NATIONAL BANK OF SERBIA

I N F L A T I O N
REPORT
February 2008

Belgrade, February 2008

Introductory Note

Based on the Memorandum of the NBS on the Principles of the New Monetary Policy Framework adopted by the Monetary Policy Committee in its meeting of 30 August 2006, the NBS has been maintaining price stability within the framework of the defined inflationary corridor using the key policy rate as its main instrument and other monetary policy measures as supporting instruments.

Since the NBS aims to formally adopt inflation targeting in the near future in order to increase transparency of its monetary policy and efficient communication with the public, it has decided to prepare and publish quarterly inflation reports as its main channel of communication with the public. These reports shall present information on the main developments in the economy that affect the decisions of the Monetary Policy Committee and the activities of the National Bank of Serbia.

Inflation reports contain information on the current and expected inflation, analysis of underlying macroeconomic developments, explanation of the rationale behind the decisions of the Monetary Policy Committee and an assessment of the monetary policy efficiency as implemented during the past quarter. Integral parts of these reports are inflation projections for at least four quarters in advance, assumptions on which such projections are based and an analysis of the basic risks involved in achievement of target inflation.

Access to this information shall enable the public to have a better understanding of the policy implemented by the monetary authorities and their commitment to achieving target inflation. Moreover, it shall also play a role in curtailing inflationary expectations and maintaining price stability, which is the basic task of the NBS.

February Inflation Report was adopted by the Monetary Policy Committee in its meeting of 18 February 2008.

Earlier issues of the Inflation Report are available on the NBS website (http://www.nbs.yu).

Monetary Policy Committee of the National Bank of Serbia:
Radovan Jelašić, *Governor*
Ana Gligorijević, *Vice-Governor*
Diana Dragutinović, *Vice-Governor*
Mira Erić-Jović, *Vice-Governor*

Contents

I. Overview

The National Bank of Serbia has achieved its objective for 2007: core inflation settled within the targeted range (4-8%) and measured 5.4% year-on-year. However, due to the impact of agricultural and energy shocks on acceleration in inflation in the latter half of 2007, early 2008 is characterized by a pick-up in underlying inflationary pressures.

Table I.0.1

Key macroeconomic indicators

	2006	2007			
	Dec	Mar	Jun	Sep	Dec
Retail prices (y-o-y growth, in %)	6.6	5.6	5.1	7.4	10.1
Core inflation (y-o-y growth, in %)	5.9	4.0	2.8	3.3	5.4
Belibor (90 days, monthly average, annual level)	16.5	12.3	10.1	10.3	10.3
M3 (y-o-y growth, in %)[1]	38.9	41.2	38.4	40.1	44.1
GDP (y-o-y growth)[1]	4.8	8.1	7.5	7.2	6.2
Consolidated fiscal result (% of GDP)[1]					
Ministry of Finance methodology	-7.5	2.2	2.8	-2.1	-6.8
IMF methodology	-7.2	0.4	2.8	-2.2	-7.4
Balance of goods and services (% GDP)[1]	-19.4	-21.2	-20.0	-18.3	-22.7

[1] Quarterly data.

Together with the hike in world oil prices, the effects of the agricultural shock outweighed the disinflationary effects of the nominal and real appreciation of the dinar and, as a result, Q4 core inflation retained its Q3 level (2.2%). However, the effects of agricultural shock proved stronger and more durable than originally assumed, and spilled over into other prices through increased inflation expectations. Although the monetary authorities did not respond to the initial shock of the rise in agricultural prices in Q3, they responded to the ensuing rise in inflation expectations.

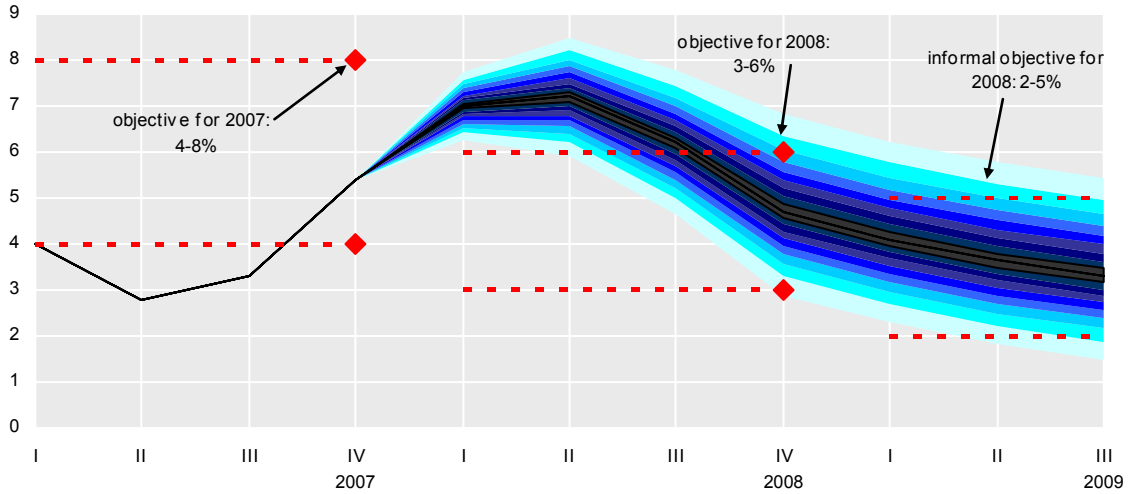
The slowdown in economic activity was most pronounced in the sectors of agriculture and industry. However, tightening of the monetary policy stance did not have a decisive impact on deceleration of economic growth. Subdued economic activity was also accompanied by slower real wage growth which, however, was not as pronounced, particularly if viewed against slower growth in productivity.

The structure of GDP spending reveals an increase in the share of public spending, as well as government and private investment spending, at the expense of personal consumption. Despite the US Steel autumn overhaul and government decision banning export of cereals, increased public consumption led to the widening of foreign trade imbalances.

Core inflation movements in Q1 2008 will be determined by high inflation expectations, fiscal expansion, surge in world inflation, increase in prices of energy and excise products, as well as by stronger fluctuations in the exchange rate and current nominal depreciation of the dinar (through rise in import prices). On the other hand, as the effects of agricultural shock are likely to wear off, core inflation is expected to be somewhat lower in Q1 2008 than in Q3 and Q4 2007. Yet, at end-Q1 core inflation is likely to level off above the upper bound of the targeted range (3-6%) and reach around 7% year-on-year.

Core inflation projection

(y-o-y rates, in %)



Central core inflation projection for 2008 is placed at 4.7%, within the projection range of 2.9-6.8%. It is expected that core inflation will be declining over the coming period from one quarter to the next, but its year-on-year rates will hover above the upper bound of the targeted range (3-6%) and retreat within it not earlier than by the end of the year. Central projection of headline inflation in 2008 is placed at around 6.1%.

Major risk to the achievement of such projection may come from excessive fiscal expansion, effects of political instability, as well as from movements in world oil prices and prices of agricultural products.

Numerous inflationary factors, as well as inflation projection, unequivocally point to the need for tighter monetary policy stance in the coming period.

II. Inflation Developments

The target for 2007 has been achieved: at year-end, core inflation measured 5.4%. However, growth in core inflation in Q4 was very strong (2.2%) primarily due to surging prices of processed food products. In terms of year-on-year growth rates, core inflation is likely to reach around 7.0% at end-Q1 2008. Retail price growth measured 10.1% at end-2007 year-on-year and will retain its momentum in the first half of the year to range from 10.8 to 11.2% at end-Q1 2008.

Although the National Bank of Serbia's target for 2007 has been achieved, inflation rates recorded during the closing months of the year are worryingly high.

Strong growth in prices in Q4 resulted in large part from an accelerated increase in prices of agricultural and processed food products, caused by reduced agricultural crop yields and increased demand for such products in the international markets (see text box on p.10). Significant inflationary pressures also stemmed from surging prices of crude oil in the international markets.

Table II.0.1

Indicators of price growth

(growth rates in %)

	III 2007 / III 2006	VI 2007 / VI 2006	IX 2007 / IX 2006	XII 2007 / XII 2006
Retail prices	5.6	5.1	7.4	10.1
Core inflation	4.0	2.8	3.3	5.4
Consumer prices	4.1	4.0	8.0	11.0
Cost of living	4.2	3.5	8.9	11.9
Prices of goods	3.7	3.0	9.4	13.0
Prices of services	7.0	6.1	5.5	5.2
Industrial producer prices	5.1	4.9	6.1	9.8
Agricultural producer prices	3.4	4.8	20,6	30.2[1)]

[1)] Octobar on Octobar.

As in Q3, core inflation in Q4 measured 2.2%, and was mainly driven by the increase in prices of processed food products (contributing 1.4 pp). Though the impact of increase in those prices was lower in Q4 than in a quarter earlier (1.7 pp), it much exceeded our expectations. The effect of agricultural shock on core inflation in the second half of the year was around 2.0 pp. The sum of this effect plus the effect of increase in world oil prices on core inflation outweighed the combined disinflationary effects of the nominal appreciation of the dinar and widening of the real exchange rate appreciation gap in the second half of the year. Thus, year-on-year core inflation edged up to 5.4% in Q4 and, just as the increase in headline inflation, exceeded our expectations reported in the previous issue of the Inflation Report (around 4.5%).

Chart II.0.1

Movements in prices

(quarterly growth, in %)

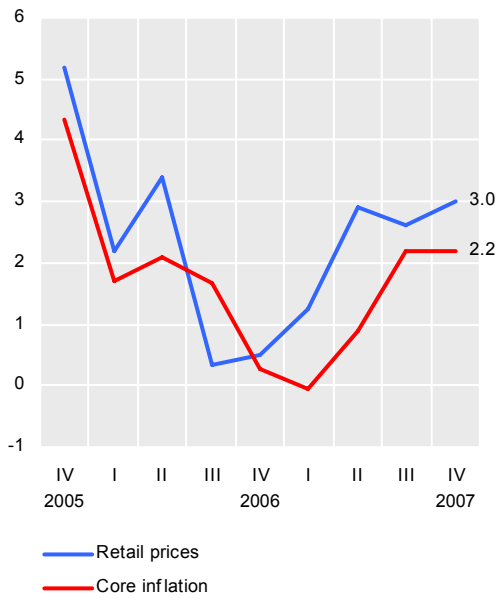
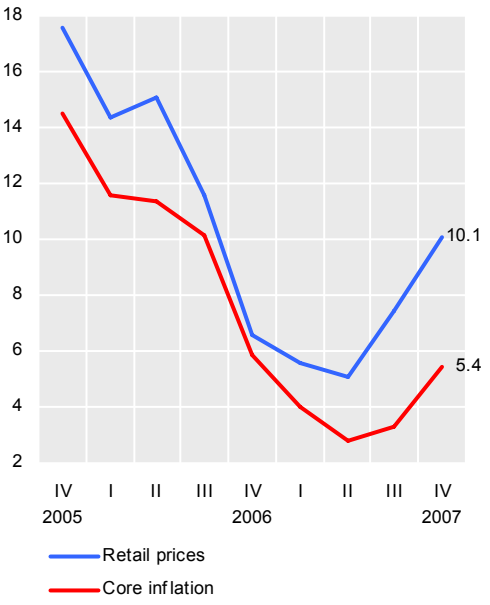


Chart II.0.2

Movements in prices

(y-o-y growth, in %)

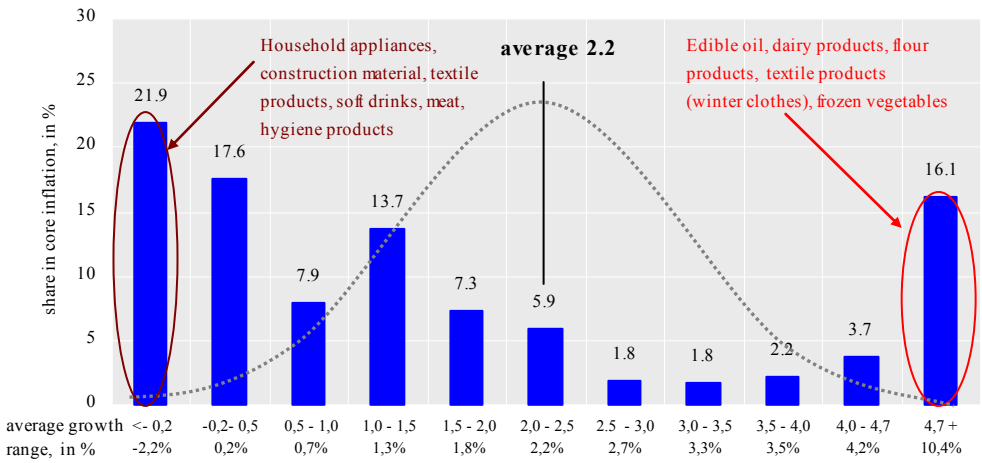


In terms of monthly growth rates, core inflation peaked in December (0.9%). Non-food core inflation[1] rose to 1.2% in Q4 (vs. 0.8% in Q3) reflecting inflationary tendencies in price movements of other items in the core inflation basket (due, among other things, to the spill over of higher food prices into prices of other non-food products through inflation expectations).

Departure from normal price growth distribution patters in Q4, though significant, was less emphasised than in Q3. Such departure was due to the persevering effects of the agricultural shock and the nominal appreciation of the dinar.

Chart II.0.3.

Distribution of price growth for products included in core inflation in Q4 2007



The increase in core inflation was driven by a rather small portion of prices, primarily food prices. In the period under review, prices of 16.1% of products recorded an increase of 11.8% on average (contributing 1.9 pp to core inflation), while prices of the remaining 83.9% of products rose on average by only 0.4%.

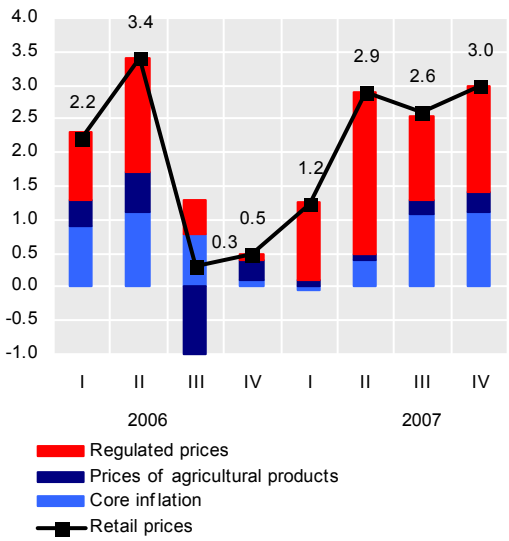
As opposed to the first two quarters of the year, when headline inflation was almost entirely determined by the increase in regulated prices, in Q3 and Q4 it was driven by all three price growth components. In Q4, regulated prices recorded year-on-year growth of 14.3%, market-determined prices – core inflation rose by 5.4% and prices of agricultural products by 23.7%.

End-Q4 retail price growth of 10.1% year-on-year was significantly above expectations specified in the previous issue of the Inflation Report (around 8.9%). Such discrepancy between the actual retail price growth and our expectations is due to the surprisingly strong increase in prices of processed food products (edible oil, meat, meat and dairy products).

The main contribution to the quarterly retail price growth of 3.0% came from regulated (1.6 pp) and market-determined prices (1.1 pp). According to our estimates, just

Chart II.0.4

Contribution to retail price growth
(in percentage points)



[1] Core inflation after exclusion of prices of food products (which is around one third of the basket of products included in the calculation of core inflation).

as in Q3, around a half of total price growth in Q4 may be put down to the effects of the agricultural shock. Within regulated prices, major contributors to retail price growth were prices of petroleum products (0.6 pp), cigarettes (0.3 pp) and staple foods (bread, flour and milk each 0.2 pp).

Table II.0.2

Retail price growth by component
(by quarter, in %)

	2007			
	Q1	Q2	Q3	Q4
Retail prices	1.2	2.9	2.6	3.0
Core inflation	-0.1	0.9	2.2	2.2
Prices of agricultural products	2.9	3.0	6.6	9.4
Regulated prices	2.6	5.1	2.7	3.3
Electricity	0.0	15.0	0.0	0.0
Petroleum products	-1.3	7.2	3.5	7.1
Utilities	7.7	0.7	0.9	0.6
Social welfare services	0.6	13.9	9.4	0.8
Transport services (regulated)	0.0	0.7	4.5	0.0
Postal and telecommunications services	1.2	-0.1	-1.7	0.0
Bread and flour	1.7	0.1	17.9	9.7
Milk	3.2	0.8	12.2	20.1
Cigarettes	11.8	5.6	0.4	7.9
Medications	0.3	3.9	1.6	0.5
Other	2.3	0.0	0.6	0.9

Table II.0.3

Contribution to retail price growth
(by quarter, in percentage points)

	2007			
	Q1	Q2	Q3	Q4
Retail prices	1.2	2.9	2.6	3.0
Core inflation	0.0	0.4	1.1	1.1
Prices of agricultural products	0.1	0.1	0.2	0.3
Regulated prices	1.2	2.4	1.3	1.6
Electricity	0.0	1.1	0.0	0.0
Petroleum products	-0.1	0.6	0.3	0.6
Utilities	0.6	0.1	0.1	0.1
Social welfare services	0.0	0.2	0.2	0.0
Transport services (regulated)	0.0	0.0	0.2	0.0
Postal and telecommunications services	0.1	0.0	-0.1	0.0
Bread and flour	0.0	0.0	0.4	0.2
Milk	0.0	0.0	0.1	0.3
Cigarettes	0.4	0.2	0.0	0.3
Medications	0.0	0.1	0.0	0.0
Other	0.1	0.0	0.0	0.0

Consumer Price Index

If expressed in terms of CPI rather than RPI, both core and headline inflation recorded higher growth rates at end-Q4 (6.2% and 11.0%, respectively).

Overall consumer price growth in Q4 was driven by all three price growth components: regulated prices (14.6% year-on-year growth in December), market-determined prices – core inflation (6.2%) and prices of agricultural products (36.0%).

Q4 CPI growth (3.2%) was smaller than a quarter earlier (3.8%) and resulted mainly from growth in regulated prices (1.3 pp). Market-determined prices also provided a notable contribution (1.0 pp), while prices of agricultural products contributed 0.8 pp to the overall price growth. According to our estimates, like in Q3, around half of total price growth may be attributed to the impact of the agricultural shock.

CPI core inflation rose by 1.8%[2], which is significantly less than in Q3 (3.8%). Core inflation growth, as measured by either CPI or RPI, was driven by the same factors. Excluding basic food products (meat, meat and dairy products, edible oil and pastry), core inflation rose by 1.6% in Q4 (vs. 0.8% in Q3), indicating a spill over of the rise in food prices into prices of non-food products.

Overall consumer price growth in 2007 was mainly determined by movements in regulated prices (5.2 pp), while market-based prices and prices of agricultural products contributed 3.6 pp and 2.2 pp, respectively.

Chart II.0.5

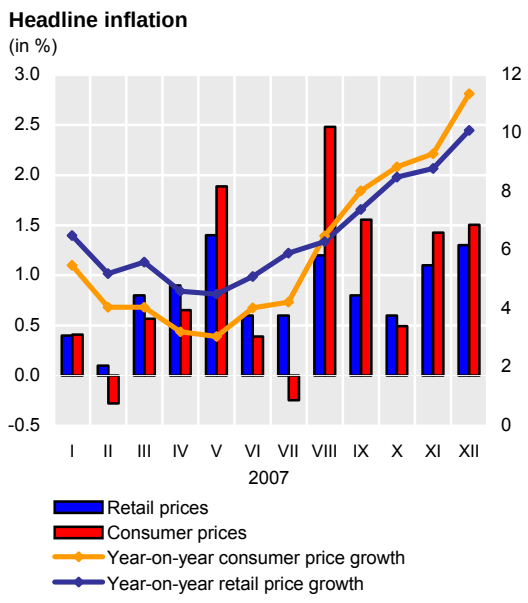
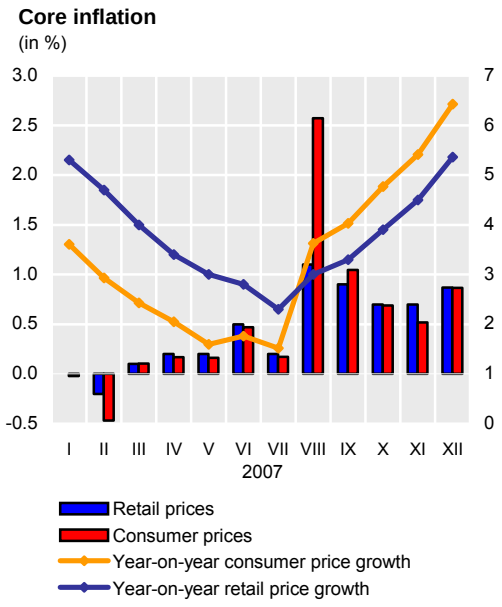


Chart II.0.6



[2] Monthly breakdown: October 0.7, November 0.5, December 0.6.

Inflation Outlook for Q1 2008

Though the core inflation objective for 2007 has been achieved, year-on-year core inflation at end Q1 2008 will hover above the upper bound of the range targeted for 2008 as a result of accelerated growth in core prices in the second half of 2007.

Based on our estimates, core and headline inflation in Q1 2008 will be predominantly influenced by movements in energy prices and the effects of price persistence as the increase in prices in the preceding period was quite strong.

Table II.0.4

Major revisions of regulated prices expected in Q1 2008.

	Growth rate (in %)	Contributions to retail price growth (p.p.)
Petroleum products	8,2	0,8
Electricity	4,6	0,4
Utilities	2,0	0,2
Bread and flour	2,8	0,1
Cigarettes	1,6	0,1
Milk	3,5	0,1

As for regulated prices, energy prices are expected to undergo a substantial upward revision in Q1. Prices of petroleum products are likely to increase by around 5.0% due to surging world prices of crude oil and regular adjustment of excises with retail price growth (total contribution of 0.8 pp). Increase in electricity prices, deferred until early 2008, will be around 4.6% (contribution of 0.4 pp).

Prices of utilities are expected to go up by around 2.0%, primarily in towns where the price revisions were not completed by end-2007 (0.2 pp). An increase is also anticipated in prices of cigarettes, milk, bread and flour (each contributing 0.1 pp to total price growth). Overall growth in regulated prices in Q1 is estimated at 2.5-3.0% (contribution of 1.2-1.5 pp).

Several factors are likely to influence core inflation in the first quarter of 2008:

1) high inflationary expectations;

2) increase in energy prices (petroleum products and electricity) which will result in higher production costs;

3) disinflationary effects of the appreciation gap of the real exchange rate, which will weaken due to current depreciation pressures;

4) current nominal depreciation of the dinar which will induce a rise in import prices.

Considering all of the above, the outlook for core inflation in Q1 2008 has improved on a quarter earlier. Core inflation is expected to range from 1.3 to 1.8%, and to level off within the range of 6.8-7.3% year-on-year.

Prices of agricultural products are expected to experience seasonally-induced growth of possibly 2-4%, thereby providing a contribution of around 0.1-0.2 pp to total retail price growth.

Based on the above outlook for regulated prices, prices of agricultural products and market-determined prices, Q1 retail price growth is estimated at 1.9-2.3% and 10.8-11.2% year-on-year.

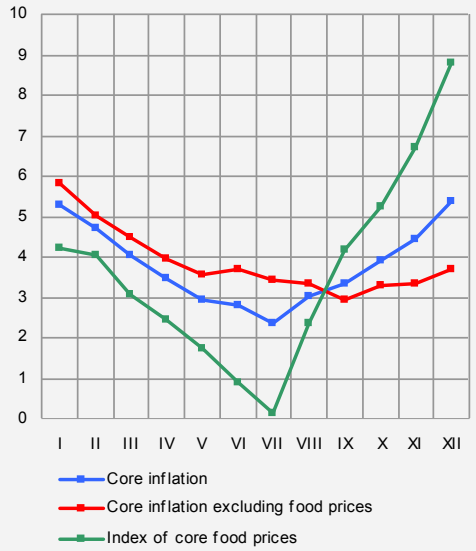
Global Growth in Food Prices – Agflation

Last year's growth in both headline and core inflation was mainly due to the increase in prices of agricultural (and other primary) products. The rise in these prices fed through into higher prices of processed foods pushing year-on-year core inflation up from August onwards. Overall, drought effects on prices, which unfolded in the second half of the year, contributed at least 2 percentage points to the 5.4% core inflation growth recorded in 2007.

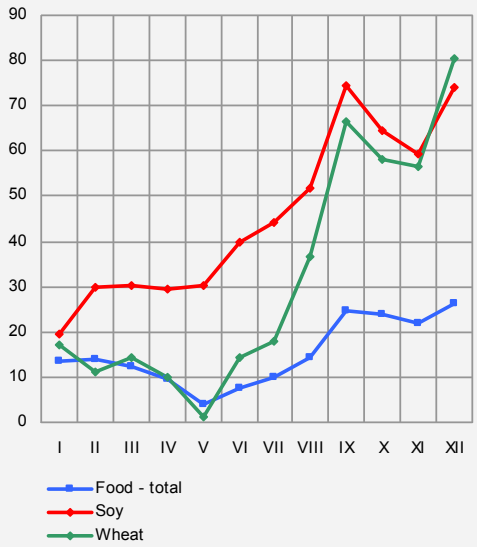
Surge in the prices of agricultural and processed food products was not only recorded in our country and the region, but worldwide. Namely, robust economic growth in developing countries (most notably India and China) resulted in rapidly increasing income levels, which in turn sparked demand for agricultural and processed food products. World prices reached record highs on the back of unfavourable weather conditions, low food inventories and the mania for biofuels which has been shifting large stretches of land out of food production. Wheat prices, for instance, soared to their record levels of the 1980s. Countries responded to these developments in different ways: Russia and Venezuela literally imposed food price controls; Argentina, Mexico, Egypt and China put restraints on domestic prices, while India, Ukraine and Vietnam imposed export taxes or limits on exports.

Analysts agree that the era of cheap food is over and that a further rise in prices may be expected in the long run. Demand for food has definitely shifted to a higher level. This trend is likely to continue given the projections of strong economic growth in China and India and the increasing use of biomass in the production of biofuel. IMF experts hold that biofuel production is responsible for the fact that prices of corn and soy are following closely the pattern of crude prices, and that the 2007 developments are just a sign of trends in the primary commodity market yet to come.

Core inflation in 2007
(year-on-year growth, in %)



World food prices in 2007
(year-on-year growth, in %)



Source: IMF Primary Commodity Prices.

III. Inflation Determinants

1. Monetary Conditions

Monetary policy tightened in Q4 on a quarter earlier as the appreciation gap of the real exchange rate widened. Movements in the real interest rate, however, point to a somewhat more expansive monetary policy stance. The October medium-term projection assumed that disinflationary effects of the nominal appreciation of the dinar would outweigh inflationary effects of other factors and anticipated a scope for monetary policy relaxation. However, as the key inflationary risks to the projection proved to be real, the key policy rate was raised by 50 basis points in December. Following this revision, the key policy rate has been hovering at its neutral level.

Analysis of monetary conditions in Q4 reveals that the monetary grip tightened on a quarter earlier, as the appreciation gap of the real exchange rate widened on account of both nominal appreciation of the dinar and quickened pace of domestic inflation. By contrast to the increasing real exchange rate gap, the real interest rate was on a decline in Q4 and, on average, moved below the trend.

Chart III.0.1

Real interest rate on repo operations and its trend

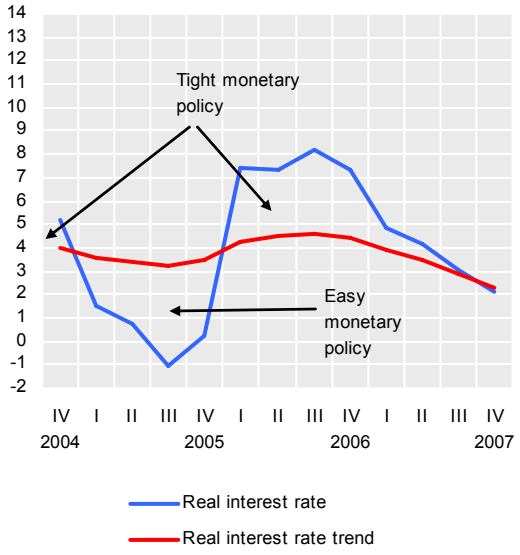
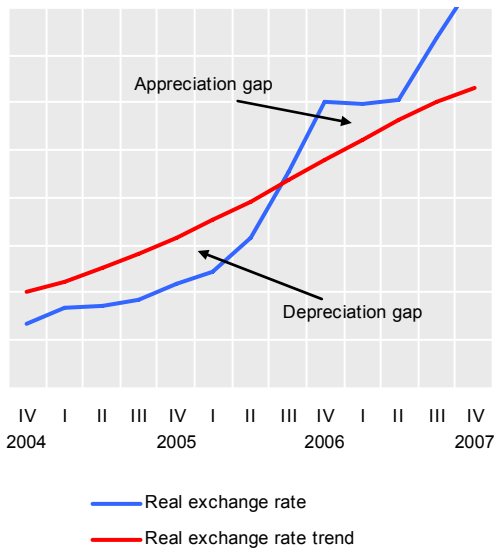


Chart III.0.2

Real exchange rate and its trend



As the October medium-term projection assumed room for monetary policy relaxation, in its October meeting, the Monetary Policy Committee assessed that disinflationary effects of nominal appreciation of the dinar would outweigh inflationary effects of other factors, and decided to cut the key policy rate by 25 basis points. Unfortunately, the risks relating to fiscal policy expansion, rise in risk premium, continuing growth in world oil prices, and longer-than-expected effect of the agricultural shock, all proved real. Hence, assessing that inflationary effect of these factors would outweigh the disinflationary effect of real appreciation, in its meeting on 27 December 2007 the Monetary Policy Committee raised the key policy rate by 50 basis points. On the whole, in Q4 the key policy rate was raised by a total of 25 basis points.

Despite the key policy rate hike, the real interest rate in Q4 (2% on average) was lower by 94 basis points than in Q3 on account of heightened inflationary expectations. As the real interest rate moved slightly below the trend, monetary conditions, as measured by this indicator, can be interpreted as easing.

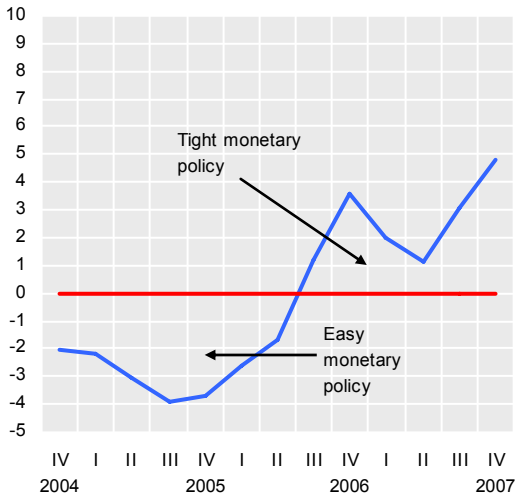
As, according to the Gallup surveys, headline inflation expectations of the financial sector in December equalled 8% p.a., the current key policy rate is close to its neutral level.

Monitoring movements in the real monetary conditions index is particularly useful when movements in the real interest rate and the real exchange rate diverge, like they did in Q4, as this index represents a combined indicator of their respective effects on price stability and/or aggregate demand. This indicator also reveals that the monetary policy was more restrictive in Q4 relative to Q3.[3]

Other measures, including prudential and administrative measures, which indirectly affect the efficiency of monetary policy, were only sparingly used in Q4, the only exceptions being the suspension of the obligation of banks to allocate foreign currency required reserves and the decision to cut the reserve requirement ratio on dinar deposits to 5% during the Savings Week.

Chart III.0.3

Monetary Conditions Index (MCI)



The impact of current monetary policy on output and inflation normally depends on accumulated effects of past monetary developments. Hence, the current appreciation gap is likely to produce disinflationary effects in the period ahead, which, however will be less effective due to depreciation pressures prevailing at the moment. Other key factors, such as the expected acceleration of growth in core inflation and rising inflation expectations are also likely to influence the future monetary policy stance.

[3] The following equation was used in constructing the monetary conditions index:
$MCI_t = 0.2(r_t - r_{trend}) + 0.8(z_t - z_{trend})$, where r_t is the real key policy rate and z_t is the real exchange rate.

Interest Rates

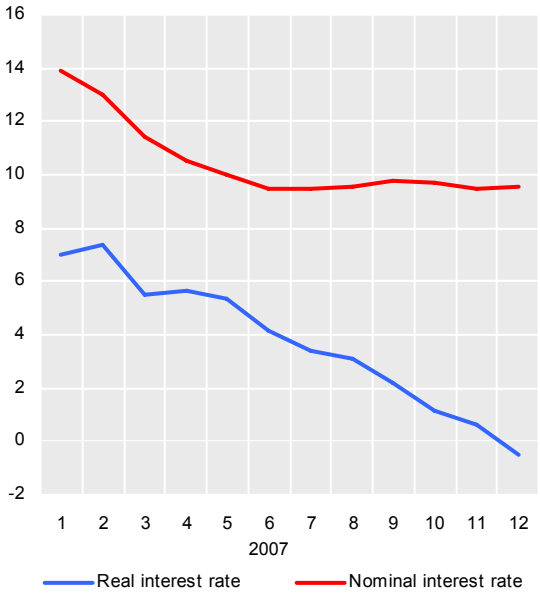
Movements in almost all interest rates were broadly stable and aligned with the key policy rate, i.e. no change in the key policy rate meant no change in majority of interest rates across the market. Likewise, when the key policy rate was raised late in Q4, all other interest rates, except Beonia, followed behind. During the period under review, both stock exchange indices recorded a considerable decline.

In early Q4 2007, the National Bank of Serbia's key policy rate stood at 9.75% p.a. By the end of October it was lowered to 9.50%, only to be revised up to 10% at the MPC session of 27 December in order to put growing inflationary pressures under control. Interest rate on six-month NBS securities sold in outright auctions ranged from 9.85% (October auction) to 9.69% p.a. (December auction), which points to its continued downward trend. This rate is currently below the level of the key policy rate but is expected to go up over the coming period. Any other scenario would mean that financial market participants are expecting a decline of inflation and/or a more expansive monetary policy stance, the latter being highly unlikely in view of current developments.

Chart III.1.1

Weighted average repo rate

(in percent per annum)



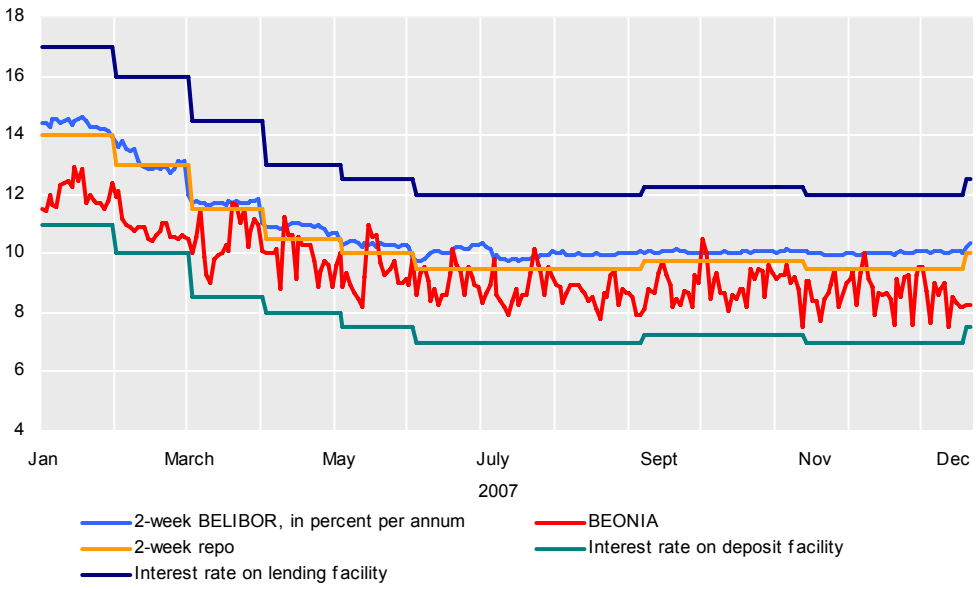
The NBS withdrew RSD 33 billion through its open market operations in Q4. On the last day of December, the net stock of NBS securities sold equalled RSD 217.8 billion, of which around 90% was accounted for by two-week and 10% by six-month securities.

Interest rate corridor of the National Bank of Serbia remained unchanged in Q4. As banks experienced no significant liquidity problems, Lombard loan use was practically nil.

Chart III.1.2

Interest rate movements

(daily data, annual level, in %)



Source: National Bank of Serbia and Reuters.

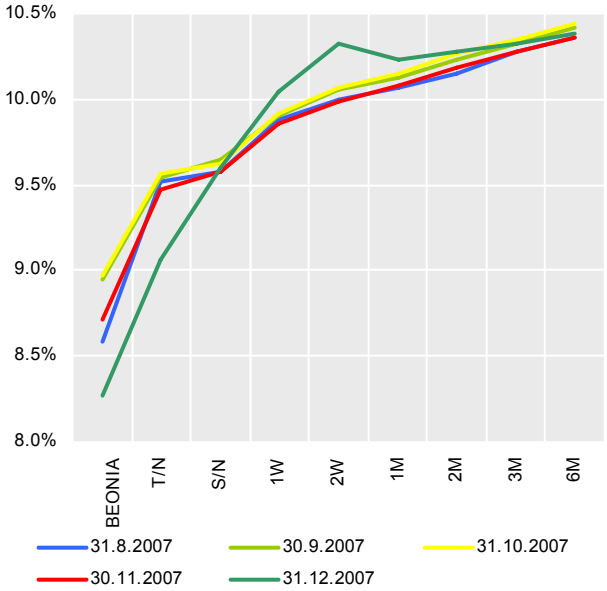
Money market interest rates reflected movements in the key policy rate. From 29 October to 28 December, the key policy rate was kept unchanged at 9.50% and the majority of money market interest rates were also kept on hold. Along the same lines, the increase in the key policy rate was followed by the increase in other interest rates.

In December, Belibor interest rates averaged between 9.06% for T/N maturity and 10.38% for six-month maturity. Compared to end-Q3, interest rates on this type of interbank loans recorded a mild increase for maturities from one week to six months, and a slight decrease for other maturities. This is partly attributable to the market adjustment to changes in the key policy rate (end-December hike after a period of downward revisions). Such movements resulted in the changed slope of the yield curve, possibly indicating the banks' lack of certainty with regard to future interest rate movements.

Chart III.1.3

Interbank money market yield curve in 2007

(annual data)



Source: National Bank of Serbia and Reuters.

Interest rate on overnight interbank loans – Beonia was on the decline throughout Q4. At end-December, it settled at 8.27% p.a. (vs. 8.94% at end-September). Such a sharp drop in Beonia at end-December is, among other things, due to substantial excess liquidity resulting from a particularly loose fiscal policy stance.

While commercial bank lending rates declined throughout Q4, deposit rates were rising for quite a while but fell in December by as much as 52 basis points relative to November. At end-2007, weighted average lending and deposit rates equalled 11.13% and 4.08%, respectively, while the average interest margin was 7.05%, up by 27 percentage points from end-September. It is expected, however, that the interest rate margin will shrink in the period ahead, as competition among banks intensifies.

Chart III.1.4

NBS key policy rate and commercial bank interest rates

(weighted average, per annum, in %)

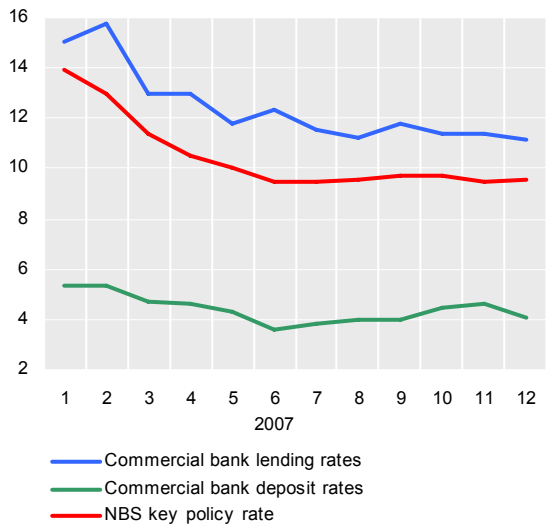
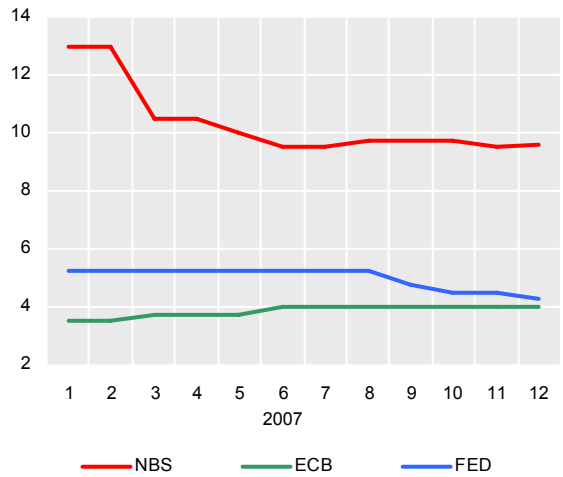


Chart III.1.5

NBS, ECB and FED interest rates

(end of month, in percent per annum)



Source: NBS, ECB *Monthly Bulletin* and *Federal Reserve Bulletin*.

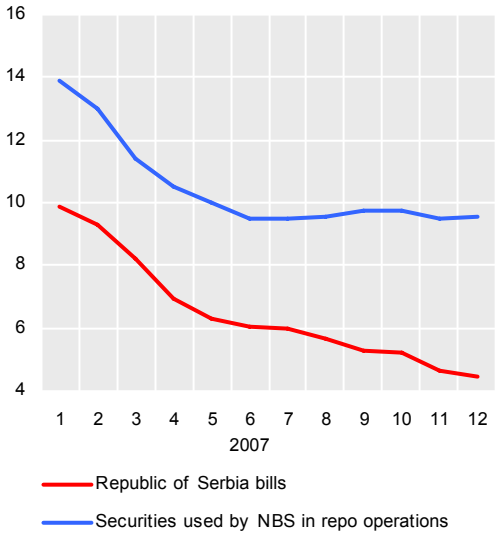
The gap between interest rates prevailing in the Serbian financial market and those paid and charged in the financial markets of the EU and the U.S.A. increased further in Q4, as NBS interest rates went up yet again at end-Q4, while policy rates of central banks of the EU and the U.S.A. remained unchanged and declined, respectively[4]. However, the interest rate gap remains relatively high and continues to encourage inflow of foreign capital.

Interest rates on treasury bills of the Republic of Serbia Ministry of Finance continued to decline. In Q4, the government continued selling 91-day treasury bills, but the average discount rate declined from 5.2% in the October auction to 4.4% in the last December auction. Proceeds of this sale are minimal and serve to keep the market alive rather than as a source of finance for government expenditure, as this type of financing is not needed by the government at the moment.

Chart III.1.6

Weighted average interest rates on securities

(in percent per annum)



Source: NBS and RS Ministry of Finance.

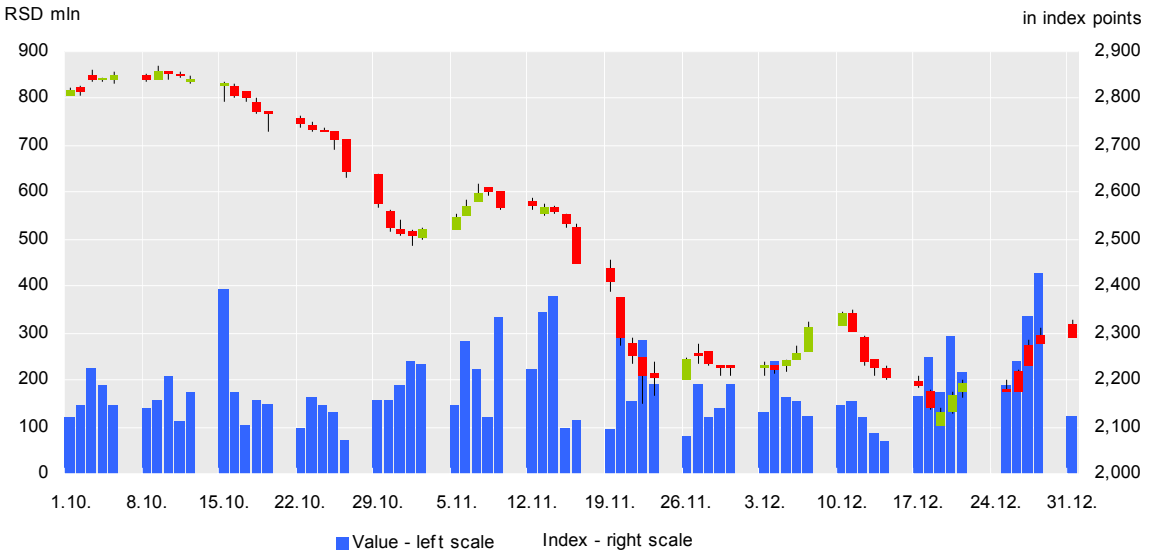
[4] The ECB last raised its key policy rate in June 2007 (by 25 basis points to 4.00%). In a bid to stave off recession, the Fed trimmed its interest by 25 basis points in October and December, and the Fed funds rate fell to 4.25% p.a. at year-end.

Belgrade Stock Exchange

The value of both Belgrade Stock Exchange indices (Belex15 and Belexline) recorded a notable decline in Q4. In fact, at end-December, they were close to their early March values. On the other hand, the volume of trading in the Belgrade Stock Exchange picked up mildly relative to Q3.

Chart III.1.7

BELEX15 index



Source: Belgrade Stock Exchange.

At end-Q4, Belex15 stood at 2,289.47 index points, down by 18.7% from Q3. At the same time, Belexline reached 3,830.84 index points, which is a 13.5% drop relative to end-June.

Total volume of trading in the BSE came to around RSD 35.5 billion, up by around RSD 3.5 billion (close to 11%) on Q3.

The number of transactions fell from the preceding quarter by around 14.5%, which suggests that large investors might have resumed trading. This should, however, be taken with some reserve as the Serbian stock exchange market is still rather small and shallow.

Trade in the RS bonds in the Belgrade Stock Exchange reached RSD 2 billion in Q4, which is a steep RSD 2.1 billion decline from Q3 (50%). The slope of the yield curve remained negative. Such unusual movement in the yield curve is due to the fact that these bonds are subject to tax breaks and offer other facilities on the purchase of state property.

Interest Rate Transmission Mechanism

After using the exchange rate as the nominal anchor in the initial stages of transition, similarly to many other central banks, the National Bank of Serbia decided to adopt the inflation targeting strategy. By contrast to other monetary policy regimes such as exchange rate targeting, inflation targeting allows for the strengthening of other transmission channels, including interest rate and credit channels. Extensive analysis of other countries' experience has revealed that, even where the role of the exchange rate channel is dominant, using the interest rate as the main monetary policy instrument has helped strengthen the interest rate transmission mechanism.

The relative strength of transmission channels is most frequently analysed by measuring the pass-through effect, i.e. the effect a given monetary policy instrument has on output and inflation. Measuring the pass-through effect of the exchange rate on inflation in Serbia calls for a more careful consideration, as the interest rate channel has only been actively used as a monetary policy instrument since the adoption of the new monetary policy framework. By pondering the changes in the key policy rate and banks' market rates, we aim to examine whether the implementation of the new monetary policy framework has helped strengthen the interest rate transmission mechanism, while an empirical assessment of the interest rate pass-through will be the subject of future analyses.

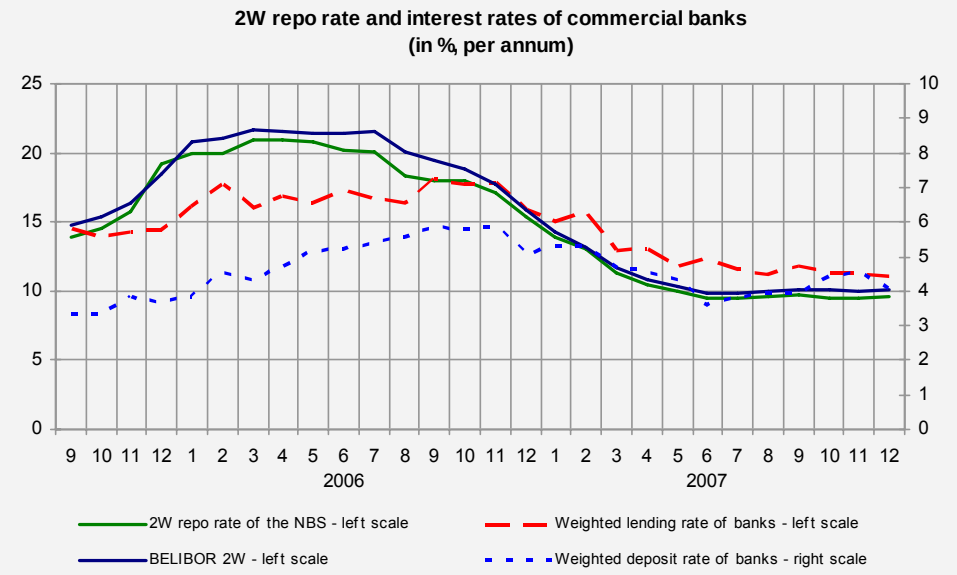
From a theoretical point of view, functioning of the interest rate channel can be illustrated as follows: changes in the key policy rate of the central bank trigger changes in interbank market rates which, in turn, lead to changes in short-term and long-term (lending and deposit) market interest rates of commercial banks. As changes in interest rates directly influence the cost of borrowing, they will also affect investment and savings decisions of economic players. Investment activity, on the other hand, has an impact on overall economic activity, and, indirectly, on inflation. Therefore, a rise in the key policy rate will lead to a rise in bank interest rates, higher cost of borrowing and slackened investment activity.

As interbank money market rates are contingent on movements in the central bank's key policy rate, while at the same time being a measure of the opportunity cost of lending to the enterprise and household sectors, it is logical to expect all changes in these rates to reflect on movements in banks' lending and deposit rates. This means that, over the long run, interest rate pass-through is complete, i.e. equal to one. The closer the assessed pass-through effect is to one, the more efficient is the monetary policy in the inflation targeting regime.

As movements in the key policy rate, interbank market rates and bank lending and deposits rates seem to indicate, this correlation has become much more apparent after the introduction of the new monetary policy framework. Interbank market interest rates, Beonia and Belibor, mirrored the movements in the key policy rate and remained within the defined target corridor. Nevertheless, structural excess of liquidity and numerous restrictions, such as credit limits set by foreign parent banks on the authorized volume of trading with other banks and the NBS, have on a number of occasions led to a deviation of these rates from the key policy rate and their gravitation towards the lower limit of the corridor (interest rate on deposit facilities).

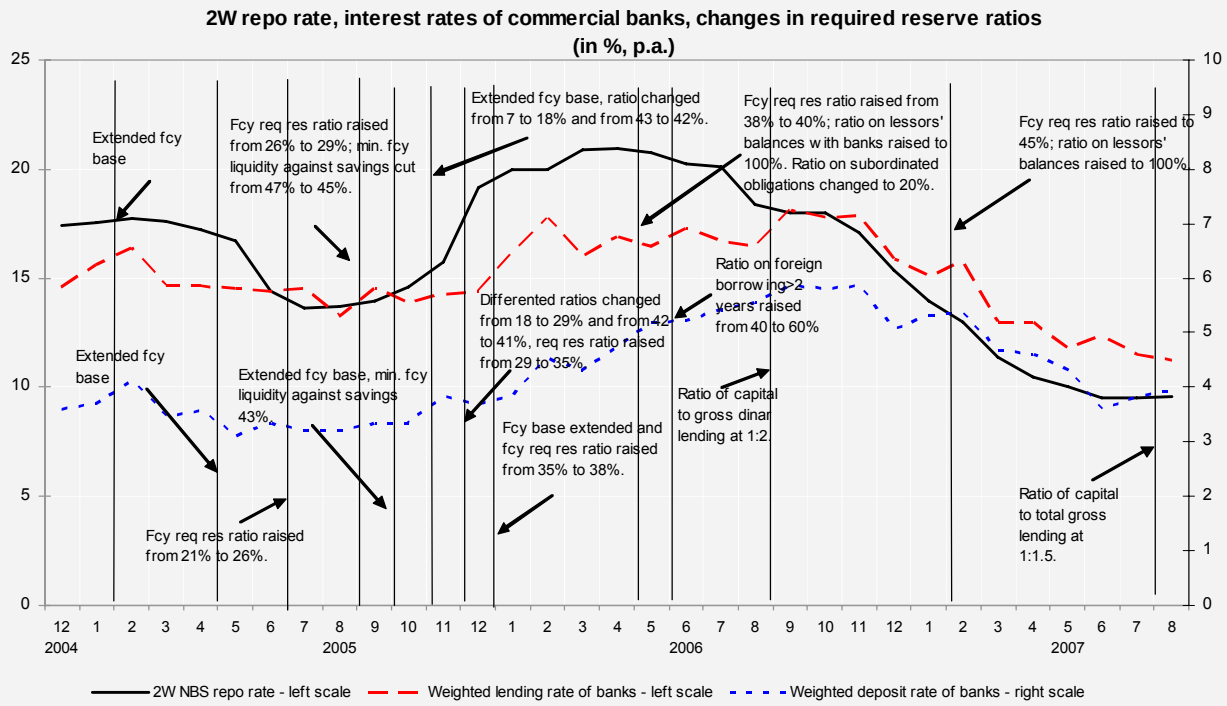
Banks' decisions on the level of lending and deposits rates are mostly based on movements in interest rates in the foreign markets (Libor, Euribor), as the majority of credits are foreign currency clause indexed. However, movements in interbank money market interest rates and bank lending and deposit rates seem to indicate that banks do not ignore movements in the key policy rate and are gradually becoming more responsive to its changes.

In the period under review, lending rates recorded a much higher level of response than deposit rates. This is mainly due to the fact that households, as the main savers, have relatively restricted access to alternative investment options (stock exchange, pension and investment funds, etc.), that the bulk of savings is foreign currency denominated and that there is higher competition among banks with regard to extension of credits.



In recent months, the National Bank of Serbia has often been criticized for conducting a "costly" and inefficient monetary policy and advised to use the reserve requirement instead of the two-week repo rate as its main policy instrument. However, not only is it much more difficult to asses the impact of reserve requirement on output and inflation, but it also seems that using the reserve requirement as the main instrument would certainly not help strengthen the interest rate channel.

Analyses have shown that there is no clear link between changes in the reserve requirement ratio and movements in bank lending and deposit rates. Since early 2005 until the second half of 2006, the reserve requirement ratio was repeatedly revised upwards and the reserving base extended. And even though reserve requirement ratio hikes did sporadically induce a rise in interest rates of commercial banks, they most often led to a decline in these rates.



It is only the banking sector that responds to changes in the reserve requirement ratio, as the sole effect of this measure is to limit credit supply. In addition, this measure influences liquidity of the banking sector and limits bank borrowing abroad only over the short run. In essence, long-term sustainability of price stability presupposes the use of adequate (primarily market) monetary policy instruments. It is for this reason that central banks, including the National Bank of Serbia, frequently opt for open market operations as their main monetary policy instrument. The main advantage of using this instrument is the fact that it has a significant effect on macroeconomic stability as it influences investment and savings decisions of all economic players.

The interest rate channel may be expected to gain in significance in the period ahead, as the exchange rate moves from being an instrument to becoming an indicator of monetary policy, the restructuring of the Serbian economy continues, economic players gain easier access to foreign sources of finance and bank competition in the domestic market grows more fierce.

Exchange Rate

In Q4 2007, the average nominal appreciation of the dinar was 1.6%. By contrast to October, when the dinar was steadily rising against the euro, November and December were marked by significant daily oscillations in exchange rate movements and two depreciation episodes.

In Q4 2007, the dinar appreciated by 1.6% against the euro and moved around RSD 78.8. And while in October the dinar appreciated steadily against the euro to reach its record high since November 2004 (RSD/EUR 76.8), November and December saw far more volatile exchange rate movements and, contrary to seasonal expectations, two episodes of sharp depreciation.

Chart III.1.8.
Movements in the RSD/EUR exchange rate
RSD/EUR

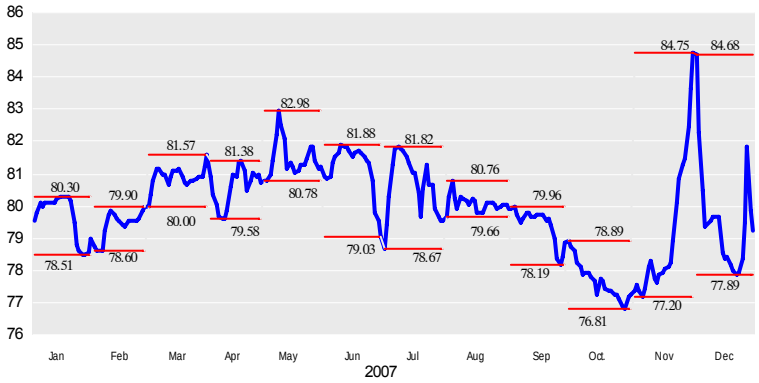
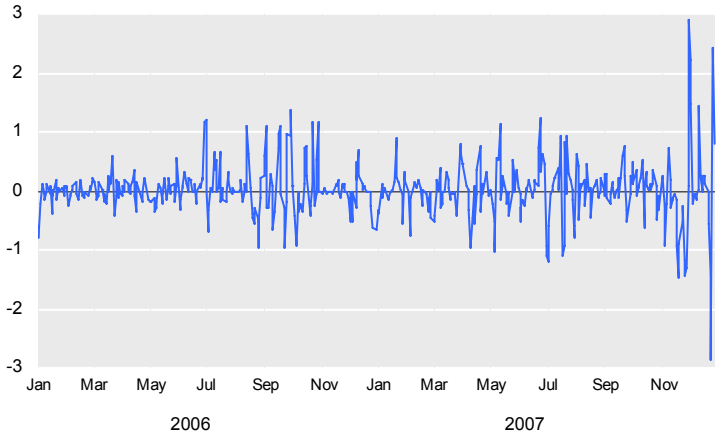


Chart III.1.9
Daily changes in RSD/EUR exchange rate[1)]
(in %)

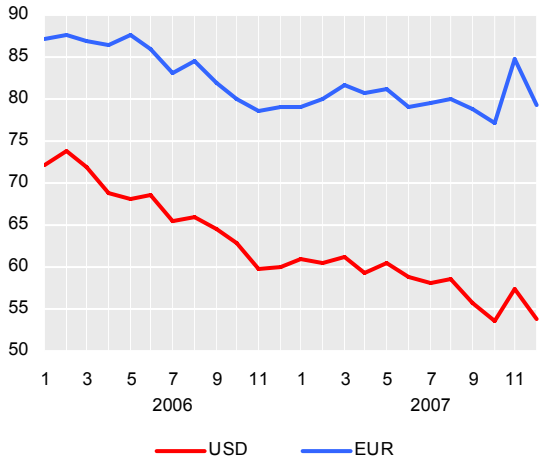


[1)] Negative rates indicate depreciation and positive rates appreciation of the dinar.

The appreciation of the dinar resulted from high foreign exchange inflow and intensified demand for dinars following an announcement of another round of privatization. On the other hand, sharp weakening of the dinar in late November and early December can be attributed primarily to the effects of global developments and psychological factors, while the depreciation in late December was triggered by the mismatch in foreign exchange supply and demand.

During the period under review, the ECB kept its policy rate unchanged while the FED decided on two cuts in its policy rate, by 25 basis points each. The U.S. dollar continued to depreciate against the euro, all the while running above the psychological limit of USD 1.40 for EUR 1. As a consequence, the dinar appreciated against the U.S. dollar by as much as 7.11% in nominal terms. In view of the FED's January policy rate cut by a hefty 75 basis points, such trend is likely to continue in the period ahead.

Chart III.1.10
Nominal exchange rate of the dinar
(in dinars, end of period)



In Q4, the dinar/euro exchange rate moved within a very broad band of RSD/EUR 76.81 to 84.75, with exceptionally high daily oscillations in November and December reaching as much as 3% on some occasions.

End-of-period analysis of exchange rate movements reveals that the dinar depreciated by 0.5% against the euro and appreciated by 3.6% against the U.S. dollar. As these two currencies make up the basket of currencies for calculating the

effective exchange rate, the nominal effective exchange rate for the dinar strengthened by 0.8% at the end of the period.

As a result of strengthening of the nominal effective exchange rate for the dinar and faster growth in domestic relative to foreign prices, the real effective exchange rate appreciated by 2.6% in Q4 (by 1.5% against the euro and by 6.4% against the U.S. dollar).

In Q4, the volume of foreign exchange trading in the interbank foreign exchange market declined somewhat relative to Q3, hence suspending the quarterly growth trend prevailing in 2007. Although trading volumes hit their record high in November (around EUR 3.0 billion), towards the end of the month they fell to exceptionally low levels which, coupled with strong exchange rate fluctuations, prompted the National Bank to intervene in the interbank foreign exchange market (on 29 November) by selling EUR 4 million.

Table III.1.1.

Composition of trade in the IFEM

(total trade) EUR

	Q1	Q2	Q3	Q4	Total 2007
IFEM	**3,143,284,789**	**5,087,608,152**	**7,537,068,646**	**7,259,148,317**	**23,027,109,904**
NBS - Banks	481,250,000	94,400,000	65,000,000	68,000,000	708,650,000
Bank - bank	2,662,034,789	4,993,208,152	7,472,068,646	7,191,148,317	22,318,459,904

(in % of total trade)

	Q1	Q2	Q3	Q4	Total 2007
IFEM	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**
NBS - Banks	15.31	1.86	0.86	0.94	3.08
Bank - bank	84.69	98.14	99.14	99.06	96.92

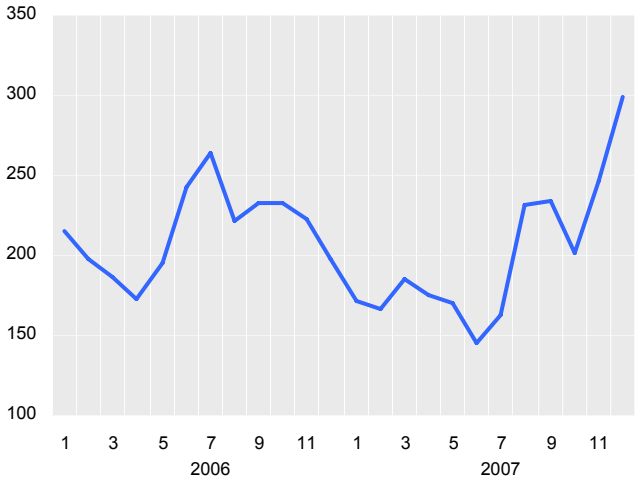
From early October until mid-November (except on one day only), the National Bank of Serbia withdrew from selling a portion of its foreign exchange purchases from exchange dealers so as not to generate further appreciation pressures. From mid-November, these sales were resumed, with amounts increasing to close to EUR 3 million per day. However, as the average daily volume of trading in the interbank foreign exchange market in the period under review was around EUR 109.0 million (thus, the share of NBS was less than 1%) and the National Bank was the price taker in the market, the dinar exchange rate was formed predominantly under the influence of direct interbank trading.[5]

After declining in October, the EMBI[6] index rebounded during November and December reaching its highest level since June 2005 (when it was first introduced in Serbia). Yield on Republic of Serbia bonds traded on the Luxembourg Stock Exchange was almost 300 basis points above the yield on US Treasuries, as a consequence of the general liquidity crisis on global markets. This goes to show that investor readiness to invest in Serbia had declined in the course of Q4, which may lead to the strengthening of depreciation pressures in the period ahead.

Chart III.1.11

Risk premium indicator - EMBI

(monthly averages, in basis points)



Source: JP Morgan.

[5] In mid-December, the National Bank of Serbia modified its method for calculating the middle exchange rate of the dinar against the euro. Namely, in case of significant daily fluctuations, the exchange rate of the dinar will be calculated by taking into account exchange rates from the transactions performed in the latter half of the day instead of taking into account all transactions in the interbank foreign exchange market. In this way, the dinar exchange rate formed in interbank spot trading at the start of operation of the foreign exchange market should deviate to a much smaller degree from the official middle exchange rate of the National Bank of Serbia.

[6] *Emerging Markets Bond Index.*

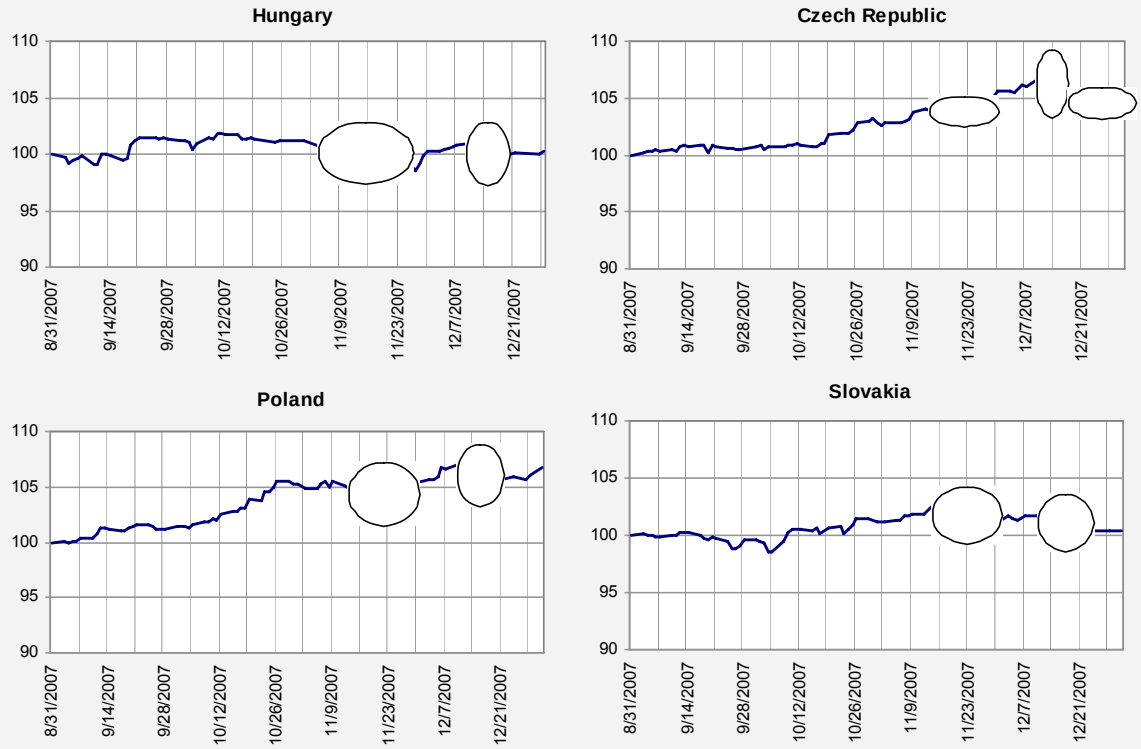
Could Global Financial Developments Be a Cause of Depreciation Pressures in November and December?

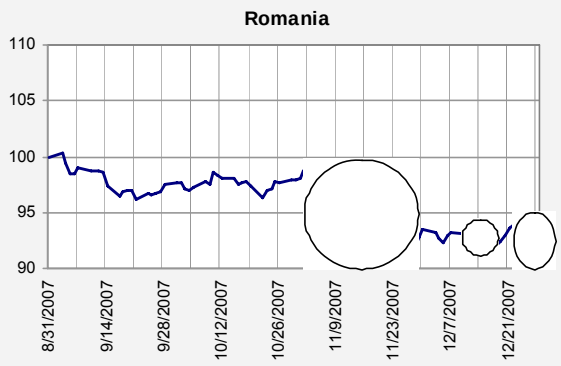
The dinar/euro exchange rate was quite volatile during both November and December 2007. After appreciating in October to its record high since November 2004 (RSD/EUR 76.81), the dinar followed a depreciation path down to almost RSD/EUR 85 in late November. Strengthening of the dinar over the first twenty days of December was equally strong but soon gave way to another, though weaker, depreciation episode. Daily oscillations of the exchange rate intensified in the period under review, reaching close to 3% on some days in the course of December.

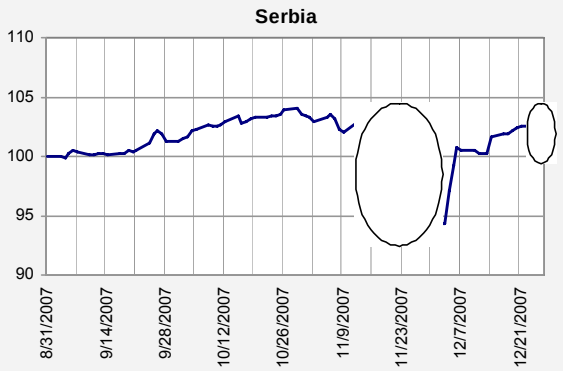
The November depreciation episode, when the dinar dropped to its lowest point since July 2006 in just ten days, was caused by global pressures also felt in Romania, Hungary, Slovakia and Poland (see the chart) though to a lesser extent than in Serbia. The effect of the second November wave of global financial crisis on emerging markets was reflected in rising spreads of the EMBI index in most countries for which this index is calculated. Investors' interest in Serbia declined, as reflected in the decline in Belgrade Stock Exchange indices (and plummeting of almost all stock exchange indices throughout the region), deferral of privatization of DDOR "Novi Sad" and a hefty rise in the risk premium as measured by the EMBI index (up by around 90 basis points (or 44%) in late November on end-October). Note that due to its relative shallowness the Serbian market continues to be quite vulnerable, even to smaller-scale disruptions. In addition, political uncertainties regarding the future status of Kosovo and other psychological factors may also have added to the strength of the blow.

Movements in national currencies relative to the euro in selected countries

(31 Aug 2007 = 100, decline means depreciation)



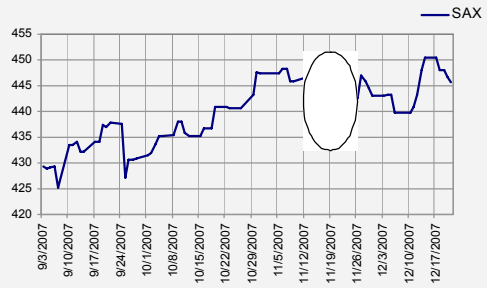


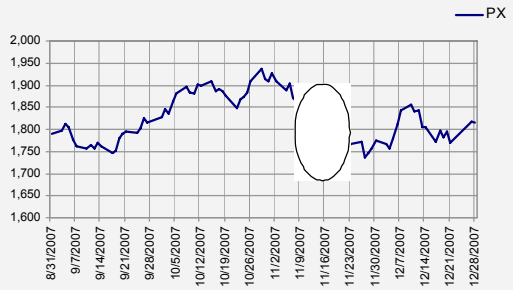


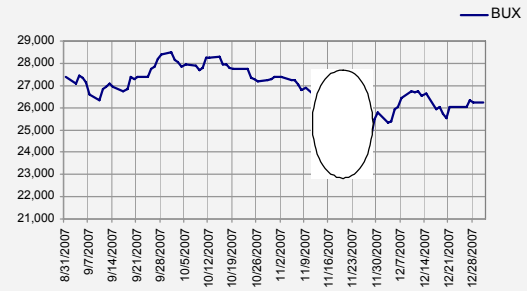
Analysis of movements in the foreign exchange market has revealed that the December depreciation and exchange rate drop resulted from strengthening in client demand for foreign exchange (several major enterprises) in order that they settle their external liabilities on maturity. As banks could not draw foreign exchange from abroad during the Christmas period, their only source of foreign currency in the course of those days was the domestic foreign exchange market. This interpretation of events is consistent with the decline in the EMBI index for Serbia during the above period (final week of December). Belgrade Stock Exchange indices, BELEXline and BELEX15, rallied somewhat in December, as well.

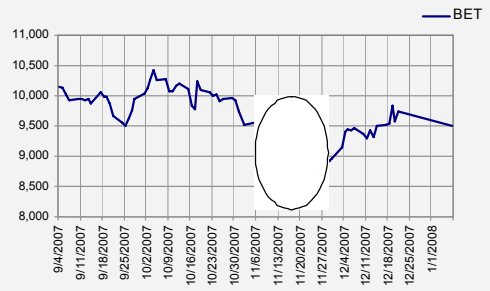
Several other transition countries (Hungary, Poland, Slovakia) also recorded mild depreciation pressures in December, but two weeks earlier than Serbia (mid-December), while Romania and the Check Republic felt them in both mid and late December. It is also interesting to note that during currency depreciation in Hungary and Poland, movements in the **EMBI index** of these countries (EMBI index is not calculated for other transition countries reviewed here) did not correlate with the exchange rate changes. **Stock exchange indices** in the countries under review[1] (see charts) declined in November, which apparently goes to support the assumption that depreciation pressures were caused by global developments. In December, stock exchange indices rebounded, but continued to oscillate.

Movements in stock exchange indices in the countries of the region









[2] PX (Prague Stock Exchange), SAX (Bratislava Stock Exchange), BUX (Budapest Stock Exchange), WIG (Warsaw Stock Exchange), BET (Bucharest Stock Exchange). We were unable to give a graphic representation of the WIG index as its numeric values are not publicly available; chart, however, points to movements which are very similar to those of the Prague Stock Exchange index, PX.

Credit Crunch Spreads to Eastern Europe

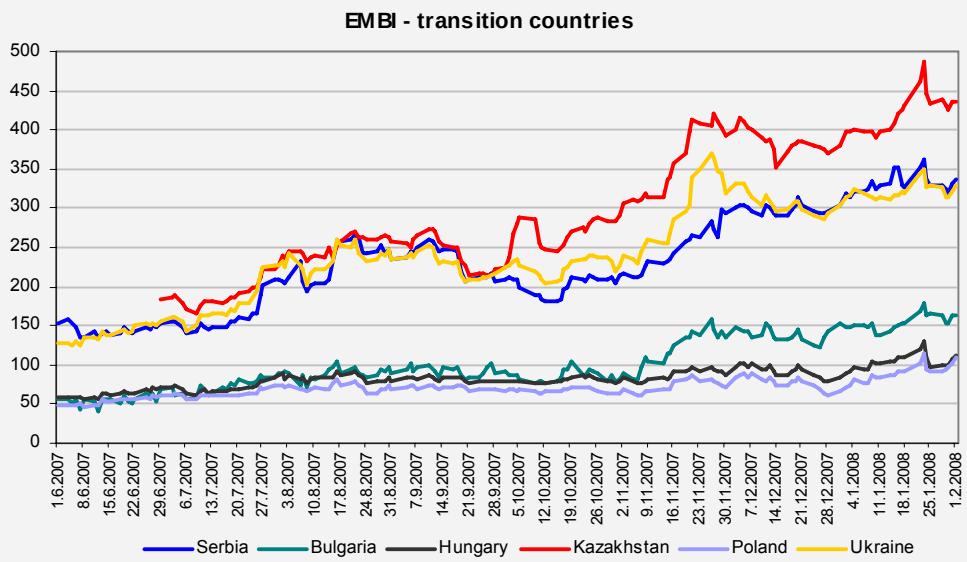
Current crisis in the international financial markets, set in motion in mid-July 2007, has resulted in diminished attractiveness of investment in Central and East European countries, primarily those having troubles in maintaining their macroeconomic balance. In this context, large current account deficits and high inflation rates appear to be the main drivers behind increase in exposure to financial crisis.

According to the European Bank for Reconstruction and Development (EBRD), financing costs in less developed countries of the former Soviet Union and the Balkans have risen from mid-2007 by far more than those in the advanced states of Central Europe (Czech Republic, Slovakia, Poland, even Hungary).

Since last June, the spread on five-year credit default swaps (measure of risk) has widened by 26 basis points for the Czech Republic and 44 basis points for Poland. However, in non-EU countries, which are more vulnerable to external shocks due to their macroeconomic imbalances, the increase in spread on five-year credit default swaps is even higher and ranges from 104 basis points for Bulgaria to 218 basis points for Kazakhstan. In between are Serbia and Ukraine, with the increase of 151 basis points.

EBRD forecasts an economic slowdown in the region in 2008 as a result of higher investment risk, but at the same time, its experts hold that this will benefit economies running large current account deficits (Baltic countries, Romania, Serbia and Bulgaria) and help ease their macroeconomic imbalances. Countries which have been growing fastest are likely to experience a soft landing. EBRD experts argue that EU member states, despite significant macroeconomic imbalances, are less vulnerable to external shocks than those outside the European Union as investors are inclined to think that EU membership brings clear development perspectives and imposes financial discipline.

Identical conclusions are derived from the Emerging Market Bonds Index (EMBI) for six Central and East European countries. As indicated by the chart, the increase in EMBI spread is much higher for non-EU member states (except Bulgaria) than for the EU member countries. Besides, increase in the spread is higher for countries running high inflation and balance of payments deficits, i.e. countries more vulnerable to external shocks. The largest increase in the EMBI spread from June 2007 to January 2008 was recorded for Kazakhstan and Bulgaria (140%), followed by Serbia (118%) and Ukraine (106%). Far lower increase was recorded for more developed Central European countries and EU member states - Poland (67%) and Hungary (49%).



2. Import Prices

Though rising on a quarter earlier, imported inflation remained negative in Q4 2007. However, in spite of the appreciation of the dinar, robust growth in food and energy prices and downward price rigidity prevented the rise in imported inflation from pushing down domestic inflation. Hence, accelerated domestic inflation, together with the negative imported inflation, led to the widening of the real exchange rate appreciation gap.

Imported inflation declined by 1.5% (per annum average[7]) in Q4 as a result of 6.4% nominal appreciation of the dinar against the euro and 5.2% inflation growth in the Euro zone. The decline in inflation was much lower than in Q3, mainly due to a notable price growth in the Euro zone.

Robust growth in food prices and indirect effects of hike in energy prices, however, prevented core inflation from following the negative trends in imported inflation. Along the same lines, due to downward rigidity in prices, appreciation of the exchange rate did not automatically lead to lower prices.

Judging by the current movements of the foreign exchange rate, imported inflation is likely to increase in Q1 2008, which will contribute to the gradual closing of the appreciation gap of the real exchange rate.

In early October 2007, the price of Ural and North Sea Brent oil amounted to still reasonable USD 75 and 78 a barrel, respectively. However, as the month unfolded, oil prices witnessed a hefty rise spurred by a drop in the US oil inventories, forecasts of unfavourable weather conditions and reluctance of OPEC member countries to increase their output and hence ease price pressures. The October oil price growth was also aided by unabated geopolitical tensions and substantial purchases of oil futures by investors seeking a safe haven from crisis sweeping through international credit markets. As a result, the price of Ural oil rose by nearly 20% reaching USD 89 a barrel on 31 October 2007, while North Sea Brent experienced a slightly weaker, but nonetheless strong price growth of around 16%. Despite significant difference in the quality of these two types of oil, their prices differed by just one US dollar on the last day of October.

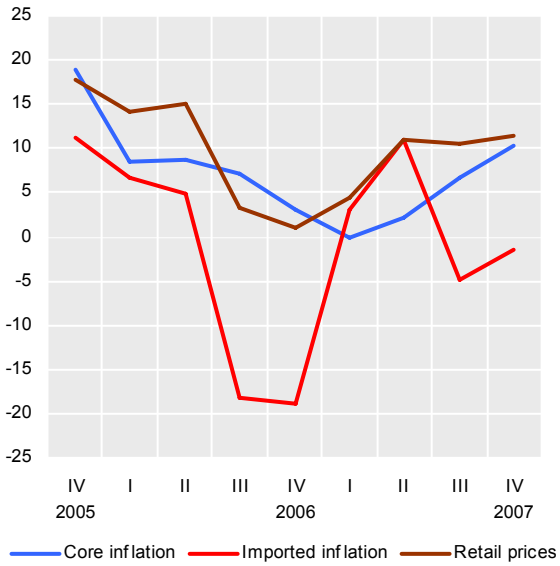
Oil prices experienced milder growth in the course of November. By the end of the month, they measured even less than at end-October.

Amid geopolitical tensions in the Middle East, the end of 2007 saw yet another rise in oil prices.

Chart III.2.1

Core and imported inflation

(average annualized quarterly growth rates)

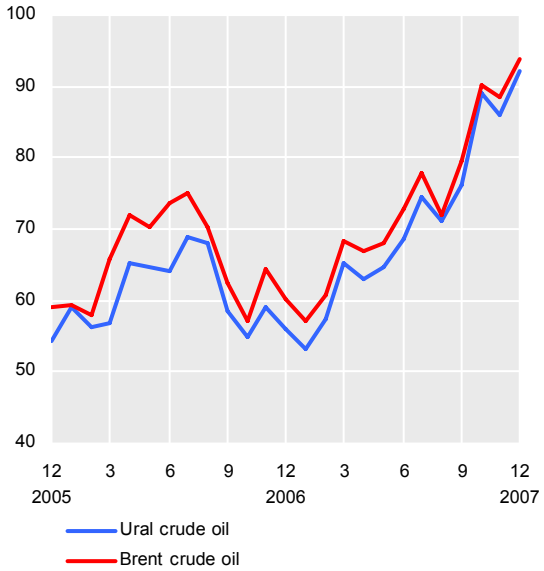


Sourse: NBS and Eurostat.

Chart III.2.2

Oil prices

(in US dollars)



Source: Reuters.

Early 2008 events spur no optimism either – on 2 January, oil prices broke through the psychological barrier of USD 100 a barrel. Analysts are divided in regard to the outlook for oil prices and their

[7] Annualized ratio of averages for two consecutive quarters.

expectations range from USD 85 to USD 115 a barrel. Given the economic slowdown and possible onset of recession in the USA, we expect that oil prices will be on a mild decline and will settle at USD 85 a barrel by the end of Q2 2008.

The rise in prices in Q4 was not only recorded for oil, but for other raw materials as well, including non-ferrous metals, cereals, and precious metals (gold and platinum). Severe drought and strong demand for food in emerging market countries, together with the increasing use of biomass in biofuel production, drove cereal prices to record highs in the second half of 2007. Economic experts hold that growth in food prices, which stoked up headline inflation in developed countries in 2007, is no longer a short-term phenomenon, and that further build-up in inflationary pressures is quite likely.

Prices of gold also peaked by end-Q4, just shy of USD 900 in current prices. It is important to note that gold struck its previous record of USD 850 per troy ounce in 1980, which is today's equivalent of around USD 2,250. Record growth in prices of gold in 2007 is due to large purchases by investors seeking a safe place to store cash amid strong turbulences in the financial markets and rising inflation in developed countries.

World Oil Market Outlook for 2008

Energy experts are divided in regard to the outlook for oil prices in 2008. The expectations range from USD 85 to USD 115 a barrel. However, most experts agree that prices are likely to head downwards if forecasts of the onset of recession in the United States, world's largest oil consumer, materialize. Should this rather probable scenario come true, growth in oil demand will slow down and oil prices will decline. In such circumstances, the impact of lower oil demand on price movements will be stronger than that of geopolitical factors or purchase of oil futures by speculation funds.

In the very beginning of 2008, world oil prices broke through the psychological barrier of USD 100 a barrel. This historic moment occurred as a lone trader in the New York Mercantile Exchange made a minor purchase, and then sold on the contract suffering a negligible loss. Apparently, he wanted to be the first to make a purchase that could push oil prices over the magic threshold. Thus, on 2 January, oil prices touched the record high at USD 100.09 a barrel.

Notwithstanding the above, there is a number of factors cited for the around 60% rise in oil prices in 2007. Note that per barrel prices were below USD 25 in 2003, and lingered around USD 11 back in 1998, as oil supply at the time by far exceeded demand. In the past few years, however, unrelenting economic growth in emerging economies has led to an increase in the consumption of petroleum products. At the same time, mounting political tensions in countries such as Nigeria, Venezuela and Iran rekindle worries of potential supply disruptions, and production of oil fields in the United States, Mexico and other countries is declining.

Although robust oil prices brought their profits to record highs in the past two years, large oil companies now have difficulty finding new oil fields to increase their output. Most recently, untapped oil reserves were discovered in the deep waters of the Gulf of Mexico and near the coast of Brazil, but preparations for their exploitation will take a number of years.

Rapid growth in oil prices was also aided by the activities of investors and hedge funds as oil, like other raw materials, became a kind of safe haven for investors amid concerns over weakened US dollar and negative effects of the US credit crunch.

In early 2008, oil prices are within reach of their inflation-adjusted high, reached in April 1980, in the aftermath of the Iranian revolution, when they jumped to the equivalent of USD 102.81 in today's money. By contrast to oil shocks of the 1970s and 1980s, the latest price escalation episode has so far caused no recession or major cuts in consumer spending. Nevertheless, its negative effects have become evident in widened trade deficit and strong inflationary pressures. According to the most recently published US statistics, December saw a drop in consumer spending and rise in unemployment, these two being the first signs of looming recession.

As the US economic slowdown is most likely to continue, and the rate of growth in large oil consumers, such as India and China, is expected to ease in 2008, it is certain that growth in oil demand will slow down, too. This should be the decisive factor for the forecast stabilization of oil prices at USD 85 a barrel until mid-2008. Such a scenario, i.e. gradual decline in oil prices in 2008, is more probable than the reverse trend of prices picking up towards the abovementioned USD 115. Although the influence of geopolitical factors should not be dismissed altogether, it appears that they will be playing a secondary role in shaping oil price movements in 2008. High level of oil prices can only be sustained by speculative investments via hedge funds. We can be sure of one thing, though: the onset of recession in the United States will inevitably lead to a decline in world oil prices.

3. Balance of Payments

Movements in the balance of payments in the final quarter of 2007 were a cause of much concern. The share of fourth quarter current account deficit in GDP hit a record high of 18.9%. Widening of the current account deficit resulted from rising domestic consumption, sagging production in traditionally export-oriented sectors (metallurgy and agricultural production), increased interest payments on rising foreign debt and a drop in the inflow from net foreign exchange purchases induced by a relatively strong dinar. Due to a robust national currency and competitive bank deposit rates, a part of current receipts, primarily in respect of remittances, was registered under new foreign currency savings.

Current Account

The current account deficit hit its all-time high in Q4, as did its share in GDP (18.9%). Relative to Q4 2006, it widened by 58.4% as a result of a rising deficit on trade in goods and services (51.9%). The shares of the current account deficit and the deficit on trade in goods and services in GDP rose by 3.4 and 3.3 structural points, respectively.

The deficit on trade in goods and services widened as exports growth slackened and growth in imports picked up.

The decline in the year-on-year growth rate of exports continued into Q4. Such slowdown in export dynamics after July 2007 resulted mainly from a drop in exports of cereals (due to drought and a temporary ban on exports), and non-ferrous metals and iron and steel (due to the autumn overhaul in *US-Steel*). The value of exports of these products decreased from a record level of EUR 176 million in July down to EUR 99 million in December. If movements in these three sections of the Standard International Trade Classification (SITC) are excluded from the calculation, the dynamics of export growth was stable at around 30%, in euro terms. Commodity exports in dollar terms hit record high levels (USD 2,515.8 million) in Q4, but declined on a quarter earlier in euro terms. This was the first time since 2002 that exports in Q4 did not rise on a quarter earlier.

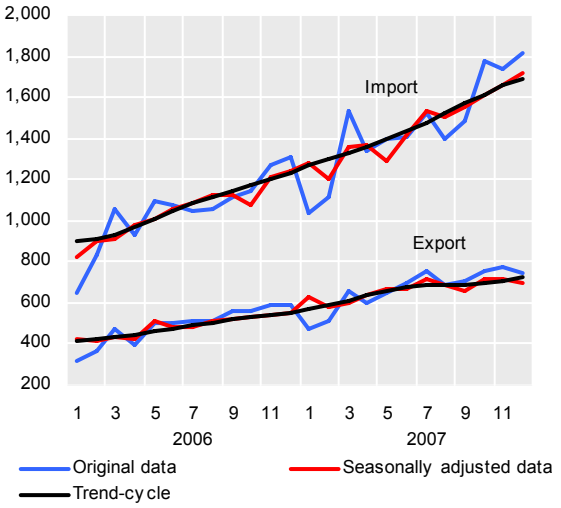
Table III.3.1

Balance of payments of the Republic of Serbia
(in USD mln)

	2007		Change
	Q3	Q4	(in %)
I. CURRENT ACCOUNT	-1,849	-2,397	29.6
Commodity trade, net	-2,068	-2,839	37.3
Exports, f.o.b.	2,378	2,516	5.8
Imports, f.o.b.	-4,447	-5,354	20.4
Services, net	23	-40	
Receipts	788	836	6.1
Payments	-765	-876	14.5
Interest, net	-196	-203	3.6
Current transfers, net	322	584	81.4
Grants	70	100	42.9
II. CAPITAL AND FINANCIAL ACCOUNT	2,330	2,892	24.1
Capital transfers	8	2	
Direct investments, net	575	1,001	74.1
Portfolio investments, net	156	152	-2.6
Medium- and long-term foreign credits, net	903	1,485	64.5
of which: early debt repayment	17	38	
Foreign lending, net	-8	-19	
Short-term credits and deposits, net	169	451	166.9
Deferred payments for oil and gas	62	175	182.3
Commercial banks, net (increase -)	-14	-1,102	
Other capital, net	478	747	56.3
III. ERRORS AND OMMISSIONS	144	-158	
IV. OVERALL BALANCE OF PAYMENTS (I + II + III)	625	337	
V. NBS FOREIGN EXCHANGE RESERVES (increase -)	-625	-337	-46.1

Chart III.3.1

Exports and imports
(in USD mln)



Note: For the purpose of comparability with the preceding period, data for 2005 and 2006 do not include trade with Montenegro.

The composition of exports underwent positive changes, as the share of machinery and transport equipment almost equalled that of food and live animals and miscellaneous manufactured articles, and is poised to become the second most significant section of exports in 2008 (after manufactured goods classified chiefly by material).

Year-on-year growth in imports and the trade deficit was higher in the second half of the year, as rising domestic aggregate demand spilled over into higher imports. A combination of slow structural reforms, expansionary fiscal and tight monetary policies contributed to the widening of external imbalances. According to the assessment of the Executive Board of the IMF (of 5 February 2008), fiscal policy is the main short-term macroeconomic tool available for reducing Serbia's external imbalances. Fiscal restraint will continue to be needed to contain excess demand pressures until the effects of structural reforms take hold to support monetary policy. Monetary authorities should aim at achieving the set inflation objectives, while competitiveness concerns should be addressed through corporate restructuring and wage moderation rather than exchange rate intervention.

Chart III.3.2
Current account deficit and net inflow of capital
(in USD mln)

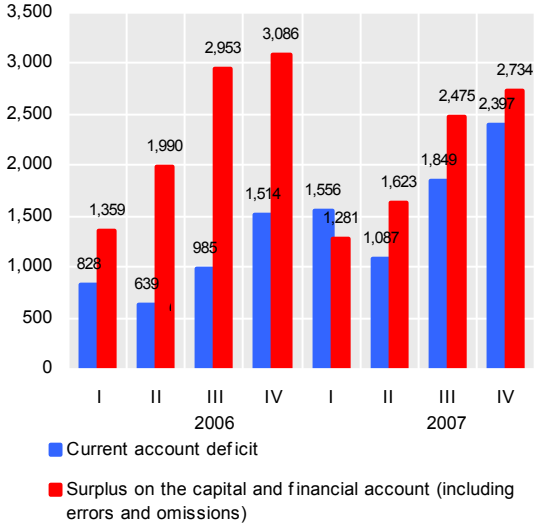


Table III.3.2
Current account positions in % of GDP

	2006				2007			
	I	II	III	IV	I	II	III	IV
Current account	-13.3	-8.6	-11.6	-15.5	-17.5	-10.7	-16.6	-18.9
Current account, grants excluded	-14.0	-9.3	-12.2	-16.3	-18.1	-11.2	-17.2	-19.7
Balance of goods and services	-21.8	-21.3	-17.4	-19.4	-21.2	-20.0	-18.3	-22.7
Exports of goods and services	26.7	27.8	28.5	26.6	27.6	27.7	28.4	26.4
Imports of goods and services	-48.5	-49.1	-45.9	-46.0	-48.8	-47.7	-46.7	-49.1
Net factor transfers (interest)	-1.3	-1.6	-1.3	-1.0	-1.6	-1.5	-1.8	-1.6
Received	0.6	0.6	0.6	0.7	0.6	0.6	0.5	0.5
Paid	-1.9	-2.2	-1.9	-1.7	-2.2	-2.1	-2.3	-2.1
Current transfers	9.0	13.6	6.5	4.2	4.7	10.3	2.9	4.6
Grants	0.7	0.8	0.6	0.8	0.6	0.5	0.6	0.8

Capital and Financial Account

The fourth-quarter surplus on the capital and financial account covered the current account deficit. Relative to Q4 2004, the share of the surplus on capital and financial account in GDP declined by 10.5 structural points.

This decline was due to a drop in the share of the capital account and foreign direct investments in GDP. The share of the capital account in GDP thus declined by 4.4 structural points, and that of net inflow of FDI by 9 structural points, which, when summed up, exceeded the overall decline in the GDP share of the surplus on capital and financial account.

The share of net inflow of portfolio investments in GDP declined by 1.1 structural points on Q4 2006.

By contrast to the decline in the inflow of investment capital (capital account, foreign direct and portfolio investments), Serbia’s share of net borrowing (sum total of all credit positions) in GDP rose by 11 structural points on Q4 2006. The share of disbursements of long-term credits rose by 4.3 structural

points, and that of short-term credits climbed by 1.7 structural points. The share of repayments of principal on long-term credits in quarterly GDP rose by 1.5 structural points to a record high level of 8.6%.

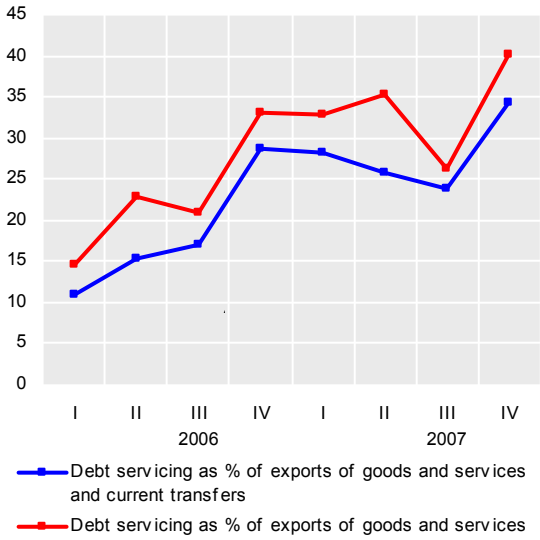
Deferred payments of oil, as a way of financing the current account deficit, increased their share in GDP by 0.8 structural points.

Other capital inflows, "new foreign currency savings" being their most significant item, increased their share in GDP by 1.3 structural points. Of this, the share of new foreign currency savings rose by 2 structural points, while that of other items declined by 0.7 structural points.

In Q4, the balance of payments surplus (equalling the increase in NBS foreign exchange reserves) came to 2.7% of the quarterly GDP and was 13.4 structural points lower than in Q4 2006.

Chart III.3.3

Key indicators of external liquidity, in %



The debt service ratio (repayment of principal and interest as a percentage of receipts from exports of good and services) equalled 40.2% in the final quarter, which is a record high burden on current foreign exchange liquidity. If current transfers are included in foreign exchange inflow, the debt service ratio is 34.2%, exceeding the upper bound of liquidity (of 25%) and underscoring high sensitivity of the capital and financial account to capital inflow levels.

Table III.3.3

Capital and financial account positions and overall balance in % of GDP

	2006				2007			
	I	II	III	IV	I	II	III	IV
Capital and financial account	22.9	27.0	35.4	33.3	16.8	16.2	20.9	22.8
Capital account - net	0.1	0.1	4.9	4.4	-4.7	0.0	0.1	0.0
Foreign direct investments - net	3.2	9.4	20.1	16.9	9.8	-2.5	5.2	7.9
Into other countries (claims)	-0.9	-0.2	-0.2	0.0	0.2	-8.1	0.1	-0.9
Into Serbia (liabilities)	4.1	9.6	20.2	17.0	9.6	5.6	5.0	8.8
Portfolio investments - net	0.2	0.8	1.7	2.3	4.0	2.4	1.4	1.2
Disbursement of long-term credits	11.8	25.0	15.7	15.7	14.5	20.2	13.1	20.0
Repayments of principal on long-term cre	-2.0	-4.1	-4.0	-7.1	-6.9	-7.7	-5.1	-8.6
Other - early repayments of principal and	0.0	-3.2	-2.8	-6.7	-2.1	0.6	0.2	0.3
Credit to other countries	0.2	0.0	0.0	0.3	0.0	0.0	-0.1	-0.1
Short-term credits and deposits - net	4.1	-0.5	-2.5	1.9	-2.9	1.3	1.5	3.6
Deferred payments for imports of oil and (	-0.9	-0.8	-0.5	0.6	1.4	-1.3	0.6	1.4
Other capital inflow	3.5	0.3	5.4	4.6	3.7	2.7	4.3	5.9
Commercial banks (increase -)	2.8	0.0	-2.6	0.4	0.0	0.5	-0.1	-8.7
Errors and omissions	-1.1	-0.4	-0.7	-1.8	-2.4	-0.3	1.3	-1.2
Overall balance	8.5	18.1	23.1	16.1	-3.1	5.3	5.6	2.7

At end-Q4, **foreign exchange reserves of the National Bank of Serbia** reached USD 14,215.8 million (EUR 9,639.2 million), which is an increase by 5.6% on Q3. In late Q4, foreign exchange reserves covered close to eight months of imports of goods and services.

Main contributors to growth in NBS foreign exchange reserves included receipts in respect of foreign securities and exchange rate differentials (contribution of around 4.4 pp), net purchase of foreign exchange in respect of NBS exchange transactions (contribution of 3.0 pp) and the receipts from temporary payment transactions with Kosovo and Metohija (0.6 pp).

On the outflows side, decline in foreign exchange reserves was recorded on account of reduced foreign currency reserve requirement of banks (contribution of 1.9 pp), payments in respect of National Bank's participation in the IFEM (contribution of 0.7 pp) and redemption of bonds issued against frozen foreign currency savings deposits and economic development loan (contribution of 0.2 pp).

At end-Q4, **overall foreign exchange reserves of the Republic of Serbia** stood at USD 16,067.8 million (EUR 10,895.0 million), of which USD 1,852.0 million (EUR 1,255.8 million) were foreign exchange reserves of authorized banks.

In Q4, EUR 500.1 million of reserve money was created against net foreign exchange transactions of the NBS. Contributors to reserve money growth were direct foreign exchange transactions and foreign exchange purchases in respect of NBS exchange transactions (EUR 291.2 and 275.9 million, respectively), while National Bank's participation in the interbank foreign exchange market resulted in a decline in reserve money by EUR 67.0 million. Within direct foreign exchange transactions of the National Bank of Serbia, a total of EUR 158.3 million was purchased from the government, while foreign exchange receipts generated through other direct transactions and temporary payment transactions with Kosovo and Metohija increased the reserve money by EUR 77.6 and EUR 55.2 million, respectively.

Table III.3.4
Contribution to NBS foreign exchange reserves
(in percentage points)

	2007			
	I	II	III	IV
NBS foreign exchange reserves (growth in %)	**-1.3**	**5.2**	**9.1**	**5.6**
Foreign exchange market	-2.2	3.8	2.7	2.8
Exchange transactions	*2.7*	*4.4*	*2.9*	*3.0*
NBS's foreign currency net-sale in the IFEM	*-5.3*	*-1.1*	*-0.7*	*-0.7*
Temporary payment transactions1)	*0.4*	*0.5*	*0.5*	*0.6*
Reserve requirement on foreign currency deposits and credits, and new foreign currency savings deposits	1.5	1.5	1.2	-1.9
Foreign credits to government	0.4	0.2	0.3	0.2
Grants	0.2	0.1	0.2	0.2
Frozen foreign currency savings deposits and Economic Development Loan	-0.1	-1.8	-0.7	-0.2
Other[2)]	-1.2	1.4	5.5	4.4

[1)] Payment transactions with Montenegro (until 26 June) and Kosovo and Metohija.
[2)] Includes privatization receipts, IMF credit, etc.

Table III.3.5
Net foreign exchange transactions of the NBS with an effect on the monetary base
(in millions)

	Forex market[1)]	Direct transact-ions[2)]	Exchange offices[1)]	Total net foreign exchange transactions
		Q1		
EUR	-481.2	430.8	242.9	192.4
RSD	-38,628.4	34,347.1	17,687.6	13,406.3
		Q2		
EUR	-92.4	75.6	382.9	366.1
RSD	-7,620.8	6,037.6	32,548.3	30,965.1
		Q3		
EUR	-65.0	96.0	259.5	290.5
RSD	-5,202.9	7,588.7	20,827.8	23,213.6
		Q4		
EUR	-67.0	291.2	275.9	500.1
RSD	-5,387.5	22,879.7	22,379.2	39,871.4
		Total 2007		
EUR	-705.6	893.6	1,161.1	1,349.0
RSD	-56,839.6	70,853.1	93,442.9	107,456.4

[1)] Includes net inflow/outflow of foreign currency in respect of purchase/sale of foreign currency by the NBS in the interbank foreign exchange market and in respect of exchange transactions.
[2)] Includes net foreign exchange transactions with the government, state authorities, temporary payment transactions with Kosovo and Metohija and other net foreign exchange transactions (e.g. revenue and expenditure of the NBS in respect of transactions with foreign exchange securities, etc.)

4. Monetary Flows

Increased withdrawal of government deposits in December triggered higher than seasonal growth in all monetary aggregates. Lending quickened again, and the enterprise sector increased direct borrowing abroad as well. As the real credit gap remains negative, monetary flows do not seem likely to generate inflationary pressures over the short run, despite unabsorbed negative effects of fiscal expansion. Over the medium run, however, persistently high growth rates of monetary aggregates could give rise to inflationary pressures.

Monetary Aggregates

Strong fiscal expansion and extensive withdrawal of government deposits in the fourth quarter of 2007, most notably in December, sparked higher than seasonal growth in all monetary aggregates. Year-on-year, growth in the dinar component of money slowed down. By contrast to the same period a year earlier when money rose on account of substantial inflow of foreign capital, this year's rise is due to increased government spending, which is particularly unfavourable in view of high inflationary pressures stemming from a number of sources.

In December, government deposits declined by around RSD 40 billion. In addition, the government sold EUR 150 million in direct trading. The bulk of these funds were eventually paid into current accounts of citizens, while a smaller portion was placed with banks as time savings deposits. The Christmas/New Year holiday season pushed household spending still further up (as measured by the level of currency in circulation).

Although the National Bank of Serbia raised the key policy rate in late December, banks failed to invest in repo operations the above mentioned holdings of citizens on bank accounts, but invested them in overnight deposits with the National Bank of Serbia. Beonia's decline and sharp departure from the level of the key policy rate is another indicator of excess dinar liquidity of banks late in the year.

During Q4, reserve money was created against both net foreign exchange and dinar transactions. The effect of money creation on account of foreign exchange transactions and more expansionary fiscal policy, as reflected in the withdrawal of government deposits from accounts with the National Bank of Serbia, was partly offset by open market operations. As banks had been anticipating the key policy rate hike, they invested excess liquidity (RSD 33 billion) in the securities of the National Bank of Serbia before the 50 basis-point rate rise took place.

Chart III.4.1

Reserve money creation

(cumulative changes in million dinars)

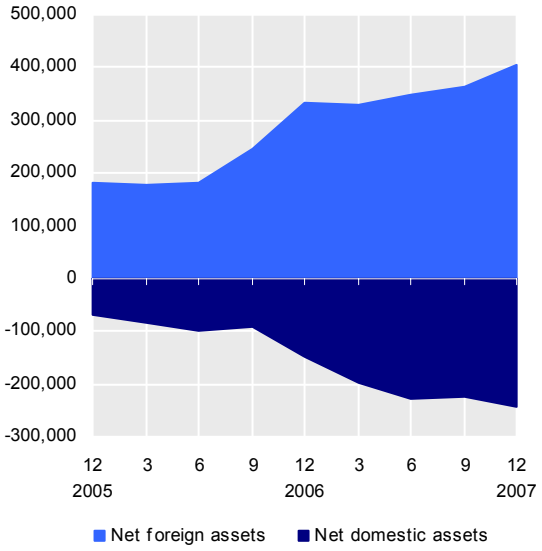
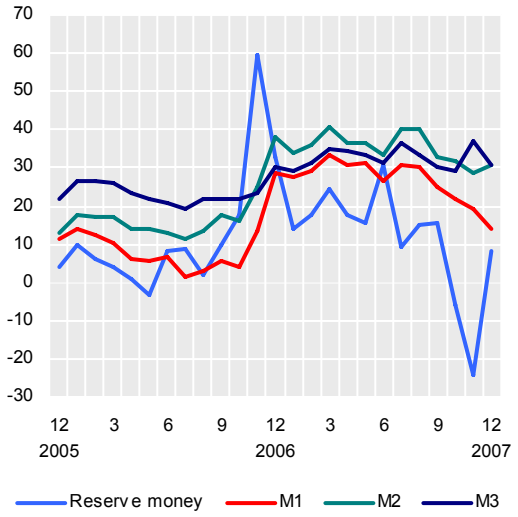


Chart III.4.2

Movements in monetary aggregates deflated by retail prices

(y-o-y growth rates, in %)



Composition of money supply shows that time dinar deposits recorded the strongest growth due in part to a low starting base but also to competitive dinar savings deposit rates and a strong rise in household income. Despite increased growth in quasi money, including for the most part shorter term deposits (under 1 year), foreign currency deposits remained dominant in the composition of money supply M3, accounting for 58% at end-2007. Household foreign currency savings reached EUR 4.8 billion in December, or 43% of the money supply M3. Deposits of enterprises, other financial institutions, and local governments also recorded growth, thereby contributing to a rise in bank lending activity. Somewhat higher growth in dinar deposits can be put down to unfavourable movements on the Belgrade Stock Exchange and lower level of investment of excess assets in the shares of enterprises and banks.

Almost all monetary flows contributed to the creation of the money supply M3, but the main contribution came from net foreign exchange transactions of the banking sector (9 percentage points), primarily as a result of net purchase of foreign exchange by the National Bank. Lending to enterprises and households contributed 7.7 percentage points to money supply growth. As banks failed to fully reconcile gross household lending to their core capital levels, in December they had to deposit RSD 4.5 billion to their accounts with the National Bank of Serbia. Only bank purchases of bonds issued against frozen foreign currency savings continued to decline, as banks invested their excess liquidity mainly in purchase of repo securities and lending to the private sector.

Table III.4.1

Contribution of selected assets to reserve money growth rate[1)]

(in percentage points)

	2007			
	Q1	Q2	Q3	Q4
Net foreign assets	0.0	17.3	13.6	31.7
Net domestic assets	-23.2	1.6	-13.8	-1.2
Domestic credit	-35.7	-11.3	-15.9	-2.3
Net claims on government	-23.7	-25.1	9.6	24.7
Net claims on banks	-12.2	14.3	-26.4	-27.5
Net claims on other sectors	0.3	-0.5	0.9	0.5
Other assets (net)	12.5	12.9	2.1	1.1
Reserve money	-23.2	18.9	-0.2	30.5

[1)] Excluding foreign currency government deposits with the NBS.

Table III.4.2

Contribution of selected assets to M3 growth rate[1)]

(in percentage points)

	2007			
	Q1	Q2	Q3	Q4
Net foreign assets	3.5	3.2	2.9	9.0
Net domestic assets	1.3	2.1	9.7	7.7
Domestic credit	3.1	5.6	8.3	12.1
Net claims on government	-5.1	-3.8	1.2	4.4
Credit to other sectors	8.8	9.9	7.2	7.7
Households	4.3	3.6	4.5	2.6
Enterprises, in dinars	4.3	6.8	3.1	4.8
Enterprises, in foreign currency	0.2	-0.5	-0.4	-0.1
Other	0.0	0	0	0
Redeemed frozen foreign currency savings bonds	-0.6	-0.5	-0.1	0
Short-term dinar government credit to banks	0	0	0	0
Other assets, net	-1.8	-3.4	1.4	-4.4
Money supply (M3)	4.7	5.3	12.6	16.7

[1)] Excluding foreign currency government deposits with the NBS.

Although money supply (in terms of monetary aggregates) has for quite some time been recording exceptionally high growth rates in both nominal and real terms, no significant inflationary pressures are expected in this respect over the short run. However, as these rates exceed even the nominal GDP growth rates, they may give rise to inflationary pressures over the medium run.

Table III.4.3

Growth rates of monetary aggregates

(in percent)

	2006	2007				Share in M3 (Dec)
	IV	I	II	III	IV	
M3	13.5	4.3	5.3	12.3	16.7	100.0
Foreign currency deposits	10.1	7.3	10.2	10.9	10.3	58.1
M2	25.7	-4.5	9.8	15.1	26.8	41.9
Time and savings deposits	15.8	2.9	18.1	33.6	38.3	14.9
M1	29.7	-7.1	6.6	7.9	21.2	27.0
Demand deposits	28.8	-3.1	5.6	12.0	23.0	18.3
Currency in circulation	31.4	-14.3	8.5	0.5	17.7	8.7

Bank Lending

Bank lending to the private sector in 2007 grew by a total of RSD 225 billion, which is twice as much as in 2006. In Q4, year-on-year growth in credits to the private sector gathered further momentum on Q3 – their end-2007 growth rate reached 42.8% (around 30% in real terms) compared to 36% at end-Q3. Growth in household lending slackened. Lending to enterprises picked up as did their direct borrowing abroad. Declining lending rates and higher enterprise demand for credit were the key factors behind credit expansion in Q4.

Apparently the dynamics of lending remained broadly unchanged in Q4, and measures to limit the volume of general purpose credits seem to have managed only briefly to halt the expansion in lending to households. However, as roughly 70% of credits are foreign currency clause indexed, credit growth can in part also be attributed to the nominal depreciation of the dinar.[8] Note that the relatively higher credit growth in the final quarter of the year is also seasonally induced.

In the period under review, the share of domestic credit in GDP rose by one percentage point to almost 31%, which is notably less than in other economies in transition (with the exception of Romania). Hence, what Serbia is currently experiencing is a catching up process rather than a credit boom. If, however, direct enterprise borrowing abroad of USD 11.3 billion is taken into calculation, the share of total credit in GDP is about 50%, which is again below the average for economies in transition.

The main sources of finance for bank lending growth in Q4 were foreign currency deposits of domestic non-banking sectors accounting for over 32% of the bank balance sheet total. The contribution of foreign sources of funds declined relative to earlier quarters. No clear trend pattern seems obvious with respect to maturity structure of banks' borrowing abroad.

Neither state nor local government authorities decided on new borrowing from banks, while claims on public enterprises rose only marginally.

Chart III.4.3

Year-on-year growth in credit to enterprises and households

(in %)

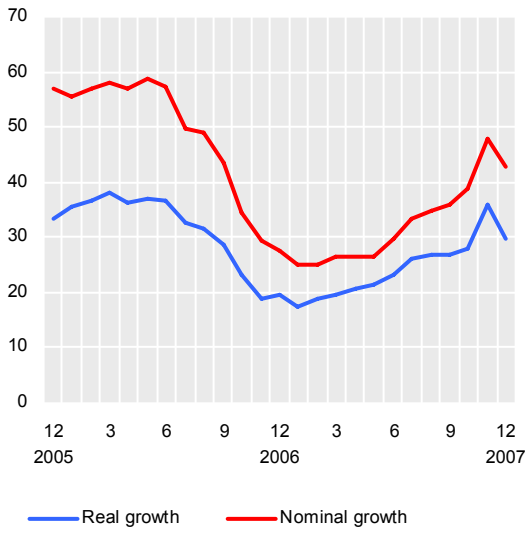
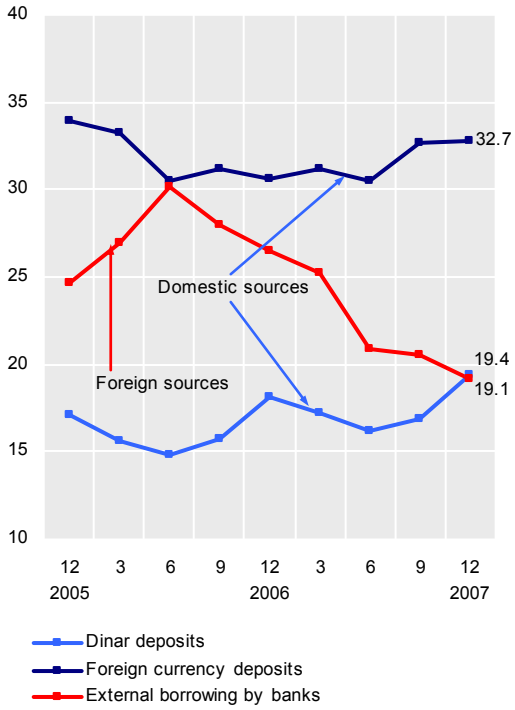


Chart III.4.4

Sources of bank lending growth

(% of balance sheet total of banks)



[8] As end-of-month credit balance is point of reference, the dinar depreciated in nominal terms against the euro at both end-November and end-December relative to end-Q3.

Increased borrowing by enterprises is reflective of their optimistic expectations of future macroeconomic developments. Short-term credits of the enterprise sector recorded a stronger growth relative to end-June and were used primarily for foreign debt repayment and purchase of raw and intermediate materials, while the pace of growth in long-term credits remained much the same and they were used primarily to finance long-term capital investments. Since bank claims on enterprises in respect of issued securities rose only mildly, we may safely conclude that enterprises experienced no significant liquidity problems in Q4.

Though the annual growth rate of household lending remained above 57%, slight moderation was noted in Q4. The highest growth of RSD 15 billion was recorded for housing credits. Growth in credit card loans was also notable, while the increase in consumer credits was negligible. As consumer credits recorded a relatively modest growth, despite an accelerated rate of inflation during Q4, we may conclude that household demand slowed down.

Although fourth-quarter credit growth was high, a comparison of the real credit gap and gross value added excluding agriculture[9] reveals that both indicators of aggregate demand continued to run below the trend. Hence, no inflationary pressures are likely to result from such movements over the short run.

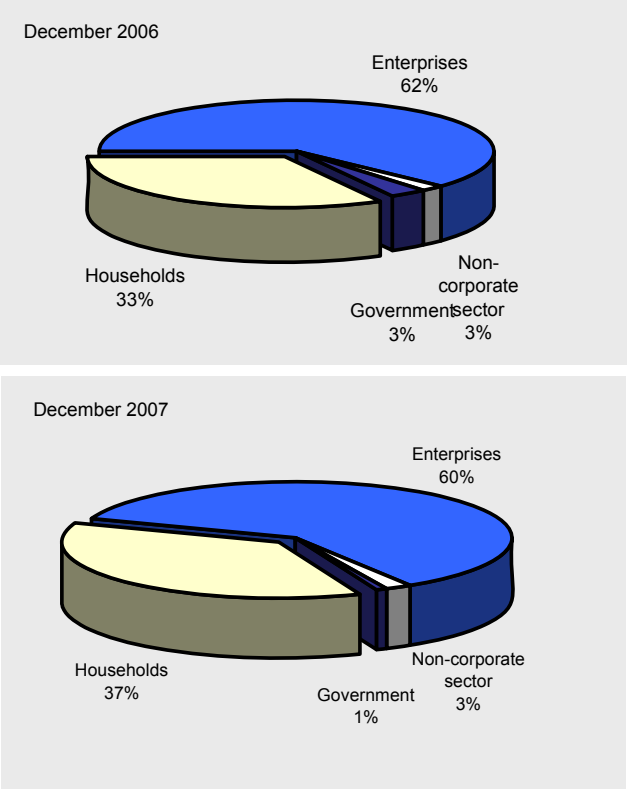
Table III.4.4

Gross household lending by banks (in RSD million)

	30/6/2007	30/09/2007	30/12/2007
Cash loans	95,056	104,351	102,675
Credit cards	23,712	26,517	31,647
Current account overdraft	13,640	14,649	14,802
Consumer loans	20,546	22,737	23,590
Agricultural activity	6,289	7,015	7,688
Performance of other activities	707	743	526
Housing construction	63,673	75,507	90,012
Other	14,192	12,042	9,854
Total	237,816	263,561	280,794

Chart III.4.5

Bank credit by sector



[9] Real credit gap was negative in Q4 as well. This indicator shows high consistency with other output indicators, especially with gross value added excluding agriculture.

5. Supply and Demand

Supply and Sources of Growth

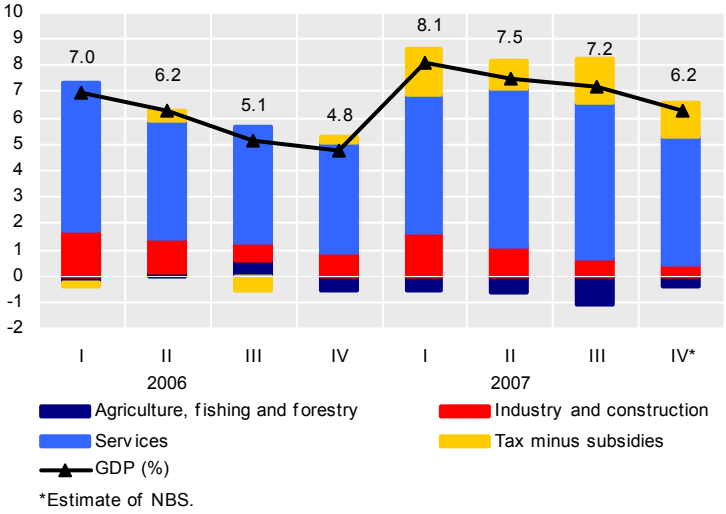
Economic activity slackened in the third quarter primarily under the impact of exogenous factors which adversely affected agricultural production. The slowdown trend was even more pronounced in the fourth quarter, especially in industrial production. As the restrictive monetary policy added further to the slowing of the economy, it generated no inflationary pressures.

Third Quarter

In its most recent report, the Serbian Bureau of Statistics presented revised GDP figures for the first two quarters of 2007. These data indicate that the slowdown trend continued into Q3 2007, which is consistent with our expectations presented in the November *Inflation Report*. Year-on-year, third-quarter real GDP growth was 7.2%, while non-agricultural value added[10] increased by 9.0%. GDP was notably lower than non-agricultural value added due to the impact of exogenous factors which adversely affected agricultural production.

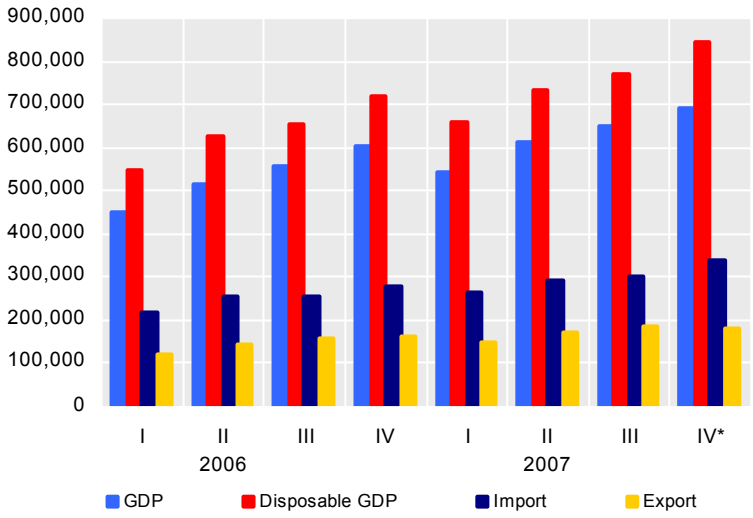
Gross value added contributed 5.5 pp to year-on-year GDP growth in Q3, while the contribution of taxes (less subsidies) was 1.7 pp. In the composition of gross value added, the largest contribution to year-on-year GDP growth came from the services sector, including in particular: transport activity (2.7 pp), retail and wholesale trade (1.7 pp), and financial intermediation (1.2 pp). GDP slackened mainly due to poor agricultural results, which negatively affected some branches of industry. The Q3 decline in agricultural production (8.7%, year-on-year) contributed 1.1 pp to the slowdown in GDP growth. In addition, a slower rise in real wages resulted in a moderation of aggregate demand which, in turn, led to the slackening of GDP growth.

Chart III.5.1
Contribution to y-o-y GDP growth
(in percentage points)



*Estimate of NBS.

Chart III.5.2
GDP – estimates by quarter
(in RSD mln)



*Estimate of NBS.

[10] Non-agricultural value added (GDP excluding agriculture and taxes less subsidies) is used in analyses, as the dynamics of this particular aggregate correlate best with the dynamics of the monetary conditions index.

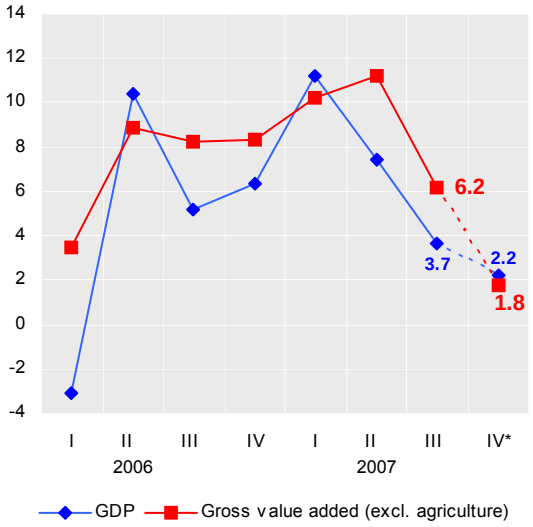
Fourth Quarter

Official statistics available for individual sectors point to a further slowdown in GDP in Q4: year-on-year, GDP growth rate came to around 6.2%, while the growth rate of non-agricultural value added increased by around 7.3%. The appreciation gap of the real exchange rate was another contributor to the economic activity slowdown, partly as a reflection of a more restrictive monetary policy stance.

Chart III.5.3

Growth in economic activity indicators

(seasonally adjusted quarterly growth rates, at annual level)

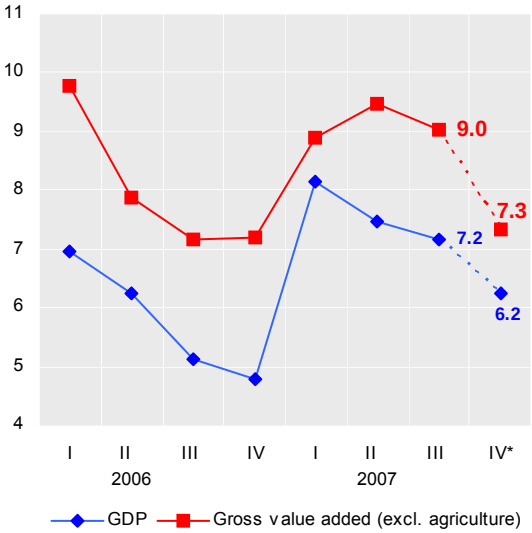


* Estimate of NBS.

Chart III.5.4

Growth in economic activity indicators

(year-on-year growth rates)



* Estimate of NBS.

As seasonally adjusted data indicate, GDP growth decelerated in Q4 (2.2% per annum) relative to 3.7% in a quarter earlier. The growth in non-agricultural value added was much slower (1.8%) than in Q3 (6.2%).

In Q4, industrial production increased by 0.4%, year-on-year, which is a notable moderation (3.2 pp) on a quarter earlier. Breakdown by sector reveals a slackening in production and distribution of electricity (4%, year-on-year), a mild decline in the processing industry and an appreciable drop in mining and quarrying (4.4%). Within processing industry, which accounts for the largest share of total industry (75.4%), production of non-metal minerals and basic metals, which contributed significantly to the September slowdown in production growth, continued on a declining path in December. Production of non-metal minerals declined by 9.3%, year-on-year, which is 3.1 pp higher than in a quarter earlier. As the production in this branch of industry is the main indicator of construction activity, the latter is estimated to have recorded similar movements.

Unable to recover from the sizeable decline in September induced by the autumn overhaul in *US-Steel*, the production of basic metals declined by 21.1% year-on-year, contributing negatively to growth in industrial production. Excluding the production of basic metals from the calculation, industrial production growth in the final two quarters is somewhat higher, but remains slowed down.

Transport activity is estimated to have contributed most to GDP growth in Q4 (2.0 pp), along with retail and wholesale trade (1.8 pp). Retail trade picked up mildly in Q4 due to the seasonal effect of the Christmas/New Year holiday season, reaching a real year-on-year growth rate of 21.3%.

Based on our estimates of real GDP and price growth, fourth-quarter GDP could amount to around RSD 689 billion. According to balance of payments data, disposable GDP would in that case stand at around RSD 846 billion (122.7% of GDP), with exports and imports of goods and services accounting for

26.4% and 49.1% of GDP, respectively. Year-on-year growth in aggregate demand would come to around 17.5%, which would be a slowdown by 0.4 pp on a quarter earlier.

Indicators of Household Spending

In Q4 2007, household spending generated no significant inflationary pressures. Its nominal growth rate dropped to its lowest point in recent years, while its real growth rate declined further as the inflation rate accelerated.

Based on selected indicators, the real growth rate of **household demand** is assessed at 3.8% in Q4 2007 relative to the comparable period a year earlier. Its decline on Q3 (10.7%) resulted from a decrease in the nominal growth rate (from 18% in Q3 to 13% in Q4) and the stepped up inflation.

Sources of fourth-quarter growth in consumer demand were as follows:

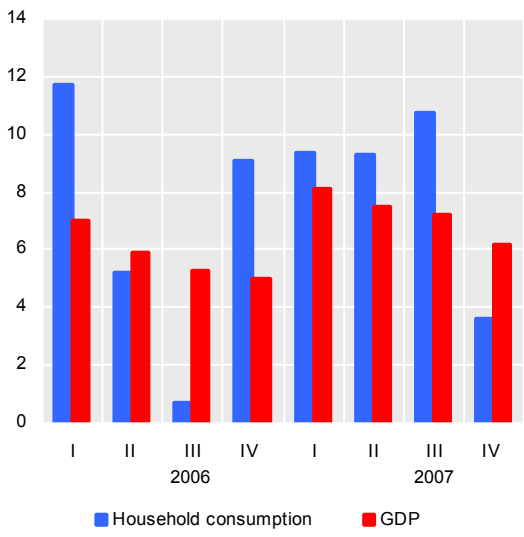
Wages. The ratio of net wages from the statistical sample to estimated GDP was 12.8%, which is 0.6 structural points up on the comparable period a year earlier. Assuming that employees not included in the sample earn on average as much as those included in the sample, the ratio of net wages to estimated GDP is 34.6% or 2.4 structural points more than in the comparable period a year earlier;

Social transfers. This category of household income accounted for 14.6% of the estimated GDP, which is 0.5 structural points less than in the same period in 2006;

Chart III.5.5

Household demand and GDP

(y-o-y real growth rates, in %)



Remittances. Registered remittances accounted for 4.4% of the estimated GDP, which is 0.2 structural points more than in Q4 2006;

Exchange offices. Household income recorded through exchange transactions accounted for 3.4% of the estimated GDP, which is a decline by 0.3 structural points on Q4 2006;

Credits. Borrowing provided households with an additional source of financing consumption and amounted to 2.9% of the estimated GDP, which is an increase by 0.7 structural points on Q4 2006.

Savings. Household savings increased by 7% of the estimated GDP, which is 3.2 structural points up on Q4 2006. In part, this increase was due to the depositing of mattress money triggered by competitive interest rates offered during the Savings Week early in November.

The ratio of household income (less increase in savings and plus increase in credits) to GDP declined by 0.5 structural points (to 52.9%). This decline and the increase in savings (not related with current income) indicate that household demand generated no inflationary pressures during Q4 2007.

Public Consumption

The fourth quarter results calculated according to the IMF methodology point to an exceptionally high fiscal deficit of RSD 52.1 billion. Contribution of budgetary flows to money creation reached RSD 54.4 billion. Although fiscal plans put the deficit for 2008 at RSD 14.8 billion, the actual consolidated deficit is expected to be higher.

Total consolidated revenue of the budget of the Republic of Serbia, grants excluded, reached RSD 281.3 billion in Q4 2007, which is up by 17.8% in nominal and 7.0% in real terms on a year earlier. Total consolidated expenditure came to RSD 333.4 billion, which is up by 18.0% in nominal and 7.2% in real terms on a year earlier (when budget spending was also exceptionally high). The resultant fourth-quarter fiscal deficit was RSD 52.1 billion.

The share of budget revenues in GDP declined while the share of budget expenditures increased, primarily as a result of accelerated spending from the budget adopted for 2007[11].

The negative fiscal result stemmed from record high spending in almost all expenditure categories. Total expenditure thus rose in nominal terms by 31.1% in Q4 relative to Q3, and by a hefty 65.0% in December relative to November.

Consolidated spending in December well exceeded the monthly average for the first 11 months of 2007, as outlays for capital investment rose by RSD 21.5 billion, material expenses by RSD 16.0 billion, repayment of pension arrears and redemption of frozen foreign currency savings bonds by RSD 10.0 billion, subsidies by RSD 8.2 billion (primarily at local government level), wages and social contributions by RSD 9.5 billion and social welfare benefits by RSD 6.3 billion.

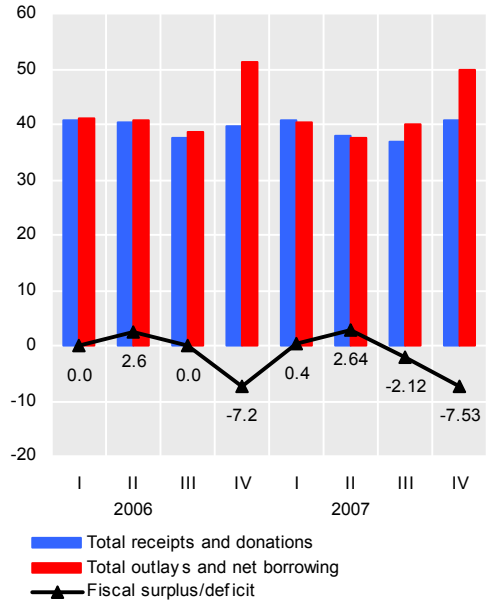
In terms of year-on-year growth rates, the above increase is not so striking, as December 2006 was also marked by record high expenditure levels. It is, however, worth noting that expenditure for wages grew by 20.6% (10.7%, in real terms), while outlays for subsidies and capital investment rose by 39.9% (27.1% in real terms) and 34.7% (22.3% in real terms), respectively. The only expenditure item which shows a decline is repayment of foreign debt and interest as no early debt repayments were recorded during the year.

On the revenue side, the most notable percentage growth on a year earlier was recorded for profit tax (95.3% in nominal and 79.0% in real terms) and customs revenue (29.1% in nominal and 18.3% in real terms). The increase in other revenue categories was in line with expectations (by 10% to 15% in nominal terms). A decline was recorded only for receipts from income tax which, however, was also expected due to tax rate cuts earlier in the year.

Chart III.5.6

Public revenue and expenditures (IMF methodology)

(as % of GDP)

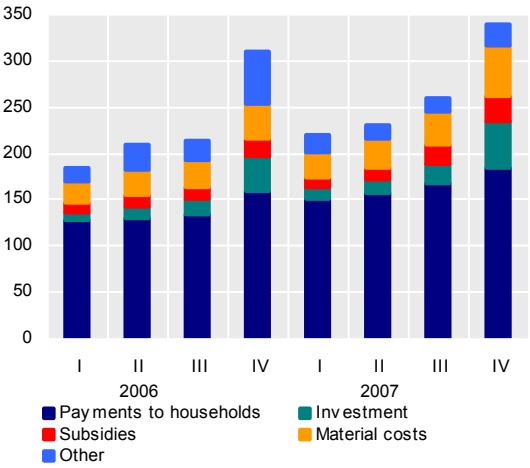


Source: Recalculated based on data provided by the RS Ministry of Finance.

Chart III.5.7

Structure of public expenditures

(in RSD bln)



Source: Recalculated based on data provided by the RS Ministry of Finance.

[11] In the first half of 2007, pending budget adoption, budget related spending and receipts were regulated by the *Decision on Temporary Budget Financing* which limited total expenditure to 50% of the annual revenue figure for the prior year. In the second half of the year, implementation of the adopted budget was accelerated, resulting in a higher budget deficit relative to the first half of the year.

Overall, Q4 witnessed an increase in almost all expenditure categories. Outlays for subsidies climbed by 39.9% in nominal terms (28.2% in real terms), expenditure for wages rose by 20.6% in nominal terms (10.5% in real terms), outlays for social welfare benefits rose by 11.9% in nominal terms (2.6% in real terms), while outlays for capital investment increased by 34.7% in nominal terms (23.5% in real terms) on a year earlier. A mild decline was recorded only for repayments of debt and interest and the item "other expenditures" which is customarily low.

End-2007 consolidated budget deficit equalled RSD 47.5 billion compared to RSD 38.8 billion in 2006. Lack of consolidated budget planning continues to create problems, as does the randomness in implementation of the current budget operating plans. It is therefore safe to assume that fiscal policy in 2008 will be even more expansive. The central budget plan points to a fiscal deficit in the order of 2% of GDP.

Table III.5.1

Fiscal balance

(by quarter, in RSD billion)

	2006				2007				Indices	Indices, real
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q4 2007 / Q4 2006	Q4 2007 / Q4 2006
I Consolidated revenues and grants	183.23	209.01	209.26	239.19	220.36	232.94	240.56	281.85	1.18	**1.08**
o/w grants	0.54	0.39	0.31	0.21	0.13	0.27	0.35	0.42	1.96	**1.80**
II Consolidated expenditures and debt repayments	184.27	210.37	214.67	309.90	219.91	230.14	259.82	343.11	1.11	**1.01**
foreign debt repayment	1.27	1.25	1.61	12.49	1.32	0.47	2.07	0.81	0.06	**0.06**
frozen foreign currency savings repayment	0.48	14.03	4.09	1.12	0.59	13.19	3.75	8.94	8.01	**7.34**
debt pre-payment	0.00	0.00	0.00	13.80	0.00	0.00	0.00	0.00	0.00	**0.00**
III Consolidated revenues without grants	182.68	208.62	208.95	238.98	220.23	232.67	240.21	281.43	1.18	**1.08**
IV Consolidated expenditures and debt repayments (excluding foreign debt repayments, pre payments and FFCD repayments)	182.52	195.09	208.97	282.49	218.01	216.48	254.00	333.37	1.18	**1.08**
Fiscal balance - IMF methodology (III - IV)	**0.16**	**13.53**	**-0.02**	**-43.51**	**2.23**	**16.19**	**-13.79**	**-51.93**	1.19	**1.09**
GDP	450.48	516.30	555.95	603.07	543.02	612.43	650.40	689.52	1.14	1.05
Fiscal balance - IMF methodology in % of GDP	0.04	2.62	0.00	-7.22	0.41	2.64	-2.12	-7.53	1.04	0.96

Source: Calculation based on RS Ministry of Finance data.

Table III.5.2

Consolidated public expenditure

(by quarter, in RSD billion)

	2006				2007				Indices	Indices real
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q4 2007 / Q4 2006	Q4 2007 / Q4 2006
Total expenditure and debt repayment[1)]	**184.2**	**210.4**	**214.7**	**309.9**	**220.0**	**230.1**	**259.9**	**342.1**	**1.10**	**1.01**
Outlays to households:	**127.9**	**129.7**	**134.6**	**158.4**	**150.5**	**156.4**	**167.1**	**183.6**	**1.16**	**1.06**
Net wages	43.9	43.7	45.1	57.8	53.1	57.5	59.4	69.7	**1.21**	**1.10**
Employee contributions	7.5	7.9	8.2	9.8	9.4	10.5	10.8	12.3	**1.26**	**1.15**
Social transfers	76.5	78.2	81.4	90.8	88.0	88.4	96.9	101.6	**1.12**	**1.03**
Pensions and unemployment benefits	60.7	62.9	65.6	69.8	70.2	72.0	74.6	79.4	**1.14**	**1.04**
Social benefits	13.1	12.7	13.1	17.9	15.1	13.7	19.4	18.3	**1.03**	**0.94**
Other transfers to households	2.6	2.5	2.8	3.1	2.7	2.7	2.8	3.9	**1.25**	**1.14**
Subsidies	**10.1**	**13.4**	**13.1**	**19.0**	**9.5**	**11.8**	**20.0**	**26.5**	**1.40**	**1.28**
Material expenses	**23.4**	**26.6**	**30.4**	**39.6**	**27.1**	**32.8**	**36.4**	**56.6**	**1.43**	**1.31**
Investment	**8.1**	**12.7**	**15.6**	**37.6**	**17.9**	**15.3**	**22.2**	**50.6**	**1.35**	**1.23**
Interest expenses	**5.7**	**4.9**	**5.8**	**18.2**	**5.8**	**3.1**	**4.2**	**2.9**	**0.16**	**0.15**
Debt repayment	**1.8**	**15.3**	**9.7**	**26.5**	**10.9**	**13.8**	**5.8**	**14.2**	**0.53**	**0.49**
Payments in respect of frozen f/c savings and pension arrears	0.5	14.0	8.1	14.0	9.6	13.3	3.8	13.4	**0.95**	**0.87**
Foreign debt repayment	1.3	1.2	1.6	12.5	1.3	0.5	2.1	0.8	**0.06**	**0.06**
Repayment of outstanding internal debt	0.0	0.0	0.0	0.0	4.5	0.4	3.1	-1.5*		
Other[2)]	**14.7**	**15.6**	**13.7**	**20.4**	**7.7**	**7.4**	**14.9**	**20.0**	**0.98**	**0.90**

[1)] The sum does not include employees contributions and repayment of outstanding internal debt.

2) Item Other includes: transfers to Kosovo and Metohija, net borrowing and other current expenses.

[*)] Cancellation of repayment of debt to the NBS (RSD 2.6 billion), disclosed in Q1 2007.

Indicators of Investment Spending

Despite continued economic slowdown, majority of available indicators point to an increase in investment activity, as well as to a shift in the structure of GDP spending from personal to investment consumption.

Capital goods trade deficit continued to record high year-on-year growth rates in Q4 (49.3%), mainly due to stepped up imports (58.6%).

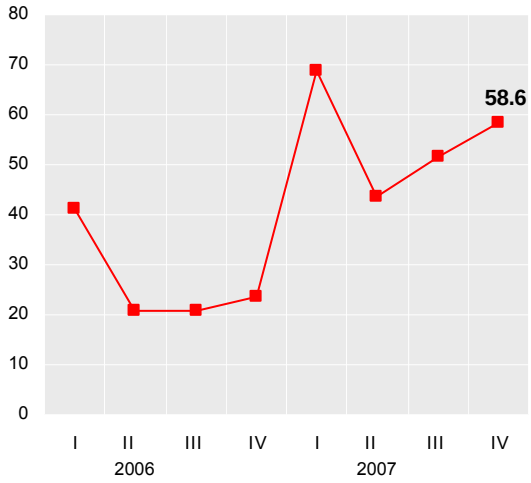
Although production of capital goods declined in volume terms from the preceding quarter, it rose year-on-year by 3.3% in Q4, which may be one of the reasons behind the structural shift in exports to machinery and transport devices.

Widening in the capital goods deficit was accompanied by increased medium- and long-term domestic and foreign borrowing by enterprises, which also reveals strengthening of their investment activity. Namely, year-on-year growth in long-term net domestic bank credits to enterprises (one of the indicators of investment into fixed funds) came to 32.3% in Q4, up by 10 pp on a quarter earlier. Long-term net foreign bank credits to enterprises also recorded notable growth of 107% year-on-year. On the other hand, long-term domestic borrowing by households eased somewhat, but still continued to grow at a brisk pace (51.8% year-on-year). The largest portion of household borrowing is accounted for by credits for housing construction.

Chart III.5.8

Growth in imports of capital goods

(year-on-year growth rates)



Data on the level of short-term credits approved to enterprises for the purpose of financing stock building point to increased spending for investment in current assets in Q4 (33.5% year-on-year), up by 19.3 pp on a quarter earlier. As the production of intermediate goods recorded a year-on-year decline in Q4, accelerated growth in net short-term credits to enterprises has led to the rise in the intermediate goods deficit and reduction in stocks.

Table III.5.3

Investment indicators

	2006				2007			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Real indicators								
Imports of intermediate goods, in USD million	912.3	1,164.3	1,266.4	1,421.0	1,343.3	1,658.7	1,761.9	1,905.0
Exports of intermediate goods, in USD million	636.6	806.3	913.5	955.7	965.3	1,123.6	1,172.1	1,147.1
Imports of capital goods, USD million	551.5	776.6	806.0	929.9	929.9	1,114.2	1,223.3	1,474.9
Exports of capital goods, USD million	130.3	163.2	183.0	214.7	223.6	280.7	287.6	407.2
Financial indicators								
Short-term credits to enterprises, RSD billion	201.7	214.0	203.2	188.1	200.4	229.7	232.2	251.2
Medium- and long-term external borrowing by enterprises (net), in USD million	255.7	317.7	637.4	660.2	597.1	739.3*	894.8	1,366.6
Long-term credits to households, RSD billion	121.5	138.6	152.0	163.7	187.7	206.6	234.0	248.5
Long-term credits to enterprises, RSD billion	162.8	172.3	177.9	174.0	189.4	198.3	217.7	230.3
Government investment spending, RSD billion	8.1	12.7	15.6	37.6	13.6	14.1	22.2	50.6

*As the USD 806 million credit approved to Telekom Srbije a.d. by Citygroup in June was intended for purchase of Telekom Republike Srpske and did not induce a rise in investment activity in the country, it has been excluded from the calculation of long-term external borrowing by enterprises.

Government investment spending recorded notable growth in Q4 relative to the preceding quarter. Year-on-year, however, it was by 7.8 pp lower due to particularly loose fiscal policy in Q4 2006.

Based on the above indicators, it may be concluded that investment activity was stepped up in Q4 2007 and that its share in GDP spending rose at the expense of personal consumption.

Table III.5.4
Investment indicators

	Q1 2007 / Q1 2006	Q2 2007 / Q2 2006	Q3 2007 / Q3 2006	Q4 2007 / Q4 2006
Real indicators				
Physical volume of industrial production of capital goods	-2.2	-0.9	15.9	3.3
Imports of intermediate goods	47.2	42.5	39.1	34.1
Exports of intermediate goods	51.6	39.4	28.3	20.0
Stocks of intermediate goods, y-o-y indices	0.8	-1.6	2.1	-1.8
Imports of capital goods	68.6	43.5	51.8	58.6
Exports of capital goods	71.6	72.0	57.2	89.7
Stocks of capital goods	-4.5	-8.8	-11.7	-11.8
Financial indicators				
Short-term credits to enterprises	-0.6	7.3	14.3	33.5
Medium- and long-term external borrowing by enterprises (net)	133.5	149.1	40.4	107.0
Long-term credits to households	54.5	49.0	54.0	51.8
Long-term credits to enterprises	16.3	15.1	22.4	32.3
Government investment spending	68.0	10.9	42.4	34.6

6. Labour Market Flows

Economic slowdown was accompanied by slower year-on-year net wage growth in both nominal and real terms. However, real net wage growth remained high – and for the year as a whole, averaged 19.5%. The main generator of wage growth and the ensuing inflationary pressures in Q4 was the non-public sector. Unit labour costs edged up as productivity gains fell behind growth in real gross wages in the industrial sector.

Wages

As the last quarter of 2007 witnessed further deceleration in wage growth, year-on-year average rate recorded in that period was 1.9 percentage points lower than a quarter earlier. However, year-on-year nominal net wage growth was high and amounted to 25.5%. In 2007, average annual rate of growth in net nominal wages equalled 27.9% (19.5% in real terms). The below-average value calculated for the last quarter of the year was also due to strong growth of wages in December 2006. This explains the 13.1% year-on-year real net wage gain in Q4, down by 6.4% on a quarter earlier. Q4 real net wage growth was also moderated by accelerating inflation.

Chart III.6.1
Average net wages
(y-o-y growth, in %)

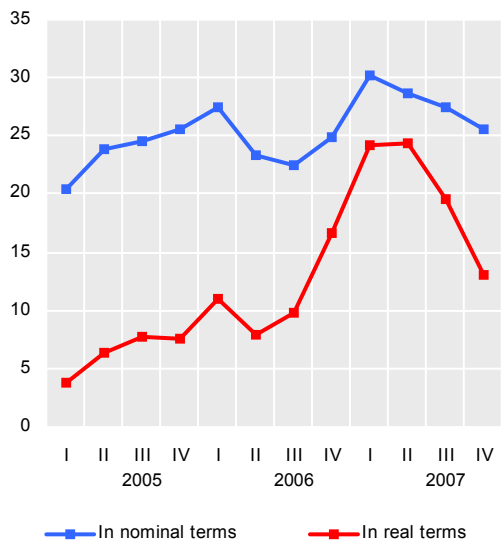
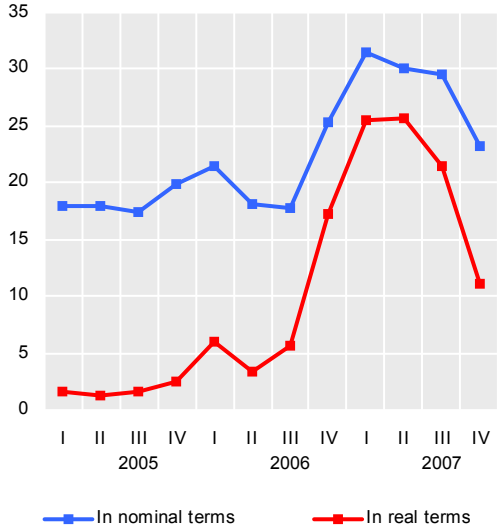


Chart III.6.2
Average net wages in the public sector
(y-o-y growth, in %)



The pace of public sector wage growth also eased - net wages increased by 23.2% in nominal terms or 11.0% in real terms relative to the same period a year earlier. All areas within the public sector recorded a slowdown in wages from Q3. However, in some of the areas, such as education and culture or health and social work, wage growth remained very high and exceeded the average year-on-year net wage growth. The share of public sector wage bill is estimated at around 6.7% of GDP, which is much the same as in the matching period a year earlier. Public sector wages remained high – average net wage in the public sector equalled 35,797 dinars in Q4 and exceeded the average net wage in Serbia of 30,855 dinars.

In contrast to earlier quarters of 2007, total wage growth in Q4 and the ensuing inflationary pressures were generated primarily by high December wages of the non-public sector, inclusive of bonuses and payment of arrears.

Declining tendency in wage growth in most of the sectors is commensurate with general slackening in the pace of economic activity. Only trade deviated from such a path and recorded a mild acceleration in activity (measured by gross value added) and the largest drop in wage growth (lower by 5.2 percentage points than in Q3). By contrast, the processing industry reveals an increase in wage growth of 4 percentage points relative to Q3, while its activity stagnated. Similar movements were also recorded in

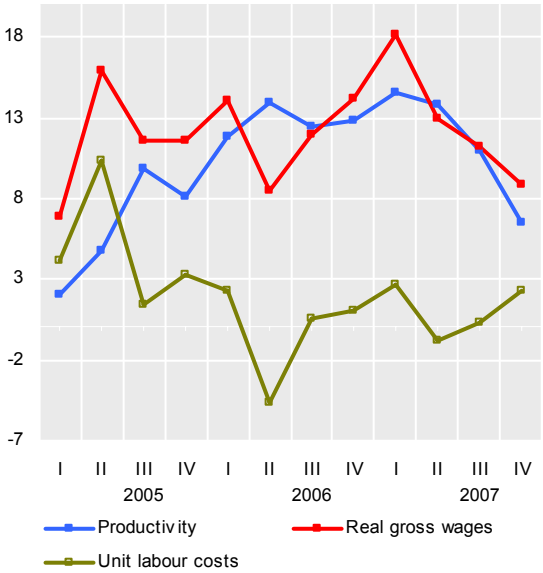
financial mediation and real estate business, where slowdown in activity was accompanied by stepped up wage growth (by 6.6 and 8.7 percentage points, respectively, relative to Q3).

Persistent slowdown in industrial production, in place since Q2, led to a deceleration in productivity growth. As productivity gains fell behind growth in real gross wages, unit labour costs increased. This was particularly pronounced in the last quarter of 2007. Thus, unit labour costs in the industrial sector rose by 2.3% on the same period a year earlier. Slackening in the processing industry growth and the 3.1% rise in unit production costs in an environment of real appreciation of the dinar have had a negative impact on the competitiveness of domestic economy.

Chart III.6.3.

Movements in productivity, real gross wages and unit labour costs in the industrial sector

(year-on-year growth, in %)



Employment

Slowing down of economic growth led to a decline in employment and slower vacancy growth rate in Q4. Drop in employment was most pronounced in the processing industry. At the same time, unemployment figures also show a decline.

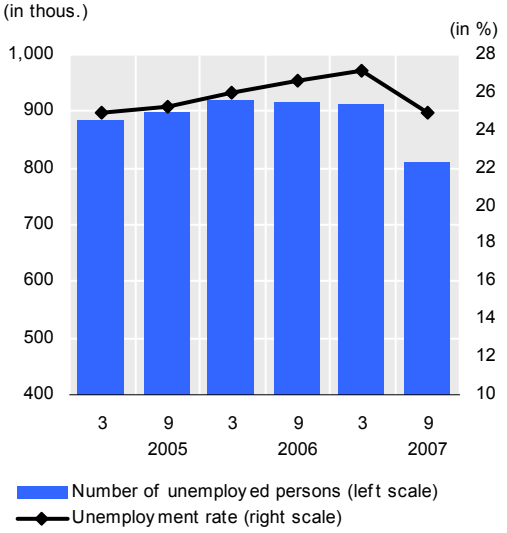
According to our estimates, total employment in December 2007 amounted to 2,441.2 thousand persons, which is a small decline from September. While employment plummeted in the majority of sectors in Q4, it rose in financial mediation, real estate business and part of the public sector (education and culture, healthcare and social work).

In the course of 2007, the sharpest drop in employment was recorded in the processing industry (down by around 24 thousand jobs), which is in line with the slackening of economic activity in this sector. Notable drop in employment was also recorded in the construction industry, mainly due to seasonal factors, as well as in the production of electricity and gas. The largest increase in employment was recorded in education, healthcare and social work, i.e. public sector. Employment also went up in trade, real estate business, financial mediation and transport.

Chart III.6.4

Unemployment

(in thous.)



Source: Serbian Bureau of Statistics and National Employment Service.

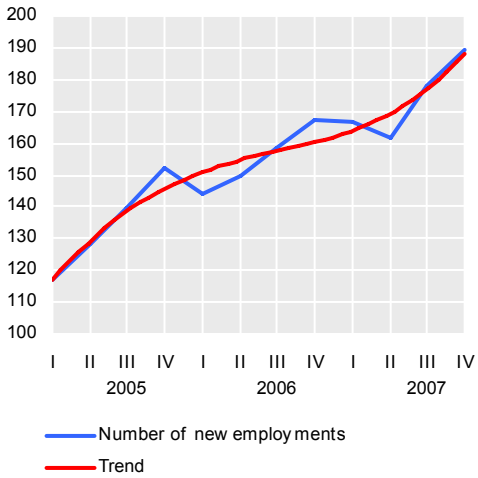
Decline in unemployment continued in Q4. Total unemployment amounted to 785.1 thousand in December, down by 23 thousand or 4.9% from September. This year's drastic drop in unemployment by 131.1 thousand or 14.0% is largely attributable to the re-registration of around 90 thousand persons from the records of the National Employment Service to the records of the Republic Health Insurance Bureau.

Positive movements were registered with the number of first-time job seekers, which equalled 328.7 thousand in December, 17.3% down on the same month a year earlier. However, the share of first-time job seekers in total unemployment remains very high – 48.7%. The number of persons seeking employment for longer than two years was lower by 7.7% in December 2007 than in the same month a year earlier.

Chart III.6.5

New employment

(in thousand)



Source: National Employment Service.

Other labour market indicators show that the estimated rate of unemployment equalled 24.3% in December, down by 2.4 pp from the same period a year earlier. New employment rose 5.6% year-on-year and reached 189.3 thousand in Q4. Of the new employment figure, 82.5 thousand persons from the records of the National Employment Service were first-time employed (43.6%), while 106.7 thousand persons changed jobs (56.4%).

On the other hand, year-on-year vacancy growth rate fell victim to economic slowdown and declined by 4.3 pp from Q3.

7. Inflation Expectations

Inflation expectations for 2007 hit their peak level in Q4. However, end-of-year expectations of the financial sector (8%) were well below the actual inflation outturn. Preliminary results of the January 2008 surveys point to a continuing rise in inflation expectations as one of the main factors likely to spur inflation growth in the period ahead.

The December survey findings of the **TNS Medium Gallup** indicated a continuing rise in inflation expectations of all respondent sectors in Q4. A leap in prices of agricultural and food products and wide oscillations in the nominal exchange rate for the dinar pushed household expectations up to 14.7% p.a. End-year expectations of the financial sector, albeit higher than six months earlier, were still below the actual inflation figure.

Table III.7.1
End-quarter inflation expectations over the next 12 months

	2007			
	I	II	III	IV
Enterprises	12.7	8.7	10.0	10.4
Financial sector	7.4	6.2	7.3	8.0
Trade unions	7.4	10.0	9.1	10.5
Households	12.7	14.0	16.4	14.7

Source: Survey (TNS Medium Gallup).

December expectations of the financial and enterprise sectors regarding movements in inflation over the 12 months ahead remained unchanged from November. Expectations of trade unions and households continue rising. High inflation expectations will certainly be one of the main generators of inflation in the period ahead.

Findings of the **January Reuters survey,** which encompassed 17 banking dealers and one economist, show a rise in average expectations of exchange rate movements relative to the preceding survey. Estimates placed the end-February exchange rate at RSD/EUR 81.1, which is also expected for end-2008.

Table III.7.2
Expectations of the banking sector[1)]

	Core inflation	Key policy rate			RSD/EUR	
	end 2008	end Feb	end March	end 2008	end Feb	end 2008
December 2007	5.3	-	-	9.4	-	79.8
January 2008	5.9	10.6	10.7	10.5	81.1	81.1

[1)] Survey includes 17banks.
Source: Survey (Reuters).

Average January expectations of end-2008 core inflation (5.9%) were higher than the set monetary policy objective (4.5%). They also increased relative to the December survey (5.3%). Only one banking dealer expects core inflation to be lower than targeted (3-6%), while all others expect it to be higher.

All respondents expect the NBS to raise the key policy rate to an average of 10.6%. Eight respondents expect the key policy rate to be raised by 50 basis points, four respondents expect a 25 basis-point hike, while six respondents expect more drastic upward revisions of the rate.

Expectations of End-March and End-2008 Key Policy Rate Levels

On average, banking dealers expect the end-March key policy rate to reach 10.7%. Also, 10 (out of 17) banking dealers expect the end-2008 key policy rate to be lower than the key policy rate in March 2008 and to average at 10.5%.

IV. Inflation Projection

As a result of strong inflationary pressures, core inflation will be running above the upper bound of the target corridor (6%) throughout most of 2008 and is expected to settle within the target corridor only late in the year. The central projection places core inflation for 2008 at 4.7%, within the 2.9–6.8% range, and headline inflation at around 6.1%. This projection is consistent with a tightened monetary policy stance in the period ahead.

Medium-term inflation projection shows expected movements in inflation in the period ahead, the key factors behind such movements and the underlying risks. Core inflation projection is expressed as both a range and a central projection rate. This projection presupposes an active monetary policy which aims to keep core inflation within the target corridor and thus fulfil its principal role as defined by the current monetary policy framework.

Initial Conditions and Projection Assumptions

The core inflation objective for 2007 has been achieved – in December core inflation was within the target corridor. However, the year ended with very high monthly rates of inflation and strong inflationary pressures which spilled over into 2008. Supply side shocks triggered a notable rise in inflation and a slowdown in economic activity.

In Q4, core inflation remained unchanged from a quarter earlier (2.2%), as the effects of the agricultural (supply-side) shock proved much stronger and more persistent than initially assumed. In addition to high rates of inflation still emanating from the agricultural shock, another cause of concern is the increase in non-food core inflation which indicates that the agricultural shock has spilled over into all prices through heightened inflation expectations.

Core inflation rates are expected to decline in the period ahead as the effects of the agricultural shock wear off. There is, however, a number of factors which are expected to impede the return of inflation to its 1H 2007 levels, including: high inflation expectations, fiscal expansion and announced strong wage growth in the public sector (army, state administration, etc.), rise in global inflation tendencies, stronger exchange rate oscillations and recurrent depreciation pressures against the dinar, political uncertainties, cost effects of the historical rise in prices of petroleum products, and crisis in world financial markets.

Although the appreciation gap and slowing of the economy will induce disinflationary effects, inflationary pressures are expected to prevail. Monetary authorities will, therefore, be faced with a difficult task of bringing core inflation below the upper bound of the target corridor before the end of the year.

The new inflation projection assumes a decline in EU inflation, a minimum rise in oil prices during the next year and an unchanged ECB policy rate during 2008. Based on the Ministry of Finance projection, non-core inflation, petroleum products excluded, ought to be much lower than in the past year. By optimal projection, the state budget deficit will equal its level in 2007.

Assumptions used in the projection for 2008

External	
EU inflation	1.9%
End-year EU interest rate	4%
End-year Ural oil price per barrel (growth in %)	+2%
Internal	
GDP growth	6%
Non-core inflation excluding petroleum products	7.2%
Budget deficit (share in GDP)	–2%

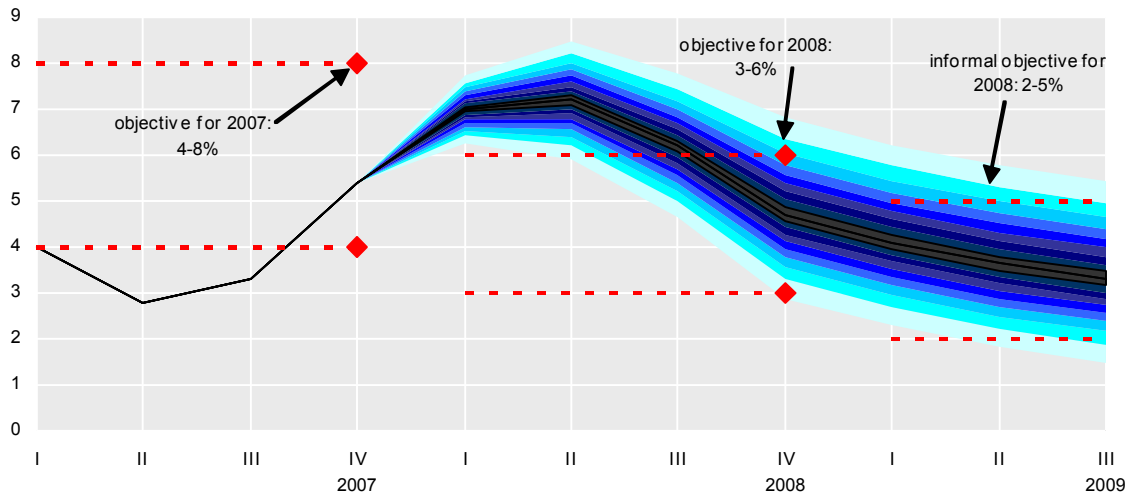
Core Inflation Projection

End-2008 core inflation will range between 2.9% and 6.8%, with the central projection at around 4.7% (Chart IV.1.1.). In the period ahead, quarterly and monthly rates of core inflation will be declining with the waning of the agricultural shock. Despite the decline in quarterly rates, year-on-year rates of core inflation will continue to grow and run above the upper bound of the target corridor projected for the next year (3-6%), as it is likely that the effects of the agricultural shock will be reflected in year-on-year core inflation for another year[12]. It is only in late 2008 that the year-on-year inflation can be expected to settle back within the target range.

Chart IV.1.1

Core inflation projection

(y-o-y rates, in %)



The fan chart depicts the probability of various core inflation outcomes in the next seven quarters. Central projection is within the darkest central band and the probability that core inflation would lie within it is 10%. Outturns of inflation are also expected to lie somewhere within the entire fan chart with probability of 90%. In other words, the probability that core inflation in the next seven quarters will lie outside the band in the chart is 10%.

Such movements in core inflation are consistent with monetary tightening over the first half of the year to ensure reining in of high inflationary pressures, and should lead to the strengthening of the dinar which would help bring core inflation down through a decline in import prices and widening of the appreciation gap. The decline in inflation will subsequently induce a drop in inflation expectations in the second half of 2008 and thereafter provide a further push towards disinflation.

Projection of Non-core and Headline Inflation

The central projection places retail price growth for 2008 at around 6.1%. This projection is based on the central projection of core inflation (4.7%) and non-core inflation (7.5%, petroleum products included).

Risks to the Projection

The main risks to the current projection are to the upside and, should they prove real, they would entail monetary tightening. The political risk, which has risen from the time of the previous projection, may have a significant bearing on the foreign investors' attitude in the period ahead. In fact, any incidence of increased risk may slash the inflow of foreign currency into the country, potentially causing depreciation and leading to inflationary pressures.

[12] Year-on-year rates show price growth for the preceding year.

Excessive fiscal expansion poses another major risk. Although the new inflation projection presupposes the same level of fiscal policy expansiveness in the next year, there is a risk that, in the run up to local elections, fiscal spending may over-expand, primarily on local government level.

Another significant risk relates to assumptions regarding specific components of non-core inflation, primarily prices of petroleum products and agricultural products. The explosive growth in world prices of oil and the effects of the drought from the second half of 2007 are the best illustration of extreme sensitivity of these prices to shocks.

Comparison with the October Projection

The new inflation projection represents a significant upward revision of figures presented in the preceding Inflation Report, as inflation pressures had proved to be much stronger than expected. These pressures relate primarily to movements in the exchange rate which has been declining since November, direct effects of the agricultural shock and growing inflation expectations. In addition, the rise in foreign inflation, as an important component of imported inflation, was much higher than expected. The new projection of core inflation, especially for the first half of 2008, is therefore set much higher than in October, placing core inflation above the upper bound of the target corridor for most of the year. In addition, the monetary policy assumed in the new projection is much more restrictive due to higher inflationary pressures.

Chart IV.1.2

Current and previous projection of core inflation

(y-o-y rates, in %)

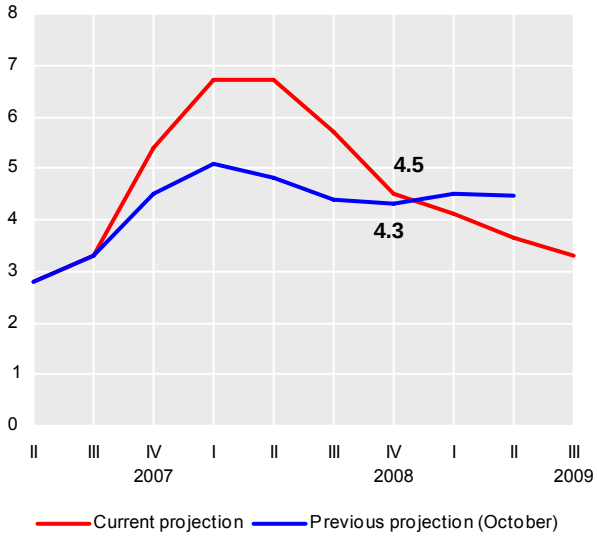


Table A

Indicators of external position of Serbia

	2001	2002	2003	2004	2005	2006	2007
EXTERNAL LIQUIDITY INDICATORS (in %)							
Forex reserves/imports of goods and services (in months)	3.1	4.5	5.3	4.5	5.9	9.6	8.3
Forex reserves/short-term debt	114.1	223.5	336.3	424.9	385.9	717.3	729.7
Forex reserves /GDP	11.0	14.4	17.5	17.3	22.2	37.4	33.1
Debt repayment/GDP	0.9	1.3	2.0	3.8	4.5	6.4	9.3
Debt repayment/exports of goods and services	3.7	7.1	9.1	16.8	17.9	23.5	33.7
EXTERNAL SOLVENCY INDICATORS (in %)							
External debt/GDP	104.8	70.9	66.7	57.5	58.7	61.7	61.1
Short-term debt/GDP	9.7	6.4	5.2	4.1	5.7	5.2	4.5
External debt/exports of goods and services	456.9	379.2	343.0	253.6	234.2	228.1	222.5
FINANCIAL RISK EXPOSURE INDICATORS (in %)							
Forex reserves/M1	135.9	143.3	195.3	221.0	291.1	356.5	306.9
Forex reserves/reserve money	136.3	132.0	168.0	166.2	170.3	177.8	173.9
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	65.3	56.9	59.1	68.6	70.2	75.1	75.6
CREDIT RATING				November Standard & Poor's: B+	July Standard & Poor's and Fitch: BB-	February Standard & Poor's: BB-/positive; Fitch: BB-/stable	June Standard & Poor's: BB-/stable; Fitch: BB-/stable
MEMORANDUM:						**(in USD million)**	
GDP (in USD million)	10,619	15,840	20,340	24,509	26,355	31,760	42,923
External debt	11,125	11,230	13,575	14,099	15,467	19,606	26,236
External debt servicing	91	211	397	935	1,183	2,021	3,977
Central bank foreign exchange reserves	1,169	2,280	3,550	4,245	5,843	11,888	14,216
Short-term debt	1,026	1,020	1,056	999	1,514	1,657	1,948
Current account balance	-285	-1,247	-1,420	-2,869	-2,224	-3,966	-6,889

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of foreign exchange reserves at end-period to average monthly imports of goods and services.

Foreign exchange reserves/short-term debt (in %) - ratio of foreign exchange reserves to short-term debt at end-period.

Foreign exchange reserves/GDP (in %) - ratio of foreign exchange reserves at end-period to GDP.

Debt repayment/GDP (in %) - ratio of debt repayment to GDP during period under review.

Debt repayment/exports (in %) - ratio of debt repayment to exports of goods and services during period under review.

Debt/GDP (in %) - ratio of outstanding debt at end-period to GDP.

Debt/exports (in %) - ratio of outstanding debt at end-period to annual value of exports of goods and services.

Foreign exchange reserves/M1 (in %) - ratio of foreign exchange reserves to money supply at end-period.

(Exports + imports)/GDP (in %) - ratio of value of exports and imports of goods and services to GDP during period under review.

Notes:

1. As of October 2006, the IMF publication "International Financial Statistics" features a page on monetary statistics of the Republic of Serbia. This required the NBS to bring its statistical reports in compliance with international statistical standards and methodology which apply to all IMF member countries. We have therefore adjusted the financial risk exposure indicator.
2. Trade with Montenegro is registered within relevant transactions as of 2003.
3. Foreign debt repayment does not include early debt repayment.
4. GDP for 2007 as estimated by the National Bank of Serbia.

Table B

Key macroeconomic indicators

	2001	2002	2003	2004	2005	2006	2007
Real GDP growth (in %)	4.8	4.2	2.5	8.4	6.2	5.7	7,2[1)]
Retail prices (in %, relative to the same month a year earlier)	40.7	14.8	7.8	13.7	17.7	6.6	10.1
Core inflation (in %, relative to the same month a year earlier)	20.5	4.4	6.1	11.0	14.5	5.9	5.4
NBS foreign exchange reserves (in USD million)	1,169.1	2,280.1	3,550.1	4,244.5	5,842.8	11,887.5	14,215.8
Exports (in USD million)[2)]	2,435	2,961	4,358	5,559	6,606	8,763	11,798
- growth rate in % compared to a year earlier	17.9	21.6	47.2	27.6	18.8	32.7	34.6
Imports (in USD million)[2)]	-4,499	-6,059	-8,177	-11,853	-11,902	-15,086	-20,647
- growth rate in % compared to a year earlier	28.3	34.7	35.0	45.0	0.4	26.8	36.9
Current account balance (in USD million)	-285	-1,247	-1,420	-2,869	-2,224	-3,966	-6,889
as % of GDP	-2.7	-7.9	-7.0	-11.7	-8.4	-11.5	-16.1
Unemployment, official data (in %)[3)]	21,8	24,5	26,1	23,9	25.3	26.6	24.3
Unemployment according to the Survey (in %)[4)]	12.2	13.3	14.6	18.5	20.8	20.9	/
Wages (average for the period, in EUR)	89.9	151.7	176.7	194.4	210.4	260	347
RS budget deficit/surplus (in % of GDP)[5)]	-0.2	-4.3	-1.4	-0.1	1.5	1.4	1,5[6)]
Consolidated fiscal result (in % of GDP)							
- Ministry of Finance methodology	0.0	-1.9	-2.0	0.5	3.9	-3.1	-2.0
- IMF methodology	-0.5	-2.8	-4.3	-1.4	-3.2	-4.7	-1.4
RS public debt (external + internal, in % of GDP)[5)]	106.5	73.7	67.9	53.7	46.2	38.8	30.5
RSD/USD exchange rate (average, in the period)	66.68	64.46	57.56	58.39	66.70	67.10	58.44
RSD/USD exchange rate (end of period)	67.67	58.98	54.64	57.94	72.22	59.98	53.73
RSD/EUR exchange rate (average, in the period)	59.78	60.68	65.05	72.57	82.92	84.16	79.98
RSD/EUR exchange rate (end of period)	59.71	61.52	68.31	78.89	85.50	79.00	79.24
Memorandum							
GDP (in USD million)	10,619	15,840	20,340	24,509	26,355	31,760	42.923[1)]

[1)] NBS estimate.

[2)] Trade with Montenegro is registered within relevant transactions as of 2003.

[3)] Source: Serbian Bureau of Statistics; before 2003, unemployment rate was calculated based on the number of job seekers, while as of 2004 it is calculated based on the number of unemployed persons.

[4)] Source: Labour Force Survey, Serbian Bureau of Statistics.

[5)] Source: RS Ministry of Finance Bulletin.

[6)] At end-November.

Appendix 1

MONETARY POLICY PROGRAMME
OF THE NATIONAL BANK OF SERBIA IN 2008

1. The principal monetary policy objective in 2008 is to achieve and maintain price stability, as well as to maintain the stability of the financial system. By ensuring price stability, the National Bank of Serbia will contribute indirectly to achieving sustainable economic growth.

2. The monetary policy of the National Bank of Serbia in 2008 will be based on the ***Memorandum of the National Bank of Serbia on the Principles of the New Monetary Policy Framework Aiming at Low Inflation Objectives,*** adopted by the Monetary Policy Committee of the National Bank of Serbia on 30 August 2006, and the ***Memorandum of the National Bank of Serbia on Setting the 2008 Inflation Objective,*** adopted by the Monetary Policy Committee on 29 May 2007. The above memoranda set out that inflation will be maintained "within a defined inflation corridor, with the key policy rate as the main instrument and other monetary policy measures as supporting instruments".

3. The core inflation corridor, which should help ensure the stability of the general level of prices in 2008, has been set between 3% and 6% p.a. (December-on-December).

4. To meet its objectives as defined herein, the National Bank of Serbia will use all available information on economic developments that affect the achievement of the set inflation objective.

5. Depending on economic developments and the projected dynamics of inflation, the National Bank of Serbia will change the key policy rate and adjust it to a level conducive to keeping the level of core inflation within the projected range. All other monetary regulation instruments, including the reserve requirement and interventions in the foreign exchange market, will be used as supporting tools.

6. The exchange rate of the dinar will be formed freely, with reference to supply and demand in the foreign exchange market.

7. The National Bank of Serbia will influence foreign exchange supply and demand in the foreign exchange market, primarily via its interest rate policy, and will indirectly guide the dinar exchange rate towards a path sustainable over the longer term. By way of exception, the National Bank of Serbia will intervene in the foreign exchange market with the following key aims: (1) to limit daily oscillations, but without resisting cumulative pressure over a longer period, (2) to ensure stable functioning and operation of the foreign exchange market and offset potential threats to financial and price stability, and (3) to safeguard an adequate level of foreign exchange reserves.

8. By transferring the execution of exchange transactions to banks, the National Bank of Serbia will continue to develop an integrated, flexible and efficient foreign exchange market. Until this process is completed, the National Bank of Serbia will keep returning the foreign exchange purchased in respect of exchange transactions to the interbank foreign exchange market, thereby contributing to its further integration.

9. In 2008, the National Bank of Serbia will continue to develop and strengthen market instruments of monetary regulation and, in cooperation with banks, create conditions for further advancement of the interbank money market.

10. In 2008, the National Bank of Serbia will enable banks to resort more efficiently to its lending and deposit facilities, while using its interest rate corridor as a mechanism for managing money market interest rates.

11. The National Bank of Serbia will use the reserve requirement as a supporting instrument only once the effects produced by other market instruments of monetary regulation are exhausted.

12. The National Bank of Serbia will monitor the lending activity of banks and take adequate prudential and other measures of money regulation within its remit to prevent any threat to the achievement of the principal monetary policy objective.

13. The National Bank of Serbia will take measures coming under its remit in order to build up an efficient and stable banking system, thereby contributing to the restoration of trust in the dinar and a decline in the level of euroization.

Appendix 2. Changes in Reserve Requirements and Prudential Measures Aimed at Curbing Credit Growth

Chronological overview of changes in reserve requirements and prudential measures aimed at curbing credit growth is now available on the NBS website Publications – Inflation Report.

A) Changes in Reserve Requirements

There were no amendments to the Decision on Reserve Requirements for Banks from the previous issue of Inflation Report to 6 February 2008.

B) Prudential Measures Aimed at Curbing Credit Growth

No.	Legal ref.	Regulation	C h a n g e s	Previously
1.	Decision "RS Official Gazette", No.129/07 29 Dec 2007	Decision on Capital Adequacy of Banks	This decision sets out the method of calculating the capital of a bank, as well as its capital adequacy ratio and all elements thereof. The capital of the bank is the sum total of its core capital (minimum 50% of capital), supplementary capital I and supplementary capital II minus deductions. In the course of its operations, the bank must ensure that its capital never declines below the dinar equivalent value of EUR 10,000,000 at the official middle exchange rate of the National Bank of Serbia. At all times, the bank has to maintain its capital at a level sufficient to cover credit risk, foreign exchange risk and other market risks. The bank is required to maintain its capital adequacy ratio at the level of at least 12%. The National Bank of Serbia may set a higher than prescribed capital adequacy ratio to a bank. The credit risk weights that were changed and may ease credit growth are as follows: **0% risk weight** – Claims insured with legal entities founded by the Republic of Serbia if the RS guarantees for the settlement of obligations of such entities **50% risk weight** Claims in dinars secured by a mortgage on residential property occupied or leased **75% risk weight** Claims in foreign currency or claims in dinars indexed to a foreign currency clause from borowers with unmatched foreign currency position, secured by mortgage on residential property occupied or leased by the borrower **125% risk weight** Claims in foreign currency or claims in dinars indexed to a foreign currency clause from borowers with unmatched foreign currency position (whose foreign currency inflow or inflow in dinars indexed to a foreign curency clause covers less than 80% of their obligations in foreign currency or in dinars but with a foreign currency clause), not secured by mortgage on property or deposit whose maturity corresponds to the maturity of the claim (pursuant to the currently effective decision, the 125% risk weight is applicable to all claims in excess of RSD 10,000,000, whereas the new decision abolishes this limit and applies this weight to all claims complying with the above criteria)	As of the effectiveness of this decision on 1 July 2008, Decision on Capital Adequacy of Banks ("RS Official Gazette", Nos. 57/06, 116/06 and 56/2007) will cease to be valid. First accounting period: Q3 2008.

No.	Legal ref.	Regulation	C h a n g e s	Previously
2.	Decision "RS Official Gazette" No.129/07 29 Dec 2007	Decision on the Classification of Bank Balance Sheet Assets and Off-balance Sheet Items	This decision sets out the conditions under which the bank shall classify its balance sheet assets and off-balance sheet items, as well as the manner of calculating and recording reserves for estimated losses that may arise on balance sheet assets and off-balance sheet items. The Decision also prescribes special criteria for the classification of bank receivables from different categories of borrowers – legal entities, budget beneficiaries, entrepreneurs, farmers and natural persons. Banks are required to classify their balance and off-balance sheet receivables subject to classification pursuant to the Decision into categories A, B, C, D and E, depending on the assessment of the borrower's financial standing and creditworthiness, its timeliness in the settlement of payment obligations towards the bank and quality of the means of collateral. In their enactments, banks are required to define an internal model for the assessment of credit risk to which they are exposed, and adopt methodology for calculating allowances for impairment of balance sheet assets and reserves for losses on off-balance sheet items. Banks are also required to create and maintain reserves for general banking risks if their balance sheet assets and off-balance sheet items subject to classification rise by more than 15% in the current year relative to the preceding year (newly set-up banks are exempt from this obligation in the first three years of operation). Pursuant to the new Decision, total monthly credit obligations analysed as part of assessment of the borrower's creditworthiness will also include 5% of authorized current account overdraft.	As of the effectiveness of this decision on 1 July 2008, Decision on the Classification of Balance Sheet Assets and Off-balance Sheet Items ("RS Official Gazette" Nos.7/06 and 116/06) will cease to be valid.

List of Tables and Charts

Tables

Charts

Source of data: National Bank of Serbia and Serbian Bureau of Statistics, unless otherwise specified.

Meetings of the Monetary Policy Committee of the National Bank of Serbia and key policy rate changes in 2007 and 2008

Date	Key policy rate (annual level, in %)	Change (in basis points)
MPC meetings held		
2007		
10 January	14.00	0
29 January	13.00	-100
9 February	13.00	0
28 February	11.50	-150
13 March	11.50	0
28 March	10.50	-100
18 April	10.50	0
27 April	10.00	-50
15 May	10.00	0
29 May	9.50	-50
11 June	9.50	0
28 June	9.50	0
12 July	9.50	0
27 July	9.50	0
15 August	9.50	0
28 August	9.75	+25
11 September	9.75	0
1 October	9.75	0
10 October	9.75	0
29 October	9.50	-25
12 November	9.50	0
28 November	9.50	0
10 December	9.50	0
27 December	10.00	+50
2008		
17 January	10.00	0
6 February	10.75	+75
Scheduled MPC meetings in 2008		
18 February		
28 February		
13 March		
28 March		
15 April		
30 April		
15 May		
29 May		
12 June		
30 June		
17 July		
31 July		
14 August		
28 August		
16 September		
30 September		
16 October		
30 October		
14 November		
28 November		
16 December		
30 December		

Press Releases from the NBS Monetary Policy Committee Meetings

Press release from the MPC meeting held on 12 November 2007

Following discussion of current economic developments, the NBS Monetary Policy Committee decided at its session today to keep the key policy rate unchanged at the level of 9.5%.

The next MPC meeting is scheduled for 28 November.

Press release from the MPC meeting held on 28 November 2007

The Monetary Policy Committee announced today its decision to keep the key policy rate unchanged. The best collective judgement of the MPC pointed to intensification of inflationary effects of both external and internal factors on price growth and stressed the likelihood of significant inflationary pressures in the closing month of the year.

Heightened inflationary expectations resulted from the higher than expected effect of the agricultural shock, both recent and announced rise in energy prices, as well as expectations of further fiscal policy loosening in the final month of the year and relatively high nominal depreciation of the exchange rate from the latter half of November.

The Monetary Policy Committee intends to closely scrutinize future movements in the foreign exchange market and the interplay of different factors to assess temporariness of the exchange rate rise over such short period of time. The NBS expects that the market will calm down on its own and that the dinar will gradually strengthen without any interventions on its part.

The MPC stands in anticipation of concrete steps to be taken by the government with respect to announced electricity price hikes vis-à-vis measures to contain inflation, such as cutting the price of edible oil.

Though deciding not to raise the key policy rate in its session today, the MPC intends to evaluate developments over the next two weeks and to assess steps taken by all other economic agents to decide whether to tighten the monetary policy stance in order to achieve the primary objective of the NBS, i.e. to maintain core inflation within the projected corridor of 3 to 6% in 2008. Monetary authorities will take all necessary steps to prevent the spill over effect of strong inflationary pressures prevailing in late 2007 into the next year.

Press release from the MPC meeting held on 10 December 2007

After reviewing current economic circumstances, the Monetary Policy Committee announced today its decision to keep the key policy rate unchanged at the level of 9.5%. Despite a notable growth in prices of foodstuffs and oil, inflationary expectations did not rise in November on a month earlier as economic players assessed the price shock as temporary.

Furthermore, the MPC maintains that the foreign exchange market has stabilized following short-lived exchange rate disturbances. The volume of interbank trading levelled off, while the dinar exchange rate returned to its previous level. This confirms that the NBS was right in assuming that the rise in the exchange rate was caused by psychological reasons, rather than by increased demand for euros or real economic flows.

The MPC stands in anticipation of the effects that future government measures, aiming to calm down prices of certain agricultural products, edible oil, milk, etc., will have on inflationary expectations. Another major unknown is the budget spending plan for 2008, where any adjustment of budget spending is likely to generate substantial social pressures.

The NBS will continue to closely monitor economic developments, with special focus on inflationary expectations. As the MPC expects strong inflationary pressures to persist in late 2007 and

early next year, the degree of monetary policy restrictiveness in this period will be consistent with achieving the core inflation objective for 2008 set between 3 and 6 percent.

Press release from the MPC meeting held on 27 December 2007

After reviewing current economic circumstances, the Monetary Policy Committee announced today its decision to raise the key policy rate by 0.5 percentage points from 9.5 to 10 percent.

The MPC assessed that strong headline and core inflation in the closing months of the year, as well as heightened inflation expectations, call for the tightening of the monetary policy stance.

At today's press conference, NBS Governor Radovan Jelasic will elaborate further on the rationale behind the MPC's decision.

Press release from the MPC meeting held on 17 January 2008

After reviewing current economic flows, the Monetary Policy Committee announced today its decision to keep the key policy rate unchanged from its December 2007 level of 10%. In the best collective judgment of the MPC, based on available information, such interest rate level is conducive to achieving the core inflation objective for 2008 set between 3 and 6 per cent.

However, the MPC expressed its concerns regarding the current drift of the country's economy, as accumulated internal and external inflation pressures call for a very tight monetary policy stance. Primary causes for concern are a notable rise in prices of petroleum products spurred by record high world oil prices, but also the unabated inflationary expectations and pressures generated by domestic demand most strongly felt in December.

The MPC will continue to closely monitor developments, and when further data, including the January inflation figure, become available later in the month, it intends to review the adequacy of its monetary policy stance once again.

Press release from the MPC meeting held on 6 February 2008

After reviewing current economic developments, the Monetary Policy Committee decided to raise the key policy rate by 0.75 percentage points to 10.75 percent.

At today's press conference, Governor Jelašić will further elaborate on the reasons for monetary policy tightening.