.4

Source: Table P-12. in Analytical Appendix.
1) Government include: Republic level and cities and municipalities.
2) Net own reserves definition - see Box 4 in QM5.
3) This category included NBS bills, and repo transactions.
4) Other domestic assets, net, include domestic credits (net claims on banks excluding NBS bills and repo transactions; net claims on enterprises together with other assets (capital, reserves and balance items; other assets and liabilities corrected by exchange rate differentials.
5) "Opening H" refers to stock of primary money (H) at the beginning of stated year (i.e. end of previous year).

as a result of the running down of government deposits ...

Primary money rose in Q4 as a result of net changes in the stocks of certain of its components. The NBS net own reserves increased by 27.6% of opening H (72.6% at end-Q4 less 45% at end-Q3). The central banks's net domestic assets remained unchanged relative to end-Q3 when

... in relation to the continuing major withdrawal of dinars through the NBS repo market

they are observed as the sum of all components (Table T8-5). Where NDAs are concerned, there was on the one hand a reduction of the government dinar deposit by 26.1% of opening H (-33.6% at end-Q3 less -7.5% at end-Q4) through which primary money was created. On the other hand, the stock of repos and NBS papers sold increased by 24.6% of opening H, which decreased primary money, while the other NDAs increased by 2.3% of opening H (Table T8-5). What these changes in the monetary base practically mean is that the NBS placed around 37 bn dinars by way of foreign exchange transactions (purchases from exchange offices, banks and government), and that government created primary money by running down its deposit with the NBS by some 35 bn dinars (of which 11 bn was spent by local governments). Through the repo market, the NBS withdrew about 34 bn dinars by way of transactions with banks (Table T8-5).

Box 1. Toward the end of Q4, the NBS became more restrictive in response to the rising inflationary pressures

In late October, the NBS cut the reference interest rate from 9.75% where it had stood since August 2007, to 9.5%. In response to the increasingly evident inflationary pressures, it raised it to 10% in late December 2007. As the pressures did not abate, the rate was raised again, to 10.75% in January 2008 and again in late February to 11.5%. The exchange rate was unstable in Q4, but when the quarter is compared to Q3, it appreciated by about 1.3% in real terms, while the nominal rate remained virtually unchanged (more details in section 3, Prices and the Exchange Rate). The NBS did not change the reserve requirement ratio in Q4. All of the above indicates that the NBS pursued a neutral policy in Q4 relative to the preceding period, up to the very end of the quarter when it became somewhat more restrictive.

Table T8-6. Banks' Reserve Requirements with NBS[1], Dec. 2004-Feb. 2008

	12/2004	05/2005	07/2005	10/2005	11/2005	03/2006	04/2006	05/2006	11/2006	12/2006	10/2007
Rate on:											
						in %					
DINAR DENOMINATED BASE	21	20	20	18	18	18	18	18	15	10	10
more then 1 month dinar time deposits											5
non-resident accounts with maturity up to 2 years:								60	60		
non-resident accounts with maturity over 2 years:								40	40		
FX DENOMINATED BASE	21	26	29	35	38	40	40	40	40	45	45
foreign borrowing with maturity up to 2 years[2]							60	60	60	45	
NEW FX SAVINGS DEPOSITS[3]	47	47	45	41	38	40	40	40	40	40	40
SUBORDINATED CAPITAL						20	20	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) Applied to average daily book value of the base from the previous calendar month. Effective from the 10th of the next month. Bank is obliged to hold average daily reserve balance at the level of the accounted reserve during the entire accounting period
2) Up to April 2006 and since December 2006, banks' foreign borrowing was treated equally, irrespective of the repayment period. This sub-category therefore is invalid until March 2006, i.e. the uniform fx base was applied to all foreign inflows on the basis of commercial banks' borrowing
3) Up to December 2005, reserve requirements on new fx savings of households (fx deposits collected after 30 June 2001) were regulated by a special NBS decision. In December 2005, the regulation became uniform since the NBS introduced a unique reserve requirement rate for all commercial banks' fx accounts
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.

The other NBS net domestic assets were increased by some 2.2 bn dinars (Table T8-5). Of this significant increase in primary money, however, as much as 27 bn dinars remained in the form of excess reserves in accounts with the NBS (20.6 bn dinars at end-Q4 less -6.2 bn at end-Q3, Table T8-5).

NBS withdraws major quantity of dinars through the repo market in Q4

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.

Government contributed the most to the creation of primary money in Q4

Only some €212 mn of the €460mn increase in the NBS's net own reserves in Q4 (Table T8-7) relates to the net purchase of foreign exchange from households and banks through the foreign exchange market (Table T8-8). Of the remainder of the increase, some €190 mn most probably represents purchase of foreign exchange from government, which was spent by the government in the same period (thereby issuing dinars, i.e. increasing primary money). Apart from the 35 bn dinars by which it reduced its dinar deposit in late Q3, government in Q4 ran down its foreign exchange deposit by the equivalent of €190 mn, which it converted into dinars with the NBS. The sum of these two amounts, i.e. the equivalent of some 50 bn dinars, corresponds to the consolidated general government deficit in Q4 (more details in section 7, Fiscal Flows and Policy).

Table T8-7. Serbia. Foreign Exchange Reserves, Stock and Flows, 2005–2007

	2005	2006				2007			
	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec
					stock, in millions of euros				
NFA of Serbia	2,544	2,303	2,674	4,403	5,164	5,413	6,130	6,347	7,116
Commercial banks, net	-1,451	-2,042	-2,921	-2,920	-3,188	-3,213	-2,918	-2,998	-2,379
Gross foreign reserves	784	594	593	748	707	693	712	690	1,403
Foreign liabilities	-2,235	-2,636	-3,514	-3,668	-3,895	-3,906	-3,630	-3,688	-3,782
NBS, net	3,995	4,345	5,595	7,323	8,352	8,626	9,048	9,345	9,495
Gross foreign reserves	4,969	5,357	6,390	7,914	9,052	8,819	9,246	9,535	9,662
Foreign liabilities	-974	-1,011	-795	-591	-700	-193	-198	-190	-168
IMF	-748	-787	-575	-373	-181	6	1	3	4
Other liabilities	-226	-225	-220	-218	-519	-200	-199	-193	-171
NBS, NET RESERVES-STRUCTURE									
1. NBS, net	3,995	4,345	5,595	7,323	8,352	8,626	9,048	9,345	9,495
1.1 Commercial banks deposits	-1,725	-1,995	-2,858	-3,126	-3,210	-3,358	-3,478	-3,584	-3,409
1.2 Government deposits	-220	-247	-123	-1,213	-1,309	-1,247	-1,160	-1,172	-1,034
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	2,050	2,103	2,614	2,983	3,833	4,021	4,410	4,589	5,051
					in millions of euros, cumulative from the beginning of the year				
NFA of Serbia	535	-240	131	1,859	2,620	249	967	1,183	1,952
Commercial banks, net	-1,223	-591	-1,469	-1,468	-1,737	-24	270	190	809
Gross foreign reserves	-29	-190	-191	-36	-77	-14	5	-17	695
Foreign liabilities	-1,194	-401	-1,278	-1,433	-1,660	-10	266	207	114
NBS, net	1,758	350	1,600	3,328	4,357	274	696	993	1,143
Gross foreign reserves	1,860	388	1,421	2,945	4,083	-233	194	483	610
Foreign liabilities	-102	-37	179	383	274	507	502	510	532
IMF	-44	-38	173	375	567	187	182	184	185
Other liabilities	-58	1	6	8	-294	320	320	327	348
NBS, NET RESERVES-STRUCTURE									
1. NBS, net	1,758	350	1,600	3,328	4,357	274	696	993	1,143
1.1 Commercial banks deposits	-904	-270	-1,133	-1,401	-1,485	-148	-269	-374	-200
1.2 Government deposits	-95	-27	97	-993	-1,089	63	149	137	275
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	759	53	564	933	1,783	188	577	756	1,218

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

Table T8-8. Net Monthly Transactions on Foreign Currency Market, NBS-Banks and Exchange Offices

	Interbank fx market (NBS-commercial banks)	Exchange offices	Total	
(-, net sale of foreign currency by NBS)				
	in millions of euros			
Monthly average January-October 2006	-64	151	87	
November 2006	260	131	391	
December 2006	154	86	240	
January 2007	-412	42	-370	
February 2007	-14.8	86	72	-238 in Q1 2007.
March 2007	-54.1	114	60	
April 2007	0	137	137	
May 2007	-75.9	160	84	+288 in Q2 2007.
June 2007	-19	86	67	
July 2007	-22	94	72	
August 2007	-23	106	83	+195 in Q3 2007.
September 2007	-20	60	40	
October 2007	-4	72	68	
November 2007	-20	76	56	+212 in Q4 2007.
December 2007	-40	128	88	
January 2008	-57	63	6	

Source: NBS.

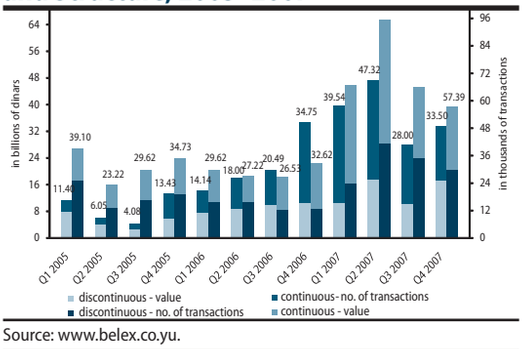
9. Financial Markets

In Q4, the value of the dinar-denominated volume on the stock market increased by 19.6%. Since the number of performed transactions declined by 13.2% relative to the previous quarter, the value of the average transaction increased by 37.8% – indicating a recovery of intensified activity by large investors. The discontinuous market revived again and the value of the reported volume in this segment was 67% higher than in Q3. After Q3 in which they had stagnated, in Q4 the BELEX15, BELEXLine and SRX EUR indices lost 17.8%, 13.8%, and 18%, respectively, with increased volatility. The indices of the regional stock exchanges followed a similar trend. With the exception of the investment fund Focus Premium, whose investment unit during Q4 went up by 3.4%, other funds on the domestic market experienced a decline in value. Due to the acceleration of inflation and depreciation of the dinar, real yields on repo operations fell in Q4 despite a rise in the NBS reference rate by 50 basis points, to 10% toward the end of the year. Real yields calculated relative to inflation declined by 140 basis points in Q4, while those calculated relative to the movements in the EUR/RSD rate fell from 29% at the beginning of Q4 to 4.5% at its end. On the FFCD bond market, the volume and turnover dropped by 49.6% and 49%, respectively, with average yields on all maturities going up between 5 basis points and 11 basis points.

In Q4 the value of the trade went up, but fewer transactions were performed

During Q4 2007, the decline in the volume on the stock market, measured by the number of performed transactions, continued from the previous quarter (Graph T9-1). In Q4 around 57,400 transactions were performed, which was by 13.18% fewer than in Q3. On the other hand, the dinar-denominated value of the volume on the stock market rose by 19.64% relative to the previous quarter and amounted to around 33.5 bn dinars.

Graph T9-1. Stock Trading Volume, Value and Structure, 2005–2007



Source: www.belex.co.yu.

The opposite movements of the volume trend on the stock market measured by the number of performed transactions and by the dinar-denominated value – resulted in an increase in the average transaction. In Q4, the average value of the performed transaction was 583,700 dinars, which was by 37.81% higher than in Q3. This was the first time since the beginning of 2007 that the value of the average transaction went up, after a trend of reduction in its value, indicating a renewed intensified activity of large investors and an upturn of the discontinuous market.

Trade value on the discontinuous market was on an upturn, while on the continuous segment it fell

The credit for the increase in the value of turnover goes to the discontinuous market segment, which went up by 66.80%, contrary to the continuous market where the value of turnover fell by 7.72% relative to Q3. In terms of the number of performed transactions, the fall was almost equal in both segments of the market: 11.72% and 14.48% on the continuous and discontinuous segments, respectively.

The strong leap in the value of the volume on the discontinuous market can probably be explained by some hidden takeover, rather than by the normalization of trading on this segment of the domestic stock market. When historical movements in volume value on the discontinuous market are observed, no regularities or trends can be detected, which corroborates the hypothesis on hidden takeovers. When observed by quarter, the volume value on the discontinuous market goes up in one quarter, only to fall back somewhere close to its previous value in the next. For instance, in Q2 2007 the value of the volume went up to 17.68 bn dinars from 10.59 bn in Q1, only to fall in Q3 to 10.28 bn dinars. The irregularity is even more noticeable at the monthly level. For example, in October the value of the volume jumped to 10.6 bn dinars, from around 3 bn in September, and then in November and December it fell to about 2 bn and 4.4 bn dinars respectively. On the other hand, a downward trend in the value of turnover has been

clearly observed on the continuous market since March 2007, either by quarter or by month. An interesting phenomenon is that, at a y-o-y level, the trends in the movements of the volume on the stock market were opposite. Namely, relative to the last quarter of 2006, the total value of turnover was reduced by 3.61%, while the total number of transactions went up by 75.94%.

It was not possible in Q4 to compose a basket of five shares that were in the top 10 according to volume on the Belgrade Stock Exchange in all three months. Just four shares met this criterion: AIKB (AIK Banka), MTBN (Metals Banka), AGBN (Agrobanka) and ENHL (Energoprojekt Holding). A basket comprising these four shares accounted for 49% of the total value of the volume on the continuous market, with the most active share, AIKB, accounting for almost 27% of the value of the volume.

Financial sector remained the first in terms of market capitalization

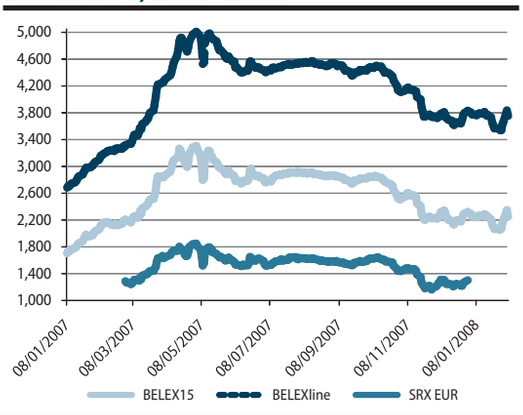
As for market capitalization, financial sector remained in the lead in Q4 as well, with a market capitalization of 433.5 bn dinars. The previous analysis of the most active shares indicates the continuing interest on the part of investors in this sector, since three out of the four most active shares are bank shares.

Indices of the Belgrade Stock Exchange recorded a sharp drop in value and an increased volatility

After a relatively quiet Q3, which was marked by the stagnation of the value of securities traded on the Belgrade Stock Exchange, with a barely noticeable loss in the value of the main indices[1], in Q4 2007 volatility returned, followed by a sharp fall in the value of share price indices (Graph T9-2). The indices BELEX15[2] and BELEXline[3] lost 17.8% and 13.75% respectively, while the index SRX[4] EUR fell by 17.99%. The indices BELEX15 and SRX EUR ranged within a band of 720 and 481 index points respectively, while the change between the maximum and minimum reported values amounted to 33.79% and 41.30% respectively. The movements of the index BELEXLine were slightly slower considering its composition, so the difference between the maximum and the minimum value was 24.4%.

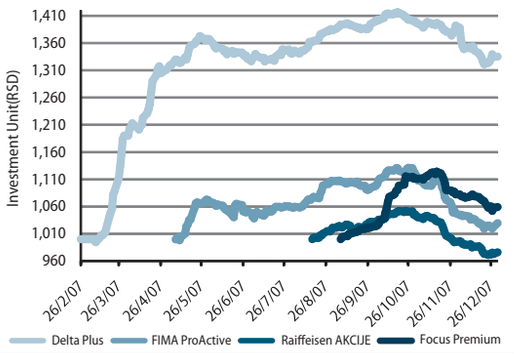
In Q4, the indices BELEX15 and BELEXLine started a short-lived rise, and toward the end of the first decade, in October, reached their highs of 2,855.3 and 4,501.67 index points, respectively. This was followed by a sudden slump in mid-October. From early October till mid-November BELEX15 and BELEXline lost 10.21% and 7.26%, respectively, and then on 20 November BELEX15 lost 4.95% of its value in just one day, while BELEXline lost 3.05%. This was the sharpest daily fall of the indices of the Belgrade Stock Exchange since 9 May 2007, when BELEX15 lost 6.53% in one day. Unlike in May, when after a sudden slump of the index an upward adjustment was made on the following day, this did not happen this time around. By the end of the quarter, the indices recorded more days of losses in the value than of growth – only to end the quarter close to the values to which they fell on that 20 November.

Graph T9-2. BELEXfm, BELEX15 and SRX EUR Indices, 2007–2008



Source: www.belex.co.yu, www.wienerborse.at.

Graph T9-3. Delta Plus, FIMA ProActive, Raiffeisen AKCIJE and Focus Premium investment funds, 2007–2008



Source: www.deltainvestments.co.yu, www.fimainvest.com, www.focusinvest.biz, www.raiffeiseninvest.co.yu

1 In Q3, the indices BELEX15 and BELEXline lost 0.23% and 0.13%, respectively, while the index SRX EUR fell by 0.88%, with the values of indices ranging within a narrow band of 200 index points.
2 Index of the most liquid shares of the Belgrade Stock Exchange.
3 Overall stock index of the Belgrade Stock Exchange.
4 Index of the eight most liquid shares of the Belgrade Stock Exchange calculated by the Vienna Stock Exchange (Wiener Börse)

Most of the stock markets in the region also recorded drops in Q4

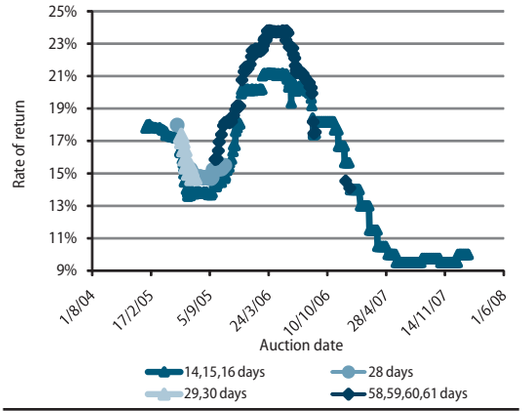
Other stock exchanges in the region could not boast of a rise in value in Q4 either. With the exception of the Zagreb Crobex index, which rose by 3.50%, other indices recorded a fall in value. Thus the Montenegrin indices MOSTE and NEX20 lost 16.78% and 16.52%, respectively, while BIRS, of the Banja Luka Stock Exchange, the Romanian BET, the Bulgarian SOFIX and the Macedonian MBI-10 lost 21.26%, 3.4%, 7.13% and 16.04%, respectively.

In Q4 all investment funds, except for Focus Premium, had a fall in the value

All investment funds, with the exception of Focus Premium, posted a loss in their value in Q4 (Graph T9-3). In the last quarter of 2007, the investment unit of Focus Premium gained 3.42% in value, while over the same period the index BELEX15 lost 17.8%. Investment units of the funds Delta Plus, FIMA ProActive and Raiffeisen AKCIJE lost 4.57%, 6.15% and 5.44%, respectively. When the performance of the funds is observed from their establishment up to the end of Q4 2007 – all of them, apart from Raiffeisen AKCIJE, had a rise in the value of investment units. The most impressive rise was that of the fund Delta Plus which increased the value of the i.u. by 33.5% since its foundation, followed by Focus Premium in terms of performance, whose i.u. value has risen by 5.9% since its foundation. Since all the funds did not start trading simultaneously – in order to be able to properly compare their performance – it is possible to observe the yield at the annual level, earned by the funds from establishment to the end of 2007. Thus Delta Plus, FIMA ProActive and Focus Premium had annual yields of 39.73%, 4.6% and 18.58%, respectively, while Raiffeisen AKCIJE lost 6.44%.

NBS is raising the reference interest rate

Graph T9-4. Repo Yields by Maturity, 2004–2008



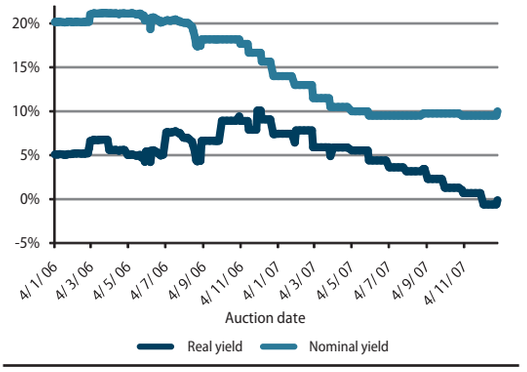
Source: NBS.

In Q4 2007, the NBS changed the reference interest rate twice (Graph T9-4). First, the Monetary Board of the NBS reduced the rate on 2w repo operations by 25 basis points, to 9.5%, in late October, only to increase the rate by 50 basis points, to 10%, in late December. In early February, the rate was pushed up again to 10.75%

Despite changes in the nominal repo rate, real yields, observed relative to the inflation rate, continued their downward trend in Q4 (Graph T9-5). Real yields at the beginning of Q4 amounted to around 1.3%. Since inflation accelerated toward the end of the year – in the course of Q4 real yields on repos fell by 140 basis points, so the real rate of return at end 2007 was negative and amounted to -0.11%.

Graph T9-5. Real(with regard to inflation) and Nominal Repo Yields, 2006–2007

Real yields on repos recorded a fall and even reached negative values due to the acceleration of inflation, that is, dinar depreciation

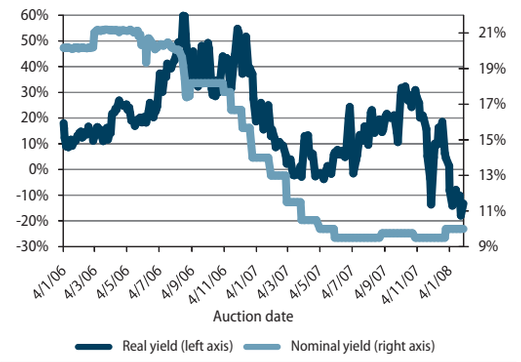


Source: NBS.

As the last quarter of 2007 saw another depreciation of the dinar, real yields on repo operations relative to the movements in the euro/dinar rate (a change in the rate from the previous three months[5]) – fell sharply after the first decade of October (Graph T9-6). Bearing in mind the increased volatility of the exchange rate – real yields calculated relative to the exchange rate were also very volatile in the course of Q4. Still, the main trend was descending, so the real yield on repo operations fell from nearly 29% at the beginning of the quarter to 4.5% at its end. Since the dinar continued to depreciate in 2008 as well, real yields became negative in January, reaching -14.5% in early February 2008.

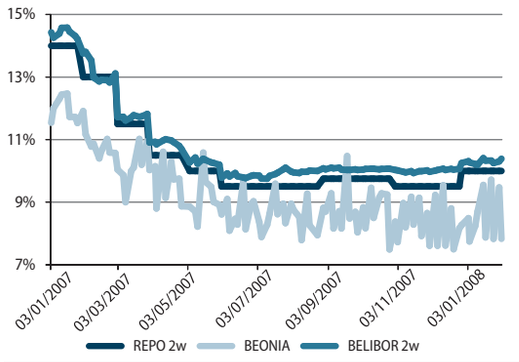
5 A detailed explanation of such an approach to the calculation of real rates of return can be found in the article by K.Udovički, V.Đoković " The Exchange Rate and Policy of the National Bank of Serbia: 2002–2006", QM 5.

Graph T9-6. Real (with regard to exchange rate) and Nominal Repo Yields, 2006–2008



Source: NBS.

Graph T9-7. Repo, BEONIA and BELIBOR 2W Rates, 2007–2008



Source: NBS & Reuters.

Interest rates on the money market followed the nominal repo rate (Graph T9-7). In late December and early January a slight narrowing of the spread between the repo rate and the BELIBOR 2w rate (the same maturity as repo agreements) and the widening of the spread between the repo rate and the overnight BEONIA rate. Such movements in spreads between rates on the money market and the reference rate point to the already observed increase in liquidity in the system at the end of Q4 2007. (for more details see section 8, *Monetary Flows and Policy*).

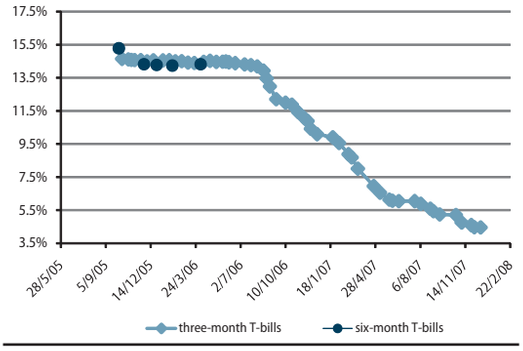
Yields on T-bills fell by 75 basis points in Q4

Yields on treasury bills continued their long downward trend. In Q4, yields fell by another 75 basis points and in the last auction in 2007 an interest rate was attained of 4.46% (Graph T9-8). In the course of the observed quarter, yields lost about 75 basis points, so that the descending value trend was even[6]. As in the previous quarters, only T-bills with maturities of three months were offered in auctions, and the values of issues were 400 mn, 800 mn or a 1 bn dinar. The total nominal value of all T-bills issued during Q4 was 3.8 bn dinars, the same as in Q3 2007.

Volume and turnover on the FFCD bond market were halved relative to Q3

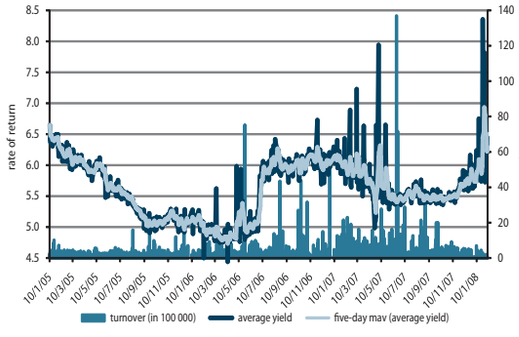
In Q4 2007 a decline in the volume and turnover on the market for frozen foreign currency savings bonds continued (Graph T9-9). The reported volume amounted to around 25.86 mn euros, and turnover to 18.5 mn euros, which was lower by 49.59% and 49.81% respectively over the previous quarter. If the change is observed at an annual level, relative to Q4 2006, the volume and turnover declined by 53.97% and 53.59%, respectively (in Q3 the volume and turnover declined by 34.59% and 39.74%, respectively, relative to Q2).

Graph T9-8. Yields in T-Bill Market, 2005–2008



Source: MoF.

Graph T9-9. Average Yield on FFCD Bonds[1], 2005–2008



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.

6 In Q3 2007 yields on T-bills dropped by 80 basis points.

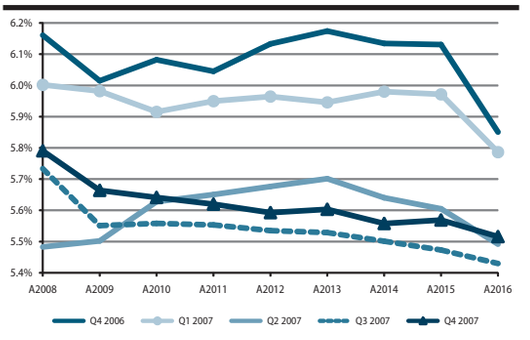
In Q4, the average yield curve on the FFCD market made a parallel shift upward relative to Q3

Average yields on FFCD bonds went up for all maturities in the course of Q4, so the yield curve made a parallel shift upward (Graph T9-10). The steepest rise was that of the A2009 bond whose average yield rose by 11 basis points, while the lowest rise of 6 basis points was recorded by the A2007 bond. The yield curve in Q4 remained a descending one, i.e., bonds with shorter maturities had higher average yields than those with longer maturities. The aggravation of the risk and uncertainty on the market can cause a "flight" into safer investments and a higher demand for longer-term bonds, thus increasing their price and reducing yields, which will result in an inverted yield curve.

Yields on all maturities fell relative to the same period last year

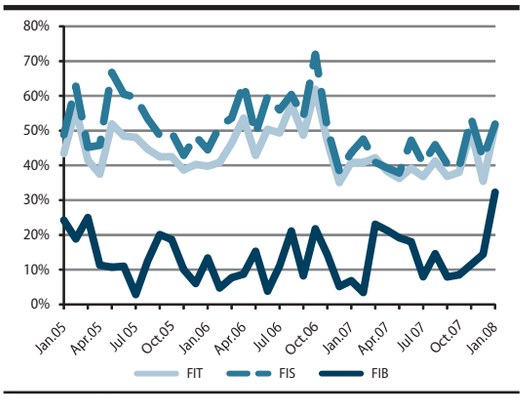
At the y-o-y level, yields on all maturities continued declining – relative to Q4 2006 the average yield curve made a parallel downward shift.

Graph T9-10. FFCD Bonds Average Yield Curves



Source: www.belex.co.yu.

Graph T9-11. Foreign Investor Participation, 2005–2008



Source: www.belex.co.yu.
Legend: FIT- Foreign Investors Participation in Total Turnover, FIS-Foreign Investors in Equity Market, FIB- Foreign Investors in Bond Market.

Foreign investors' participation was close to its Q3 level on all the markets of the Belgrade Stock Exchange

The relative participation of foreign investors on the domestic capital market remained more or less at the same level in Q4. The average foreign investors' participation on the stock market (the FIS curve, Graph T9-11) rose in Q4 by around 3% relative to the previous quarter. In November, a participation of 53.57% was recorded, the highest participation over the last year. On the bond market (the FIB curve, Graph T9-11), the participation in January 2008 attained a level of 32.25%, which was the highest recorded level since the monitoring of this indicator began. After a prolonged period, foreign investors' participation in the total turnover of the Belgrade Stock Exchange (the FIT curve, Graph T9-11) – exceeded 50% in January 2008. Somewhat lower foreign investors' participation was recorded in December 2007, which is a seasonal trend caused in the holiday season.

SPOTLIGHT ON:

Power and Weakness of Monetary Policy in Striking a Balance Between Balance-of-Payments and Inflation-Related Objectives

Diana Dragutinović*

This paper analyzes the effects of different monetary policy transmission channels in Serbia, as well as their implications for current monetary policy framework and instruments. It has become apparent that there are, for now, two active channels, the exchange rate channel and the expectations channel. Although the effect of the exchange rate on prices is dominant, the central bank is determined to implement monetary policy measures within the framework of a monetary strategy of inflation targeting. It is to be expected that, in the future, other channels - primarily the interest rate and credit channels - will become active. However, it should be said that the use of administrative measures has so far not been efficient in strengthening these channels. The conclusion of the paper draws attention to the difficulties faced by monetary policymakers in the absence of support from other policies, especially fiscal policy.

1. Introduction

For a long time, Serbia pursued monetary policy without a monetary strategy. Instead of choosing one of three possible strategies: targeting of monetary aggregates, of the exchange rate or of inflation, the National Bank of Serbia (NBS) opted for an eclectic approach – it did a little bit of everything (targeting a bit of inflation, a bit of monetary aggregates, a bit of the real exchange rate). This approach is related to the fact that expectations from the NBS were very high: stability of prices/financial system, a "realistic" exchange rate, as well boosting production, cutting the unemployment rate, improving competitiveness and, finally – to be profitable. Can such a huge burden be put on a central bank? Over the last two decades, a consensus was reached in economic theory and practice, according to which the central bank should focus only on price stability, even at the expense of vastly neglecting other objectives.

The choice between having or not having a monetary strategy was not, in fact, all that difficult. The choice of a concrete monetary strategy, however, depended on the exchange rate regime. Although there are basically many different exchange rate regime options, under the conditions of capital inflow, the monetary authorities can choose **only** between a fixed and a flexible exchange rate. In choosing an exchange rate regime, the monetary authorities choose between **exchange rate targeting** and **inflation targeting.** Despite the fact that many factors pointed to the choice of a fixed exchange rate, the NBS nevertheless opted for the flexible rate. This, then is about choosing between **having or not having** an independent monetary policy.[a)]

a) Under the conditions of a fixed exchange rate, independent monetary policy is possible only if the inflow is controlled.

Since the new monetary framework was introduced in September 2006, sufficient time has elapsed, making it possible now to analyze the results of the chosen monetary strategy. The intention of this paper is, in fact, to assess from "on the spot" – assuming that the spot provides the best insight into all aspects of the conducting of monetary policy, from conceptual to technical – the

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scope of monetary policy in striking a balance between balance-of-payments-related objectives and inflation-related ones.

The paper is divided into five sections. The first provides a theoretical overview of all channels through which the effects of monetary policy are transmitted to the economy. Bearing in mind that the importance of different monetary transmission channels varies from one country to another, depending on whether the economy is large or small, open or closed, with a high or low degree of euroization, a developed or a thin financial market. The second section offers an assessment of the extent to which individual channels exist in Serbia's economy and of the significance of each of them. The third evaluates whether the administrative measures, undertaken to support the monetary transmission, have produced the expected results. The forth section examines how powerful the exchange rate is in reducing the balance of payments deficit. The fifth attempts to explain the importance of fiscal policy under the conditions of the capital inflow and the powerlessness of the exchange rate to more sharply cut the current account deficit. Finally, in the conclusion, the issue is raised of the sustainability of the chosen monetary strategy in the absence of support from other policies.

2. Monetary Policy Transmission Mechanism: Theoretical Framework

Theory suggests that monetary policy affects prices and economic growth, through the following channels: (a) interest rates, (b) the credit channel, (c) asset prices, (d) the exchange rate, and (e) the expectations channel. Naturally, their relevance varies from one country to another, depending on how developed their financial markets are. Determining the relative importance of individual channels is the subject of empirical research.

It is beyond dispute that a firm monetary policy is needed to keep inflation at a low and stable level, within the announced target range. However, a rise in the reference interest rate can influence: (1) a rise in interest rates on the money market, with no impact on the exchange rate, or (2) exchange rate appreciation, with no impact on interest rates on the money market, or (3) different combinations of a rise in interest rates on the money market and appreciation. It is also possible for an increase in the reference interest rate to also result in (4) appreciation, with a concurrent decline in interest rates, or (5) depreciation, with a concurrent rise in interest rates. The combination depends on expectations and the responses of numerous economic agents, in the country and abroad. Just as people differ among themselves and, therefore, respond differently to the same shocks, different economies also respond differently to the same shock. The way in which a change in the reference interest rate is transmitted to the economy, that is, the response of economic agents to these changes, varies from one country to another, depending on whether the economy is large or small, open or closed, with a high or low degree of euroization, a developed or a thin financial market.

In a relatively closed economy, changes in the reference interest rate of the central bank give rise to changes in interest rates on the interbank market, which in turn give rise to changes in short-term and long-term market-based (lending and deposit) interest rates of commercial banks. As changes in interest rates directly determine borrowing costs, economic agents take decisions on investment and savings in line with those changes. The investment activity impacts on the level of overall economic activity, and indirectly on inflation as well. More specifically, a rise in the reference interest rate results in a rise in banks' interest rates, an increase in the costs of borrowing and a decline in investment activity. Additionally, households respond to the interest rate growth through reduced purchases of apartments and durable consumer goods, thus contributing to a drop in consumption. The drop in investment and consumption (aggregate demand) reduces pressure on production capacity and prices. Transmission of the impact of changes in interest rates on the reducing the pressure toward price growth implies a significant lag between the change in policy and the final effect (although the actions by monetary policy makers, changing expectations regarding the future inflation rate, can shorten that period).

The credit channel strengthens the traditional interest rate channel. With a rise in the interest rate, investments decline, not only because costs of capital are high, but also because credit supply shrinks, particularly to SMEs. Restrictive monetary policy causes banks' reserves to fall. If a bank fails to neutralize a fall in reserves, the credit crunch will result in a decline in consumption and investment.

Against the backdrop of a developed financial market, prices of assets/property may play a role in the monetary policy transmission mechanism, through the impact of monetary policy on the prices of bonds/shares/real estate. This channel functions through a change in the market value of a company or personal wealth. While a change in the market value of a company affects investment decisions, changes in the wealth of a family affect household consumption.

In a small, open economy, the exchange rate plays a central role in the transmission from monetary policy to inflation. An increase in the domestic interest rate, aimed at fighting inflationary pressures, usually results in nominal and real appreciation very soon – and helps to contain inflationary pressures, through direct and indirect channels. *The direct impact of the exchange rate* implies that the exchange rate changes prices in an open economy through its influence on the prices of tradables. In the case of depreciation of the local currency, local prices of tradable goods and services tend to go up at the rate of depreciation. This is a direct effect of the exchange rate on prices, which contributes to an increase in the overall price level, proportionate to the share of tradables in GDP. *The indirect impact of the exchange rate* implies that changes in the prices of tradable goods and services in relation to the prices of non-tradables affect the level of economic activity, thus creating an indirect pressure on prices. Nominal depreciation, combined with downward price inelasticity, makes domestic goods cheaper than imported, exports go up owing to improved competitiveness, and imports fall, thus contributing to a rise in net exports, aggregate demand and output. Conversely, the appreciation of the value of the local currency against other currencies makes domestic goods more expensive than imported; the volume of exports falls due to deteriorated competitiveness, while imports go up, thus contributing to a fall in net exports, aggregate demand and output, which reduces inflationary pressures. The exchange rate, therefore, affects the competitiveness of the economy in the short run, net exports and demand, which in turn affects economic activity and inflation.

In a small, open, but highly euroized economy, where deposits and loans are for the most part denominated in foreign currencies or indexed to the movements in the exchange rate, there are differences relative to what has been presented. First, the exchange rate is expected to play a more significant role than in a non-euroized economy (the transmission effect is higher). Second, the impact is non-linear, because higher depreciation raises the issue of NBS credibility. Third, unlike in a non-euroized economy, devaluation, instead of resulting in a rise in net exports and output (through the effect of the change in the structure of demand), causes contraction (through the impact on the balance sheet). Thus, against a backdrop where companies' debts are denominated in euros, and their operating revenue is denominated in the local currency, unexpected changes in the exchange rate affect companies' balance sheets. Deterioration in the balance sheet has two implications: (a) it limits the capacity of the company to borrow and invest, and (b) it makes borrowing more expensive as the risk premium goes up. The economy adjusts by reducing external financing and aggregate demand, rather than through the expansion of exports.

The resolve of the central bank to keep inflation at a relatively low and stable level, in the middle or closer to the floor of the target range, has a decisive influence on inflationary expectations of companies and households. The trust in the central bank comes as a result of the historical memory of economic agents regarding promises and delivering on those promises. In conditions of trust in the central bank, risks that could result in a surge in inflation beyond the targeted interval will not give rise to a change in the behavior of economic agents, because they are confident that the central bank will act and bring inflation back into the planned limits. Accordingly, when the central bank announces targets on the inflation rate publicly and clearly and when it takes actions aimed at hitting the targets, that improves credibility, which helps to hold expectations regarding future inflation close to the target (this is called anchoring expectations).

3. Monetary Policy Transmission Mechanism in Serbia: Preliminary Research

Serbia is a small, open, and highly euroized economy. The imports to GDP ratio stands at around 50%, and that of exports at around 30%. The degree of euroization measured by the share of foreign exchange deposits in total deposits and by the share in M3 amounts to 80% and 75%, respectively; measured by the share of foreign exchange-denominated and indexed loans in total credit to the non-government sector it is below 70%, measured by the share of the foreign exchange-denominated public debt in the total public debt, it is 95%. The capital inflow (on average, it stood at 16% of GDP in the period 2001–2007) – is considerably higher than the needs for financing the balance of payments deficit (on average by 6.5% of GDP in the period 2001–2007).

3.1. Transmission Effect of the Exchange Rate: only Direct for Now

The exchange rate has traditionally been, and still is, an important anchor for the Serbian economy. Empirical research by the NBS has brought out that the exchange rate channel is the most important channel of monetary transmission.[b)] On the basis of the standard methodology, the partial autoregressive distributed lag model (ADL) and the vector autoregressive model (VAR)[1], it has been estimated that the short-term transmission effect amounts to around 0.3, and the long-term one between 0.45–0.50, with the period of estimates covering the period from January 2001 to June 2006, that is, from Q1 2001 to Q2 2006.

b) Vilaret, S. and M. Palić, (2006), Exchange rate pass-through effect on prices in Serbia, National Bank of Serbia Working Paper, Belgrade, National Bank of Serbia.

Table L1-1. ADL Assessments of the Transmission Effect of the Nominal Foreign Exchange Rate[1)]

	Monthly Data		Quarterly Data	
	Retail Price Index	Core Prices	Retail Price Index	Core Prices
Short Term	0.20	0.20	0.26	0.26
Long Term	0.39	0.26	0.50	0.40

Note: Quarterly data is obtained by averaging monthly data over quarters.
1) Weighted average of dinar/euro and dinar/dollar exchange rate, weighted by 70% and 30%, respectively.

Table L1-2. VAR Assessments of the Transmission Effect of the Nominal Foreign Exchange Rate

	Retail Price Index	Core Prices
1 month	0.10	0.15
3 months	0.30	0.24
12 months	0.46	0.38
Nominal foreign exchange rate effects cease after	6 months	9 months

Relatively high levels of the transmission coefficient show that there is a significant impact of the initial shock of the exchange rate on prices, but that it is incomplete. The effect of the nominal effective exchange rate is higher for headline than for core inflation, and the estimated coefficients on the basis of quarterly data are higher than what is obtained on the basis of monthly data.

The impact of the exchange rate shock on domestic prices lasts for more than a year, but it is felt the most in the first three months. Practically two-thirds of the total transmission effects are visible in the prices over the first three months and it is then completed during the year. However, half a year later, prices no longer respond to the exchange rate shock.

The above estimates of the transmission effect assume symmetry in the movements of prices relative to the change in the exchange rate, i.e., that prices respond with the same intensity in

1 McCarthy (2000) examined the impact of the exchange rate and imported prices on domestic inflation, by estimating the VAR system in the following order of variables: oil prices in the local currency, the output gap, the nominal exchange rate, imported inflation, producer prices inflation and consumer prices inflation. The transmission effect of the exchange rate in the economy of Serbia was obtained on the basis of a somewhat altered order of variables relative to the original model: the oil price denominated in the local currency, the output gap, changes in the nominal exchange rate, changes in broad money, producer prices inflation and consumer prices inflation (alternatively, of core prices, prices of tradables, etc).

both directions at a particular change in the exchange rate. Later in this paper, we investigate whether there is asymmetry in the price response to the change in the exchange rate.

For this reason, the above analysis was repeated on monthly and quarterly data that covers a longer period from January 2001 to December 2007, that is, from Q1 2001 to Q4 2007.[c] The obtained results were compared with the results of the 2006 study (Vilaret, S and Palic, M) in which the same methodology was used. Finally, it was examined whether there is asymmetry in the transmission effect.

c) Tasic, N. (2008), "Pass – through of the Exchange Rate to Prices in Serbia: 2001–2007, Working Paper, National Bank of Serbia, a preliminary and incomplete version.

The results are presented in Table 3. The first two lines present estimates of the short-term and long-term "transmission" effects and serve the purposes of comparison with the results of the research carried out by Vilaret and Palic. The rest of the results in Table 3 refer to the estimate of the transmission effect of depreciation and appreciation, nominal and real.

Table L1-3. Transmission of the Foreign Exchange Rate onto Retail and Core Prices

	Monthly Data		Quarterly Data	
	Retail Prices	Core Prices	Retail Prices	Core Prices
Short Term	0,1816*	0,1335*	0,2439*	0,1673*
Long Term	0.4962	0.1852	0.3229	0.2055
Effects of Nominal Appreciation				
Short Term	0.0399	0.2662	0.3533	0,3558*
Long Term	0.111	0.0019	0.4596	-0.1046
Effects of Nominal Depreciation				
Short Term	0.3231	0,2662*	0.1532	0,3558*
Long Term	0.8988	0.3671	0.1992	0.4572
Effects of Real Appreciation				
Short Term	-0,2122*	-0,0817**	-0,0051**	0.1113
Long Term	-0.4817	-0.1048	-0.0067	0.1369
Effects of Real Depreciation				
Short Term	0,4051*	0,2588**	0,3742**	0.1986
Long Term	0.9197	0.3321	0.4929	0.2443

Note: Standard errors consistent in situations of both heteroschedasticity and autocorrelation have been obtained using Newey and West (1987) methodology. The statistical significance of long-term estimates has not been calculated.
* indicates a significance level of 10 per cent; ** indicates a significance level of 1 per cent.
If estimate is given using and, then * and ** correspond to a statistically less significant coefficient.

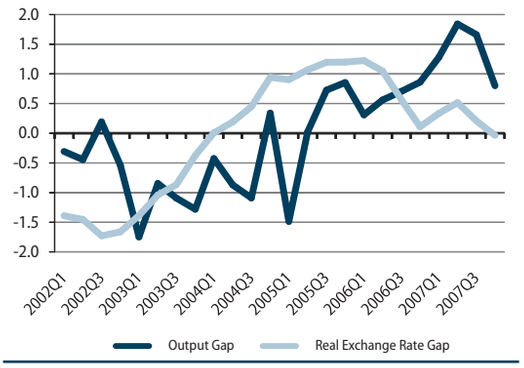
The transmission effect of the nominal effective exchange rate in Serbia is incomplete and below one (this effect does not exceed 0.5 even in the long run, on the assumption of a symmetric response of inflation to the changes in the exchange rate). Still, the estimates of this effect remain relatively high. It is obvious, however, that the transmission effect was lower compared to the previous analysis. This finding is consistent, regardless of the methodology applied.

Like in the previous study, estimates obtained by using the ADL methodology suggest that the long-term transmission coefficient, just as the short-term one, is higher for retail prices than for core prices. The maximum short-term transmission coefficient is 0.25, and long-term 0.50 in the case of retail prices.

Although further research is needed, it is obvious that the impact of the exchange rate is asymmetric: retail prices and core prices respond differently to changes in the exchange rate during appreciation and during depreciation of the exchange rate: the transmission effect is much higher during the depreciation of the local currency, and lower during the appreciation of the local currency. The maximum short-term impact of nominal depreciation on retail prices amounts to 0.32, and long-term to 0.90. Precisely due to this asymmetric effect, the impression is gained that the impact of the exchange rate on inflation is incomplete. In the case of core prices, the respective transmission coefficients amount to 0.36 and 0.45. This finding does not come as a surprise, bearing in mind that prices can be expected to move in parallel with the exchange rate during depreciation (because of the share of imported goods in price indices), while during appreciation prices are downward rigid. Similar results have been obtained by using the VAR methodology.[d] Contrary to the research (Vilaret, S and M. Palic, 2006), the estimated coefficients on the basis of monthly data (the long-term transmission effect reaches as much as 0.90) are higher than what is arrived at on the basis of quarterly data (0.50).

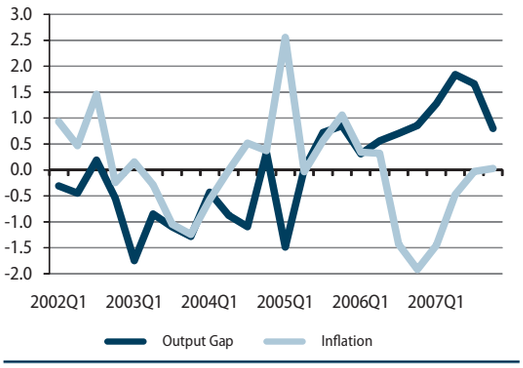
d) Tasic, N. (2008), "Pass – through of the Exchange Rate to Prices in Serbia: 2001–2007, Working Paper, National Bank of Serbia, a preliminary and incomplete version.

Graph L1-4. Impact of Real Exchange Rate on Output Gap



Note: Correlation coefficient=0.48; corrected coefficient of determination=0.52; GDP gap=0.06*real exchange rate gap + 0.61*GDP gap (-1)
[2.0] [4.17]
Numbers in brackets are t-statistics for the estimated coefficients.

Graph L1-5. Impact of Output Gap on Inflation



Note: Correlation coefficient=-0,23; corrected coefficient of determination=0.2; inflation=5.75-0.42*GDP gap+0.47*inflation(-1)
[2.49] [-0.68] [2.50]
Numbers in brackets are t-statistics for the estimated coefficients

The impact of the exchange rate on inflation is only direct for the time being. A preliminary empirical analysis[2] has shown the absence of the indirect impact of the exchange rate on inflation, through demand. The impact of the real exchange rate on the output gap[3] is very weak (short-term 0.06 and long-term 0.15). Although it turned out that restrictive monetary policy has an impact on the output gap, explicit evidence, which would show that the output gap influences inflation, is still lacking. This is logical in the conditions of an underdeveloped financial market.

3.2. Interest Rate Channel: Neither Direct nor Indirect Transmission Exists

The active use of the interest rate as an instrument of monetary policy began only after the introduction of the new monetary policy framework. Through an analysis of the movements in the reference interest rate and banks' market-based interest rates, we shall try and see whether the implementation of the new monetary policy regime has enabled the strengthening of the role which the interest rate channel plays in the transmission mechanism.

Since interest rates on the interbank money market are determined by the movements in the reference interest rate of the central bank and are considered to be a measure of the opportunity cost of lending to the economy and households, it is natural to expect that changes in those interest rates will be reflected in the movements of banks' lending and deposit rates.

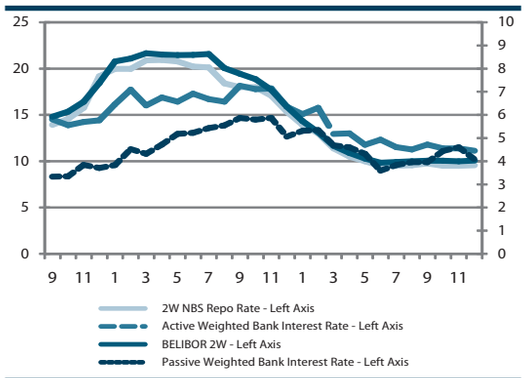
By monitoring the movements in the reference rate, interest rates on the interbank market and the lending and deposit rates of banks – a conclusion can be reached that this connection becomes far more discernible in the period following the introduction of the new monetary policy framework. Interest rates on the interbank market, Beonia and Belibor, show the same trend in movements as the reference interest rate, and they remain within the defined bounds of the interest rate corridor. Still, the existence of structural excess liquidity and numerous restrictions, such as credit limits set by parent banks abroad, which define the permitted volume of trade with other banks and with the NBS, result in occasional deviations from the reference rate and drawing near to the floor of the corridor (the interest rate on deposit facilities).

Banks make decisions on the level of lending and deposit rates primarily by taking account of the movements in interest rates on the foreign market (LIBOR, EURIBOR), since most loan agreements contain the indexation clause. However, by monitoring the movements in interest rates on the interbank money market and the lending and deposit rates of banks, it is possible to conclude that banks do not, after all, ignore the movements in the reference interest rate and that their response to its change is getting stronger with time.

2 Variables in the period from 2002 to 2007 were analyzed, by quarter. Variables are expressed as gaps (deviations from the long-term trend). Gaps in the observed variables have been estimated by means of the HP filter, and then the dependency was investigated between variables expressed in gaps.

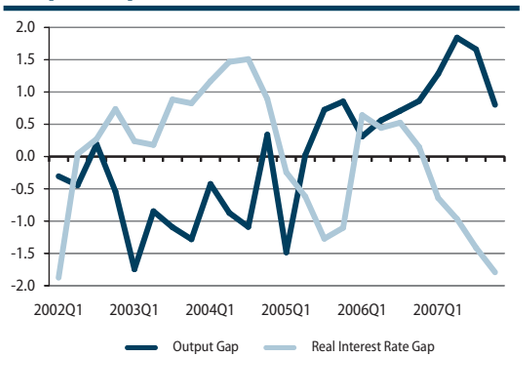
3 Non-agricultural Gross Value Added was used as a measure of economic activity (GDP in the text).

Graph L1-6. 2W Repo Rate, Commercial Banks' Interest Rates[1)]



1) In %, at the annual level.

Graph L1-7. Impact of Real Interest Rate on Output Gap



Note: correlation coefficient=-0.63; corrected coefficient of determination=0.47; GDP gap=-0.08*real interest rate gap + 0.56*GDP gap(-1)
[-1.23] [2.92]
Numbers in brackets are t-statistics for the estimated coefficients.

Over the observed period, lending rates have demonstrated a higher degree of response compared to deposit rates. This can be explained, first and foremost, by the fact that households, as main actors of savings, have a relatively limited access and range of opportunities regarding alternative ways to invest their resources (the stock exchange, pension and investment funds, etc.), and that the largest portion of savings is foreign-denominated, as well as that competition among banks is at the same time tougher when it comes to loans.

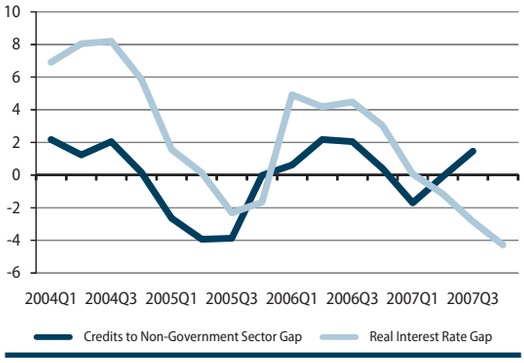
It is far more difficult to estimate the impact of interest rates on economic activity and inflation. Preliminary empirical research has shown that the real interest rate gap has no impact on GDP, just as the GDP gap has no impact on inflation.[4]

3.3. Credit Channel: Still Non-Existent

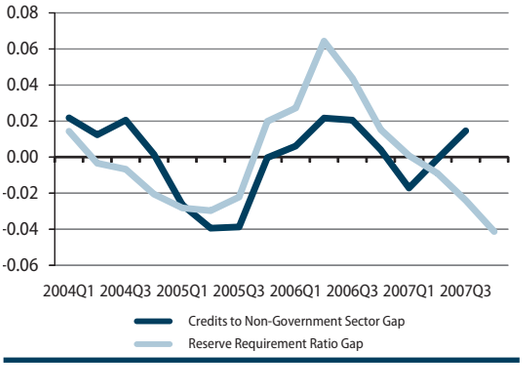
However, a particularly discouraging thing at this point is the absence of the credit channel. Credit grew, despite the rise in interest rates, which means that credit supply does not depend on local conditions. Accordingly, neither credit supply (the credit channel) nor credit demand (the interest rate channel) depend on the reference interest rate.

Similarly, the impact of the reserve requirement ratio has proven itself to be totally inefficient when it comes to limiting credit supply. Credit grew at an unabated rate, despite the raising of the reserve requirement ratio.

Graph L1-8. Impact of Real Interest Rate on Loans Granted to Non-Government Sector



Graph L1-9. Impact of Reserve Requirement on Loans Granted



4 There is, however, a combined impact of the real interest rate gap and real exchange rate gap on the GDP gap.

3.4. Can Administrative Measures Underpin Monetary Transmission?

The role of direct, administrative (regulatory) measures, as well as of prudential (precautionary) measures in the current policy of the NBS is controversial. On the one hand, the use of such measures is not best practice for countries that target inflation. Therefore the present monetary policy regime envisages a gradual fade-out of the use of such instruments in the designing of monetary policy. On the other hand, in a highly euroized economy direct monetary policy measures are the only available tool which influences the costs of transactions in euros or in dinars with the indexation clause. In line with this, the NBS still uses such measures in designing its policy. It is an open question how successful these measures were, whether they should have an even more important role in the future (at least in the transition period), or if they should be gradually eliminated. The NBS also relies on prudential measures and on the allocation of required reserves in the pursuance of the monetary policy objectives. For example, it raised the required reserve ratio several times in the course of 2006. Likewise, in the first half of 2006, the capital received from the parent company was excluded from the calculation of the banks' open foreign exchange position. Finally, in 2006 the maximum ratio between capital and consumer loans was imposed, and in 2007 it was tightened. Although more in-depth analyses are required, on the basis of hitherto academic research, as well as of international and Serbia's experience, three essential lessons can clearly be identified. First, these measures have very complex macroeconomic influences that are tricky to understand and difficult to predict. As such, they should not be used for targeting macroeconomic variables without a strict analysis. Second, since these measures can be easily circumvented, they often have a very weak effect on overall lending activity in the economy; instead, they affect the structure of loan approval sources. Finally, even when they are efficient in reducing the credit volume (or its growth rate), they can also reduce output, consumption and welfare, and have an adverse impact on inflation and the current account.

The macroeconomic effects of the allocation of required reserves are complicated, their implications for mechanisms of monetary transmission are poorly understood and not intuitive. Demands for an increased allocation of required reserves affect the economy through two channels. On the demand side, increased allocation impacts on deposit rates and can change the consumption schedule. On the supply side, it affects the spread between lending and deposit rates, which in turn determines the costs and level of activities financed out of loans.[5] The allocation of required reserves has the power to affect lending activity, but it can also result in lower output and consumption, higher prices and deterioration of the current account balance. Let us assume a permanent increase in the required reserve ratio which is uniformly applied to all types of foreign currency denominated liabilities, thus imposing a tax on all commercial banks' sources of financing. In the long run, this measure has a constant adverse impact on the level of welfare. The tax widens the spread between lending and deposit rates, and thus also the costs of domestic production financed out of loans. Output is falling, and so is domestic consumption. With a reduction in the overall level of bank credit, savings deposits are going down as well (since the household sector has lower incomes), and the current account balance remains unchanged in the long run. In the short run, inflation goes up and the balance of payments is exacerbated. Inflation increases despite a cut in output, because production costs have gone up. The balance of payments is exacerbated because the consumption of tradables increases relative to non-tradables, since the cost of domestic production goes up. Although we can list some other possibilities as well, the illustration of the adverse effects on inflation and the current account in this experiment indicates the disadvantages of the deliberate use of such measures with a view to influencing macroeconomic variables. Required reserves impact on deposit rates and the spread between lending and deposit rates, although intuition can often deceive regarding this channel. For example, an increase in the reserve requirement on foreign exchange deposits (but not on foreign borrowing or capital), inevitably leads to lower deposit rates (*ceteris paribus*) thus encouraging

5 It is important to realize that the level of activity and the supply side are not affected by the level of the interest rate, but rather by the spread between lending and deposit rates, because it is a difference between loan interest costs and opportunity costs of their depositing.

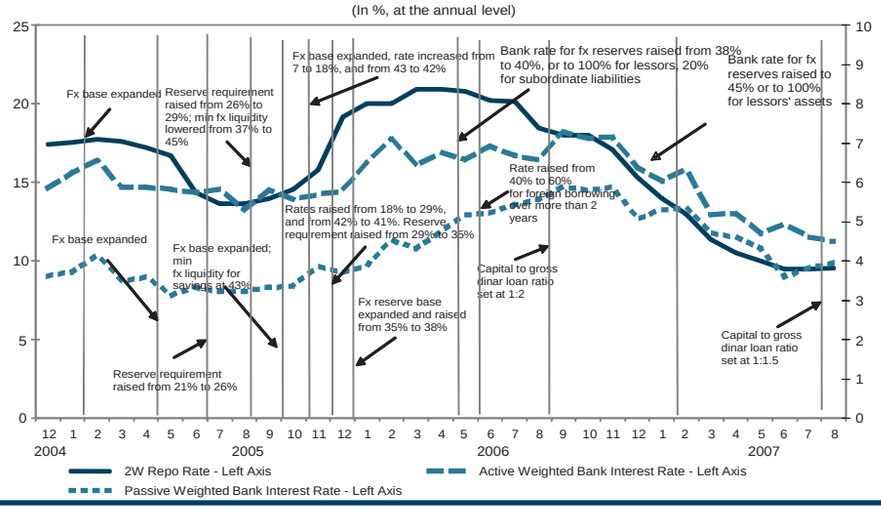
higher economic expansion. Since marginal costs of foreign financing remain unchanged, it is necessary to make the price of the domestic source of financing a competitive alternative to foreign financing. Therefore, the interest rate on domestic deposits is falling rather than rising.

It seems that Serbia's experience confirms the difficulty of forecasting the effects of changes in the allocation to required reserves on lending and deposit rates, as shown in Graph L1-10. Between numerous different changes related to the allocation of the reserves from the beginning of 2005 to date, it is impossible to establish a clear-cut model of response by lending and deposit rates. Essentially, we can differentiate among four categories of these measures (*a change in the required reserve ratio*, *a change in the base for the allocation of required reserves*, *a change in maturity, a change in the capital to loan ratio*). As consequences of these changes, the changes in market-based interest rates were analyzed, as well as important growth rates of credit aggregates, which occurred in the months following the introduction of these measures. In certain cases, lending and deposit rates declined after the tightening of these measures. In some other cases, they went up, though it is difficult to find a clear-cut general model of behavior. Above all, it appears that the effect of the change in the reference interest rate, since its introduction in September 2007, has had more influence on the setting of market-based lending and deposit rates than any other undertaken measure.

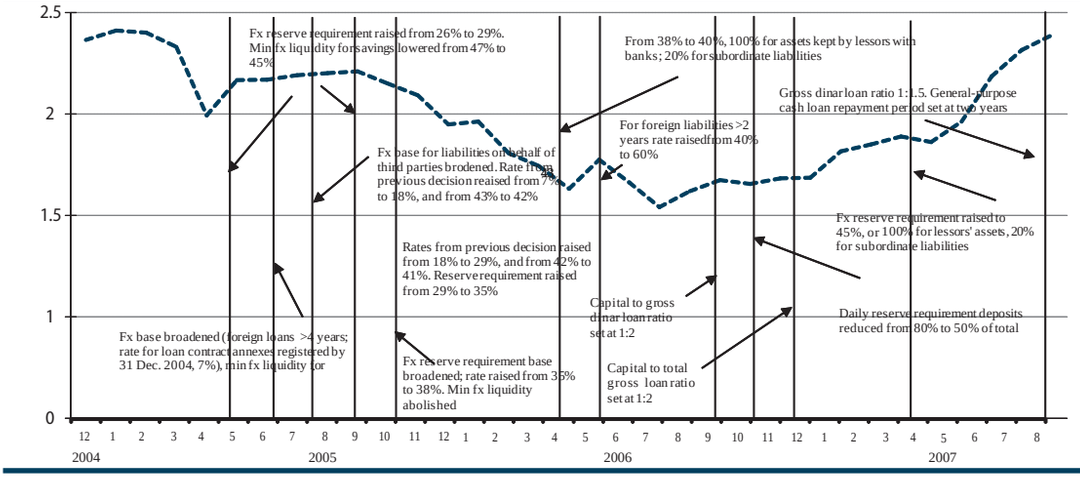
Evidence for credit growth is equally vague. With the exception of changes in the capital ratio (admittedly, only two cases), the total credit growth did not visibly slow down after the implementation of the measures aimed at tightening. In many cases, an increase in certain important economic aggregates (such as the total credit volume) – actually accelerated. This is, for example, true in the cases of changes in the required reserve ratio – while the growth rates of credit aggregates of the banking sector declined following the increase in required reserves (three out of four cases), overall borrowing (including direct foreign borrowing), in fact, went up more rapidly in three out of four cases.

Finally, the power of the impact of the required reserve allocation on lending activity, inflation and other macroeconomic variables – essentially depends on the feasibility of circumvention. When restrictions on bank credit are in force, the demand for reserves increases the costs of bank intermediation relative to the costs of direct foreign borrowing, and thereby boosts them. Such effects are often very strong and prevent the intended effects of the measures, as has been observed in many countries (e.g. in Croatia in 2003). Serbia's experience also indicates the significance of the circumvention of required reserves, as testified by Graphs L1-11–L1-14. The tightening of the measures and the capital to loans ratio in the summer of 2006, although effective in the case of the rising foreign debt of banks (Graph L1-12), contributed to a surge in direct foreign borrowing (Graph L1-11) and capitalization of banks (Graph L1-13). The overall credit growth in the economy (the sum of domestic and foreign borrowing) was not affected (Graph L1-14).

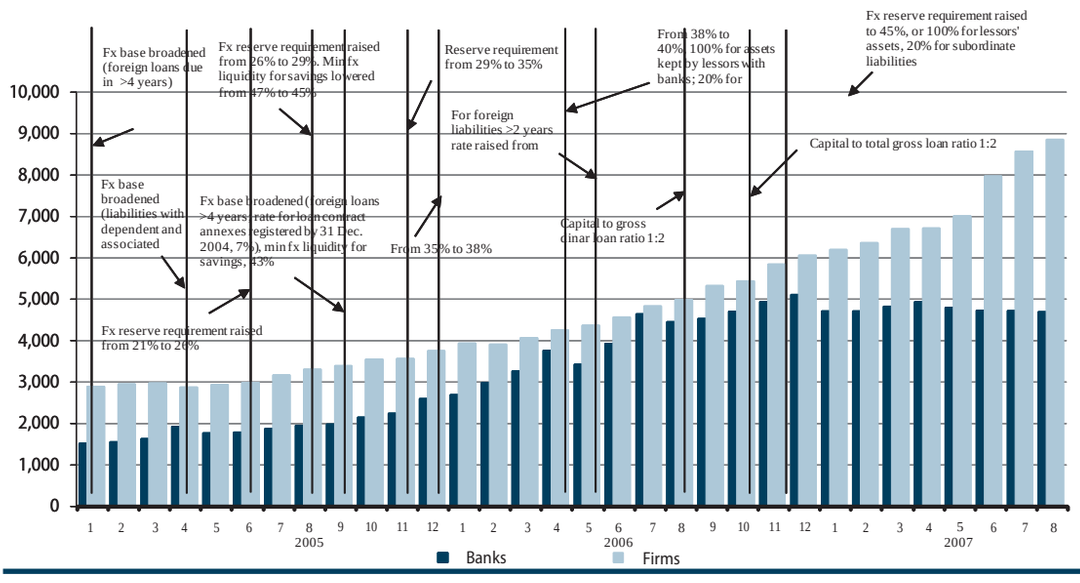
Graph L1-10. 2W Repo Rate, Commercial Bank Interest Rates



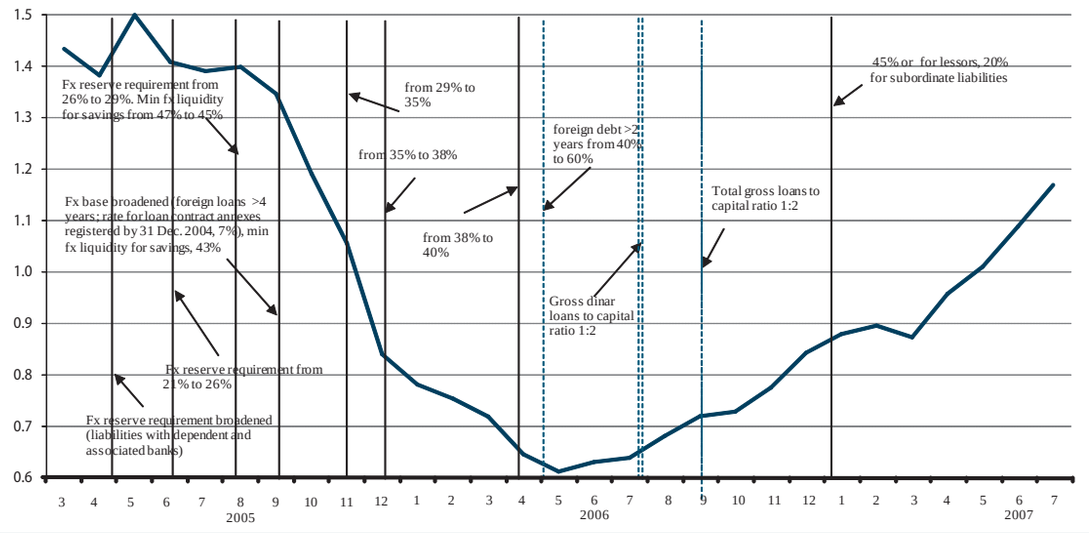
Graph L1-11. Foreign Debt of Companies



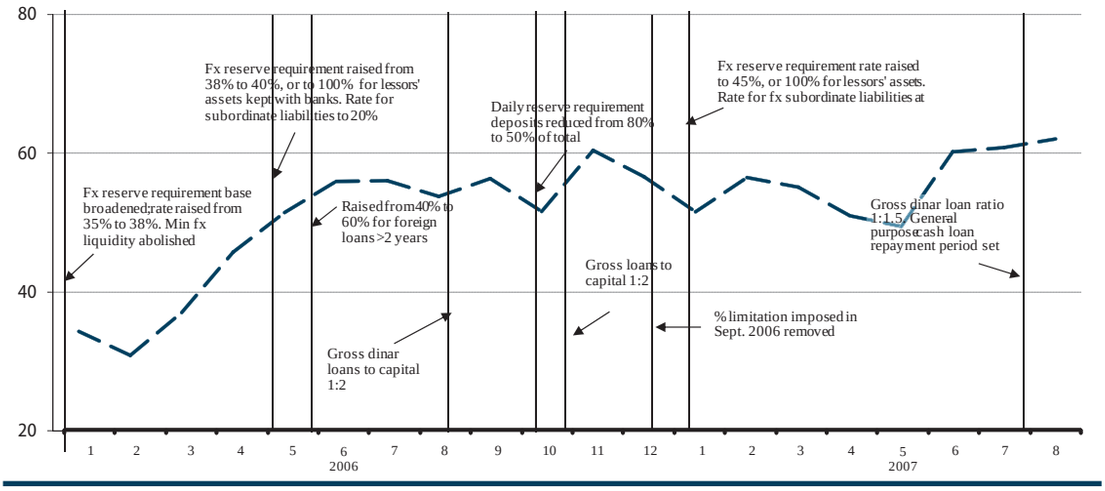
Graph L1-12. Foreign Private Sector Debt ($ millions)



Graph L1-13. Bank Capital/Bank Borrowing Abroad



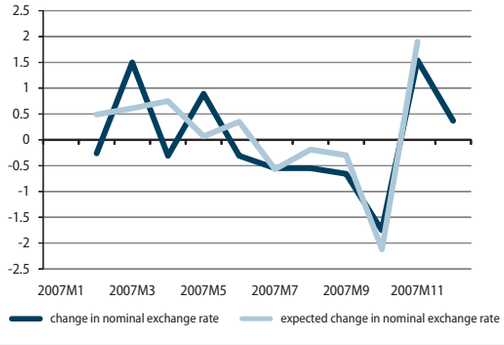
Graph L1-14. Foreign and Domestic Private Sector Debt



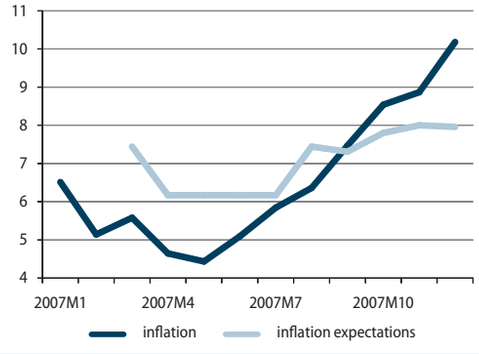
3.5. Inflationary Expectations Have Undisputed Impact on Actual Movements

As of January 2006, the NBS, in cooperation with TNS Medium Gallup, has been monitoring expectations related to inflation, the exchange rate, the NBS's actions, economic growth and wages for four sectors (the real sector, the financial sector, households and trade unions). According to the results of the survey, in all the sectors inflationary expectations declined in the course of 2006, although on average the expectations remained higher than the actual inflation. Lack of trust in the NBS required a far stricter monetary policy in order to accomplish the same objective. Finally, in September 2007, the expectations and actual developments tallied. After the stabilization of inflationary expectations, they grew anew in all the monitored sectors. A hike in the prices of agricultural produce and foodstuffs, as well as media reports on price increases, have resulted in a rise in expectations in the household sector to more than 15% at an annual level. The expectations of all the sectors, apart from the financial, are much higher than the actual inflation. The household sector is in the lead when it comes to unrealistically high inflationary expectations. Figures unambiguously show that the expected inflation and the expected exchange rate had an impact on actual movements.

Graph L1-15. Expected and Actual Changes to Nominal Exchange Rate



Graph L1-16. Inflationary Expectations and Actual Year-on-year Inflation Rates



4. Implications for Monetary Policy

4.1 Undisputed Predominance of the Exchange Rate Channel

The high degree of euroization is the best indicator of how small the room is for the pursuance of an independent monetary policy. It is a consequence of a long history of instability, inflation

and hyperinflation, that is, of the mistakes in the conduct of economic policies in the past. These mistakes include institutional arrangements for protection against high inflation. While some countries, such as Chile or Peru, for example, secured protection through mandatory indexation of deposits to the inflation rate, in Serbia it is secured through the possibility to save in foreign currencies. The degree of euroization was further increased after the privatization of the real and financial sectors, as a result of the capital inflow and change in the banking sector's ownership structure. At present, 87% of the banking sector is foreign-owned. These banks have no problem in obtaining foreign capital, which makes them independent from the liquidity provided by the central bank. Lastly, the degree of euroization has increased due to the strong credit demand in conditions of low dinar-denominated savings. The high degree of euroization diminishes the influence of the reference interest rate on the lending and deposit rates of commercial banks, and on the efficiency of the credit channel.

Against this backdrop, if the NBS wants to achieve a low and stable inflation rate, it has to rely on the **direct influence** of the exchange rate on inflation. To this end, it is necessary to establish a comfort zone within which the movements in the exchange rate are acceptable from the standpoint of meeting the inflation rate target. The width of the zone should be based on the estimate of the magnitude of transmission from the change in the exchange rate to prices, in a period of 12 months. A comfort zone does not mean the fixing or targeting of the exchange rate, but serves as a benchmark to the central bank for adjustment of monetary policy (interest rates) between quarterly projections of inflation. Once a low inflation rate is achieved and maintained, the central bank will start decreasing its reliance on the direct exchange rate channel, increasingly relying on the indirect one.

Whether other channels of monetary transmission, which would make monetary policy more efficient (e.g. the interest rate channel or the credit channel) will also develop depends on the manner in which this channel is used (**directly**, which implies that the central bank has opted for **exchange rate targeting** as its monetary strategy, where interventions on the foreign exchange market constitute the main monetary policy instrument, or **indirectly**, where the influence on the exchange rate is exerted through changes in the reference interest rate, which means that the central bank has opted for **inflation targeting**, as its monetary strategy).

Just as in the case of many other central banks, after the initial stage of transition and the use of the exchange rate as a nominal anchor, the NBS opted for the strategy of inflation targeting, thus creating room for the strengthening of other transmission channels. Numerous empirical analyses have shown that in other countries, despite the predominance of the exchange rate channel, the use of interest rates as the main instrument of monetary policy has led to a considerable strengthening of the role of interest rates in the transmission mechanism.

4.2. The Choice of Monetary Strategy Depends on the Exchange Rate Regime: Still, our Choice is Inflation Targeting

Monetary strategy (monetary policy) depends on the exchange rate regime. Under conditions of the capital inflow, the choice boils down to the fixed exchange rate or the managed float, i.e., **exchange rate targeting** or **inflation targeting**, which implies a flexible exchange rate. An independent monetary policy, against the backdrop of a fixed exchange rate, is possible only if the inflow is controlled. Against the backdrop of capital inflow and a fixed exchange rate, there can be no independent monetary policy. And if the inflow is not controlled, the independence of monetary policy can be secured only by the flexibility of the exchange rate.

Capital inflow complicates macroeconomic policy in the case of both fixed and flexible exchange rates. That is why it is necessary to *decide* whether we should fight the inflow *per se* or its macroeconomic consequences. Our view is unequivocal: the capital inflow should not be stopped, first because it is more of a benefit, gain, a desired good than problem (it has more positive than negative consequences), and second – because that is impossible, since money always finds a way to "get in" or "out" if there is an incentive.

It is interesting to analyze how the exchange rate channel operates under the conditions of two different monetary strategies. **In the regime of inflation targeting** (**IT**) and a flexible nominal exchange rate, the capital inflow first comes to the money market and the foreign exchange market and fuels nominal appreciation of the exchange rate. With the deterioration of external competitiveness, prices will fall in order to establish a sustainable external position. The central bank maintains price stability by reducing the restrictiveness of monetary policy, which leads to depreciation of the exchange rate and the (desired) price growth. At the aggregate level, the country displays strong fluctuations in the nominal and real exchange rate, which will bring it back to the "equilibrium" value in the long run. **In a fixed exchange rate regime**, the capital inflow directly enters the goods market (because the money and foreign exchange markets are limited by the maintenance of the fixed exchange rate). The capital inflow contributes to a rise in aggregate demand. Prices start to increase. This deteriorates external competitiveness and results in an exacerbated external position of the country. At the macroeconomic level, persistent appreciation of the real exchange rate will eventually result in the unsustainability of the external position. The only way to make this situation sustainable is to either increase productivity or pursue a fiscal policy that will contribute to a fall in aggregate demand. Hence, IT is more efficient when it comes to price control, while risks related to the balance of payments are similar.

With this in mind, the NBS embarked on targeting inflation as of September 2006. It is facing difficult initial conditions and many challenges. Inflation targeting emerged when the focus of the previous regime toward a real exchange rate, through its depreciation failed, which led to both high inflation and a high current account deficit.

Inflation targeting has been chosen as the only reasonable alternative, despite many challenges, such as low credibility and poor monetary transmission. Building credibility was particularly difficult for the new regime, bearing in mind the turbulent hyperinflationary past, expectations of high inflation and incomplete independence of institutions. Challenges with regard to monetary transmission stem from the fast impact of the exchange rate on the price level, a high degree of real and financial dollarization, and a highly underdeveloped money and foreign exchange markets. In the confrontation with these challenges the NBS has changed many things. Short-term interest rates have become the key instrument of monetary policy for accomplishing inflation-related objectives, the role of interventions on the foreign exchange market has diminished, and the importance of macroeconomic forecasts and analyses in decision-making has increased. The inflation report has become the main means of communication, and promotes transparency and the NBS's accountability of objectives and policies. The flexible exchange rate is the key support of the new regime, although it has uncovered the vulnerability of the economy in relation to the movements in the exchange rate against the backdrop of a high current account deficit.[6] As a means for achieving price stability, the flexibility of the exchange rate constitutes a cushion against inflationary shocks, while allowing the economy to reach a new equilibrium. Moreover, with a high influence of the exchange rate on the price level, appreciation of the exchange rate was the main channel for lowering inflation and meeting the inflation target. However, the alarmingly high current account deficits raise the question of sustainability of such a strategy in curbing inflation. The answer to this question depends on whether the real exchange rate is

6 **Fluctuations of the exchange rate** are *normal*, they occur everywhere, if economic fundaments and investors' sentiment change. For instance, these days investors are withdrawing from the majority of countries in the region. To a certain extent, this turbulence is *healthy*, it defends the economy against shocks and helps the economy to find a new equilibrium, this being the essence of flexibility. Likewise, it is also *instructive*. The market and economic agents have to accept that the exchange rate is volatile, and to protect themselves against the foreign exchange exposure. The NBS has pointed to the necessity of protection since the moment of the adoption of its New Framework. I have to say that I am not very sympathetic to those who complain about the exchange rate fluctuations. There are two reasons for this. ***First,*** it is possible today for exporters to determine/fix the exchange rate at which they sell their goods, much before they really want to repatriate the proceeds from exports. By doing so, they eliminate the possiblity of a rise in the exchange rate before their goods are ready for sale, and likewise, they cannot make additional gains if the exchange rate continues to fall. Exporters can, of course, choose not to use this market and to gamble, expecting to get a much more favorable exchange rate in the future. They are free to make a choice. But, it is important to recognize that they have assumed the foreign exchange exposure upon themselves, hoping for a better exchange rate in the future. The assumption of the foreign exchange exposure is not wise for exporters and producers – it is a job for financial specialists.

powerful in bringing the deficit down to a sustainable level. If it turns out that it is not powerful enough to change the structure of demand, then influence has to be exerted on the level of absorption. **In any event, the exchange rate cannot simultaneously be used for the purposes of monetary policy and adjustments of the balance of payments.**

4.3. The Influence of the Exchange Rate on the Balance of Payments is Considerably Weaker than the Influence of the Exchange Rate on Inflation

For quite some time now, some economists in Serbia have considered the real appreciation of the dinar's exchange rate against the euro to be the main cause of the high trade deficit, and put the blame squarely on the NBS. In their opinion, depreciation of the dinar (as much as 120 RSD/EUR is mentioned!) would make domestic goods abroad cheaper and imported goods more expensive, thus strongly improving the trade balance.

On the other hand, the conclusion of the recent IMF mission is that the main cause of the trade deficit lies in high public spending (high imports) and absence of structural reforms (low exports). In this situation, the NBS has a choice between allowing this to spill over into price increases through neutral or expansive monetary policy (as in 2004 and 2005), and preserving price stability through restrictive monetary policy, with real appreciation of the local currency, and a deterioration of the trade balance. In the opinion of the IMF mission, the NBS rightfully pursued a restrictive policy, because otherwise, "attempts to inflate away the loss of competitiveness, which has its roots in excessive wage increases, slow structural reforms, and relatively loose fiscal policies, would damage the credibility of monetary policy while providing no sustained relief for exports."[7]

The introduction of the (informal) regime of inflation targeting has eliminated all dilemmas – the main objective of the NBS is to maintain price stability within the target range, with the objective related to inflation in the initial years of the new framework being set at a higher level and in a broader range than in most of the countries that target inflation, in order not to harm economic activity.

What is, generally speaking, the scope of monetary policy in influencing imports and exports? It is an undisputed fact that a real exchange rate impacts on imports and exports. What determines the movements in the real exchange rate? Numerous studies have established that a long-term trend in the real exchange rate is for the most part determined by the level of development of countries, that is, by differences in productivity. Likewise, it is beyond dispute that monetary policy exerts an influence on the real exchange rate, and consequently on the trade balance as well. Still, in examining the impact of monetary policy on the trade balance it is necessary to bear in mind the following facts:

• monetary policy does not affect the long-term trend in the real exchange rate, but only the fluctuations around the trend (the appreciation/depreciation gap);

• export and import trends, therefore, are not defined by the actions of monetary policy, but rather by fundamental factors, such as productivity, structural reforms, FDIs, public spending;

• hence, the scope of monetary policy boils down to fluctuations of exports and imports around the medium-term trend. The NBS can exert an influence on foreign trade, but only to the extent to which it can exert an influence on the real exchange rate, i.e., on the fluctuations around the trend (the import and export gaps).

In order to establish to what extent monetary policy affects the trade balance, we made an analysis in which we tested the correlation between the import/export gap and the real exchange rate gap. The empirical analysis was made on the gaps of quarterly series from Q1 2001 to Q4 2007.

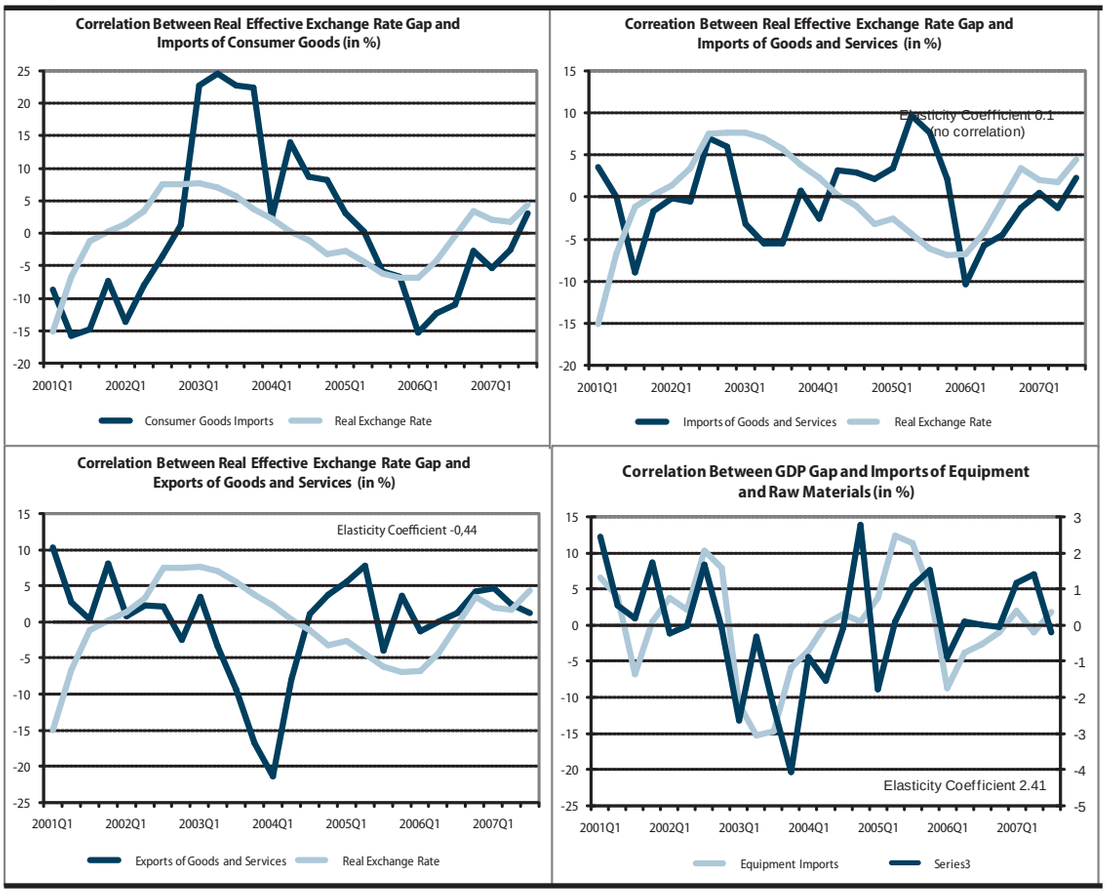
The results show a correlation between the real exchange rate gap[8] and exports of goods and services. The appreciation gap leads to the negative export gap and vice versa. The estimated

7 The Concluding Statement of the IMF mission of 6 November 2007.
8 In graphs, positive values stand for the appreciation gap, and negative for the depreciation gap.

elasticity coefficient is statistically significant and amounts to -0.48, which means that appreciation of the real exchange rate of 1% causes exports to decline by 0.48%.

No correlation was found between the real exchange rate gap and the total imports gap. The estimated elasticity coefficient is close to zero (0.1) and is not statistically significant. This can be explained by the fact that equipment and intermediates account for the bulk of imports (around 80%), and their import demand is to the largest extent determined by the production needs of the economy, and to a much lower extent by the real exchange rate.

Graph L1-17.



This becomes obvious when we separately observe imported consumer goods, on one side, and imported equipment and intermediates, on the other. If we regress imports of equipment and intermediates on the output gap, instead of the real exchange rate gap, we obtain a statistically significant coefficient, which amounts to 2.24. This confirms the assertion that the imports of this group of goods are determined primarily by economic activity.

The correlation between imports and the real exchange rate exists when instead of total imports we observe only the imports of consumer goods. On the graph below, the correlation is striking between the real exchange rate gap and imports of consumer goods. The estimated elasticity coefficient is 1.23. It is necessary to bear in mind here that we are talking about a mere 20% of total imports. On the assumption that import of equipment and intermediates is completely inelastic to the real exchange rate, the elasticity coefficient of total imports would amount to around 0.24.

The sum of long-term coefficients of the elasticity of demand for imports and exports in our case amounts to 0.72 (0.24+0.48), meaning that the Marshall-Lerner condition has not been met, i.e., that depreciation (appreciation) is not a powerful tool in the fight against the trade deficit. Depreciation of the nominal exchange rate does not mean an automatic increase in exports and decline in imports, as it is accompanied by inflation which will, to a large extent, neutralize

this change in real terms. The analysis has shown that the exchange rate policy should not be conducted with a view to establishing equilibrium between objectives related to the balance of payments and those related to inflation. It is also a fact that we have tried balancing between different objectives several times now, the latest attempts being in 2004 and 2005 (under the influence of the IMF), which resulted in a surge in inflation (to 18%); other countries had a similar experience (Chile, Hungary, Poland, Israel). They all abandoned such a strategy when they eventually realized that all they were doing was producing even higher inflation.

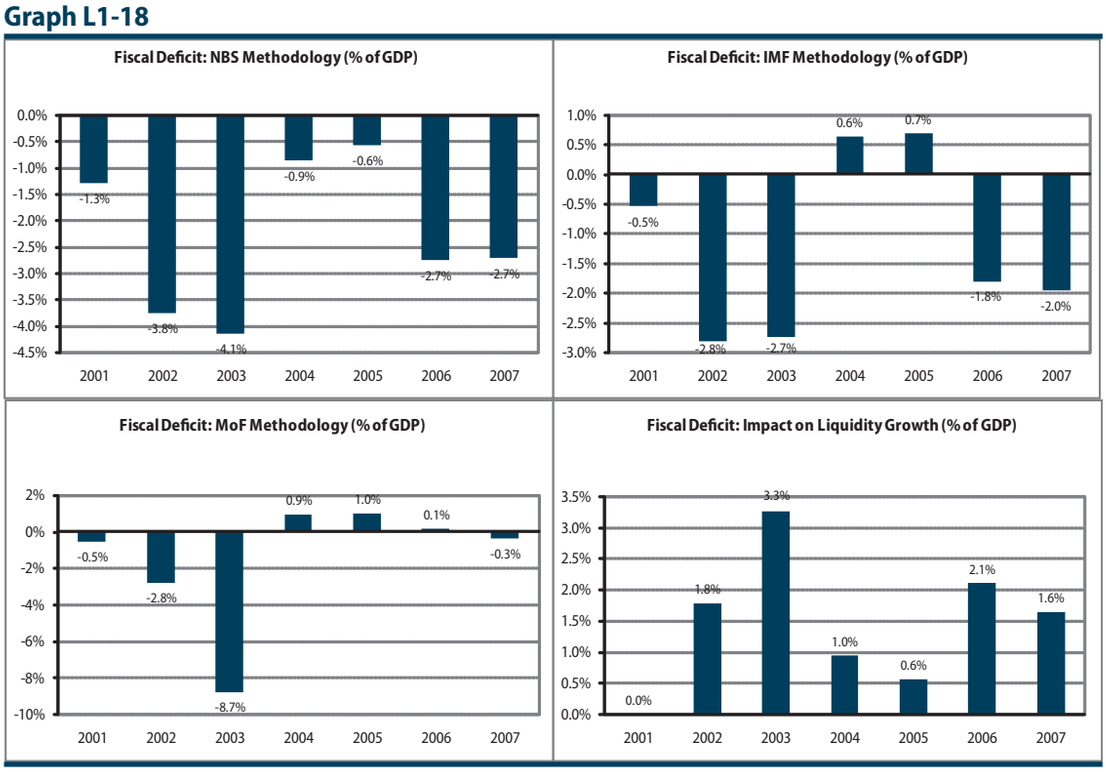
On the basis of these results, it may be concluded that monetary policy does have impact on imports of consumer goods and (total) exports through the real exchange rate gap. This impact, however, can only be short-term. For achieving a permanent and long-term foreign trade equilibrium it is necessary to: with respect to exports, carry out structural reforms that would adjust the Serbian economy to the conditions that prevail on the world market and, with respect to imports, pursue a responsible fiscal policy, which would not require monetary policy to react with high restrictiveness.

5. Impact of Fiscal Policy

Naturally, I wish to discuss another aspect of macroeconomic policies here – fiscal policy. It concerns the tax revenue the government can collect from the economy and the amount it has to spend. Changes in fiscal policy have important implications for monetary policy, the real interest rate and the real exchange rate. Monetary policy can control inflation at a low and stable level, but how tight it has to be to achieve its objective depends on fiscal policy.

Graph L1-18 shows the fiscal position, according to different methodologies. A balanced budget or even a surplus according to one methodology easily becomes a deficit of 2%-3% of GDP according to the other – which makes the conduct of monetary policy much more difficult and complicated. Experimenting with budget classification is often "abused" both by economic policy makers and by their opponents in order to portray the government position or fiscal policy as more (or less) responsible. It is up to analysts, however, to prevent manipulation with data from going unnoticed.

Graph L1-18



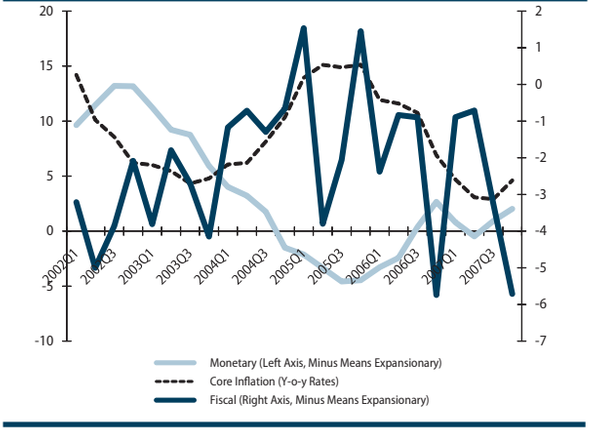
The Ministry of Finance relies on the GFS methodology of 1986, but uses it "creatively" when it comes to the classification of revenue and expenditure. There are many non-standard items, particularly in the form of proceeds from the sale of licenses and repayments of old debts and liabilities to the household sector. Many of these items are treated in a manner which blurs the picture of the overall fiscal position. The NBS strictly adheres to the logic of the GFS methodology, in assessing the fiscal position. The IMF methodology is more similar to the NBS methodology (differences exist only in the treatment of the repayments of FFCDs, which the IMF treats as classical debt repayment, and the NBS as current expenditure). Finally, from the standpoint of monetary policy, maybe the most important indicator is the influence of the government on liquidity creation, since extra liquidity either contributes to a rise in inflation, or spills over into the current account deficit.

Under the methodology of the Ministry of Finance, the fiscal result was until recently balanced, with the deterioration starting with Q3 2006. A stricter methodology, however, applied by the NBS and the IMF, shows a different result. Under both methodologies, the government ran high deficits in 2006 and 2007 (the deficit is higher under the NBS methodology). Furthermore, under the NBS methodology, the deficit had existed even before that, only it had been relatively small. Finally, the fiscal position measured by the influence of government operations on liquidity, shows that fiscal policy has been more or less expansive since 2002. Yet, irrespective of the methodology concerned, the fiscal position has deteriorated strongly as of Q3 2006, which makes the disinflation task of monetary policy much more difficult.

The deterioration of the fiscal position occurred at approximately the same time as the introduction of the inflation targeting regime, precisely at the point when the active support of the government was needed.

The central dilemma for monetary policy makers in these conditions is whether they should insist on strict inflation targeting, despite the lack of support from the government and fiscal policy. Monetary policy is responsible for inflation and the recent experience has shown that it is really capable of delivering a low inflation rate, irrespective of the fiscal stance (Graph L1-19). The extent to which fiscal policy will affect inflation depends on the response of monetary policy. Accordingly, it is possible to pursue a restrictive fiscal policy, but to have inflation because of monetary policy (a fall in interest rates and depreciation of the currency). Likewise, expansive fiscal policy in conditions of a sufficiently restrictive monetary policy can deliver low inflation. This is shown by Serbia's experience in the period 2004-2006. Thus in the period 2004-2005, under the IMF Program, fiscal policy contributed to a fall in aggregate demand, but monetary policy (primarily due to the depreciation of the local currency) was expansive. Contrary to this, in 2006, fiscal policy contributed to the growth of aggregate demand, but the restrictiveness of monetary policy ensured disinflation.

Graph L1-19. Monetary and Fiscal Policy Stance



Despite the success in lowering the inflation rate, options available to the NBS remain limited without good coordination with the government. The flexible exchange rate was the key lever of the new regime, but it exposed a vulnerable economy to fluctuations of the exchange rate, thus increasing the already wide current account deficit. Under the conditions of a relatively high transmission effect of the exchange rate, the dinar appreciation was the main channel for disinflation. However, an alarmingly high current account deficit has raised the question of the sensitivity and sustainability of such a disinflation strategy. With a weak interest rate transmission channel in a highly euroized economy, administrative and direct measures were used to support monetary transmission, as well as to help in reducing the current account deficit, but without visible results.

6. Conclusion

The exchange rate has traditionally been, and still is, an important anchor for Serbia's small, open, and highly euroized economy. Preliminary empirical research has shown that the exchange rate channel is the most important channel of monetary transmission. More specifically, the impact of the exchange rate on inflation is, for the time being, only direct and asymmetric, considerably higher in the period of depreciation relative to the period of appreciation. Other channels of monetary transmission, with the exception of the expectations channel, have not been identified.

Fiscal policy has been expansive over the recent years, contrary to official statements. Additionally, the fiscal and monetary policies were totally uncoordinated: a restrictive monetary policy was accompanied by an expansive fiscal policy and vice versa. Despite the poor coordination and, generally, expansive fiscal policy, monetary policy was successful in lowering the inflation rate. The strategy of inflation targeting, introduced in August 2006 – has yielded visible results, in spite of many drawbacks (such as the high transmission effect of the exchange rate, the high level of financial euroization, the poor transmission of interest rates).

Although it is a major success, the cutting of the inflation rate can be short-lived if there is no long-term fiscal adjustment. The recent experience has shown that monetary policy is really capable of delivering a low inflation rate. It is questionable whether the gains achieved through the lowering of the inflation rate can be sustainable without explicit or implicit support from the Serbian government and its policies. For example, fiscal adjustment can help in reducing the high current account deficit which imposes a major constraint in the pursuance/designing of monetary policy. Prudent, tight fiscal policy is the way to boost domestic savings and growth. Finally, fiscal adjustment can make room for a much more relaxed monetary policy, thus reducing the speed of nominal and real appreciation.

Some questions, however, cannot be avoided. What is the best response of monetary policy in the absence of fiscal adjustment? Should it be more restrictive *vis-à-vis* fiscal uncertainty, adverse shocks, domestic and external, and should it take upon itself a more than fair share of the stabilization burden and strictly deliver on the promises? Should inflation-related objectives be less ambitious for converging economies, in conditions of high capital inflows, the balance of payments deficit and domestic and external shocks? Should the Serbian central bank's strategy of inflation targeting be modified on account of some local specificities, for example, by using less orthodox instruments (such as administrative measures and an agreement with banks) in order to overcome problems in monetary transmission? Although I do not yet have final, unambiguous answers to the questions raised – it is my hope that monetary policy makers in Serbia will find them soon enough.

Euroization in Montenegro – Strengths, Weaknesses, and Limitations

Nikola Fabris*

Full euroization (or dollarization) is a relatively rare phenomenon, but has nonetheless been attracting a good deal of attention recently – witness the growing number of papers devoted to the issue, as well as the rising number of countries opting for this policy. This analysis covers Montenegro's experience with euroization – or, rather, the reasons why Montenegro chose this route – the strengths and weaknesses of the approach, as well as the economic policy instruments available. The conclusion is that euroization creates conditions for faster economic growth, but also that it cannot be regarded as a substitute for economic reforms.

1. Introductory Notes on Euroization

It may not be a new concept, but euroization (or dollarization) is increasingly regarded not so much as an "outdated"[a)] instrument as one that a growing number of economists recommend. After World War II, with the increase in the number of independent nations, the number of currencies grew drastically. Most of these currencies acquitted themselves poorly due to misguided economic policies. Over the past decade an opposite trend has appeared – the number of currencies is falling.

a) Most countries used foreign currencies in the 19th and early 20th centuries. The prevailing view was that national currency and monetary policy were not necessary and that their influence on economic growth was minor.

The term euroization, or dollarization, is used for several monetary systems that differ widely but do have a common trait – a foreign currency is in widespread use as a means of payment in either formal or informal transactions. Two of the most common "reserve" currencies are, without doubt, the US dollar and the euro. The best indicator of the spread of dollarization is the fact that some two-thirds of the entire issue of the US dollar is located outside the United States.[b)] In the mid-1990s, the German Bundesbank estimated that some 40% of the total issue of the Deutsche mark was kept abroad.[1]

b) Aguado, S., 2000, Transatlantic Perspectives on the Euro and the Dollar: Dollarization and Other Issues, University of Alcala, Spain.

Official dollarization involves a situation where the foreign currency is the only legal tender[2] and there is no domestic currency. It is also possible to use several foreign currencies as legal tender, but this is relatively rare.[c)] Only 16 independent nations remain officially dollarized. Official semi-dollarization is said to be present when both the foreign and the domestic currency are used in parallel as legal tender. *Unofficial dollarization* is a situation where, for lack of confidence in the domestic currency, a foreign currency is used as a medium of exchange, unit of account, and store of value. It is impossible to establish which countries are unofficially dollarized with any certainty, as statistics of this kind are very difficult to keep, but this type of dollarization is much more common than official dollarization. Monetary union, where several countries use a single currency, could be considered a fourth type of dollarization. The European Monetary Union is at present the only example of this, but the possibility of a future American monetary union has been hinted at.

c) It is interesting to note that the US was a "dollarized" economy until 1857, as foreign currency was used as legal tender.

Although economic theory mainly agrees about the strengths and weaknesses of dollarization, there is still no consensus as to whether, and under what conditions, dollarization is to be recommended. Earlier economic analyses had suggested that the costs of official dollarization are high. However, over the past decade, widespread informal dollarization, financial innovations

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1 Schuler, K., 2000, Basics of Dollarization, Joint Economic Committee Staff Report, USA.

2 The national currency is in parallel circulation in some officially dollarized economies, but mainly in the form of small-value coins. This is generally because of the relatively high costs of transporting coins.

Box 1. Dollarized Economies

Full dollarization – US dollar as legal tender: (a) independent nations: East Timor, Marshall Islands, Micronesia, Palau, Panama, Ecuador, El Salvador; (b) dependencies: Pitcairn Island (New Zealand), Turks and Caicos Islands (UK), British Virgin Islands (UK); (c) US overseas territories: Guam, US Virgin Islands, Puerto Rico, American Samoa, Northern Mariana Islands.

Full dollarization – other currencies: (a) independent nations: Montenegro (euro), Andorra (euro), Kiribati (Australian dollar), Liechtenstein (Swiss franc), Monaco (euro), Nauru (Australian dollar), San Marino (euro), Tuvalu (Australian dollar), The Vatican (euro); (b) dependencies: Cocos Islands (Australian dollar), Cook Islands (New Zealand dollar), Greenland (Danish krone), Niue (New Zealand dollar), Norfolk Island (Australian dollar), St. Helena (British pound), Tokelau (New Zealand dollar); (c) other territories: Northern Cyprus (Turkish lira), Kosovo (euro).

Official semi-dollarization – US dollar as legal tender: Bahamas, Cambodia, Laos, Haiti, and Liberia.

Official semi-dollarization – other currencies: Bhutan (Indian rupee), Brunei (Singapore dollar), Channel Islands (British pound), Isle of Man (British pound), Lesotho (South African rand), Namibia (South African rand), Tajikistan (foreign currencies permitted in circulation).

Source: Meyer, S., 2000. "Dollarization: an Introduction", Presentation for the Friends of Global Interdependence Center; and Winkler, A., Mazzafero, F., Nerkich, H. and Thimann C., 2004, "Official Dollarisation/Eurisation: Motives, Features and Policy Impliations of Current Cases", *Occasional Paper* Series, No 11, European Central Bank.

that have reduced the cash/GDP ratio, and the fall of inflation in most countries, have all contributed to reducing the potential costs of dollarization.[d)] Full euroization (dollarization) evidently involves a whole set of benefits, but also a number of shortcomings. The following table presents an overview of both the benefits and costs of official dollarization from the point of view of economic policy.

d) Bogetić, Ž., "Official Dollarization: Current Experiences and Issues", Cato Journal, Vol. 20, No. 2, 2000.

Table L2-1. Costs and Benefits of Official Dollarization

Benefits of Dollarization	Costs of Dollarization
Low inflation rate is assured (close to the inflation rate in country of "reserve currency")	Nonexistence of foreign exchange reserves
Possibilities for misuse of monetary policy are limited	Possibility for exchange rate adjustment is eliminated
Lower interest rates as a result of low inflation and lack of devaluation risk	Scope for independent monetary policy is limited
Accelerated development of domestic capital market	Seigniorage (revenue from the issuing of currency) is eliminated
Lower transaction costs in international economic relations	Possibility to use inflation tax in emergency situations is eliminated
Easier integration of domestic companies in international systems and increase of FDI inflows	Central bank's role as lender of last resort is limited
Increase of foreign trade	One time costs: currency conversion, new software, changes in accounting rules, etc.
Improved fiscal discipline	Risk of higher currency outflows in the case of Balance of payments problems
Elimination of exchange rate risk [1)]	

Source: Fabris, N., 2006. "Evroizacija kao režim monetarne politike u Srbiji?" ("Euroization as a monetary policy regime in Serbia?") Ekonomski anali, No. 168, March-June, Belgrade.
1) Euroization eliminates the national currency/euro exchange rate risk, but the exchange rate risk remains present with regard to other currencies and is linked to the euro/dollar rate.

2. The Introduction of Euroization in Montenegro

Ever since the late 1990s, the Montenegrin government sought ways to become monetarily independent, both because of the desire for political independence, and its inability to influence monetary policy (which was being misused for political purposes). As both the economy and the general public had over the previous several years shown a preference for using the Deutsche mark for both transactions and savings, the Montenegrin government opted for a dollarization model using the German currency.[e] In place of the dinar, in late 1999 Montenegro inaugurated a two-currency system using both the Deutsche mark and the dinar, with the Yugoslav currency fluctuating freely against the Deutsche mark. The entire process was carried out quickly and without IMF support or suggestions. The Deutsche mark became the only legal tender in January 2001, while the euro officially took its place in March 2002.

e) Decision on the Use of the Deutsche mark as a Means of Exchange in Order to Safeguard the Economic Interests of Montenegro (Official Gazette of the Republic of Montenegro, Nos. 41/99 and 22/00).

From the switch to the Deutsche mark until the establishment of the Montenegrin Central Bank (MCB), the then-National Bank of Montenegro was governed by the Monetary Board.[f] Before the MCB was established, the Board passed a number of decisions and other rulings making it possible for Montenegro to truly adopt the Deutsche mark as legal tender, accounting unit, and means of preserving wealth. As money outflows in euroized economies are predominantly linked to balance of payments transactions, the main concern was that a significant part of the total money supply could be transferred abroad due to the Montenegrin economy's lack of competitiveness. Despite the expectations of the opponents of dollarization, the money supply grew steadily – both nominally and as a percentage of GDP.

f) Decision on the Appointment of Members of the Monetary Board (Official Gazette of the Republic of Montenegro, Nos. 41/99, 45/99, and 39/00).

A small country, largely open, with hyperinflationary experiences in the past, little or no seigniorage benefit, primarily oriented towards the EU in trade, and significant workforce flexibility (with a large proportion of the population employed abroad), Montenegro also complied with all theoretical preconditions for successful dollarization.

3. Results and Challenges of Euroization in Montenegro

Montenegrin experience clearly shows that euroization confers a range of positive effects, such as easier remonetization, establishment of price stability, "pressure" on budget balancing, fostering FDI, easier restructuring of the banking system, etc. However, euroization is not without its faults, and poses numerous challenges for monetary policy makers: the exchange rate will no longer be available as an instrument for balancing payments, economic policy instruments will have limited scope in situations where inflationary expectations are on the rise, it will become difficult to act as lender of last resort, etc.

3.1. Positive Effects of Euroization

The euroization of Montenegro was accompanied by numerous controversies, with a number of economists opposing the introduction of a foreign currency and advocating the creation of a national currency instead. The most frequent arguments against euroization were that, in a situation of prevailing low competitiveness of the economy and a high budget deficit, Montenegro would lose its euros (or, at the time, its Deutsche marks) to a quick outflow abroad, which could create recessionary effects. However, the money supply behaved completely differently (Table L2-2) and remonetization was swift.

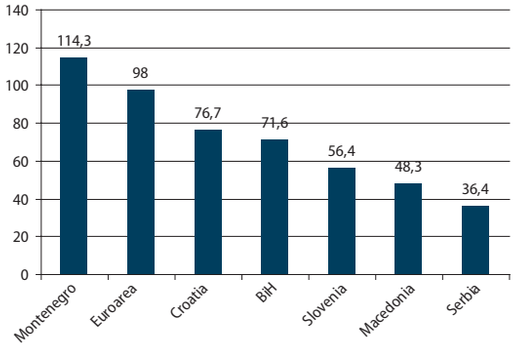
Table L2-2. Money Supply and GDP, 2003–2007

	2003	2004	2005	2006	2007
GDP (in mil. eur)	1,510.10	1,669.80	1,815.00	2,003.60	2,278.10
M2 (in mil. eur)	460.8	535.5	802.3	1,507.10	2,604.60
M2/GDP (in %)	30.5	32.1	44.2	75.3	114.3

Source: Central Bank of Montenegro

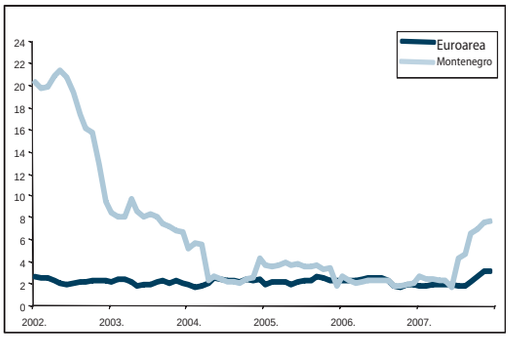
Several reasons affected the growth of the money supply. The first was that the system gained the public's confidence relatively quickly, and that money kept "under the mattress" began entering circulation. In addition, the quick growth of the tourism industry caused a significant amount of foreign currency to enter the country, both as cash spent by tourists and as FDIs dominantly aimed at tourism development. Portfolio investments were another major source of funds, since all market indices recorded robust growth over a period of time. Remittances should not be overlooked either; in addition, the early years of this century saw significant inflows of donation funds. The ratio of money supply to GDP in Montenegro is today one of the highest in the region (Graph L2-3); ideas of reversing euroization voiced at the start of the process no longer have advocates.

Graph L2-3. Ratio of M2 to GDP, End 2007, in %



Source: "Godišnji izvještaj glavnog ekonomiste za 2007. godinu" ("Chief Economist's 2007 Report"), MCB.

Graph L2-4. Inflation in the Euro zone and Montenegro, 2002–2007



Source: "Izvještaj o kretanju cijena za IV kvartal 2007. godine" ("Report on Price Movements for Q4 2007"), MCB.

All empirical studies have demonstrated beyond doubt that the switch to a system of full euroization (dollarization) causes inflation to drop. The credibility of monetary policy is no longer an issue, since money supply and the exchange rate policy are no longer controlled by the national monetary and political authorities. The Montenegrin experience has shown that it is only in the medium term that its inflation rate harmonized with that of the country whose currency was adopted (Graph L2-4). In the year the Deutsche mark was introduced, inflation in Montenegro stood at 128%; it took six years for it to reach euro zone levels.

Euroization also had a positive impact on the development of the banking system, which was practically non-existent in the late 1990s. Of course, euroization was just one of the factors that facilitated the reform of the banking sector, with a whole range of various other measures also implemented. The end result of all these was the growth and revival of banking: Table L2-5 shows the share of bank assets in GDP.

Table L2-5. Bank Assets/GDP, Year-End, 2003–2007

	2003	2004	2005	2006	2007
Assets/GDP, in %	23.2	26.6	38.3	71.4	130.6

Euroization tightens budget discipline, and it is also an important precondition for the sustainability of the system as a whole, since it limits potential sources that can be used to cover deficits (as there is no longer a primary issue). In addition, euroization has made it easier to introduce "hard" budgetary limitations, as it has restricted the scope for subsidizing failing

state-owned companies and insolvent banks. In the year the Deutsche mark was introduced, the budget deficit amounted to as much as 20% of GDP. However, euroization brought with it a certain kind of self-discipline, and a substantial surplus was recorded over the past two years (Table L2-6). It should also be borne in mind that privatization income last year was insignificant.

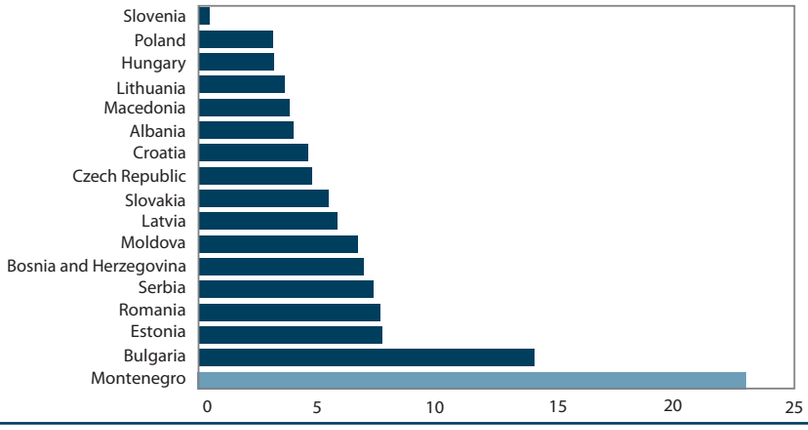
Table L2-6. Primary Budget Deficit/Surplus Movements, 2002–2008

	2002	2003	2004	2005	2006	2007	2008 Plan
Primary budget deficit/surplus (in mil. eur)	-25.2	-45.9	-32.8	-30.1	85.1	168.4	6.5
As % of GDP	-1.85	-3.04	-1.96	-1.66	4.5	7.39	0.26

Source: "Godišnji izvještaj glavnog ekonomiste za 2007. godinu" ("Chief Economist's Annual Report for 2007"), MCB.

The introduction of a stable currency is a good signal to foreign investors because it is, in a way, an advance guarantee of stable conditions for doing business. Foreign investors prefer doing business in a "hard" currency that reduces the exchange rate risk. Euroization, combined with a very liberal system and exceptional incentives for economic growth, has resulted in exceptionally high FDI inflows. Montenegro's economy has topped the list of European countries in transition by share of FDI in GDP (Graph L2-7). Net FDI amounted to €529 mn in 2007, a share of some 25% in GDP.

Graph L2-7. Share of FDI Inflows in GDP, Selected European Transition Economies, 2005–2007 (in %)

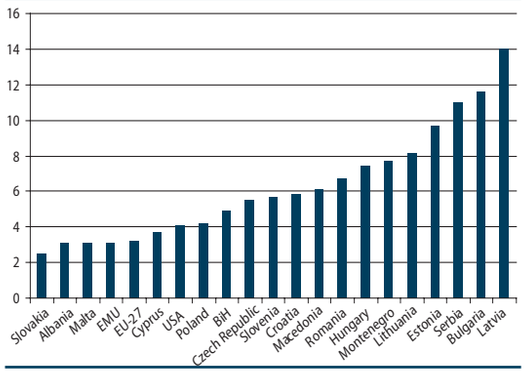


Source: IMF, *Montenegro: Selected Issues*, 2008.

3.2. Challenges of Euroization

Even though euroization was an important factor in establishing price stability, 2007 saw inflation rise to 7.7% (Graph L2-8) measured by the cost of living index (the average inflation rate stood at 4.2%). This rise in inflation was caused by both *internal* and *external* factors. The crucial external influences were the rise in oil and food prices in global markets, while, internally, inflation was boosted by the removal of price disparities (increases in prices of electricity and landline telephony), and was also a direct consequence of significantly greater aggregate demand.

Graph L2-8. Annual Inflation Rates, Selected Countries, December 2007



Source: Respective national statistical offices, Eurostat.

At the same time, the core inflation rate remained relatively low, at 3.2%. This situation showed that limited monetary policy instruments face problems when called on to combat inflation.

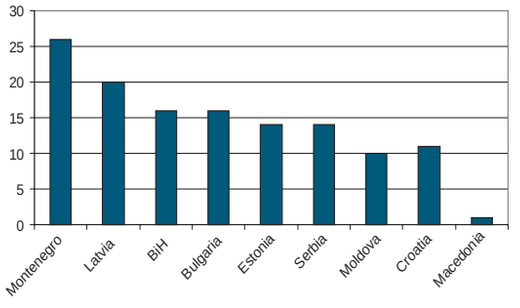
The MCB does not impose a reference interest rate, nor does it issue money; it is theoretically possible to engage in operations in the open market, but this has so far not been done. In essence, the MCB's most important monetary policy instrument is the system of required reserves. It has already implemented a set of administrative measures at its disposal – these were used to restrict credit expansion, while the required reserve policy was also changed. If inflationary pressures continue into 2008, possible solutions will likely involve fiscal policy, meaning that public outlays and salaries should be cut. In addition, certain categories of taxes and excise duties may also be temporarily reduced, if inflationary pressures persist, to offset external shocks.

The MCB's ability to act as lender of last resort has been reduced due to euroization, which means that it has limited means of resolving a possible banking crisis. Other countries' experiences show that banking crises are rarer in euroized (and dollarized) economies, but, on the other hand, last longer if they do occur. In these circumstances, the only policy at the MCB's disposal is prevention, through robust supervision of the banking system based on international standards.[3]

High foreign capital inflows are, without doubt, a factor of exceptional importance for Montenegro's rapid economic growth. However, it should be borne in mind that excessive capital inflows, above the target country's absorption rate, may also cause problems, including rising inflation, price "bubbles" in markets, a worsening of the foreign trade imbalance, etc. Some of these problems are already apparent in Montenegro.

A highly open and liberal system, in conjunction with high capital inflows, rising aggregate demand, and low competitiveness, has resulted in an exceptionally high current account deficit: according to preliminary data, in 2007 this amounted to over €1 bn euros, or some 45% of estimated GDP. Over the past two years, the ratio of the current account deficit to GDP has been the highest in Europe (Graph L2-9).

Graph L2-9. Current Account Deficit, in % of GDP, 2005–2007



Source: IMF, "Montenegro: Selected Issues", 2008

The current account deficit poses less of a risk in euroized economies, but this does not mean it can safely be ignored. On the other hand, euroization reduces the scope of measures that can be taken to eliminate the deficit, since the exchange rate policy, as a means of adjusting to external shocks, is lost. Although the deficit is to a great extent the consequence of rapid growth, the fact remains that the share of private debt in the current account deficit is growing at the expense of coverage by FDIs. In 2007, net FDI inflows could cover a mere 52% of the current account deficit; the coverage ratio amounted to 88% in 2006.

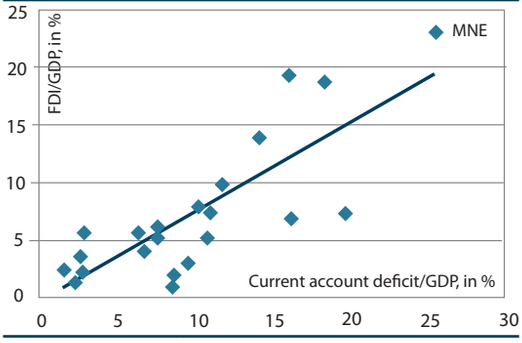
There are many reasons for the current account deficit: high energy imports, substantial FDI inflows, the low competitiveness of Montenegro's manufacturing industry, high credit growth rates, high inflows of capital directed at households, etc. According to the IMF, the current account deficit may also be considered an equilibrium response to large private capital inflows and fast credit growth.[4] When FDI inflows unwind, the deficit will drop by a significant measure. Other countries also exhibit a substantial degree of correlation between FDI inflows and current account deficits and Montenegro is no exception (Graph L2-10). It is probable, however, that the current account deficit will remain high even after FDI inflows have cooled. This view is supported by the structure of imports, dominated by consumer goods. Thus, for example, in 2007 car imports alone were worth as much as €242 mn, almost a quarter of the current account deficit. As exchange rate policy cannot be used as a balancing instrument, Montenegro will in future have to utilize policies boosting the competitiveness of the economy, such as support to

3 Currently based on Basel I standards; Basel II criteria are gradually being introduced.
4 International Monetary Fund, "Montenegro: Selected Issues", 2008.

companies for applying international quality standards, establishing an agency to provide loans to exporters and insure exports, redoubling efforts aimed at promoting the nation's economy, accelerating WTO accession, subsidizing agriculture in accordance with WTO rules, etc. Another set of measures would relate to reducing aggregate demand; one such step was already taken by the MCB in late 2007 when it introduced administrative restrictions on credit growth in 2008. Such a policy would, however, have to be applied in parallel with a reduction in public spending, especially wage growth in the public sector that exceeds increases in productivity.

A challenge that Montenegro will have to respond to on its road to EU membership is also the fact that it euroized its economy unilaterally, which runs counter to European Central Bank (ECB) rules. That said, however, Montenegro did so in specific circumstances, before the ECB prohibited the adoption of the euro. Thus, in its endeavours to join the European Monetary Union, Montenegro should aspire to fulfil all the Maastricht criteria if it is to retain the euro, as the adoption of a national currency at this stage could lead to numerous problems with the economy. Economic theory nearly unanimously agrees that there is no "exit strategy" to euroization (dollarization). There have been no examples of reverse dollarization in recent history, so there is no experience to draw on.[5] There are many arguments in favor of the view that it would be counterproductive to reverse euroization in Montenegro:

Graph L2-10. Interdependence Between FDI and Current Account Deficit, 2005–2007



Source: World Economic Outlook, IMF.

• The process of macroeconomic stabilization has just begun; a switch to a different currency regime would probably have an adverse effect on macroeconomic credibility;

• Behavior theories indicate that individuals tend to resist change and strive to retain familiar patterns in situations of uncertainty;

• Memories of hyperinflation are still present; with the inflation rate growing slightly, companies would probably react by raising prices to preserve their assets;

• The experiences of unofficially dollarized countries have shown that a strong "hysteresis effect" remains present even after macroeconomic stability is established, which would probably occur in Montenegro. In effect, some transactions would carry on in euros, contributing to an expansion of the grey economy and a reduction in fiscal revenue;

• The introduction of a national currency would be seen as a bad sign by foreign investors, who always prefer to do business in hard currency;

• Except for the state, which would recover its foreign currency reserves, currency conversion would create costs for both the economy and households, due to money changers' commissions, software conversion costs, accounting changes, etc, and

• There have been almost no radical monetary reforms in macro-economically stable environments – and reversing euroization would definitely be a radical monetary reform.

4. Conclusions

Even though numerous controversies accompanied the introduction of euroization in Montenegro, today there remain no opponents to this policy. The fact that no country has ever reversed dollarization, although some have been dollarized for over a century, suggests that the prevailing view is that it would be harmful to abolish dollarization. By euroizing, Montenegro gained stability,

5 The only example is Liberia, which, however, reversed dollarization in the throes of a civil war and in conditions of severe economic hardship.

but lost a large number of monetary policy instruments. The process of euroization creates stable and predictable conditions for doing business, but may also be seen as a substitute for economic reform. The words of Karl Schiller, Germany's Finance Minister, who three decades ago said, "Stability is not everything, but everything without stability is nothing", still ring true today.[6] A reliable currency is a necessary – but not the only – precondition for economic growth. This means that euroization cannot initiate development on its own. Reforms in Montenegro remain incomplete, and have slowed in recent years. There can, thus, be no alternative to continuing and accelerating economic reforms.

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