



National Bank of Serbia

2012  
November

# INFLATION REPORT



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**NATIONAL BANK OF SERBIA**

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## Introductory note

*The Agreement on Inflation Targeting* between the Government of the Republic of Serbia and the National Bank of Serbia, effective as of 1 January 2009, marks a formal switch of the National Bank of Serbia to inflation targeting as a monetary policy regime. The main principles and operation of the new regime are defined by the *Memorandum on Inflation Targeting as a Monetary Strategy*.

Since one of the underlying principles of inflation targeting is strengthening the transparency of monetary policy and improving the efficiency of communication with the public, the National Bank of Serbia prepares and publishes quarterly *Inflation Reports* as its main communication tool. The *Inflation Report* provides key economic facts and figures that shape the Executive Board's decisions and underpin activities of the National Bank of Serbia.

The *Inflation Report* aims to cover information on the current and expected inflation movements and to provide analysis of underlying macroeconomic developments. It also seeks to explain the reasoning behind the Executive Board's decisions and to provide an assessment of monetary policy effectiveness during the previous quarter. Also integral to this *Report* are the inflation projection for eight quarters ahead, assumptions on which the projection is based and an analysis of key risks to achieving the target.

The information contained in this *Report* will help raise public understanding of monetary policy implemented by the central bank and awareness of its commitment to achieving the inflation target. It will also play a role in containing inflation expectations, as well as in achieving and maintaining price stability, which is the main task of the National Bank of Serbia.

The November *Inflation Report* was considered and adopted by the NBS Executive Board in its meeting of 8 November 2012.

Earlier issues of the *Inflation Report* are available on the National Bank of Serbia's website (<http://www.nbs.rs>).

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Jorgovanka Tabaković, *Governor*

Ana Gligorijević, *Vice Governor*

Veselin Pješčić, *Vice Governor*

Diana Dragutinović, *Vice Governor*

## **ABBREVIATIONS**

**bln** – billion

**bp** – basis point

**CEFTA** – Central European Free Trade Agreement

**CPI** – Consumer Price Index

**ECB** – European Central Bank

**EIB** – European Investment Bank

**EMBI** – Emerging Markets Bond Index

**EMU** – Economic and Monetary Union of the EU

**FDI** – foreign direct investment

**Fed** – Federal Reserve System

**FISIM** – Financial Intermediation Services Indirectly Measured

**GDP** – gross domestic product

**H** – half-year

**IFEM** – Interbank Foreign Exchange Market

**IMF** – International Monetary Fund

**mln** – million

**NAVA** – non-agricultural value added

**NBS** – National Bank of Serbia

**NPLs** – non-performing loans

**OFI** – other financial organisations

**OPEC** – Organisation of the Petroleum Exporting Countries

**pp** – percentage point

**SORS** – Statistical Office of the Republic of Serbia

**Q** – quarter

**q-o-q** – quarter-on-quarter

**s-a** – seasonally-adjusted

**SDR** – Special Drawing Rights

**WTO** – World Trade Organisation

**y-o-y** – year-on-year

Other generally accepted abbreviations are not cited.

# Contents

|   |    |
|---|----|
| <b>I. Overview</b>  | 1  |
| <b>II. Monetary policy since the August <i>Inflation Report</i></b>   | 5  |
| <b>III. Inflation developments</b>  | 7  |
| <b>IV. Inflation determinants</b>   | 13 |
| 1. Money and capital market trends and bank lending   | 13 |
| 2. Movements in the foreign exchange market and the dinar exchange rate                                       | 21 |
| <i>Text box 1: Financial exposure of foreign banks to Serbia</i>  | 26 |
| <i>Text box 2: Serbia improves its ranking on the ease of doing business</i>                                  | 29 |
| 3. Aggregate demand   | 30 |
| <i>Text box 3: Medium-term fiscal consolidation and cutting down public debt</i>                              | 34 |
| 4. Economic activity  | 36 |
| <i>Text box 4: Drop in agricultural production and its impact on revision of GDP growth for 2012 and 2013</i> | 38 |
| 5. Labour market developments   | 40 |
| 6. International environment  | 41 |
| <b>V. Inflation projection</b>  | 45 |
| Table A. Indicators of Serbia's external position   | 52 |
| Table B. Key macroeconomic indicators   | 53 |
| Index of charts and tables  | 54 |
| Executive Board meetings and changes in the key policy rate   | 56 |
| Press releases from NBS Executive Board meetings  | 57 |





# I. Overview

*Year-on-year inflation growth over the upper bound of the target tolerance band is for its major part attributable to food price increases.*

Driven by food prices, the year-on-year inflation growth continued in the third quarter and into October as well. The strongest increase was registered for processed food prices because of the extremely bad agricultural season and higher production costs. The upward revision of excise duties and of the general VAT rate from 18% to 20% triggered in October a one-off increase in prices of a large number of products and services.

*Over the past several months, the growth in inflation expectations has been significantly weaker than that of inflation.*

As of June, one year-ahead inflation expectations of all sectors are on the rise and above the upper bound of the target tolerance band. Inflation expectations increased in response to higher inflation, but their growth was still significantly weaker than that of inflation, which shows that the public understands the character of the shocks and that the economic policy enjoys credibility.

*Growth prospects for the euro area deteriorated, and recovery may not be expected any sooner than 2014.*

Uncertainties over the future course of the euro area sovereign debt crisis and persistent recessionary pressures marked the international environment in the third quarter. Still, some optimism may be on the horizon as the ECB officials vowed to do whatever it takes to preserve the euro and announced additional unconventional measures to ease the terms of borrowing for the most troubled euro area members.

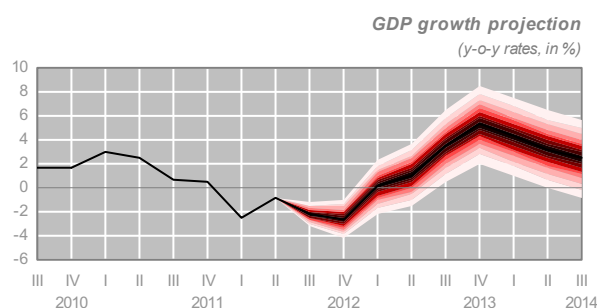
*As the agricultural season proved to be much weaker than anticipated, GDP growth projection for 2012 has been revised from -0.5% to -2.0%.*

Prolonged drought had a disastrous effect on this year's agricultural production. With this in mind, we have revised our GDP growth projection for 2012 from -0.5%, published in the August Report, to -2.0%.

*Positive contributions to economic activity in 2012 will come from government consumption and investment and from net exports, while the contributions from private investment and household consumption will be negative.*

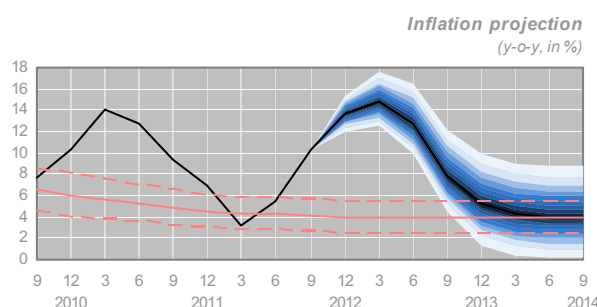
The economic downturn in Italy and a slowdown in other Serbia's trade partners have depressed export demand and domestic investment. Nonetheless, net exports are expected to provide a positive contribution to economic activity in 2012, owing to the upswing in the automobile industry and past weakening of the dinar. At year level, positive contribution to economic activity will also come from government consumption and investment, as a result of fiscal expansion in the first half of the year. By contrast, private investment and household consumption will drag economic activity down.

**Positive contributions to the 2.5% GDP growth projected for 2013 are expected from net exports and private investment, while government and household consumption will work in the opposite direction.**



**Depreciation pressures gradually receded and the dinar strengthened from September.**

**Even though monthly inflation rates will be declining, year-on-year inflation will continue to rise over the coming months.**



**Year-on-year inflation is expected to head downwards as of the second quarter of 2013 and to retreat within the target band by the end of that year.**

After falling in 2012, GDP should grow 2.5% in 2013, led mainly by net exports. On the production side, key boost to economic growth may be expected from agricultural production and from the automobile and oil industries. Owing to a rather low base this year, agricultural production will add minimum 1.5 pp to GDP growth in the event of an average agricultural season in 2013.

The first half of the third quarter was marked by depreciation pressures, stemming mainly from the lower capital inflow which fell victim to credit rating downgrade and the higher country risk premium. However, there has been an evident increase in foreign investors' interest in Serbia since early September, as a result of both improved liquidity in the international money markets and the Government's firm intention to implement fiscal consolidation measures. The combined effect of launching the subsidised lending programme for the corporate sector and increased restrictiveness of the National Bank of Serbia's monetary policy also contributed to the halting of depreciation pressures in the second half of August and to the strengthening of the dinar in September.

We are likely to see lower monthly inflation rates in the period ahead. Year-on-year inflation, however, will continue to rise due to the low inflation rates in the same period last year. Though the pressures on food prices will continue for some time yet, they will gradually weaken and eventually wane once the new agricultural season sets in. It is possible that administered prices will grow more strongly over the coming months to compensate for the lack of revisions in the prior period. On the other hand, exceptionally low aggregate demand will help dampen inflation growth, and so will the expected drop in real wages following the Government's decision to increase pensions and public sector wages by a nominal 2.0% in October 2012 and April 2013.

Year-on-year inflation will peak in March or April next year. It is expected to gradually decline thereafter and retreat within the target tolerance band by the end of 2013. In the medium term, inflation should move within the target band. The risks to the projected inflation path are skewed to the upside because of the possibly smaller drop in prices of primary commodities, notably agricultural, and higher than expected growth in administered prices. In our view, fiscal risks subsided significantly in the wake of announcement of the fiscal consolidation programme, while the expected continuation of the arrangement with the International Monetary Fund should support the credibility of our economic policy programme.

*The National Bank of Serbia has been tightening its monetary policy stance since June.*

The National Bank of Serbia has been tightening its monetary policy stance since June, with a view to stabilising medium-term inflation around the target and contributing to the overall macroeconomic stability. The tightening aims to ease the spillover of the effects of the current agricultural shock and the increase in VAT and excise duties to other prices through inflation expectations. Since the August Report, the key policy rate was raised in October and November, to the current level of 10.95%. Monetary policy stance was tightened also through amendments to reserve requirements, which increased the share of dinar allocations under foreign exchange required reserves.

*Future monetary policy measures will depend chiefly on movements in prices of primary commodities, notably agricultural, and on developments in the international environment.*

Future monetary policy measures of the National Bank of Serbia will depend chiefly on movements in prices of primary commodities, notably agricultural, and on developments in the international environment.



## II. Monetary policy since the August *Inflation Report*

*Monetary policy tightening continued. After keeping the key policy rate on hold in September, the Executive Board raised it in October and November to the current level of 10.95%.*

The NBS continued tightening its monetary policy stance with a view to stabilising medium-term inflation around the target. Since the August Report the key policy rate was raised by 25 bp in October and by 20 bp in November, to 10.95%. The NBS raised the key policy rate in order to prevent the spillover of the growth in agricultural commodity prices and administered prices to other prices through inflation expectations, and to contribute to macroeconomic stabilisation.

After increasing the key policy rate to 10.5% in August, at its **September** meeting the Executive Board voted to **keep the key policy rate unchanged**. As agricultural output turned out to be lower than expected, GDP growth projection for 2012 was revised from 0.5% to -0.5%, while that for 2013 was also scaled down from 3.0% to 2.5%, mirroring lower growth forecasts for the euro area. The Executive Board's decision to keep the policy rate on hold can be put down to the anticipated slowing of economic recovery and slightly higher disinflationary pressures from aggregate demand on that account. In the Board's best collective judgment, inflation growth in the period ahead was to be driven by food prices due to prolonged drought, by administered prices and crude oil prices. These are supply-side factors that warrant monetary tightening if assessed that they could push up other prices through inflation expectations. Considering that low aggregate demand acts as a damper on price growth and that the pensions and public sector wages would grow slower than planned, the Executive Board decided to maintain the degree of monetary policy restrictiveness attained thus far.

In early October it became evident that the agricultural downturn and the resulting food price growth were sharper than anticipated. Taking this into account and the

rise in inflation expectations and stronger than expected growth in administered prices, the Executive Board voted in its **October** meeting to **raise the key policy rate by 25 bp** in order to prevent the spillover of the growth in those prices to other prices.

At the same time, the size of the policy rate increase was limited by the assessment that low aggregate demand would have a markedly disinflationary effect. The estimated fall in agricultural output was revised in the wake of release of the Statistical Office's estimates of the production of key crops in 2012 that went beyond the most pessimistic expectations. The NBS therefore cut its GDP growth forecast for 2012 to -2.0%.

In addition to the disinflationary effect of aggregate demand, the Executive Board expected positive effects of fiscal consolidation and the consequent easing of pressures on inflation and on the exchange rate.

At its November meeting, the Executive Board decided to raise the key policy rate by 20 bp. Combined with the past NBS measures, this upward revision should contribute to the drop in y-o-y inflation next year and to its return within the target band by the end of 2013.

Future monetary policy measures will depend most on the movements in prices of primary commodities, notably agricultural, as well as on how the situation in the international environment will evolve.

Monetary policy stance was tightened not only through the key policy rate, but also through **reserve requirements**. The August change in reserve requirements reflected most on the stabilisation of the foreign exchange market. The share of dinar allocations under FX required reserves was raised from 27% to 32% on the sources of funding with maturity up to two years and from 19% to 24% on the sources of funding with maturity over two years. FX required reserve ratios remained unchanged.



### III. Inflation developments

Led by food price hikes, growth in y-o-y inflation continued into Q3. Since July, y-o-y inflation has been trending above the upper bound of the target tolerance band.

Inflation is expected to continue up in Q4, driven not only by food price hikes, but also by administered price growth and rises in VAT and excises.

#### Inflation developments in Q3

Q3 inflation rose to 4.2% mainly on account of food price hikes.

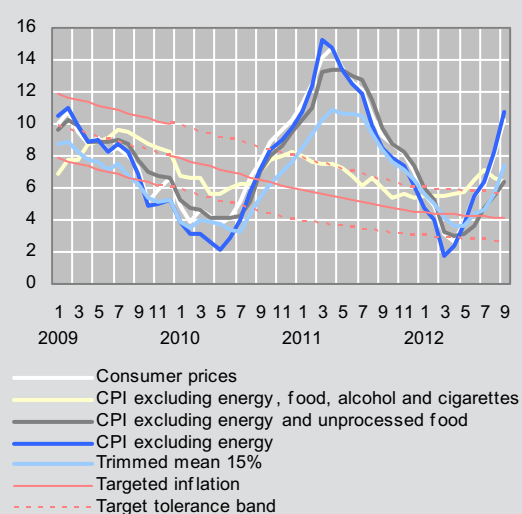
Consistent with expectations presented in the August *Inflation Report*, y-o-y inflation continued up in Q3 and overshot the upper bound of the target tolerance band in July. Inflation rose more intensively mainly because of a

higher than expected rise in food prices. Y-o-y inflation reached 10.3% in September, up by 7.6 pp from the April trough (food prices accounted for 6.2 pp).

**Consumer prices** rose by 4.2% in Q3, mostly on the back of food price hikes (contribution of 2.3 pp).

**Prices of food and non-alcoholic beverages** gained 6.1%, with somewhat greater contribution of unprocessed food prices (1.3 pp) which upped 9.1%. Within this

Chart III.0.1 Price movements  
(y-o-y rates, in %)



Sources: SORS and NBS.

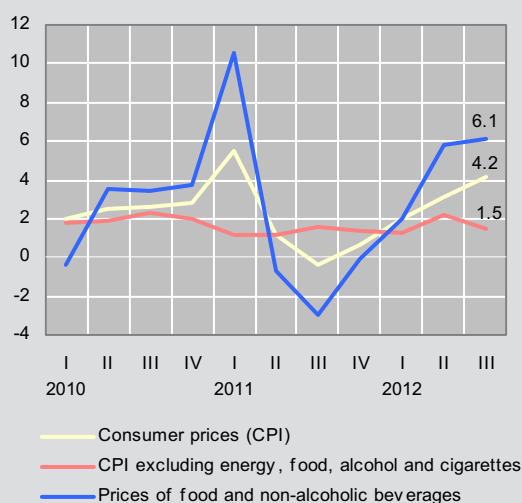
Y-o-y inflation continued up in Q3 and has trended since July above the upper bound of the target tolerance band.

Table III.0.1 Consumer price growth by component  
(quarterly rates, in %)

|  | 2011 |      | 2012 |      |     |
|--|------|------|------|------|-----|
|  | III  | IV   | I    | II   | III |
| <b>Consumer prices (CPI)</b>                       | -0.4 | 0.6  | 2.0  | 3.1  | 4.2 |
| Unprocessed food                                   | -8.3 | 0.7  | 7.5  | 14.7 | 9.1 |
| Processed food                                     | -0.4 | -0.5 | -0.7 | 1.0  | 4.2 |
| Industrial products excluding food and energy      | 0.8  | 1.1  | 2.1  | 1.7  | 3.6 |
| Energy   | 1.0  | 1.1  | 2.9  | 0.5  | 3.5 |
| Services   | 2.1  | 1.0  | 1.2  | 2.4  | 1.4 |
| <b>Core inflation indicators</b>                   |      |      |      |      |     |
| CPI excluding energy                               | -0.7 | 0.5  | 1.8  | 3.7  | 4.3 |
| CPI excluding energy and unprocessed food          | 0.7  | 0.5  | 0.8  | 1.6  | 3.3 |
| CPI excluding energy, food, alcohol and cigarettes | 1.6  | 1.4  | 1.3  | 2.2  | 1.5 |
| <b>Administered prices</b>                         | 0.4  | 0.9  | 1.3  | 0.1  | 2.9 |

Sources: SORS and NBS.

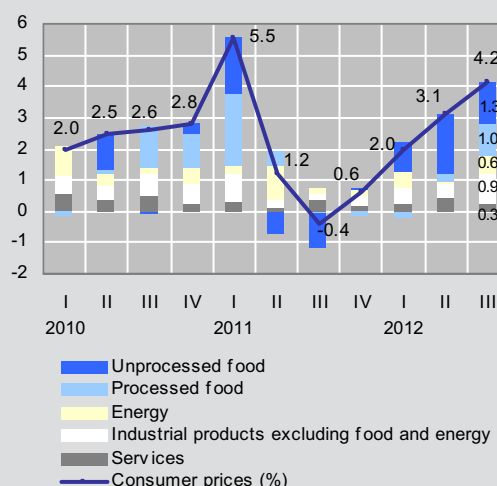
Chart III.0.2 Price movements  
(quarterly rates, in %)



Sources: SORS and NBS.

*Food price hikes stepped up in Q3.*

Chart III.0.3 Contribution to quarterly  
consumer price growth  
(in pp)



Sources: SORS and NBS.

*More than a half of CPI growth in Q3 was due to food prices.*

category, prices of fresh meat and fruit gave the strongest impetus to headline inflation. Prices of fresh meat increased as cost-push pressures heightened on account of rising animal feed and import prices. A drop in seasonal fruit prices, typical for Q3 (July and August), failed to take place because of the hot weather and long-lasting drought.

Growth in **processed food prices** accelerated in Q3 to 4.2%, reflecting a rise in prices of processed meat, milk and dairy products, bread and cereals. The rise was due to elevated cost-push pressures caused by rising input prices.

**Prices of industrial products excluding food and energy** picked up by 3.6%. The strongest contribution came from cigarette prices rising 15.6% due to a higher minimum excise.

Prices within the group of **energy** were up 3.5%. The strongest rise was recorded for prices of fuels and lubricants. In response to rising global oil prices and dinar's depreciation, prices of petroleum products rose several times, to 9.0% in Q3.

Table III.0.2 Price indicators  
(y-o-y rates, in %)

|   | XII 2011<br>XII 2010 | III 2012<br>III 2011 | VI 2012<br>VI 2011 | IX 2012<br>IX 2011 |
|---|----------------------|----------------------|--------------------|--------------------|
| Consumer prices   | 7.0                  | 3.2                  | 5.5                | 10.3               |
| Domestic industrial producer prices                           | 9.7                  | 5.9                  | 3.4                | 7.0                |
| Agricultural producer prices                                  | 3.0                  | 0.9                  | 15.4               | 39.0               |
| Prices of elements and materials incorporated in construction | 0.5                  | 0.8                  | 2.3                | 7.1                |

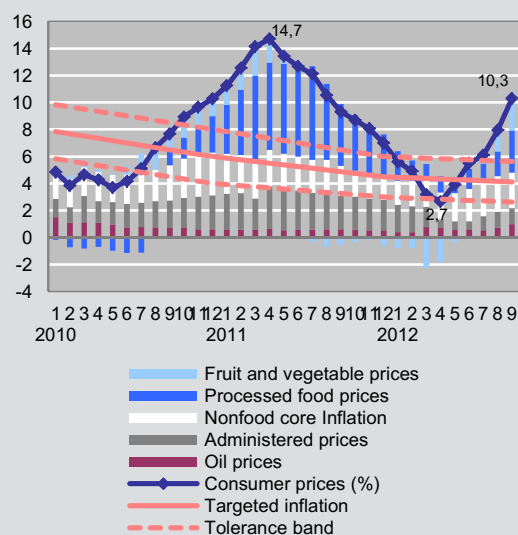
Sources: SORS and NBS.

**Prices of services** went up 1.4%, chiefly on account of higher prices of catering and apartment maintenance and repair services.

**CPI excluding prices of energy, food, alcohol and cigarettes**, as the most frequently used measure of core



**Chart III.0.4 Contribution to y-o-y consumer price growth**  
(in pp)



Sources: SORS and NBS.

*Y-o-y inflation was also led by food price hikes.*

inflation, rose by 1.5% in Q3. Though slowing in y-o-y terms since July, CPI remained above the upper bound of the target tolerance band, reaching 6.4% in September. Prices within this category rose in response to higher prices of household chemicals, educational products and services, mobile telephony and handicraft services. Past depreciation of the dinar provided the strongest stimulus to these prices.

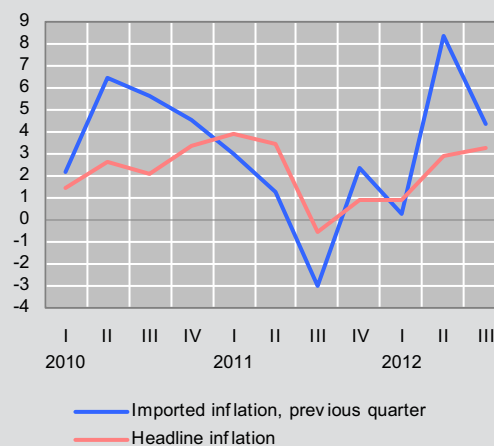
**Administered price** growth was significantly stronger (2.9%) than in Q2 and was almost entirely determined by cigarette price hikes.

A rise in prices of energy and intermediate goods pushed up **domestic industrial producer prices** by 3.7%<sup>1</sup> in Q3. The main contribution came from prices in the production of food and the exploitation of crude oil and natural gas, and the production of coke and petroleum products. A y-o-y rise in domestic industrial producer prices picked up to 7.0% at end-Q3.

**Agricultural producer prices**<sup>2</sup> went up by 16.0%, mainly due to farming (17.9%) and cattle breeding

<sup>1</sup> Domestic industrial producer prices dropped by 0.3% in Q2.

**Chart III.0.5 Domestic and imported inflation\***  
(quarterly rates, in %)



Sources: NBS and Eurostat.

\* Ratio of averages for two consecutive quarters.

*A rise in import prices in Q3 was similar to Q2 levels.*

(15.0%) prices. The biggest contribution came from prices of corn, wheat and live pigs. A y-o-y increase in agricultural producer prices accelerated to 39.0% in September.

**Y-o-y prices of elements and materials incorporated in construction** rose by 1.9% in Q3 to 7.1% in September.

**Import prices**<sup>3</sup> are estimated to have risen by 4.2% in Q3, on the back of energy prices. As the effects of rising import on domestic prices have been largely exhausted, we expect weaker pressures from this source in Q4.

## Short-term inflation projection

*Q4 2012 is likely to see a smaller rise in inflation compared to Q3. Still, due to the low 2011 base, y-o-y inflation will go up.*

Y-o-y inflation will continue up, trending above the upper bound of the target tolerance band until the year-end. The rise will be caused mainly by further growth in food

<sup>2</sup> Prices of producers in agricultural and fishing sectors.

<sup>3</sup> As an indicator of import prices, we used the weighted average of global oil and food prices, the index of export and consumer prices of Germany as our most important foreign trade partner.

prices, administered prices, VAT and excise prices, and the low base effect of low monthly inflation rates in Q4 2011<sup>4</sup>. In quarterly terms, price growth in Q4 2012 is expected to be somewhat lower than in Q3.

Q4 is likely to see a sharp rise in processed food prices based on elevated cost-push pressures as prices of primary agricultural products go up. On the other hand, owing to falling prices of fresh meat prompted by dented demand and higher supply, we expect unprocessed food prices to generate disinflationary effects in Q4, despite a hefty rise in fruit and vegetable prices.

It is estimated that prices of industrial products excluding food and energy in Q4 will outstrip their Q3 levels. This will be a reflection of fiscal policy measures (increases in excise and VAT rates) and rises in prices of medicaments.

Energy prices are expected to rise less than in Q3. The strongest increase is expected from prices of thermal energy (heating), while prices of energy products are likely to rise more slowly.

Prices of services will rise more than in Q3, chiefly on the back of a sharper increase in transportation and utilities prices, and prices of travel arrangements.

Furthermore, we expect a hefty rise in administered prices – c. 10.0% y-o-y. The strongest rise is expected from prices of cigarettes, medicaments and public transportation services in cities.

The main uncertainties surrounding the Q4 projection relate to food prices and effects of VAT hikes.

## Inflation expectations

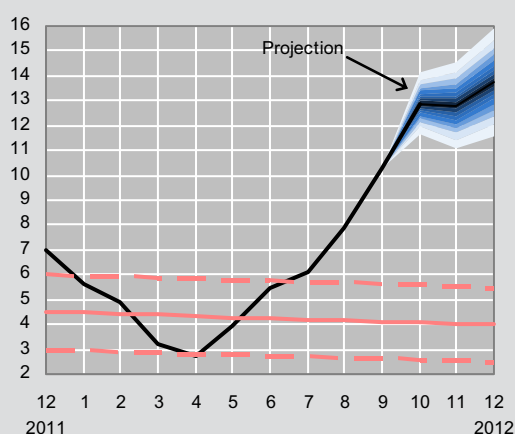
*A rise in inflation was accompanied by elevated inflation expectations and their departure from the upper bound of the target tolerance band. However, expectations rose much less than the actual inflation rate.*

According to the **Bloomberg** survey, after stagnating in July, one-year ahead inflation expectations of the **financial sector** continued up (6.3% in August and 7.4% in September). In October, they temporarily declined to 7.2%, but picked up in November to 8.0%.

As shown by the results of the **Ipsos** survey, one-year ahead inflation expectations continued up in Q3 in all sectors. The rise was the strongest in households (4.0 pp), followed by trade unions (3.0 pp), and financial and corporate sectors (2.5 pp each). In July, **financial sector** representatives raised their expectations by 1.5 pp to 7.0%. After expecting somewhat lower inflation (6.5%) in August, they lifted their expectations in September by 1.5 pp to 8.0%. As in the earlier period, inflation expectations of **households** displayed greater volatility than those of the **corporate sector**. In June, they were by 1.5 pp lower than corporate expectations, but their movements in the coming months were identical – they rose to 8.0% in July and 10.0% in August. Inflation expectations of both sectors stayed unchanged in September. **Trade unions** reported the highest expectations in Q3. Following stagnation in July (10.0%), they raised their expectations to 13.5% in August and brought them down to 13.0% in September.

Results of the October Ipsos survey are indicative of subsiding inflation expectations, except for households. Expectations of the financial sector rose by mere 0.1 pp to 8.1%, those of corporates remained flat (10.0%), while trade union expectations fell by 1.0 pp to 12.0%.

Chart III.0.6 Short-term inflation projection  
(y-o-y rates, in %)

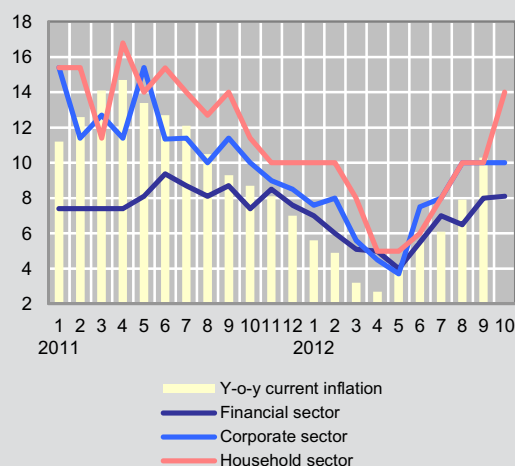


Source: NBS.

*Y-o-y inflation will continue up in Q4.*

<sup>4</sup> See Box 4 in the May 2011 *Inflation Report*, p. 38.

**Chart III.0.7 Current inflation and one-year ahead inflation expectations – by sector**  
(y-o-y rates, in %)

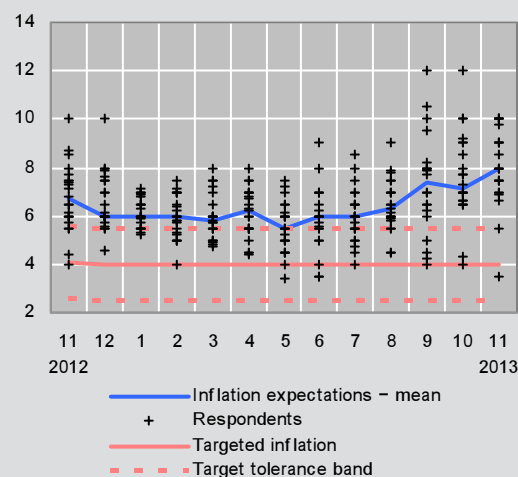


\* Ipsos from November 2011 and Gallup in the earlier period.

Sources: Gallup, Ipsos and NBS.

*Concurrently with rising inflation, one-year ahead inflation expectations continued up in all sectors.*

**Chart III.0.8 One-year ahead expected and targeted inflation – financial sector**  
(y-o-y rates, in %)



Sources: Bloomberg and NBS.

*Inflation expectations increased, as well as the disagreement among financial sector respondents as to one-year ahead inflation.*

Households reported a significant rise in inflation expectations – by 4.0 pp to 14.0%.

As inflation expectations edged up, uncertainties of economic agents in regard to future inflation increased, as reflected in response dispersion. According to the Bloomberg survey, the disagreement among financial sector respondents as to one-year ahead inflation was the largest in September (the largest on record). The dispersion narrowed in October, yet remained pronounced. Under the Ipsos survey, response dispersion widened, notably in the household sector. Higher uncertainties as to one-year ahead inflation may be correlated with the past instability of inflation because of shocks, particularly of food prices.

Growth in inflation and its departure from the target were accompanied by elevated inflation expectations, although expectations rose less than inflation. From April to September, a rise in financial sector inflation expectations was 1.2 pp according to the Bloomberg and 3.0 pp according to the Ipsos survey, while inflation was up 7.6 pp. A much smaller rise in inflation expectations relative

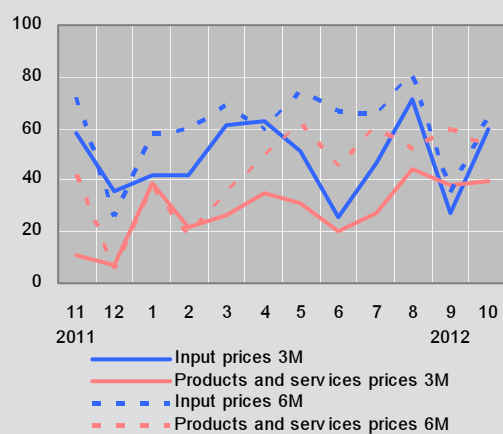
to the outturn may be indicative of the credibility of economic policy.

It is hard to assess whether the rise in inflation expectations will affect inflation as the impact of inflation expectations on setting the prices of products and services must be isolated from other factors. One way of making such assessment is by determining the extent to which enterprises tend to raise the prices of their products and services relative to input costs. As shown by the Ipsos survey, the net percentage<sup>5</sup> of enterprises expecting an increase in prices of their products and services in the next three months was smaller in Q3 (apart from September) than the net percentage of those expecting elevated cost-push pressures from input costs. The same result was obtained in October. This may imply that a rising number of enterprises expecting an upturn in prices of their products and services is determined by the expected increase in input prices rather than inflation expectations. The same conclusion can be drawn from the survey of six-month ahead inflation expectations. The results of the survey for three- and six-month ahead expectations were different only in September. The net

<sup>5</sup> The difference between the percentage of enterprises opting for an increase and the percentage of enterprises in favour of reducing the prices of their inputs, products and services. To increase representation, data are weighted by operating profit.

percentage of enterprises expecting to raise the prices of their products and services was higher than enterprises expecting an increase in input prices, most probably because of the VAT increase announced for October.

**Chart III.0.9 Expectations of enterprises regarding a change in prices of their inputs, products and services**  
(net percentage, "+" = increase, "-" = decrease)



Sources: Ipsos and NBS.

*A rising number of enterprises expecting to raise the prices of their products and services is most probably determined by the expected increase in input prices rather than inflation expectations.*

## IV. Inflation determinants

### 1. Money and capital market trends and bank lending

#### Interest rates

*Tighter monetary policy drove up money market rates. This reflected on rising rates on new dinar loans.*

Increases in the key policy rate and amendments to the reserve requirement decision resulted in a higher degree of monetary policy restrictiveness in Q3. The key policy rate was raised by 25 bp both in July and August to 10.5% at end-Q3. In August, the need for dinar liquidity increased as the reserve requirement decision was amended. The decline in dinar liquidity of the banking sector was partly alleviated after the direction of NBS's main operations<sup>6</sup> was changed and repo securities matured for redemption.

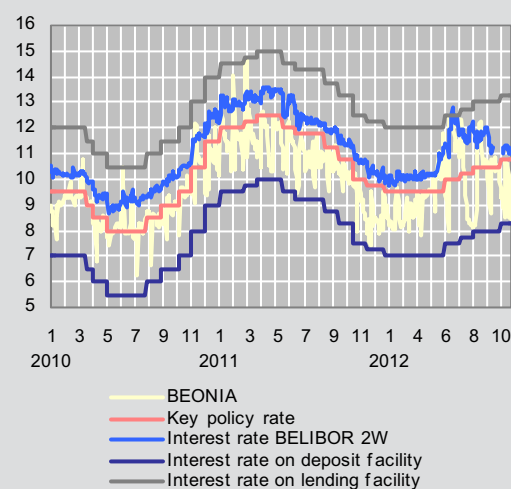
BEONIA trended around the key policy rate throughout Q3. In early Q3, it stood above the key policy rate as dinar liquidity declined after the reserve requirement decision was amended in June. As securities sold earlier in reverse repo operations fell due, banks' dinar liquidity increased by end-July. Consequently, BEONIA fell below the key policy rate.

Further withdrawal of dinar liquidity following amendments to the reserve requirement decision and smaller supply of dinar liquidity in initial auctions in August prompted a new rise in BEONIA. From mid-September, BEONIA moved below the key policy rate and was at end-Q3 by 0.7 pp lower on end-Q2.

Short-term money market rates generally mirrored BEONIA. This correlation, however, weakened for longer maturities. 2W BELIBOR stayed flat in September relative to June, while average BELIBOR rates rose by 0.1 pp for one-month to 0.6 pp for six-month maturity.

Trading in the overnight interbank money market gradually plummeted in Q3. Up to the first direct repo auction of 18 July, average daily volumes totalled RSD 14.2 bln, only to fall to RSD 8.2 bln by end-September.

**Chart IV.1.1 Interest rate movements**  
(daily data, p.a., in %)



Sources: Thomson Reuters and NBS.

*At end-Q3, overnight rates in the interbank money market were lower than in Q2, while longer-maturity rates went up.*

<sup>6</sup> In July, the NBS changed the direction of main open market operations. The last reverse repo auction (liquidity withdrawal) was held on 11 July, and the first direct repo auction (liquidity creation) on 18 July.

Similar trends were recorded in October. BEONIA continued down and lost 0.5 pp from September, while longer-maturity rates fell rather less. October marked a moderate rise in trading volumes in the interbank money market.

Rates in the primary market of dinar government securities outstripped the key policy rate hikes. Investors kept the existing level of investment<sup>7</sup>, but performance rates went up (57.7% in Q3 vs. 45.2% in Q2) as the government organised auctions at lower nominal values. Nominal debt under sold dinar securities rose by RSD 9.0 bln to RSD 328.0 bln by end-September.

The government renewed the issues of 3-month securities in Q3, with interest up from 12.7% in July to 13.0% in September. The first auction of two-year bonds indexed to the key policy rate was held in August, at the fixed margin of 4.0%<sup>8</sup>. Rates on longer-maturity securities (12m, 18m and 36m) were up by 1.0 pp.

In Q3, the government also organised three auctions of one-year euro-denominated securities and one two-year

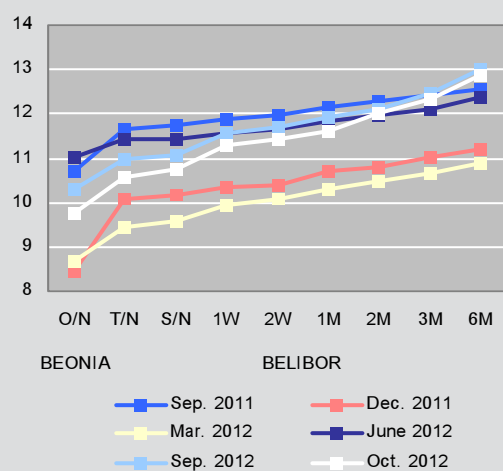
auction, at the 6.2% rate. The accepted rate on one-year securities rose by 0.2 pp from the previous, February auction, while the rate on two-year securities was 0.05 pp down from the June auction. As total securities sold were worth EUR 114.2 mln, government debt in respect of euro-denominated securities came at EUR 821.5 mln by end-September.

Yield to maturity rates in secondary trading mirrored the rise in primary rates, ranging from 11.5% for 1m to 14.3% for 10m maturity. Total secondary trading volumes amounted to RSD 52.2 bln in Q3. Excluding trading up to two business days from the primary settlement date, trading volumes were RSD 34.4 bln, much higher than in Q2.

By end-Q3, the government collected USD 1.0 bln by reopening its 2011-eurobond. Though the original issue was planned at nominal USD 750.0 mln, the government raised the volume because of great investor demand and lower yield. At this year's auction, the rate of return was 6.6%, down by 0.9 pp compared to the initial September 2011 issue.

**Chart IV.1.2 Yield curve in the interbank money market**

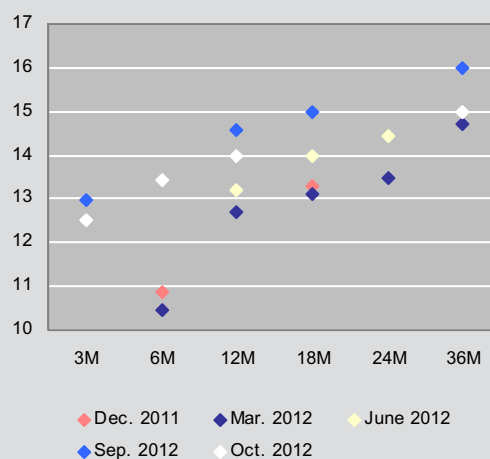
(average values, p.a., in %)



Sources: Thomson Reuters and NBS.

*The slope of the money market yield curve increased in Q3.*

**Chart IV.1.3 Interest rates in the primary market of government securities**  
(p.a., in %)



Source: Ministry of Finance and Economy.

*Rates on dinar securities of all maturities went up in Q3.*

<sup>7</sup> In Q3, the nominal value of maturing dinar securities was RSD 81.2 bln, while the government collected RSD 81.0 bln.

<sup>8</sup> Amortising security with semi-annual coupon payment at variable interest, i.e. the key policy rate plus 4 pp.

Improved government liquidity and more positive investor perception following successful reopening of the eurobonds issue, drove down interest rates in the primary market of dinar government securities in October.

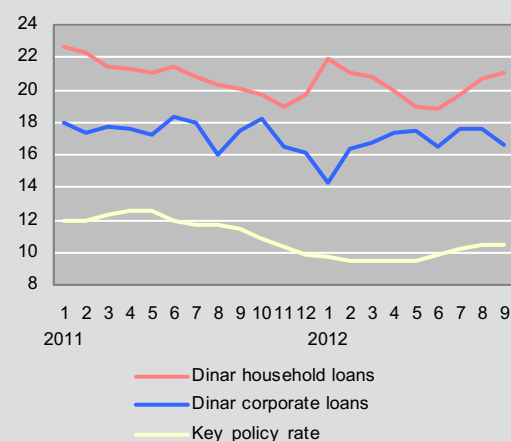
Key policy rate hikes were followed by rising rates on dinar loans. The weighted average rate on new dinar corporate and household loans was up 0.5 pp to 17.9% in Q3. An increase was recorded for household loan rates (2.2 pp), while corporate rates stayed flat.

Rates on all categories of new dinar household loans went up in Q3. The sharpest rise was recorded for consumer loan rates (4.1 pp), followed by other (2.0 pp) and housing (0.6 pp) loans. A rise in interest rates induced a smaller amount of new dinar household loans.

Further extension of subsidised liquidity and fixed assets corporate loans pushed down the rates on new dinar fixed assets and investment corporate loans (-0.8 pp and -1.6 pp respectively). As a result, despite rising rates on other loans (1.2 pp), rates on new dinar corporate loans remained unchanged from Q2. Excluding subsidised

**Chart IV.1.5 Interest rates on new corporate and household loans\***

(weighted average values, p.a., in %)



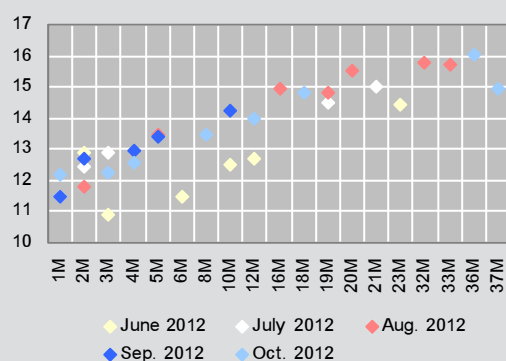
Source: NBS.

\* Excluding revolving loans, current account and credit card overdrafts.

*In Q3, rates on new dinar corporate loans declined, while household rates went up.*

**Chart IV.1.4 Yield curve in the secondary market of government securities\***

(weighted average values, p.a., in %)



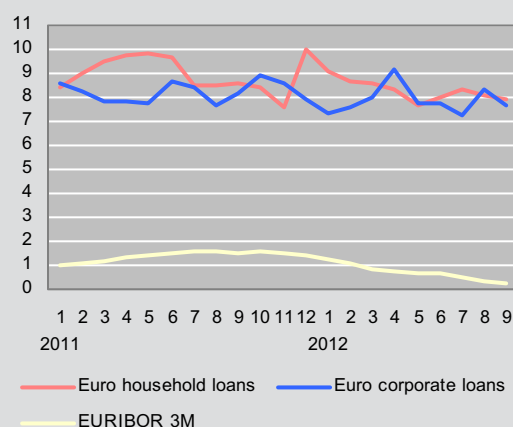
\* Excluding all trading up to two business days from the day of primary trading settlement and including all trading above RSD 5 mln.

Sources: Ministry of Finance and Economy and Central Securities Depository.

*Q3 saw an increase in interest rates and trading volumes in the secondary market of government securities.*

**Chart IV.1.6 Interest rates on new euro and euro-indexed corporate and household loans\***

(weighted average values, p.a., in %)



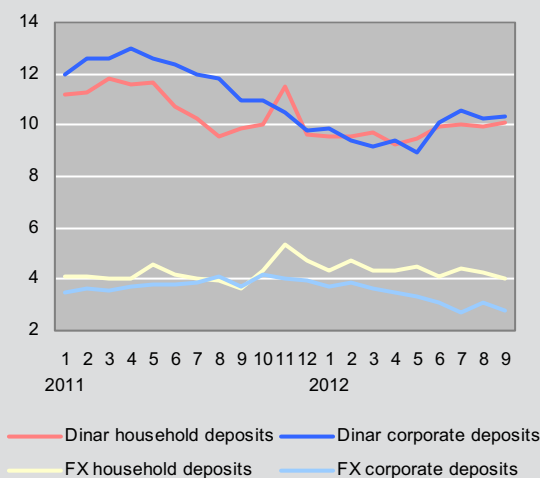
Sources: NBS and European Banking Federation.

\* Excluding revolving loans, current account overdrafts and credit card debt.

*A decline in rates on new euro loans was driven by falling EURIBOR and the extension of subsidised loans.*



**Chart IV.1.7 Interest rates on new time household and corporate deposits**  
(weighted average values, p.a., in %)



Source: NBS.

*Rates on new dinar savings moderately increased, while rates on euro savings declined in Q3.*

loans, rates on dinar corporate loans were higher by around 1.0 pp.

Rates on new euro-indexed and euro loans fell slightly, by 0.1 pp to 7.7% in September. Falling rates on euro loans may be correlated with further extension of subsidised loans as of September and a lower value of EURIBOR. In terms of structure, rates on new corporate loans declined, while those on household loans were unchanged.

Weighted average rates on new deposits picked up slightly in Q3. The average rates on new dinar savings of both corporate and household sectors rose by 0.2 pp each, to 10.3% and 10.1% in September respectively. In regard to euro deposits, the weighted average rate on term corporate savings fell by 0.3 pp to 2.8%. The household rate fell less – by 0.1 pp, to 4.1% in September.

The interest margin on banks' dinar sources widened in Q3, more so in the households (2.0 pp) than the corporate sector (0.1 pp). In terms of FX sources, the interest margin rose by 0.2 pp in corporate and remained flat in the households sector.

## Stock exchange trends

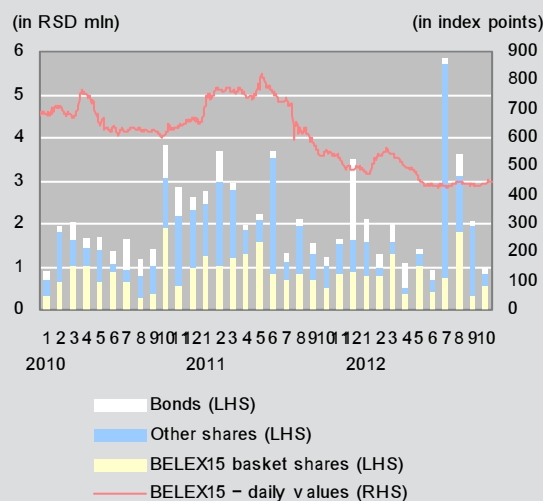
*Stagnating indices and a rise in stock trading marked the developments on the Belgrade Stock Exchange in Q3. Stock exchange indices precipitated up across the region.*

The fall in share prices decelerated in Q3 relative to the quarter earlier. By end-Q3, BELEX15 slid below its June level (1.1%), standing at 431.0 index points. BELEXline recorded a sharper drop (3.3%) and touched 858.4 index points by end-September.

Owing to a higher than expected drop in economic activity and uncertainties regarding the intensity and dynamics of fiscal consolidation in early Q3, the share prices did not match the recovery recorded in other countries of the region.

At RSD 11.5 bln in Q3, trading in shares overshoot the Q2 levels (RSD 3.4 bln). Such high trading volumes were driven by block trading (RSD 5.1 bln) and trading contracted earlier due to a change in ownership (RSD 2.2 bln). However, even after exclusion of these types of

**Chart IV.1.8 BELEX15 and Belgrade Stock Exchange turnover**



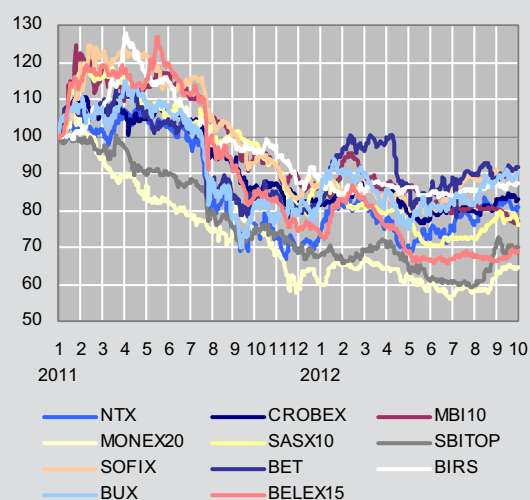
Source: Belgrade Stock Exchange.

*Stagnating indices and a rise in stock trading marked the developments on the Belgrade Stock Exchange in Q3.*



**Chart IV.1.9 Stock exchange indices across the region**

(in index points, normalised, 31. 12. 2010 = 100)



Sources: BSE and regional stock exchanges.

*Most stock exchanges in the region experienced a rise in their indices in Q3.*

trading, trading in shares included in BELEX15 and BELEXline rose by 60.2% and 47.5% respectively, in contrast to exceptionally low volumes in Q2.

Block trading and trading contracted earlier due to a change in ownership prompted higher foreign investor participation. Foreign investors were more active on the sale (67.0%) than the purchase side (55.7%).

At RSD 0.7 bln in Q3, trading in frozen FX savings bonds plummeted further – by 7.6% from Q2. Yield to maturity rates rose slightly, ranging by end-September from 5.5% for May 2013-series to 6.6% for 2016-series.

Market capitalisation of the Belgrade Stock Exchange increased by RSD 18.6 bln to RSD 746.3 bln at end-September. Broken down by segment, regulated market capitalisation fell by RSD 25.6 bln to RSD 405.2 bln, consistent with a moderate decline in share prices, a rise in bond yields and moderate strengthening of the dinar. On the other hand, MTP<sup>9</sup> capitalisation rose by RSD 44.3 bln to RSD 341.0 bln. The share of market capitalisation in GDP edged up by 0.4 pp (from 22.5% in June to 22.9% in September).

<sup>9</sup> MTP is the multilateral trading platform, organised by the Belgrade Stock Exchange and incorporating currently listed shares of companies not eligible for regulated market listing.

Stock exchange indices precipitated up across the region. The strongest quarterly rise was recorded on the Ljubljana stock exchange, with SBITOP up by 13.6%. The only exception was the Skopje stock exchange with MBI10 down by 1.9%.

October experienced a downturn on the Belgrade Stock Exchange relative to September, with BELEX15 slightly up.

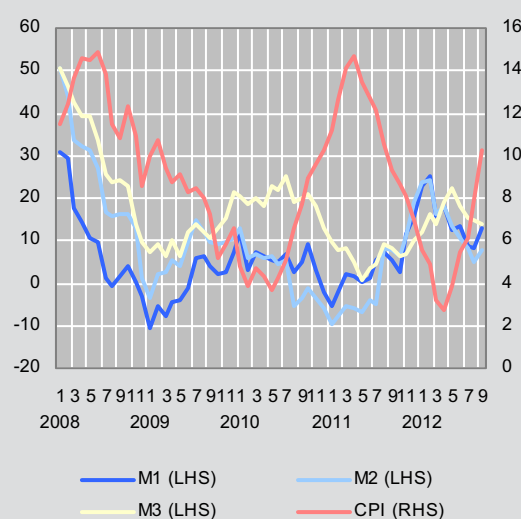
## Monetary aggregates

*Monetary aggregates M1 and M3 saw deceleration in real y-o-y growth, while M2 shifted down. M3 went up mainly on account of intensified lending activity of banks.*

In Q3, total reserve money remained almost unchanged in nominal and lost 3.9% in real terms. Dinar reserve money gained 12.1% nominally and 7.7% in real terms.

Government's spending from its account with the NBS and NBS's open market repo operations led to the

**Chart IV.1.10 Monetary aggregates and CPI**  
(y-o-y rates, in %)



Sources: SORS and NBS.

*A y-o-y rise in money supply slowed in Q3.*

**Table IV.1.1 Monetary aggregates**  
(real y-o-y rates, in %)

|                                    | 2011 |       | 2012 |      | Share in M3<br>Sep. 2012<br>(%) |
|------------------------------------|------|-------|------|------|---------------------------------|
|                                    | Dec. | March | June | Sep. |                                 |
| M3                                 | 3.1  | 10.5  | 12.0 | 3.2  | 100.0                           |
| FX deposits                        | -0.4 | 9.6   | 15.1 | 5.7  | 70.9                            |
| M2                                 | 11.1 | 12.7  | 4.8  | -2.3 | 29.1                            |
| Time and savings<br>dinar deposits | 15.5 | 13.4  | 0.8  | -9.9 | 11.0                            |
| M1                                 | 8.4  | 12.2  | 7.7  | 2.6  | 18.1                            |
| Demand<br>deposit                  | 3.9  | 4.0   | 1.7  | 0.1  | 11.1                            |
| Currency in<br>circulation         | 16.3 | 27.3  | 18.5 | 6.9  | 6.9                             |

Source: NBS.

creation of dinar reserve money in Q3. In July, the NBS changed the direction of its main open market operations (from withdrawal to creation of liquidity) and created RSD 8.0 bln in Q3. At the same time, the government spent cumulative RSD 10.8 bln from its account with the NBS and gave a further boost to dinar reserve money.

Within the structure of dinar reserve money, bank reserves gained RSD 25.6 bln, mainly on the back of August changes to FX required reserve allocations. Currency in circulation was up by RSD 5.7 bln.

Dinar monetary aggregates M1 and M2 rose respectively by 3.6% and 1.0% in real quarterly terms. The broadest aggregate M3 lost 2.8% as FX deposits expressed in dinars declined (caused by appreciation of the dinar against the euro in September). In real y-o-y terms, growth in M1 and M3 decelerated to 2.6% and 3.2%, whilst M2 lost 2.3% owing to a drop in dinar savings of public enterprises.

A step-up in bank corporate and household lending gave the main boost to M3. Further contribution was provided by government's spending from its account with the NBS. In contrast, M3 was dragged down by falling NFA of the banking sector prompted by contracted bank external claims.

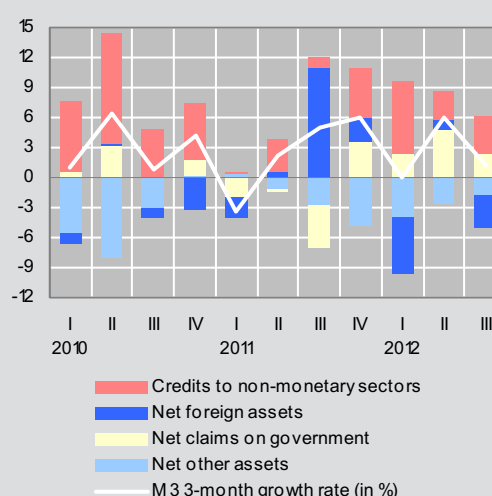
Within the structure of money supply M3, all dinar components rose nominally in Q3, while FX deposits

edged down. The strongest rise was recorded for demand deposits (RSD 15.5 bln), while currency in circulation rose to a lesser degree (RSD 5.7 bln). Demand deposits went up for companies and declined for public enterprises. Savings and term dinar corporate and household deposits increased in Q3, though insufficiently to compensate for the heavy drop in savings deposits of public enterprises. Total FX savings expressed in euros remained almost unchanged relative to Q2.

Household FX savings rose by EUR 73.5 mln, which is a downturn from Q2 (EUR 179.1 mln). Dinar savings went up as well – by RSD 550.0 mln. In the structure of household savings, the share of short-term savings was larger than the share of long-term ones – 90.2% for dinar and 76.7% for FX savings.

Relative to Q2, the monetary multiplier remained unchanged for dinar M1 and M2, and mildly declined for M3. The velocity of circulation of M3 slowed somewhat, reflecting a fall in economic activity.

**Chart IV.1.11 Contribution to M3 growth**  
(in percentage points)



Source: NBS.

*Lending activity had the strongest impact on M3 creation. A fall in NFA worked in the opposite direction.*

According to preliminary data, dinar monetary aggregates shrank in October in response to a drop in currency in circulation. Though FX deposits expressed in euros picked up slightly in October, they contracted in dinar terms because of dinar's appreciation against the euro. This also prompted a nominal drop in M3 in the same month.

## Bank lending

*The pace of bank lending was faster than in Q2. Corporate lending outperformed household lending following the launch of the subsidised corporate lending programme.*

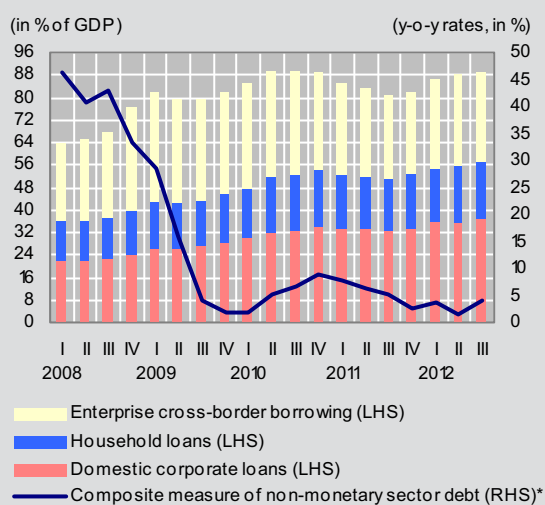
Under the composite measure<sup>10</sup>, a y-o-y rise in total loans, excluding the exchange rate effect, came at 4.3% in Q3, up from 1.4% in Q2. The corporate sector continued to borrow in the domestic market in Q3, while repaid external loans outstripped the loans taken.

Domestic loans grew by nominal RSD 59.6 bln, or RSD 71.0 bln excluding the exchange rate effect. This growth, excluding the exchange rate effect<sup>11</sup>, accelerated to 6.2% in September, up by 2.6 pp from June. The share of domestic loans in GDP rose as well, reaching 58.9% by end-September.

Contraction in bank external claims lent the strongest impetus to lending activity in Q3. Lending was partly financed from funds released under amendments to the reserve requirement decision and partly from elevated domestic savings.

In Q3, banks stepped up corporate lending by RSD 54.9 bln, or by RSD 62.3 bln excluding the exchange rate effect. Despite substantial corporate lending recorded in July, the main incentive to lending came from the launch of subsidised liquidity, fixed assets and export loans in September.

**Chart IV.1.12 Loans to GDP and lending activity growth\***



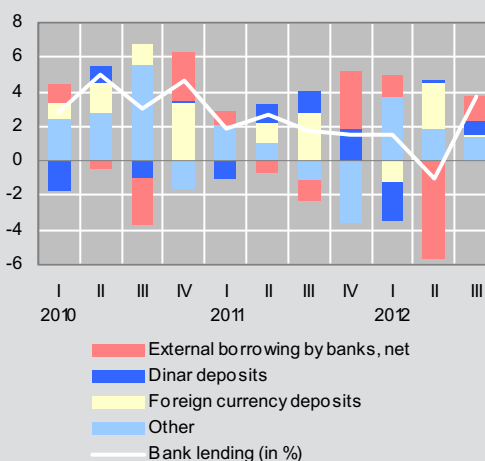
\* Loans to non-monetary sectors, excluding the exchange rate effect.

Source: NBS.

*Owing to subsidies, corporate lending rose more than household lending.*

**Chart IV.1.13 Contributions to quarterly rate of lending growth\***

(in percentage points)



\* Loans to non-monetary sectors, excluding the exchange rate effect.

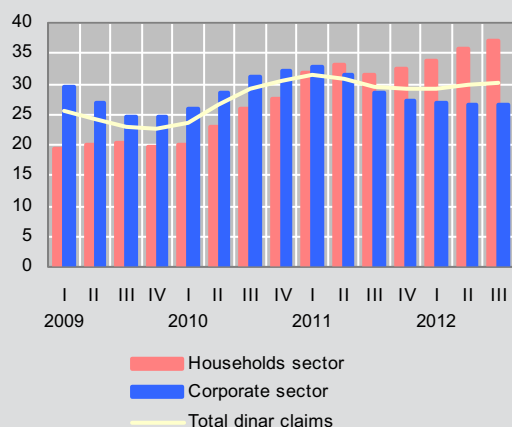
Source: NBS.

*Contraction in bank external claims and rising dinar deposits were the main source of financing lending activity in Q3.*

<sup>10</sup> As an indicator of total borrowing, it covers domestic lending to the private sector, public enterprises and local levels of government, including enterprise cross-border borrowing.

<sup>11</sup> Calculated at the RSD/EUR exchange rate on 31 August 2008, assuming that all FX and FX-indexed loans were extended in euros.

**Chart IV.1.14 Share of dinar in total bank receivables on corporate and household sectors (%)**



\* Excluding the exchange rate effect.

Source: NBS.

*A rise in the share of dinar in total loans in Q3 was pronounced in the household sector. This share remained largely unchanged in the corporate sector.*

Lending to companies increased more than lending to public enterprises. Reflecting the launch of the subsidised lending programme, the sharpest rise was noted for fixed assets and export loans. Investment loans were extended at a pace similar to Q2. The major increases were recorded in industry and trade sectors, while the transportation sector witnessed a slowdown from the previous quarter.

Household lending gained RSD 4.1 bln in Q3, or RSD 7.8 bln adjusted for the exchange rate effect. The majority of loans approved were new housing loans, followed by consumer loans. At the same time, borrowing increased in respect of the most expensive forms of lending – credit cards and current account overdrafts.

By end-August, the Government adopted the Decree on Terms for Subsidising Interest on Liquidity, Fixed Assets

and Export Loans in 2012. Implementation of the Decree was planned at initial RSD 300 mln, but was extended for additional RSD 1 bln. Under this Decree, interest is subsidised for 18-m loans, with the first 5 months as the grace period for interest payment only, while the remainder of debt is to be paid out in 13 equal monthly instalments. Liquidity and fixed assets loans may also be approved in dinars and with a currency clause, while export loans are approved at a currency clause only. Interest is subsidised at 5% p.a. on the loan amount and is paid through the Development Fund of the Republic of Serbia. The highest interest paid by a loan beneficiary is 3.5% for FX-clause indexed loans. The interest on dinar loans equals the key policy rate.

The Government's subsidised lending programme induced a strong growth in the subsidised market segment compared to Q2. In Q3, subsidised loans approved were worth RSD 45.4 bln, the majority relating to corporate loans (RSD 41.2 bln), notably euro-indexed (c. 80%). Liquidity and fixed assets loans accounted for c. 59%, refinancing loans c. 29%, and export loans c. 12%. A similar structure of subsidised loans was kept in October.<sup>12</sup> Extension of subsidised housing loans rose mildly in Q3. In early October, additional RSD 500 mln were provided from the budget for further implementation of the programme, which implies a likely rise in this category of loans in the coming period.

The share of dinar in total corporate and household loans rose by 0.4 pp from June and reached 28.2% in September. The share of dinar household loans went up, while corporate loans remained at the Q2 level. Excluding the exchange rate effect<sup>13</sup>, the share of dinar in total loans rose by 0.2 pp (to 30.1% in September).

Under the gross principle, the share of NPLs in total loans amounted to 19.9% in September, slightly up from end-Q2 (by 0.3 pp for corporates and 0.1 pp for households). The share of corporate and household NPLs came at 21.7% and 8.6%<sup>14</sup> in September respectively. However, despite a high NPLs share, the capital adequacy ratio of 16.4% in September is indicative of unimpaired stability of the domestic banking sector.

<sup>12</sup> According to data of the Ministry of Finance and Economy, the subsidised corporate loans approved were worth EUR 353.5 mln in September, including additional EUR 458.7 mln in October.

<sup>13</sup> Calculated at the RSD/EUR exchange rate on 31 December 2011.

<sup>14</sup> Including entrepreneurs, loan arrears rose by 0.2 pp to 10.1%.

## 2. Movements in the foreign exchange market and the dinar exchange rate

*Dinar's weakening in the first and its strengthening in the second half of the quarter, at much lower volume of NBS interventions in the IFEM characterised movements in the foreign exchange market in Q3. Early Q4 was marked by appreciation pressures.*

The Serbian FX market experienced depreciation pressures in July and early August, followed by a period of the dinar's strengthening against the euro. On average, the dinar lost 2.7% vis-à-vis the euro throughout Q3 and ended the period with the appreciation of 0.7%. At end-Q3, the dinar was 9.0% down on the euro compared to the end of the last year.

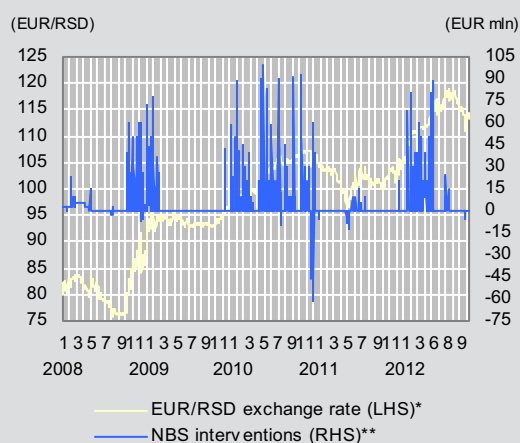
The dinar's weakening against the euro parallel with the euro's losing value against the dollar meant a loss of 5.1% on average against the dollar. However, according to end-of-quarter data, as the dinar strengthened against the euro and the euro gained ground against the dollar, the dinar

nominally appreciated against the dollar by 3.6% relative to the end of the previous quarter.

Consistent with such trends, the nominal effective exchange rate of the dinar<sup>15</sup> depreciated in Q3 by 3.3% on average, while end-of-quarter data indicate the appreciation of 1.3% relative to Q2. In terms of quarterly averages, the real effective exchange rate of the dinar remained almost unchanged from Q2, but as August and September saw domestic inflation climbing considerably above the inflation abroad, the real effective appreciation of the dinar reached 4.7% at the end of Q3.

The depreciation pressures in July and early August were prompted by the lowering of Serbia's credit rating by Standard&Poor's, the Fitch's downgrade of Serbia's outlook from stable to negative and the rising of the risk premium. The uncertainty surrounding the pace and intensity of fiscal consolidation worked in the same direction. All of the above rather lessened foreign investors' interest in government securities which resulted in lower capital inflows. However, the depreciation pressures in July and early August softened from the first

#### Chart IV.2.1 Movements in EUR/RSD exchange rate and NBS FX interventions



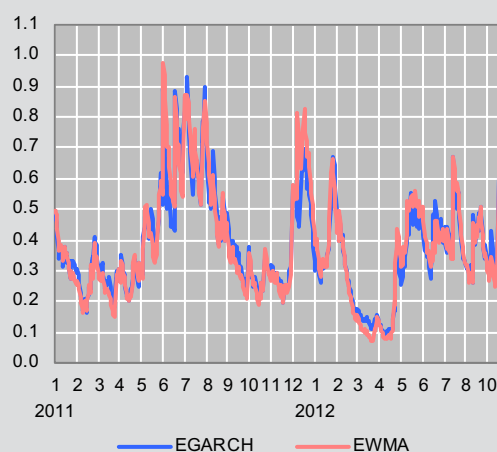
\* 1 EUR in RSD.

\*\* + sale; - purchase.

Source: NBS.

*Depreciation pressures weakened during Q3, with appreciation pressures recorded at the end of the quarter.*

**Chart IV.2.2 Short-term volatility of the RSD/EUR exchange rate**  
(in %)

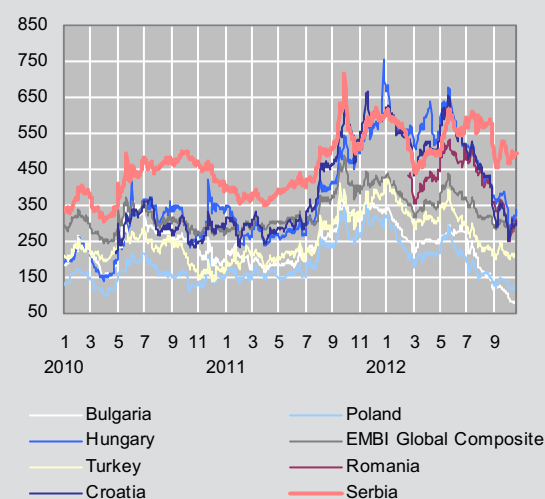


Source: NBS.

Daily volatility of the RSD/EUR exchange rate was higher in Q3 than Q2, but it was lower in September than in June.

<sup>15</sup> Calculated as a geometric average of nominal exchange rates EUR/RSD and USD/RSD, applying weights 0.8 and 0.2, i.e. the formula  $(EUR/RSD^{0.8}) * (USD/RSD^{0.2})$ .

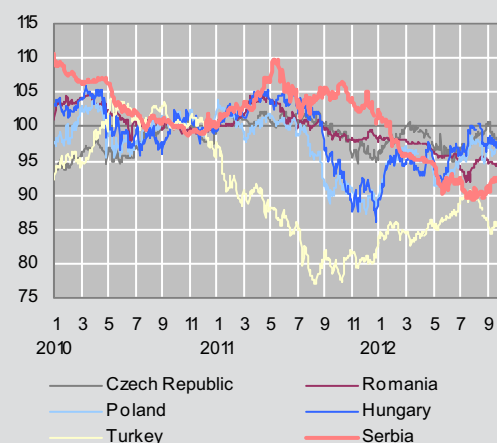
**Chart IV.2.3 Risk premium indicator – EMBI by country**  
(daily data, in basis points)



Source: JP Morgan.

*In all countries observed, EMBI dropped in Q3.*

**Chart IV.2.4 Movements in exchange rates of national currencies against the euro**  
(daily data, 30 September 2010 = 100)



Sources: NBS and websites of central banks.

\*Growth indicates appreciation.

*Similarly to majority of its regional peers, the dinar strengthened against the euro compared to end-Q2.*

half of the year. This was aided by the lower demand for foreign exchange by domestic companies and higher net purchase of foreign cash from exchange offices and natural persons.

Early September ushered in increased investor interest in Serbia. This could be put down to higher liquidity in the international money market and the government commitment to initiate fiscal consolidation. Introduction of a subsidized loan programme for the corporate sector and new monetary policy measures were additional factors halting the depreciation pressures in late August and strengthening the dinar in September. Amendments to the required reserve regulations<sup>16</sup> freed up a portion of banks' FX funds, while their need for dinar liquidity increased. Also, the key policy rate was raised twice in Q3, each time by 25 bp and reached 10.5% at the end of the quarter.

In time, approvals of euro-indexed subsidies loans to corporates fuelled appreciation pressures. Namely such loans are financed primarily from FX sources and disbursed in dinars, so that banks had to sell foreign

exchange in the market in order to avoid FX risk exposure.

In Q3, the average daily turnover in the IFEM gained 9.2% from the quarter before, but fell 40% y-o-y. The expansion of the average turnover in August and the contraction in September were also accompanied by higher and/or lower exchange rate volatility, measured by EWMA<sup>17</sup> and EGARCH<sup>18</sup> methods. Quarterly exchange rate volatility increased from Q2, except that in September it was lower than in June.

In Q3, the NBS continued to intervene in the IFEM to ease the excessive daily volatility of the dinar exchange rate and ensure smooth functioning of the foreign exchange market. The volume of interventions was much lower than in the first two quarters (the NBS intervened four times, selling the total of EUR 59.5 mln). In order to stimulate growth of risk hedging instruments, the NBS continued to set up regular quarterly FX swap auctions, selling EUR 19.0 mln for dinars and buying EUR 29.0 mln in Q3.

The appreciation pressures in the FX market continued in October, so the dinar gained 1.5% vis-a-vis the euro

<sup>16</sup> Amendments included increasing by 5pp the dinar portion of required reserve allocations (from 27% to 32% for sources of funding up to two years and from 19% to 24% for sources of funding over two years). Required reserve ratios remained unchanged.

<sup>17</sup> EWMA (Exponentially Weighted Moving Average) – method of weighted moving averages which assigns different weights to percentage daily changes in the exchange rate for different moments in time, with the exponential lowering of weights while moving away from the present moment.



relative to end-September, while the turnover in the IFEM increased 30.7% from the Q3 average. The NBS intervened in the foreign exchange market by buying EUR 5.0 mln in October.

Bucking the regional trend, Serbia saw its risk premium rising in July and August as a result of the Standard&Poor's downgrade of its credit rating from BB to BB– and change from stable to negative outlook by Fitch (the highest EMBI for Serbia of 610 bp was recorded on 24 July). The agencies explained the lowering of the credit rating by the deterioration of fiscal and trade deficits in H1 and the postponed adoption of fiscal consolidation measures.

September witnessed declines in risk premiums both in Serbia and region-wide, possibly as a result of the liquidity boost driven by the third round of the Fed's quantitative easing. Renewed foreign investors interest was also induced by the commitment of the Serbian government to implement fiscal consolidation. Among other, the reopening of the euro bond in late September serves as an example of the renewed foreign investors interest as it attracted the four times higher demand than the volume sold and yielded a return of 6.6%, 0.9 pp lower than the initial issue in September 2011.

Q-o-q, EMBI fell the most in Croatia (202 bp), Bulgaria (168 bp) and Hungary (152 bp), while Serbia's EMBI lost around 30 bp (and came at 523 bp). Risk premiums continued down in October, both in Serbia and region-wide.

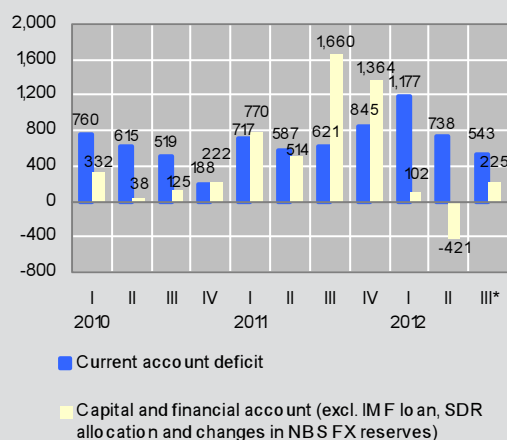
Majority of currencies of countries in the region running similar exchange rate regimes appreciated against the euro in Q3. Polish zlot, Czech corona and Hungarian forint ended the period 3.6%, 3.1% and 1.6% stronger, respectively, while Romanian leu and Turkish lira weakened by 1.8% and 1.5%.

## Foreign capital inflow

*Unlike Q2, Q3 saw a net inflow of foreign capital. New inflow originated from FDIs, while net outflows were recorded under portfolio investments and financial loans.*

<sup>18</sup> EGARCH (Exponential General Autoregressive Conditional Heteroskedastic) – a method for estimating conditional variance which captures the asymmetric effect of positive and negative shocks on the estimate of conditional variance.

Chart IV.2.5 **Current account deficit and net capital inflow**  
(in EUR mln)



\*Preliminary data.

Sources: SORS and NBS.

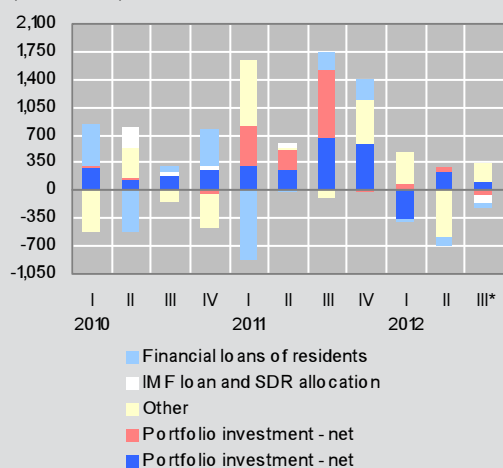
*Net capital inflow in Q3 was insufficient to cover the current account deficit.*

In contrast to Q2, which witnessed a net outflow of foreign capital, Q3 saw the inflow of EUR 225.1 mln (the repayment of the IMF loan tranche of EUR 110.8 mln was excluded from the calculation). Capital inflow originated from FDIs, while portfolio investments and financial loans saw net outflows. The transfer of a portion of funds from banks' accounts abroad was also recorded as capital inflow. The resulting total net capital inflow however remained insufficient to cover the current account deficit, giving rise to depreciation pressures in the first half of Q3.

Total net FDI inflow in Q3 fell from Q2 and amounted to EUR 116.8 mln. However, combined with the net FDI inflow in Q2 (totalling EUR 351.3 mln), they managed to almost fully compensate for the high net outflow of FDIs recorded in Q1.

The sectors receiving the largest direct investments in Q3 were manufacturing (28%), trade (23%) and construction (19%). Within manufacturing, investments were mainly channelled into the production of other non-metallic minerals (11% of total FDIs).

Chart IV.2.6 **Structure of the financial account**  
(in EUR mln)



\*Preliminary data.

Sources: SORS and NBS.

*Q3 saw a net inflow of FDIs and a net outflow of portfolio investments, while residents continued cross-border repayments.*

Q3 saw a net outflow of EUR 68.7 mln under portfolio investments. July accounted for the major part of this outflow (EUR 89.8 mln), as the uncertainty surrounding the pace and intensity of fiscal consolidation dented investor interest in government securities. However, with the announcement of fiscal consolidation and fiscal deficit curbing plans and the growth of liquidity in the international money market, investor interest in Serbia improved. Consequently, EUR 21.1 mln of portfolio investments flowed in during August and September.

In Q3, residents (excluding NBS) recorded net cross-border repayments of EUR 30.1 mln. Banks repaid EUR 2.8 mln, while corporate repayments reached EUR 79.7 mln. The government on the other hand was a net borrower in the amount of EUR 52.4 mln.



### ***Text box 1: Financial exposure of foreign banks to Serbia***

The relation between banks' capital and their financial risk exposure progressively worsened in many EU countries during the pre-crisis period. The swelling of financial risk exposure beyond optimum levels was precipitated primarily by banks' excessive investments in bonds issued by countries now severely affected by the public debt crisis (Greece, Italy, Spain), as well as by their inadequate assessment of risk-weighted assets. When the crisis broke out, banks faced huge losses and significantly higher costs of borrowing (as they were unable to cover losses from capital), which called for deleveraging.

The most desirable way to align banks' capital and assets is to quickly attract cheap capital in sufficient amounts (as Japan did in early 2000s). However, as investor confidence is currently rather subdued in the euro area, banks' financial exposure can only be adjusted through scaling down of asset holdings (by downsizing of their loan portfolio or liquid assets or sale of securities holdings). In a bid to strengthen banks' capital positions and restore investor confidence, the European Banking Authority's Board of Supervisors adopted a recommendation on the creation of temporary capital buffers. At the same time, it raised the minimum capital adequacy ratio to 9% setting the compliance deadline at end-June 2012. According to the EBA's report released in October 2012, recapitalisation tests in 61 banks helped to increase the capital of the EU's banking sector by some EUR 200 bln.

From the standpoint of a host country, foreign banks' deleveraging is a healthy process, desirable in the long run. Namely, bank and corporate cross-border repayments help to lower the external debt and current account deficit, as well as to reduce risks to financial stability, which improves the perception of risks and pushes down the costs of borrowing for banks, corporates, government and households alike. However, there are also some downsides to deleveraging, especially when it unfolds too fast, because it drives up the costs of financing as the sources of funding are drying out.

Given the extensive pre-crisis exposure of banks from EU countries to the Central and South-Eastern Europe region, either through lending to their subsidiaries or through direct lending to corporates, one may wonder to what extent each of the countries in this region is affected by the deleveraging of EU-based banks. This depends on a variety of factors, primarily the share and concentration of foreign-owned banks in the banking sector, their reliance on foreign sources of funding, maturity structure of funding and availability of alternative sources. Banks' profitability, parents' strategic decisions, local regulations etc. also play a role.

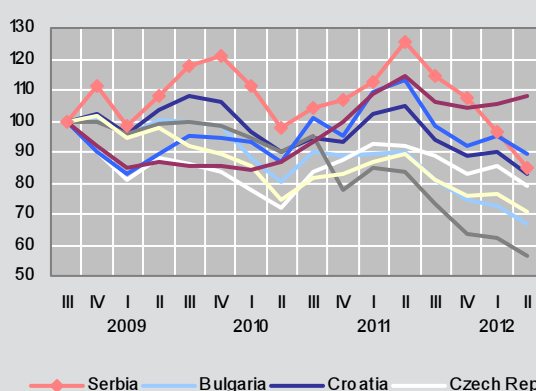
Given that subsidiaries of EU-based banks account for 74% of the country's banking sector assets, Serbia is exposed to the risk of deleveraging. However, other factors that impact the degree of such deleveraging are much more encouraging. The structure of banks' funding sources is sound since domestic deposits are the predominant source of funding and make up more than 70% of all banks' liabilities. Total deposit to loan ratio in September 2012 stood at 81.5%. Household savings added over EUR 3 bln on end-2008 totals. Profitability indicators for foreign-owned banks (ROE and ROA) until September 2012 were relatively satisfactory. The new Decision on Banks' Required Reserves enacted in early 2011 (which excluded subordinated debt and funds of international financial institutions founded by foreign governments from reserve requirements and lowered the required reserve ratio on sources of funding with maturity over two years) has prevented too rapid deleveraging and extended the maturity of sources of funding. As a result, the share of short-term liabilities in total banks' cross-border liabilities shrunk from 51.0% at end-Q3 2008 to around 21.1% in September 2012, while their share in banks' total liabilities to their parent banks decreased from 12.1% at end-2009 to 1.9% in September 2012. An additional layer of prevention of an overly hasty deleveraging are the NBS regulations precluding any sudden movements that might jeopardise the liquidity and stability of the financial system. The signing of the Vienna Initiative contributed at the time to the maintaining of the level of financial exposure of banking groups to Serbia. While the agreement was in place, banks even increased their exposures above the agreed level (the level from end-2008).

We tried to appraise foreign banks' exposure to Serbia by, on the one hand, monitoring the claims against Serbia by the BIS reporting banks and on the other, by monitoring net foreign liabilities of domestic banks in majority foreign ownership, as well as the inflows and outflows under foreign financial loans taken by banks and corporates and movements in equity stakes in majority foreign-owned banks.

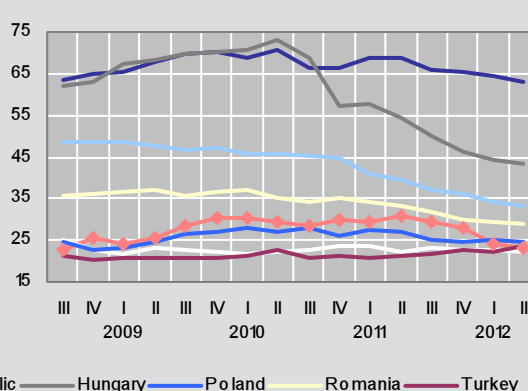
The exposure of BIS reporting banks to emerging markets was assessed by applying the gross concept, i.e. by monitoring exclusively their claims on these markets. This concept casts light on investors' readiness to invest in a particular country. Relative to end-2010, foreign banks' exposure to Serbia decreased by EUR 1.3 bln, reaching EUR 7.1 bln at end-Q2 2012.<sup>1</sup>

The deleveraging started with the deepening of the euro-area public debt crisis in mid-2011. Compared to the pre-crisis period, Serbia experienced less deleveraging compared to the majority of the developing countries observed (Chart 1). Serbia is in a better position even when the exposure is measured as a share of BIS reporting banks' claims in GDP. In Q2 2012 this ratio for Serbia stood at 23.3%, up by 0.7 pp compared to the pre-crisis period (Chart 2). However, though the majority of countries have experienced further deleveraging since early 2012, the tendency was more pronounced in Serbia, probably reflecting increased budget and external imbalances.

**Chart O.1.1 Gross exposure of BIS reporting banks to emerging markets, loans, deposits and debt securities**  
(September 2008 = 100)



**Chart O.1.2 Gross exposure of BIS reporting banks to emerging markets, loans, deposits and debt securities**  
(as a percentage of GDP, in %)



Sources: NBS calculation based on BIS and Eurostat data.

Net foreign liabilities of domestic banks with majority foreign capital expanded from EUR 2.7 bln in September 2008 to EUR 4.2 bln at end-2010, as liabilities to foreigners rose faster than claims. Decreasing more than claims, foreign liabilities were EUR 112 mln lower in 2011. The outflow continued in 2012, through decrease of foreign liabilities and the rising of foreign claims. The increase in foreign claims resulted primarily from the expansion of banks' FX reserves, as the portion of funds freed up under the new Decision on Required Reserves was placed in accounts abroad.

As opposed to the volume of deleveraging calculated as the ratio of foreign liabilities to foreign claims of domestic banks in majority foreign ownership, the value of equity stakes in most of those banks increased relative to end-2010. This increase was also aided by the harmonisation of NBS regulations with Basel II standards enacted in 2011.

<sup>1</sup> According to the latest available data, the decrease is somewhat lower (EUR 1.2 bln) if only claims under loans and deposits are considered, while claims arising from investments into debt securities are excluded.

In the first nine months of 2012, banks' net repayment of foreign financial loans amounted to EUR 487 mln. Repayments under long- and short-term loans equalled EUR 436 mln and EUR 290 mln respectively, while new borrowing came at EUR 238 mln. Net repayments by banks since early 2011 amounted to EUR 1,198 mln. Compared to the pre-crisis level, banks net borrowed EUR 725 mln. In the year to September, corporates borrowed EUR 168 mln more in foreign loans than they repaid, while compared to end-2010, their cross-border repayments outstripped borrowing by EUR 248 mln.

The majority of analysed indicators suggest that Serbia was also affected by foreign banking groups' deleveraging, which was particularly pronounced in 2012. Still, this does not mean that foreign banks are withdrawing from Serbia as bank and corporate foreign borrowing continued in the period observed. The fact that banks and corporates have repaid more than they borrowed is a reflection of the fact that external funding pre-crisis was available in larger amounts and under more favourable terms.

### **Text box 2: Serbia improves its ranking on the ease of doing business**

According to the latest Doing Business report for 2013, Serbia takes 86<sup>th</sup> place on the ease of doing business ranking, nine places higher than last year. It is among the first ten countries which implemented most reforms this year, i.e. made progress in at least three areas, these being: 1) starting a business, 2) resolving insolvency, and 3) enforcing contracts.

Serbia's best ranking for 2013 includes: getting credit (40), registering property (41) and starting a business (42). Its worst ranking includes: dealing with construction permits (179), paying taxes (149), enforcing contracts (103) and resolving insolvency (103).

In terms of starting a business, Serbia climbed 49 places as it reduced the costs and the number of procedures, and eliminated the paid-in minimum capital requirement. Serbia's position improved 17 places in regard to resolving insolvency, on account of introduction of private bailiffs and an electronic registry for injunctions to make public all prohibitions on the disposal or pledge of movable or immovable property. Private bailiffs make enforcing contracts easier, though the process itself still takes a lot of time, which is why Serbia slid one notch from last year under the criterion of enforcing contracts.

Countries in the region that are better ranked than Serbia are Macedonia (23), Montenegro (51), Hungary (54), Bulgaria (66), Romania (72), Croatia (84) and Albania (85). Worse ranked is Bosnia and Herzegovina, at 126<sup>th</sup> place. Macedonia made starting a business easier by implementing a number of reforms since 2005, aimed at increasing efficiency and reducing the costs of operation. It has advanced the furthest towards the frontier in regulatory practice in construction permitting, an area where Serbia records the weakest results.

**Table O.2.1 Serbia's ranking on the ease of doing business**

|                                   | Rank      |           | Change   |
|-----------------------------------|-----------|-----------|----------|
|                                   | 2012      | 2013      |          |
| Starting a business               | 91        | 42        | 49       |
| Dealing with construction permits | 178       | 179       | -1       |
| Getting electricity               | 77        | 76        | 1        |
| Registering property              | 40        | 41        | -1       |
| Getting credit                    | 38        | 40        | -2       |
| Protecting investors              | 79        | 82        | -3       |
| Paying taxes                      | 145       | 149       | -4       |
| Trading across borders            | 92        | 94        | -2       |
| Enforcing contracts               | 102       | 103       | -1       |
| Resolving insolvency              | 120       | 103       | 17       |
| <b>Ease of doing business</b>     | <b>95</b> | <b>86</b> | <b>9</b> |

Source: Doing Business 2013, the World Bank and International Finance Corporation.

Despite ample room for further progress, we believe Serbia's improved ranking on the ease of doing business is important for new investment, which should raise Serbia's competitiveness in the international goods and capital markets.

### 3. Aggregate demand

*Pulled down by domestic demand, aggregate demand is estimated to have shrunk in the third quarter, both in q-o-q and y-o-y terms.*

Aggregate demand decreased in Q3 in both y-o-y and q-o-q terms (2.2% and 1.1% s-a, respectively). In both cases, the downward pressure came from the weakening domestic demand. On the other hand, net exports gave a positive contribution.

Domestic demand lost 3.6% y-o-y (contribution of -4.2 pp), and 3.0% s-a relative to the last quarter (contribution of -3.5 pp). In both periods observed, a decline is recorded in all components of domestic demand.

The contraction of GDP in 2012 is expected to amount to 2.0%, reflecting in part the dwindling of private investments (contribution of -3.6 pp) and the squeeze in private consumption (contribution -0.5 pp). The greatest positive contribution (1.6 pp) is expected from government consumption and investments, through high increase in the outlays for the purchase of goods and

services and larger capital expenditures in H1. GDP movements will be favourably affected by net exports (contribution of 0.6 pp) driven by the production boost in automobile industry, whose full effects will build up in 2013.

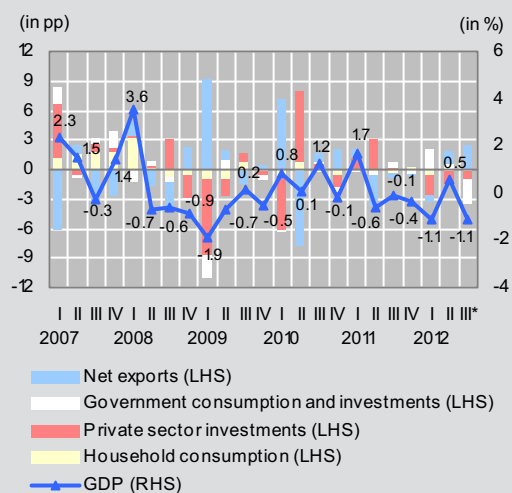
#### Domestic demand

*All components of domestic demand – household consumption, government consumption and investments and private sector investments contracted in Q3.*

**Household consumption** is estimated to have dropped 0.8% q-o-q in s-a terms and 1.7% y-o-y. This is primarily signalled by a slump in retail turnover, the main indicator of household consumption, which lost 7.2% q-o-q in s-a terms, and 5.9% y-o-y. Other indicators, such as the fall in personal consumption, estimated from the Household Budget Survey, and lower VAT revenues also indicate such trends.

Total sources of household consumption<sup>19</sup> in Q3 shrunk by 4.4% s-a, with decreases recorded across almost all

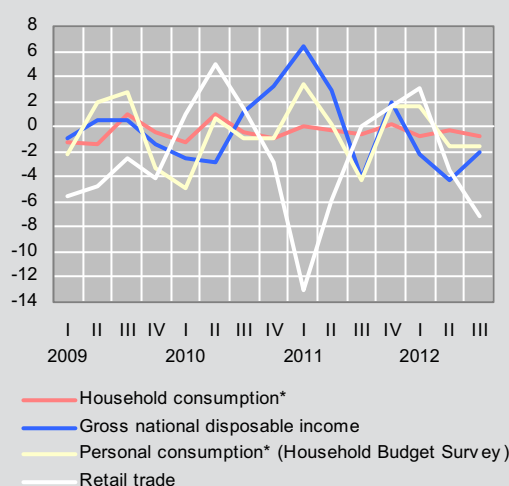
**Chart IV.3.1 Contribution to y-o-y GDP growth rate – expenditure side**



Sources: SORS and NBS.

*GDP contracted in Q3, pulled down by domestic demand.*

**Chart IV.3.2 Household consumption (s-a rates, in %)**



\* NBS estimates for Q3 2012.

Source: NBS.

*Household consumption has been declining since the beginning of 2012.*

<sup>19</sup> Wage bill, social transfers, loans and remittances.

Table IV.3.1 Investment indicators

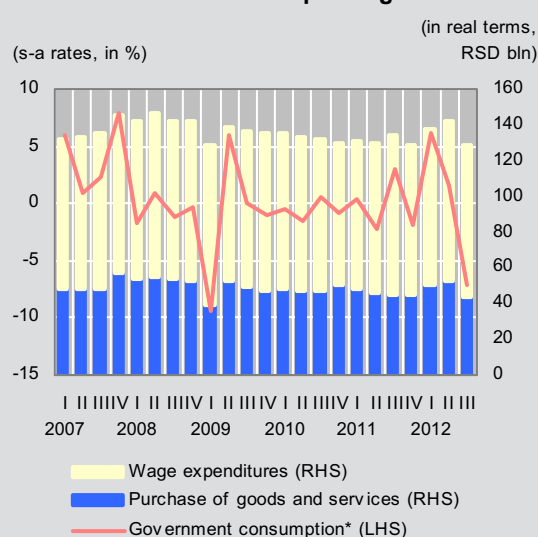
|  | 2011 |       | 2012 |       |       |
|--|------|-------|------|-------|-------|
|  | Q3   | Q4    | Q1   | Q2    | Q3    |
| <b>Real indicators</b><br>(seasonally-adjusted, quarterly, growth, in %) |      |       |      |       |       |
| Construction   | 1.7  | 1.2   | -0.2 | -0.7  | -1.5* |
| Industrial production of capital goods (physical volume)                 | -8.9 | 6.1   | 13.5 | -5.8  | 1.4   |
| Exports of capital goods**   | 6.6  | -0.3  | 1.9  | 16.1  | 20.1  |
| Imports of capital goods**   | 1.9  | 1.6   | 1.2  | -5.9  | -5.7  |
| Stocks of capital goods  | -0.8 | -15.2 | -5.4 | -12.4 | 1.5   |
| Industrial production of intermediate goods (physical volume)            | -0.6 | -4.3  | -4.3 | 5.9   | -9.1  |
| Exports of intermediate goods**  | -1.8 | 0.0   | -8.9 | 3.8   | -3.3  |
| Imports of intermediate goods**  | -3.7 | -1.5  | 10.0 | -3.7  | -4.3  |
| Stocks of intermediate goods   | -1.8 | -3.4  | -1.0 | 3.3   | -4.6  |
| Government investment***   | 0.5  | 3.6   | 21.0 | 7.0   | -14.5 |

\* NBS estimate.

\*\* Exports and imports are denominated in euros.

\*\*\* Government investment spending is deflated by the industrial producer price index.

Chart IV.3.3 Government spending



\* NBS estimate for Q3 2012.

Source: NBS.

*Government consumption dropped in real terms in Q3.*

components. Remittances dwindled the most, while social transfers and the wage bill also contributed to the fall. A squeeze on incomes from these sources was partially compensated for by cash loans and current account overdrafts.

**Private sector investments**, according to our estimate, declined by 3.7% s-a, bearing down on GDP with 0.5 pp. Y-o-y decline in private sector investments slowed down from 21.4% in Q2 to 6.6% in Q3.

Shrinking of investments is signalled by lower imports of equipment, further contraction of construction, and the low amount of newly approved investment loans in Q3.

A decline in **government consumption and investments** weighted on GDP. This component of aggregate demand slid down 8.3% in Q3 in s-a terms, and 7.1% y-o-y. Such trends were to a somewhat greater extent reinforced by the cutback in government consumption.

We estimate that government consumption in Q3 edged down by 7.2% s-a, and 4.2% y-o-y. Quarterly fall in government consumption signals a squeeze in public sector wage expenditures and in outlays for purchase of goods and services.

Government investments went down by 14.5% s-a and by 28.4% y-o-y. This is indicated by consolidated capital expenditures of government which, after rising in H1, experienced a significant real fall in Q3.

## Net external demand

*Q3 saw the first effects of a step-up in automobile production, as net exports gave a positive contribution to GDP.*

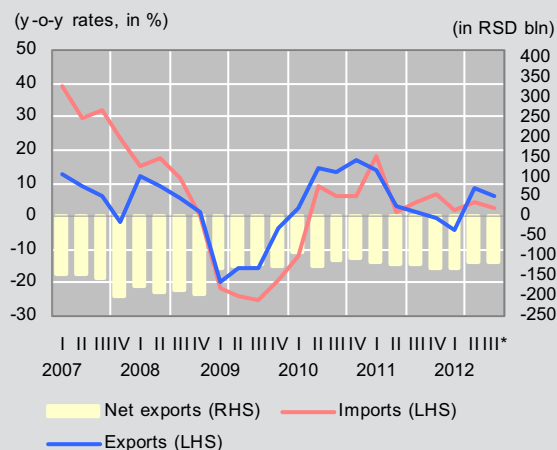
In Q3, net external demand expanded by 13.2% s-a (2.4 pp contribution to GDP), reflecting the real fall in imports of goods and services.

Y-o-y growth in exports (2.4%) and a decline in imports (-2.5%) in Q3 led to the narrowing of the deficit in goods and services and positively contributed to GDP by 2.0 pp.

Q3 saw the stagnation of exports of goods in euro terms. Within exports, the largest growth was recorded for motor vehicles and trailers (53.8% s-a), prompted by the launch of automobile exports in August. Exports of pharmaceutical products also gained ground. On the other hand, production halt in the Smederevo Steel Plant bore

**Chart IV.3.4 Exports and imports of goods and services**

(in constant prices 2009)



\* NBS estimate.

Source: NBS.

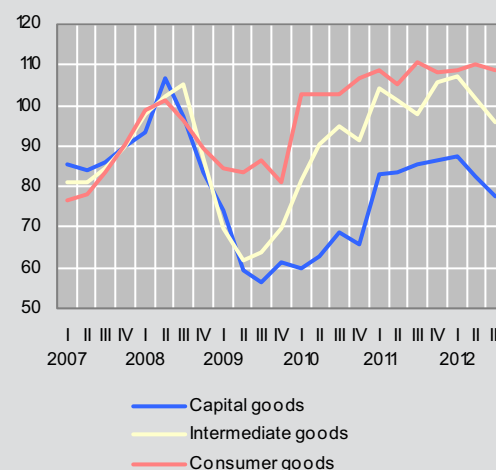
*In Q3, exports continued to grow faster than imports in y-o-y terms.*

down on the exports of base metals, primarily iron and steel (the fall of 18.1% s-a). The prolonged drought and lower crop yields affected agricultural exports, which slid by 15.3% s-a. Export of chemical products decreased by 11.1% s-a.

Imports of goods in Q3 lost 4.1% s-a in euro terms, and similarly to Q2, were held back mainly by a decline in imports of equipment and intermediate goods. Observed by the EU economic destination, all import categories, except for non-durable consumer goods recorded decreases, while the imports of intermediate and capital goods plunged the most. To some extent, imports of intermediate goods were affected by the scaling down and subsequent halt in the Smederevo Steel Plant production, as the import of inputs used in iron and steel production shrunk 53.6% in the first nine months of 2012, compared to the same period the year before. The dampened imports of capital goods indicates that investment funding has been running dry.

As a result of such trends, at end-Q3 exports were 15.5% above and imports 20.2% below their pre-crisis levels<sup>20</sup>. The coverage of imports by exports over the last 12 months reached 59.8% in September, which is a 0.3 pp decrease from June.

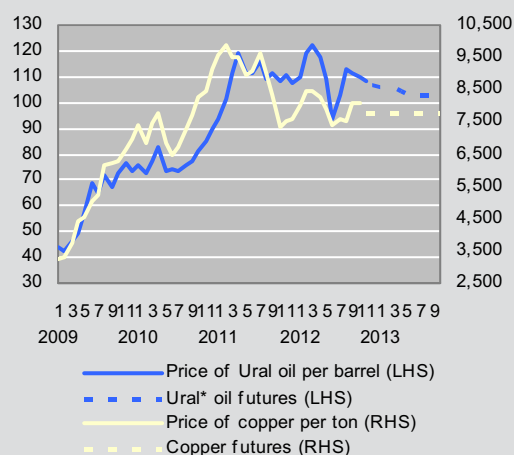
**Chart IV.3.5 Imports by key components**  
(s-a, H1 2008 = 100)



Sources: SORS and NBS.

*Imports of intermediate goods shrunk mainly as a result of lower imports of inputs for iron and steel production.*

**Chart IV.3.6 Oil and copper price movements**  
(average monthly prices, in USD)



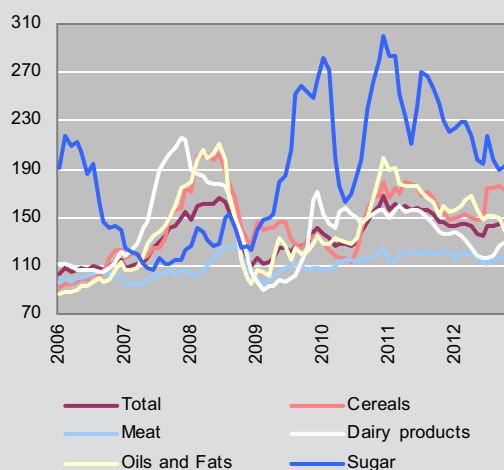
Sources: Bloomberg, futures market and NBS.

\* Price of oil futures for Ural oil was calculated based on historical price differences between Brent and Ural oil.

*Global oil prices rose in Q3. However, oil futures indicate a likely drop in prices in the period ahead.*

<sup>20</sup> H1 2008.

**Chart IV.3.7 World food price index**  
(in real terms, 2002 - 2004 = 100)



Sources: FAO, UN.

*The rise in global food prices in Q3 was largely determined by the higher price of cereals.*

Following the Q2 decline, crude oil prices oscillated in Q3 only to gain 15% on a quarterly basis. Price movements reflected the growing tensions in the Middle East and somewhat weaker global production – in OPEC countries, North Sea and Gulf of Mexico. In addition, the

anticipation and adoption of central bank measures in the US and EU aimed at spurring economic growth also drove up the price of this energy product. According to the October WEO, the IMF expects oil prices to gradually subside, with the risks to the projection skewed to the upside. Oil futures also indicate a likely fall in price.

Copper price gained 8.7% from the end of the previous quarter, driven mainly by the news on measures set to boost the economic growth of China and the US.

The Global Food Price Index gained 7.7% from end-Q2. Prices of primary agricultural commodities picked up since June and continued rising throughout the period. Unfavourable weather conditions affected crop yields and exerted upward pressure on wheat, corn and soybean prices of major producers. In Q3, the Chicago Stock Exchange recorded average increases in prices of these products of 36.1%, 26.5% and 17.8%, respectively. Announcements of lower crop yields alone set prices rising, given the below-optimum levels of global foods reserves, despite the efforts to increase them after 2007 food crisis. Apart from prices of cereals which recorded the sharpest growth, prices of dairy products, meat and oils/fats also went up, while more favourable production outlook of major world sugar exporters led to a decline in the price of sugar. Movements in futures indicate a likely fall in prices of primary agricultural commodities in 2013.



### ***Text box 3: Medium-term fiscal consolidation and cutting down public debt***

The expansive fiscal policy, especially in the first half of the year, and changed macroeconomic framework triggered a significant deterioration of the country's fiscal position. It is estimated that if tendencies from H1 year persist, the general government deficit could swell beyond 7% and public debt over 66% of GDP by end-2102. In order to halt this trend, the government has revised this year's budget and drafted a budget for the next fiscal year, along with the fiscal consolidation programme.<sup>1</sup> The main goal of fiscal consolidation is to bring the general government public debt back to sustainable levels and create room for additional investments, addressing primarily the infrastructural needs of the country. Fiscal consolidation does not assume only the improvement of the primary fiscal result, but also measures to reduce debt through economic growth.

The largest fiscal adjustments are planned within the next three-year period (2013–2015) in order to avoid public debt crisis and restore the stability of public finances. The deficit should be almost halved in 2013 (from this year's 6.8% to 3.6% of GDP) and reduced to 1.0% of GDP by 2015. Fiscal adjustments will take place through changes in tax policy and measures on the expenditure side, with the contribution of structural reforms that curb public spending. Changes in tax policy include the raising of VAT (from 18% to 20%), income tax (from 10% to 15%), profit tax (from 10% to 12%) and excise duties on tobacco and petroleum products. The most important measure on the expenditure side is the capping of growth of public sector salaries and pensions. The efficiency and effectiveness of tax collection should also be improved. Under modified rules, the first indexation of salaries and pensions scheduled for April 2013 will amount to 2% (same as in October 2012) and will not depend on inflation movements and economic growth. From October 2013 onwards, indexation of salaries and pensions will again be linked to inflation and economic growth, until their share in GDP is lowered to 8% and 10%, respectively. The rest of fiscal adjustment on the expenditure side will take place through reduction in discretionary spending, downsizing of subsidies (except in agriculture) and reduction of budgetary (lending) support to the corporate sector. Also, savings measures were announced at all governance levels (cutting spending for the purchase of goods and services), along with the raising of efficiency of public procurement, redefining of the support to the corporate sector and prioritization in public investments in order to maximize growth and employment effects of limited funding.

The government expects that tax measures will lower the deficit by around 2.0% of GDP in 2013. At the same time, measures on the expenditure side should lead to a 1.3% decrease in the deficit. In the medium-term, fiscal adjustments should take effect mainly through lowering of the share of public spending in GDP, assuming adequate changes are made to tax policy. From the standpoint of fiscal sustainability, structural reforms of the public sector should also play a significant role in the medium term, primarily the streamlining of the pension system, health care, education and public enterprises.

Consistent with fiscal consolidation measures, the lowering of public debt share in GDP is planned starting from 2014. The key measure in cutting public debt in 2014 will be the reduction of government stakes in companies which are not government monopolies, as well as the sale of minority holdings in some companies. The government also plans to sell idle assets (buildings and other facilities, agricultural land etc.). A portion of the proceeds should be used for debt repayment in order to reduce interest payments in the coming years and improve the fiscal result.

In addition to the projection of fiscal revenues and expenditures, the plan for cutting public debt also includes the projection of macroeconomic and financial market trends, given that public debt to GDP ratio depends not only on the primary fiscal result but also on economic growth, movements in real interest rates (on dinar and foreign currency debt) and the real exchange rate. Speaking about the real GDP growth, the government expects that fiscal consolidation should

<sup>1</sup> See Draft Fiscal Strategy for 2013, with projections for 2014 and 2015.

not slow down economic growth in the short run to any great extent. On the other hand, it will have a substantial impact on the improvement of business and investment climate and economic growth in the medium and long run. In the structure of government spending, the share of investments should be increased at the expense of considerable savings in current expenditures.

**Table O.3.1 Public debt reduction - Baseline scenario**

|                                       | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Revenues                              | 43.4 | 43.8 | 43.9 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 | 43.5 |
| Expenditures                          | 50.2 | 47.3 | 45.8 | 44.5 | 44.2 | 44.0 | 43.8 | 43.7 | 43.6 | 43.6 | 43.5 |
| - adjustments on the expenditure side |      | -2.9 | -1.5 | -1.3 | -0.3 | -0.2 | -0.2 | -0.1 | -0.1 | -0.1 | 0.0  |
| Fiscal result                         | -6.8 | -3.5 | -1.9 | -1.0 | -0.7 | -0.5 | -0.3 | -0.2 | -0.1 | -0.1 | 0.0  |
| Public debt to GDP ratio (in %)       | 65.1 | 65.2 | 58.7 | 58.4 | 56.2 | 54.3 | 52.4 | 50.5 | 48.6 | 46.8 | 45.0 |
| Real GDP growth                       | -1.0 | 2.0  | 3.5  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |

Source: Ministry of Finance and Economy.

Consistent with the efforts to achieve macroeconomic stability and sustainable economic growth, the average nominal depreciation of the dinar is projected at 2% annually in the period observed (which will amount to real appreciation, given the projected inflation rate), while there should be no major downsides to the interest rate movements. It is therefore important to keep an eye on the key risks to the projection outlined in the Draft Fiscal Strategy – the growth of expenditures above the planned levels and insufficient inflow of foreign capital – as they could undermine the assumption on exchange rate trends in the coming period and thus put into question the realisation of the debt reduction plan.

The NBS sees the publication of the Draft Fiscal Strategy as an important and positive signal of the government's commitment to its implementation. Under the baseline public debt reduction scenario in the Draft Fiscal Strategy, public debt to GDP ratio will be cut down to 45% of GDP<sup>2</sup> by 2022. It is assumed that the planned fiscal consolidation measures are politically and socially feasible. At the same time, the government is expected to save much more over at least next ten years than it did in earlier years. Our macroeconomic assumptions and assumptions on the costs of financing may be optimistic, but this only underscores the necessity to implement fiscal consolidation and improve the efficiency of the public sector, in order to repair the deteriorating fiscal position.

<sup>2</sup> Under the fiscal responsibility principle, if the general government debt crosses the limit of 45% of GDP, the government is obliged to propose measures to bring the debt back to the targeted level, i.e. within the sustainable framework.

## 4. Economic activity

*Due to the extremely bad agricultural season, GDP drop in 2012 is anticipated at 2.0%. According to estimates, following a rise in Q2, economic activity declined in Q3 and the negative output gap widened.*

In 2012, GDP will contract by 2.0% instead of 0.5%, as reported in the August *Inflation Report*. The sharper contraction of GDP can be attributed to the extremely bad agricultural season. The NBS estimates that the extended drought, which affected all agricultural crops except wheat, will result in a 22% fall in agricultural production (-2.0 pp contribution to GDP)<sup>21</sup>. This estimate is endorsed by the revised quarterly GDP projections for Q1 and Q2. Namely, according to the Statistical Office, real y-o-y GDP fall in Q1 was revised to 2.5% (from 1.3%), and in Q2 to 0.8% (from 0.6%).

As the poor agricultural production in 2012 will form a rather low base, its contribution to GDP growth in 2013 is expected to be at least 1.5 pp if the season turns out to be average record wise. A positive impact may also be

anticipated on account of a rebound in the automobile and oil industries.

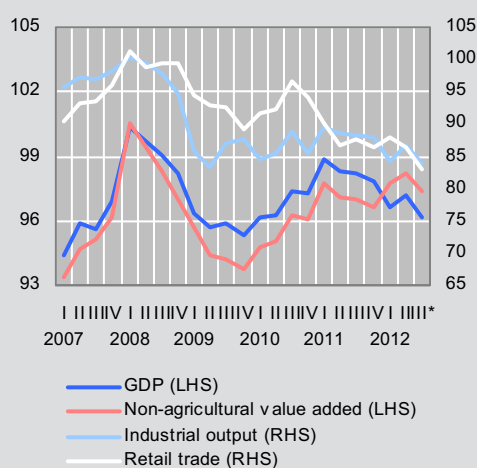
The NBS estimates that following a rise in Q2, economic activity contracted in Q3 with quarterly GDP at 1.1% s-a, and NAVA at 0.8% s-a. Economic activity in Q3 was below the pre-crisis level<sup>22</sup> – GDP by 3.9%, and NAVA by 2.6%.

Quarterly GDP performance was for the most part weighed down by manufacturing and the trade sector (-0.5 pp each). Diminished retail turnover (7.2% s-a) is indicative of reduced activity in the trade sector. On the other hand, the information and communications sector recorded a positive contribution.

The physical volume of industrial production in Q3 shrank by 2.1% s-a, dictated by a 3.6% s-a downfall in manufacturing (contribution -2.1 pp). The drop was also recorded in mining (4.7% s-a, contribution -0.2 pp), while electricity, gas and steam supply marked a rise of 1.0% s-a (contribution 0.2 pp).

Within manufacturing, the highest negative contribution stemmed from the production of petroleum derivatives

Chart IV.4.1 **Economic activity indicators**  
(s-a, H1 2008 = 100)

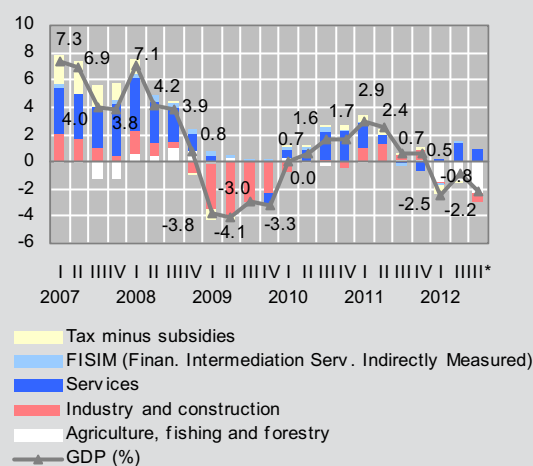


\* NBS estimate.

Sources: SORS and NBS.

*GDP and NAVA decline in Q3 was mostly attributable to decreased trade turnover.*

Chart IV.4.2 **Contribution to y-o-y GDP growth rate – production side**  
(in pp)



\* NBS estimate.

Sources: SORS and NBS.

*The biggest negative y-o-y contribution to GDP in Q3 came from agriculture.*

<sup>21</sup> See Text box 4, p. 37.

<sup>22</sup> Level in H1 2008.

and base metals. Conversely, the highest positive contribution came from the beverage and pharmaceutical industries.

The first positive effects of the rebound in the automobile industry are substantiated by data from the industrial and foreign trade sectors. The production of motor vehicles, trailers and semitrailers recorded a 17.4% s-a increase in Q3 relative to Q2. At the same time, motor vehicle exports grew 53.8% s-a.

Intensified production in the automobile industry will have a significant impact on economic activity in the period ahead. A positive contribution to industrial and overall economic activity may also come from the production of base metals provided a strategic partner is found for the Smederevo Steel Plant. The manufacturing of petroleum products will also make a positive contribution.

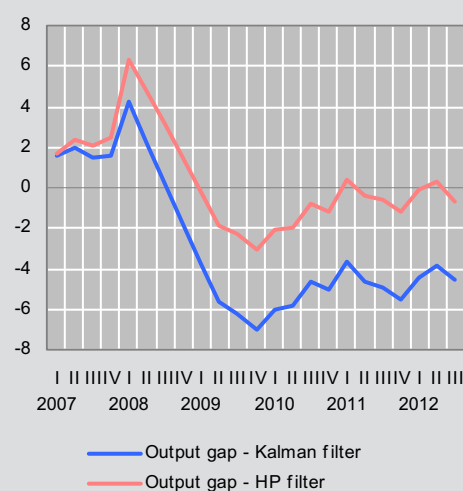
Gross value added in construction is estimated to have contracted by 1.5% s-a, while the transport sector recorded a growth of 0.7% s-a.

In y-o-y- terms, economic activity continued to contract in Q3, receding to 2.2%, according to preliminary estimates of the Statistical Office. The NBS estimates that this was largely due to the slump in agricultural production, which was estimated at 22.0% and contributed to GDP drop by 2.3 pp. NAVA increase of 0.7% y-o-y in Q3 points in the same direction.

The trade sector in Q3 recorded a 3.5% drop y-o-y (contribution -0.4 pp).

Y-o-y drop in industrial output picked up pace, rising from 3.1% in Q2 to 4.0% in Q3, with the decrease mostly caused by the base metals and petroleum products sectors. The information and communications sector continued to surge (11.7% y-o-y, contribution 0.9 pp), whereas the construction sector recorded a drop (1.0% y-o-y).

**Chart IV.4.3 Output gap**  
(percentual deviation from the trend)



Source: NBS.

*The negative output gap widened further in Q3 on the back of decreased external demand.*

Enhanced production in the automobile industry had a more pronounced effect y-o-y. Motor vehicle, trailers and semitrailers manufacturing reached a total y-o-y growth of 33.7%, while the production of motor vehicles alone soared 312.5% y-o-y.

The fall in economic activity in Q3 induced a widening of the negative output gap, which could signal somewhat stronger disinflationary pressures stemming from aggregate demand. However, as potential GDP may be overestimated in times of crisis (due to the erosion of the production capacity and work skills of the long-term unemployed), the actual output gap may be lower than estimated.<sup>23</sup> In that case, disinflationary pressures stemming from aggregate demand may actually turn out to be weaker than anticipated.

<sup>23</sup> This is indicated by the assessment of the negative output gap by HP filter, which is lower than estimates by the Kalman filter.

### Text box 4: Drop in agricultural production and its impact on revision of GDP growth for 2012 and 2013

Since the beginning of 2012 agricultural production in Serbia has suffered a series of negative shocks, two of which particularly stand out. In February, Serbia was hit by a cold spell which reflected on the growth of delicate species of early-bearing fruit (sour cherries, raspberries, cherries, apricots) causing fruit loss and resulting in lower yields. As a result, sour cherry production fell by around 17% and raspberry by some 26% relative to the previous year. Though less, the February cold wave also affected the yield of winter cereals – wheat and barley due to their exposure to low temperatures without the protective snow cover. This year's wheat yield was lower by 7.5% than in 2011.

A period of extremely high temperatures and scarce rain commenced in mid-June. The consequent soil water deficit reflected on the growth of spring agricultural crops, as well as their later on yields. Maize was hit the hardest, while extremely low yields were also recorded for industrial crops and fruit and vegetables. Both the obtained and anticipated yield levels of primary agricultural crops in 2012 shrank not only y-o-y, but also in relation to ten-year averages which include the poor agriculture seasons of 2003 and 2007 (Table O.4.1).

**Table O.4.1 Projected production of most important agricultural products**  
(1.000 t)

|            | 2012* | 2011  | 10-year average** | 2012/2011 (%) | 2012/10-year average (%) |
|------------|-------|-------|-------------------|---------------|--------------------------|
| Wheat      | 1,921 | 2,076 | 1,998             | -7.5          | -3.9                     |
| Corn       | 3,503 | 6,480 | 5,922             | -45.9         | -40.8                    |
| Sunflower  | 332   | 432   | 374               | -23.1         | -11.2                    |
| Soybean    | 254   | 441   | 357               | -42.4         | -28.9                    |
| Sugar beet | 2,175 | 3,195 | 2,739             | -31.9         | -20.6                    |

\* 2002–2011.

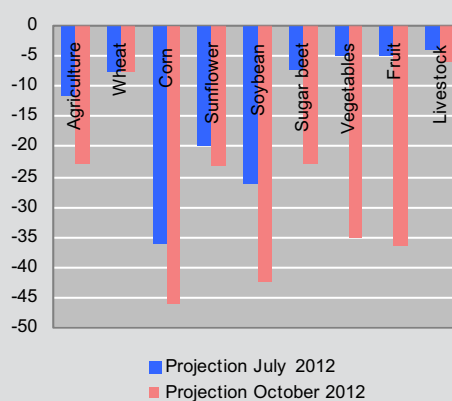
\*\* SORS projection.

Source: SORS.

After the Statistical Office published the estimated yields of primary agricultural crops, the NBS adjusted its projections of the decline in agricultural production in 2012 to 22%, which is almost three times sharper than the ten-year low of 7.8% recorded in 2007. The decline was considerably greater than the previous NBS projection of 11.5%. The sizeable downturn in agricultural activity was driven by negative developments in all sectors of agricultural production. According to the latest estimates, cereal production was reduced by 39.4% and industrial crops by 29.5% (original estimates indicated -31.2% and -18.1%, respectively). A sharp decline will be recorded in vegetable growing, -35.0%, and fruit growing, -36.3%, which is considerably lower than the original NBS projection of -5.0% in each of the sectors. The fall in cereal and industrial crop production will most likely lead to an increase in the price of these crops and will, in turn, raise the costs of cattle breeding. Therefore, lower production may also be anticipated in this sector.

Considering the relatively high share of agriculture in GDP and the likelihood that the 22% slump in output would lead to a -2.0 pp GDP drop, the projected GDP growth in 2012 was revised to -2.0%. The strong decline in agricultural

**Chart O.4.1 Agricultural production in 2012**  
(growth in %)



Source: SORS.

production in 2012 will also lead to a significant decrease in the base year value for determining next year's growth. This means that agriculture will not be conducive to economic growth in 2013 only if this year's low yield is repeated. Assuming that the average yield level will be attained next season, the contribution of agriculture to economic growth in 2013 will be around 1.5 pp.

Aside from the negative effect on economic activity, the drop in agricultural production will also have negative ramifications on foreign trade activity. As some agricultural crops (maize, raspberries, apples) are among the main exports, a considerably decreased yield of these crops will diminish Serbia's export potential. The strongest fall will be recorded in maize exports, as this is the second-ranked export product whose export figures in the marketing year of 2011/2012<sup>1</sup> stood at 2.3 mln tonnes, or close to 450 mln euros. According to the latest estimate of the Statistical Office, maize production this season will most likely stand at around 3.5 mln tonnes, while the total available amounts, together with last year's ending stocks, will total c. 4 mln tonnes (a decrease of approximately 3 mln tonnes y-o-y). Under such conditions, around 200,000 tonnes would be available for exports – ten times less than last year. Assuming the export price remains at its current level of around 250 euros per tonne, exports may reach 50 mln euros at the most, which is significantly below last year's figures. Furthermore, Serbia's important export products are raspberries and apples. Their production this year decreased by 26% and 40% respectively, which may result in reduced exports of these products as well.

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<sup>1</sup> The marketing year in agricultural production differs from the calendar year and in case of maize it refers to the period from early October of the previous year to end-September of the ongoing year.

## 5. Labour market developments

### Wages

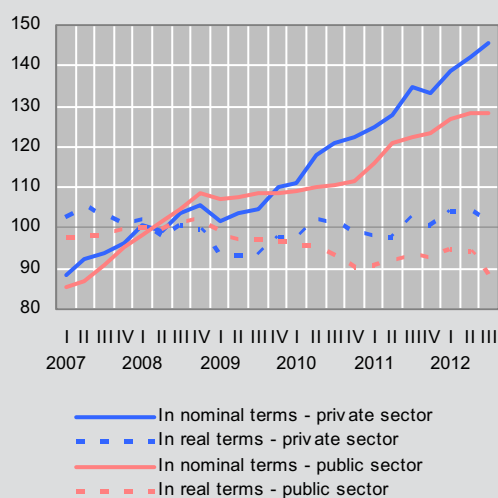
*Q3 saw a nominal and real drop in average net wages relative to Q2. Industrial unit labour costs are on a mild rise.*

Declining economic activity and inflation growth had a negative effect on the average wage in both private and public sectors. According to s-a data, the average net wage in Q3 decreased by 0.3% in nominal and by 5.3% in real terms from the quarter before. The average net wage dropped by 3.2% in real terms in the private and by 5.8% in the public sector.

Real s-a drop was recorded in average net wages across all sectors, most notably in construction and information and communications.

Y-o-y average net wage rose in nominal terms, though its growth was slower than in Q2 (from 9.7% to 6.2%). In real terms, the average net wage shrank by 1.6%. At the

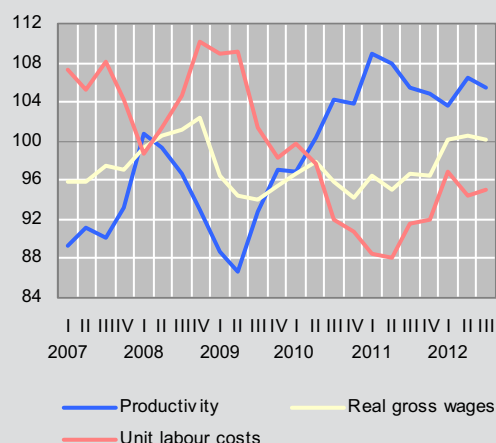
**Chart IV.5.1 Average net wages**  
(s-a, H1 2008 = 100)



Source: SORS.

*Average net wages in Q3 decreased in real terms in both public and private sectors.*

**Chart IV.5.2 Movements in productivity, real gross wages and unit labour costs in industry**  
(s-a, H1 2008 = 100)



Source: SORS.

*Productivity dropped somewhat quicker than real gross wages, resulting in higher industrial unit labour costs.*

same time, the real drop in average net wage was more pronounced in the public (-4.8%) than in the private sector (-1.2%).

The average net wage paid out in Serbia in Q3 equalled RSD 41,181.

Industrial unit labour costs recorded an increase in Q3 relative to Q2 (0.9% s-a) in response to a somewhat speedier decline in productivity than in real gross wages. Conversely, unit labour costs in manufacturing were considerably lower (-12.6% s-a), which was mainly due to productivity growth being accompanied by a drop in real gross wages.

### Employment

*Following a slump in economic activity, Q3 employment rate was lower than in the previous quarter.*

According to the RAD statistical research, conducted by the Statistical Office, the number of formally employed<sup>24</sup>

<sup>24</sup> Employees that have entered into contracts of employment with the employer (legal entities and private entrepreneurs). Employed persons are not persons working under a Special Services Contract or a Contract of Temporary and Periodic Work.



**Chart IV.5.3 Employment figures and unemployment rate**



Source: SORS.

*Employment continued to slide in Q 3.*

declined by 5,000 in Q3 and now stands at 1,725,209. Following a slight increase in Q2, a continued slide in formal employment can be anticipated in response to the sluggish economic activity and the adverse characteristics of the labour market.

Employment fell in Q3 in all public sector activities (2,484 persons), except in public administration and mandatory social insurance. Furthermore, a more robust decline in employment was recorded in industry, most notably in manufacturing (1,915 persons). However, finances and insurance, as well as public administration and mandatory social insurance, recorded the highest, albeit a modest increase in employment (rising by 317 and 288 persons respectively).

Relative to the same period last year, the decrease in formal employment in Q3 decelerated to 0.7% (from 1.1 in Q2) due to a slower decline in employment with entrepreneurs.

Results of the November Labour Force Survey are still not available. However, the 25.5% unemployment rate, recorded in the April Survey, is expected to go up.

Data on the continued increase in the number of unemployment beneficiaries<sup>25</sup> are indicative of adverse developments in the labour market. In Q3 this number rose to 68,240 beneficiaries, i.e. 2,748 (August) more than in the previous quarter.

## 6. International environment

*International environment in Q3 2012 was marked by continued uncertainties in terms of the resolution to public debt crisis and enduring recession pressures, but also by a certain amount of optimism owing to the ECB's resolve to preserve the euro area.*

Although the euro area crisis has not abated, thanks to certain steps taken in Q3 there is renewed confidence that the euro area will endure and succeed in overcoming the crisis. Namely, agreement has been reached to introduce a single banking supervisor for the euro area next year, and the European Stabilisation Mechanism received the green light for direct bank recapitalisation. Another sign of encouragement comes from ECB officials who announced additional unconventional ECB measures, such as the purchase of sovereign bonds of the most vulnerable countries in the euro area, for the purpose of lowering their yields and relaxing their borrowing conditions<sup>26</sup>.

Despite a positive reaction of the financial markets to this news and the strengthening of the euro, chief macroeconomic indicators for the euro area are deteriorating. Following a stagnant Q1, a 0.2% GDP drop was recorded in Q2. PMI and Eurocoin, early economic activity growth indicators, show a likely fall in Q3, signalling technical recession of the euro area. Along with fiscal adjustment, which has been marked as the main obstacle, the persistent tight lending conditions are referred to as a strong hindrance to economic growth. Unemployment is still high and continues the upward trend (11.6% in September), while economic activity in the region is expected to fall in 2012 and to stagnate in 2013.

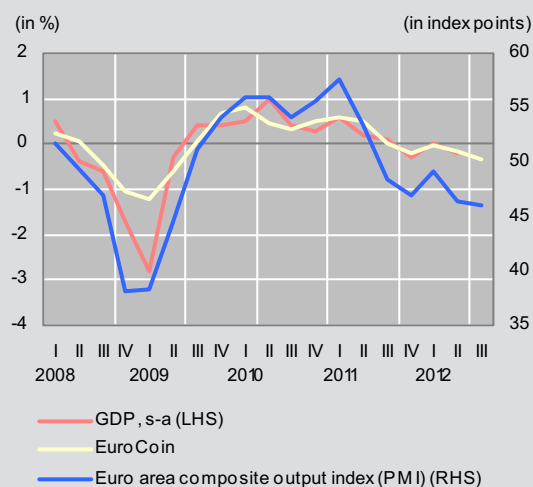
In October, the IMF revised this year's euro area economic growth forecast from -0.3% to -0.4%, while its

<sup>25</sup> Persons eligible for unemployment benefit are unemployed persons who were recipients of mandatory insurance for at least 12 months continuously or with interruptions, within the past 18 months. The entitlement to unemployment benefit is valid from 3 to 12 months, depending on the length of insurance.

<sup>26</sup> The Outright Monetary Transactions programme envisages the purchase of sovereign bonds in the secondary market within the one to three year maturity range, where member countries must strictly adhere to the accepted obligations and seek help officially through the European Stabilisation Mechanism.



**Chart IV.6.1 Movements in GDP and economic activity indicators of the euro area**  
(quarterly rates)



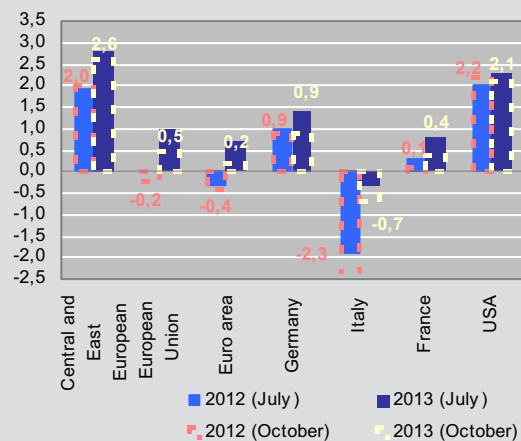
Sources: Eurostat, Markit Group and Banca d'Italia

*Indicators point to continued contraction in economic activity in Q 3.*

projection for 2013 came down from 0.7% to 0.2%. Although the forecasts were based on the assumptions that emergency measures will be implemented to ease uncertainties in financial markets, they are nonetheless more pessimistic than the July projections. Economic growth in Germany is thus expected to rise 0.9% in both 2012 and 2013<sup>27</sup>, while Italy's will most likely mark a more significant drop, by 0.4 pp to -2.3% in 2012 and to -0.7% in 2013.

October Consensus Forecast projects a 0.5% fall in economic activity in the euro area in 2012 and a 0.2% increase next year. At the same time, the steepest decline in activity has been envisaged for Greece, Portugal and Italy (-6.7%, -3.3% and -2.4% respectively). These countries may well expect a drop in 2013, though it will be somewhat milder in the case of Italy. The growth of German economy decelerated in Q2 to 0.3%. Growth indicator of German economic activity (PMI Composite) was more favourable in September than in August. However, the business climate index (IFO) declined for the sixth straight month, reaching the lowest level since February 2010. This signals a probable decrease in

**Chart IV.6.2 Revisions of real GDP growth forecasts for 2012 and 2013 by the IMF\***  
(%)



\* Revision relative to the July World Economic Outlook Update.

Sources: IMF WEO (October 2012) and IMF WEO Update (July 2012).

*Growth prospects have deteriorated further.*

Germany's economic activity in Q3, whereas annual growth has been projected at 0.8%.

In July, Moody's downgraded Italy's credit rating and altered the prospects of maintaining the ratings of Germany, the Netherlands and Luxembourg, while in September it also changed its outlook for the EU, citing the negative prospects of AAA members, whose share in the EU budget is the largest. Standard & Poor's cut Greece's prospects to negative in August and lowered Spain's credit rating in October.

At the same time, on the back of recession-related pressures in the euro area, the ECB lowered the key policy rate to 0.75% in early July, while the possibility of depressed economic activity in the region in Q4 led the markets to expect an even further key policy rate cut by the year end. Having stood still for three months, inflation rate rose in August to 2.6% y-o-y and remained at this level in September, only to slip down to 2.5% in October. Inflation grew primarily in response to the hike in energy prices and VAT increase in some countries. According to ECB expectations, inflation in 2013 will drop below 2%.

<sup>27</sup> Earlier projections were 1.0% and 1.4% respectively.

Line chart showing the number of new cases of dengue fever in Germany, France, Spain, Italy, Greece, and Portugal from 2009 to 2012. The Y-axis represents the number of cases (0 to 35). The X-axis shows time in quarters (1, 3, 5, 7, 9) for each year (2009, 2010, 2011, 2012). Greece shows the highest peak, reaching over 30 cases in late 2011. Portugal shows a significant peak around 15 cases in late 2011. Spain, Italy, and France show lower, more stable case counts, generally below 10. Germany and Austria show the lowest case counts, generally below 5.

*The announced new ECB aid programme for the most vulnerable euro area members was the main cause of decreased yield on sovereign securities.*

The graph illustrates the labor force dynamics for six countries over a ten-year period. Italy (red) shows a steady decline from 2005 to 2014. Romania (yellow) and Montenegro (grey) show an initial increase, peaking in 2007, followed by a sharp drop in 2009 and a subsequent recovery. Germany (blue) shows a steady decline from 2005 to 2009, followed by a sharp increase in 2010 and 2011, and then a slight decline in 2012-2014. Russia (light blue) shows a steady decline from 2005 to 2009, followed by a sharp increase in 2010 and 2011, and then a slight decline in 2012-2014. BiH (white) shows a steady decline from 2005 to 2009, followed by a sharp increase in 2010 and 2011, and then a slight decline in 2012-2014.

| Year | Italy | Romania | Montenegro | Germany | Russia | BiH  |
|------|-------|---------|------------|---------|--------|------|
| 2005 | 0.5   | 6.5     | 3.8        | 0.8     | 6.2    | 3.8  |
| 2006 | 2.0   | 7.8     | 8.5        | 3.8     | 5.8    | 5.8  |
| 2007 | 1.5   | 7.2     | 10.5       | 3.2     | 8.2    | 5.8  |
| 2008 | -1.5  | 6.2     | 6.5        | 0.8     | 5.8    | 5.8  |
| 2009 | -4.5  | -7.2    | -5.5       | -7.2    | -7.2   | -5.5 |
| 2010 | -1.5  | -4.2    | 2.2        | 3.2     | 3.8    | 0.8  |
| 2011 | -1.0  | 1.2     | 1.8        | 3.2     | 3.2    | 1.8  |
| 2012 | -2.2  | 0.8     | 0.2        | 0.8     | 3.2    | 0.2  |
| 2013 | -1.5  | 2.2     | 0.8        | 1.2     | 3.2    | 0.8  |
| 2014 | -0.8  | 2.8     | 1.8        | 1.8     | 3.2    | 1.8  |

*Recovery of our key foreign trade partners  
can be anticipated in 2013 at the earliest.*

Sluggish economic growth is expected in Central and East Europe, while some countries may even experience negative growth. Medium-term predictions are weighed down by uncertainties as implemented measures continue to impede the return to sustainable economic growth rates. As for Serbia's main foreign trade partners, Russia is forecast to see the highest growth in 2012 (3.7%). Stagnation is projected for Bosnia and Herzegovina, while a downturn is expected for Slovenia, Croatia, Hungary and the Czech Republic. Although Poland managed at first to successfully withstand the impact of the crisis, its GDP growth nevertheless lost pace in Q2 (0.4%). Still a 2.4% increase is anticipated in 2012.

According to revised estimates, US economy picked up its y-o-y growth in Q3 relative to Q2, going up from 1.3% to 2.0%. This growth level is insufficient to enable a speedier creation of new jobs, which is still perceived as the greatest obstacle to US economy's recovery. September unemployment rate subsided to 7.8%. However, this does not herald a revival of the labour market because the reduction was a result of a larger-scale acceptance of part-time jobs and giving up on job search. With the intention of endorsing economic recovery, the Fed decided to launch a new round of quantitative easing (QE3) through a purchase of mortgage-backed securities. Based on announcements, the Fed will be purchasing

bonds in the amount of 40 bln dollars a month for as long as it is warranted by the economic situation. Another point in favour of such decision is the acceptable inflation level, which equalled 2.0% in September y-o-y. Besides, it was also announced that the key policy rate will be kept low until mid-2015. The ongoing Operation Twist will continue to year-end as planned. With continued security buyout, there is also the possibility to introduce additional measures, if the situation in the labour market remains unchanged.

Following relatively stable movements of the euro against the dollar (around 1.23), the exchange rate stepped up in late August, reaching 1.31 in September. Currency

market responded well to the agreement on a new programme of government bond buyout for heavily indebted countries in the euro area, which was also facilitated by the ECB's resolve to preserve the euro. The Fed decision on the new round of quantitative easing further affected the increase in the value of the euro against the dollar.

The price of gold in Q3 rose by around 10%, for the most part in response to continued expansionary monetary policies of central banks in developed countries, the dollar's weakening against the euro, lower projections of global economic growth and the unrelenting crisis in the euro area.



## V. Inflation projection

*Y-o-y inflation will continue up in Q4 driven by the cost-push pressure on food prices caused by bad agricultural season, the anticipated growth in administered prices, increase in the VAT rate and excise duties, and the effect of the rather low last year's base. Sustained by low aggregate demand, inflation is expected to fall back with the onset of a new agricultural season from Q2 2013 onwards and to retreat within the target tolerance band by the end of that year. Low aggregate demand remains the key disinflationary factor in the medium term. The risks to the projected inflation path are associated primarily with the movements in prices of primary commodities, notably agricultural, administered prices and international developments.*

*As the agricultural season turned out to be much weaker than expected, the projection of GDP growth in 2012 has been revised down from –0.5% to –2.0%. In 2013, GDP should grow 2.5%, mainly on the back of net exports.*

Medium-term inflation projection aims to show expected inflation movements (CPI), key factors behind such movements and the underlying risks. It is expressed both as a range for the CPI and as a central projection rate. This projection assumes an active monetary policy which aims to keep inflation within the target tolerance band in the medium run and fulfil its principal role as defined by the current monetary policy framework.

### Initial conditions

In line with the expectations stated in the *August Report*, y-o-y inflation continued to rise in Q3, overshooting the upper bound of the target tolerance band. Inflation grew at a much faster pace as the agricultural season proved to be considerably weaker than anticipated and the food prices spiralled up. Y-o-y inflation measured 10.3% in September. As much as 80.0% (or 6.2 pp) of its 7.6 pp growth from the April minimum of 2.7% is attributable to food prices.

Inflation reached 4.2% in Q3. Although other CPI components also increased, the strongest push to quarterly inflation came from food prices. The prices of fresh meat continued to record high growth rates. Quite untypically for Q3, fruit and vegetable prices also went up. Within processed food, the sharpest increases were observed for staples, because of strong cost-push pressures. In addition to drought, the rise in primary agricultural commodity prices in the domestic market was

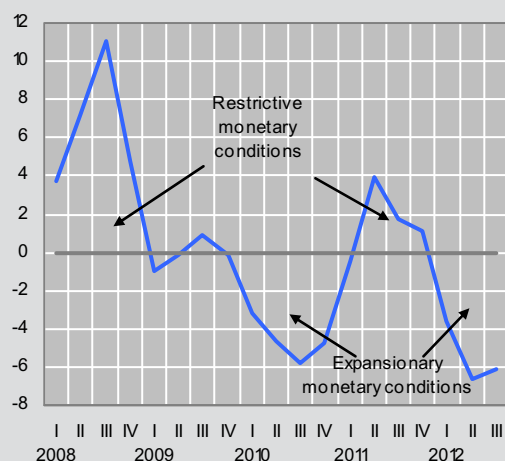
also aided by the rise in their international counterparts (according to the FAO Food Price Index).

Inflation expectations of the financial sector have been rising since June and are above the upper bound of the target tolerance band for the next year. According to the latest Bloomberg and Ipsos surveys, one year-ahead inflation expectations are 7.2% and 8.0%, respectively. Still, even though inflation increased by 7.6 pp from April to September, inflation expectations rose by only 1.2 pp according to Bloomberg and by 3.0 pp according to Ipsos.

The dinar weakened 2.7% against the euro in Q3.<sup>28</sup> However, depreciation pressures marked the first half of the quarter only and were triggered by the downgrade of Serbia's credit rating (Standard&Poor's), change of outlook from stable to negative (Fitch), rise in the country risk premium and uncertainty over the pace and scope of fiscal consolidation. These factors weighed down on foreign investors' purchase of government securities and the inflow of foreign capital. Depreciation pressures have

<sup>28</sup> Average depreciation during the period.

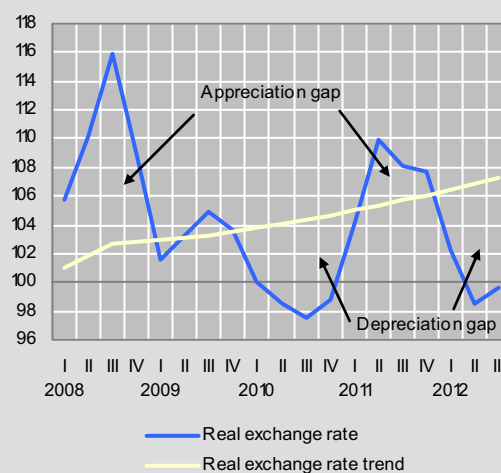
Chart V.0.1 **Monetary Conditions**  
(in %)



Source: NBS.

*Monetary conditions were expansionary in Q3, but less so than a quarter earlier.*

Chart V.0.2 **Real exchange rate and its trend**  
(base index, Q1 2010 = 100)



Source: NBS.

*The depreciation gap of the real exchange rate narrowed down in Q3.*

been halted since mid-August. The dinar perked up marking gains against the euro in September as a result of lower country risk premium, stronger foreign capital inflows, start of the subsidised loan programme for the corporate sector, and measures of the NBS.

The NBS continued tightening its monetary policy stance in Q3. The key policy rate was raised in two 0.25 pp steps in July and August. It was raised again by 0.25 pp in October and by 0.20 pp in November, so that it now stands at 10.95%. In August, the NBS also amended the regulation on reserve requirements, increasing the share of dinar allocations under FX required reserves. Though the NBS intervened in the IFEM in Q3 in order to ease excessive daily volatility of the exchange rate, the volume of interventions (EUR 59.5 mln) was quite modest compared to the prior two quarters.

The country risk premium, measured by EMBI, recorded a decline relative to Q2 (by 30 bp), but it was much smaller than generally across the region. By contrast to regional tendencies, Serbia's country risk premium rose in July and August due to the lowering of the country's credit rating and outlook. However, it headed down in September, reflecting global factors (third round of the Fed's quantitative easing programme) and the Serbian Government's commitment to fiscal consolidation, which met with a positive response from foreign investors.

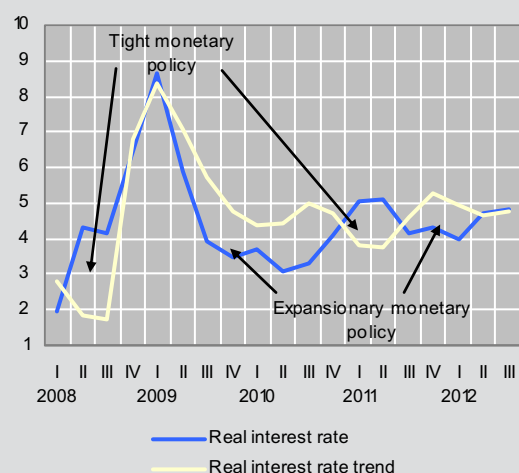
Consistent with these movements, the second issue of government eurobonds (USD 1.0 bln) was sold out in the international financial market at a rate lower than last year. In late October, EMBI for Serbia equalled 493 bp.

Fiscal policy was less expansionary than in Q2. Also, the Government adopted a revised budget, which cuts the consolidated deficit in the current year to 6.8% of GDP. In addition to the increase in the general VAT rate (from 18% to 20%), the Government amended special fiscal rules in order to cap growth in pensions and public sector wages, abolished a large number of tax duties and parafiscal charges, and closed down some agencies. The Government also unveiled a Draft Fiscal Strategy, which envisages narrowing down of the budget deficit to 1.0% of GDP in 2015.

GDP is estimated to have contracted by 1.1% s-a in Q3 and its decline to have stepped up from 0.8% to 2.2% y-o-y. GDP fell victim to the drop in domestic demand, notably government consumption, but also to the drop in private consumption and investments. On the other hand, positive contributions to GDP in Q3 are expected from net exports, thanks to growth in the automobile industry production.

Consistent with the drop in GDP and falling external demand from the euro area, negative output gap widened

**Chart V.0.3 Real interest rate and its trend**  
(in %)



Source: NBS.

*As in the previous quarter, the real interest rate revolved around the neutral level.*

in Q3, heralding further demand-side disinflationary pressures in the coming period.

The international environment in Q3 was marked by uncertainties over the future course of the euro area sovereign debt crisis and persistent recessionary pressures. Still, as the news of good results of financial reforms in some euro area countries flowed in and ECB officials said they would do whatever it takes to preserve the euro, while at the same time announcing a new debt purchase programme, the yields on peripheral sovereign bonds retreated. At the same time, key macroeconomic indicators for the euro area deteriorated. Unemployment continued to rise, while PMI and Eurocoin readings signalled a likely drop in euro area's GDP in Q3, which would put the euro area in recession. Against this background, the ECB proceeded with monetary easing, lowering its main refinancing rate to a historical low of 0.75% in early July. The markets expect that the rate will be cut further before the end of the year.

International crude oil prices increased in Q3, reflecting slightly lower oil output levels and the anticipated and/or adopted Fed and ECB measures aimed at shoring up economic growth. The inflationary effect of this factor on domestic petroleum product prices was reinforced in Q3 by the dinar's weakening vis-à-vis the dollar by 5.1% on average.

As indicated by the **MCI**, monetary conditions were expansionary in Q3, but less so than in Q2. This was due to a slight narrowing of the depreciation gap of the real exchange rate, which could lessen the upward pressure on net importers' marginal costs in the coming period. The narrowing of the depreciation gap is attributable to the faster real appreciation of the dinar relative to the trend. The real interest rate stayed around the neutral level in Q3. Even though the interest rate in the interbank money market (1W BELIBOR) rose more than inflation expectations, the real interest rate trend rose equally because of the growth in the country risk premium.

## Projection assumptions

### External assumptions

The 2012 outlook for the euro area GDP remains unchanged from the August projection, i.e. the current projection assumes a 0.5% fall, while the economic recovery in 2013 has been revised from 0.5% to 0.2%. Most euro area countries will have to implement fiscal consolidation, which, coupled with uncertainty over the sovereign debt crisis and tighter access to financing, will weigh down on domestic demand. Growth projections for Serbia's key trading partners, Germany and Italy, for 2013 have been scaled down.

The ECB projection anticipates a fall in euro area inflation to below 2.0% in 2013. In view of the current recessionary trends, the markets expect the ECB to lower its main rate by the end of the year to 0.5%. The anticipated modest growth in economic activity and well-anchored long-term inflation expectations should moderate the pressure on prices in the euro area in the period ahead.

According to our estimates, following robust growth in 2012, international prices of primary agricultural commodities will record a steep fall with the start of a new agricultural season. This is also indicated by the pricing of futures contracts for these commodities.

As oil prices increased in Q3, the assumption for end-2012 Ural oil price has been mildly upgraded. On the other hand, given the outlook for global demand, we expect a marginal drop in Ural oil price by end-2013.

### Internal assumptions

The current medium-term inflation projection is based on the assumption of a steep growth in administered



prices in Q4 2012.<sup>29</sup> Y-o-y, administered prices are expected to record the strongest growth in Q2 2013.

The projection envisages a slowdown in administered prices in 2013 relative to 2012 (8.4% compared to 10.5%).

**Table V.0.1 Projection assumptions**

(changes relative to the prior projection are given in brackets)

|  | 2012  |        | 2013 |        |
|--|-------|--------|------|--------|
| External assumptions                                   |       |        |      |        |
| EU inflation (Q4 to Q4)                                | 2.2%  | (+0.2) | 1.8% | (+0.1) |
| ECB policy rate (year-end)                             | 0.5%  | (-)    | 0.5% | (-)    |
| Euro area GDP growth                                   | -0,5% | (-)    | 0.2% | (-0.3) |
| Ural oil price per barrel (year-end, USD)              | 110   | (+5)   | 105  | (-)    |
| Internal assumptions                                   |       |        |      |        |
| Administered prices (Dec to Dec)                       | 10.5% | (+1.2) | 8.4% | (+1.2) |
| Trends   |       |        |      |        |
| Appreciation trend of the real exchange rate (average) | 1.9%  | (-0.1) | 2.1% | (-0.1) |
| Real interest rate trend (average)                     | 4.4%  | (-0.2) | 3.2% | (-0.4) |

Source: NBS.

## Inflation projection

Even though monthly inflation rates will be declining as of November, y-o-y inflation will continue to rise over the coming months because of the low base effect, i.e. low monthly inflation rates in the corresponding periods of the previous year.

Y-o-y inflation is projected to peak in March or April 2013 and start falling thereafter, only to return within the target tolerance band by the end of the year.

Inflation in the coming months will be driven mainly by the food and administered prices. With the effects of the dinar's depreciation in the first half of the year largely exhausted and the currency's recent strengthening, no inflationary pressures are likely from the exchange rate. In other words, no inflationary pressures should be expected from real import costs, which were high thus far

due to the weakening of the dinar in the first half of the year.

The cost-push pressure on food prices will persist until the next agricultural season.

In the months ahead, some administered prices may record even stronger growth than anticipated, which will compensate for the absence of adjustments in these prices in the prior period. Administered price growth in H1 2013 will be driven primarily by the expected revision of electricity prices. Y-o-y administered price inflation will peak in Q2 2013, as a result of the low base in the same quarter a year earlier (mere 0.1%).

The expected fall in y-o-y inflation as of Q2 2013 will come with the start of the new agricultural season, i.e. with the fall in the currently exceptionally high agricultural commodity prices. As the prices of international primary agricultural commodities (wheat, corn, etc.) are likely to decline next year, we expect their domestic counterparts to follow along. The fall in fruit and vegetable prices will be the first to directly affect inflation (especially in May and June), while the impact of the fall in primary agricultural commodity prices will unfold gradually through declining costs of processed food production.

Markedly low aggregate demand will also play an important role in slowing price growth. Negative output gap, as an indicator of demand, will only begin to contract with the recovery of the euro area economy, expected from 2014 onwards.

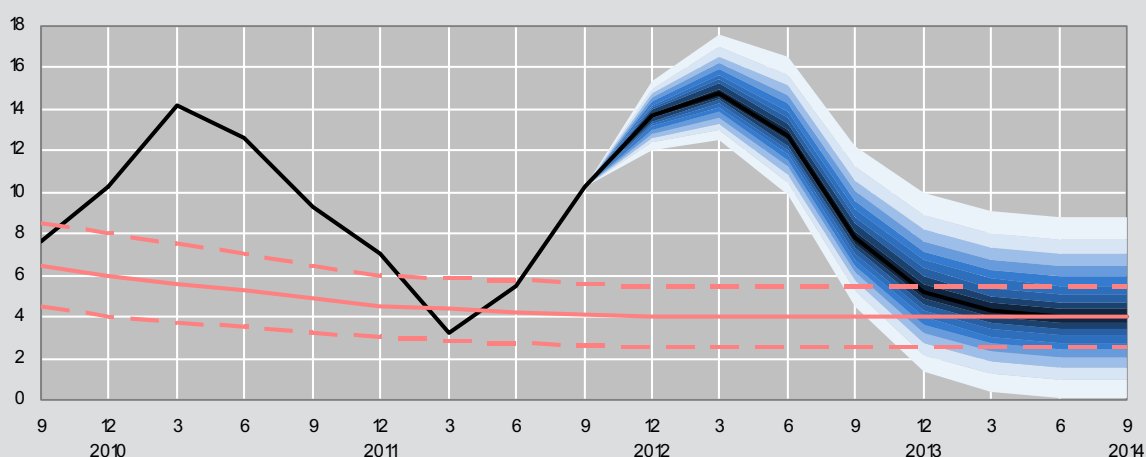
The central GDP growth projection for 2012 (-0.5%), published in the *August Report*, was revised downwards (-2.0%) due to considerably poorer agricultural season than anticipated earlier. The National Bank of Serbia places the agricultural downturn in 2012 in the region of 22.0%.<sup>30</sup> On the expenditure side, as before, GDP growth projection operates on the assumption of a slower economic recovery of Serbia's key trading partners, which is bound to bear down on export demand and domestic investments. Nevertheless, net exports should have a positive impact on this year's GDP, owing to growing production in the automobile industry and the past weakening of the dinar. Positive contributions to GDP will also come from government consumption and investments, because of fiscal expansion in H1, while

<sup>29</sup> The projection factors in the October increase in prices of public transportation services, utilities and cigarettes, as well the increase in prices of medicaments expected in December.

<sup>30</sup> See text box 4, p. 37.



**Chart V.0.4 Inflation projection**  
(y-o-y, in %)



Source: NBS.

*Y-o-y inflation has been on the rise since Q2 2012. It is expected to peak in March or April 2013, to decline thereafter and return within the target tolerance band by the end of the year. The risks to inflation projection are skewed to the upside due to the possibly smaller than expected drop in primary commodity prices and to the possibly stronger than anticipated growth in administered prices.*

The fan chart depicts probability of various inflation outcomes in the next eight quarters. Central projection is within the darkest central band and the probability that inflation would lie in 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 inflation in the next eight quarters would lie somewhere outside the band in the chart is 10%.

negative contributions will come from private investments and household consumption.

After contracting in 2012, GDP should expand by 2.5% in 2013, led mainly by net exports. GDP growth in 2013 will be dominantly shaped by three factors with a one-off effect: low agricultural base and expansion of the automobile and oil industries.

The risks to GDP growth projection are judged to be balanced, i.e. equally possible in either direction. They relate to the pace of recovery of the euro area and the effects of the automobile industry production on GDP, given unfavourable developments in the EU market.

## Risks to the projection

Uncertainties surrounding the projected outlook for inflation are associated with the movements in

international and domestic primary agricultural commodity prices, global oil prices, administered prices and, to a degree, international developments.

The current inflation projection assumes average agricultural performance next year and a fall in domestic and international prices of primary agricultural commodities. However, if the next agricultural season proves to be worse than average, the pressures on food prices would continue to prevail. Furthermore, any deepening of geopolitical tensions could give rise to global oil prices next year, which would feed through into higher petroleum product prices locally.

A stronger than expected growth in administered prices in 2013 would slow the wheels of y-o-y inflation decline.

The failure to restore investor confidence in public finance sustainability of some euro area members could

push the area into a still deeper crisis, affecting Serbia's exports and the risk premium. Domestic fiscal risks subsided significantly following announcement of the

fiscal consolidation programme, while the continuation of arrangement with the IMF would further boost the credibility of our economic policy programme.

On balance, the risks to inflation projection are judged to be skewed to the upside.

**Chart V.0.5 GDP growth projection**  
(y-o-y rates, in %)



Source: NBS.

*Economic activity is expected to fall by 2.0% in 2012 and to grow by 2.5% in 2013.*

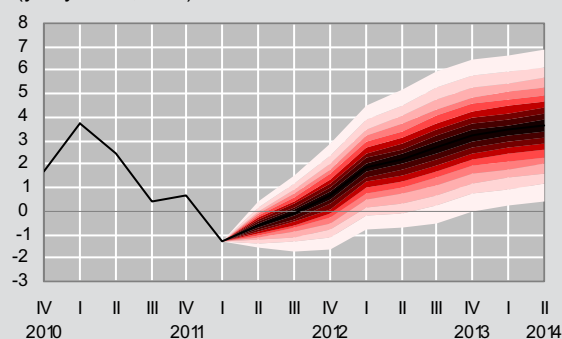
## Comparison with the previous projection

The projected spread of inflation outcomes is higher than in the August Report almost over the entire forecast period, due mainly to the appreciably higher growth in processed food prices, no seasonal decline in fruit and vegetable prices in Q3, and the expected stronger growth in administered prices in Q4 2012. The medium-term projection band has narrowed in response to diminished uncertainty over fiscal policy in the wake of announcement of the fiscal consolidation programme.

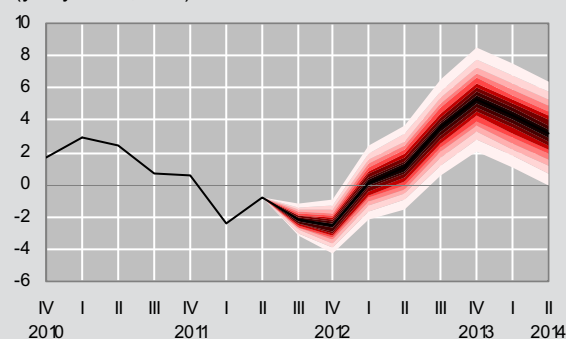
Until Q3 2012, y-o-y inflation moved within the band projected in November 2011, but subsequently overshoot the upper bound of the projection band, reflecting food price growth caused by the agricultural shock and the hefty rise in primary agricultural commodity prices.

**Chart V.0.6 Current vs. previous GDP growth projection**

**August projection**  
(y-o-y rates, in %)



**November projection**  
(y-o-y rates, in %)

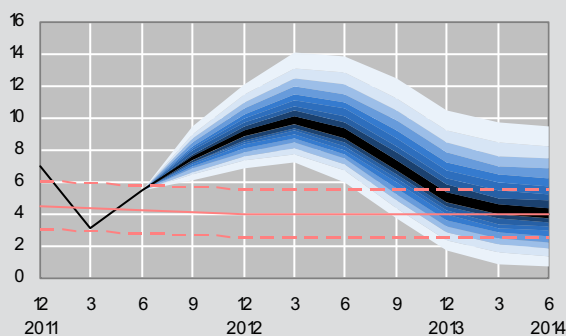


Source: NBS.

*The current projection of y-o-y GDP growth for 2012 is lower as the agricultural season turned out weaker than expected. GDP growth in 2013 will be underpinned primarily by the low agricultural production base and expansion of the automobile industry.*

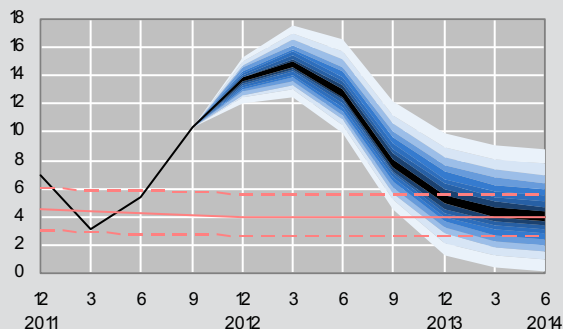
Chart V.0.7 **Current vs. previous projection**

**August projection**  
(y-o-y rates, in %)



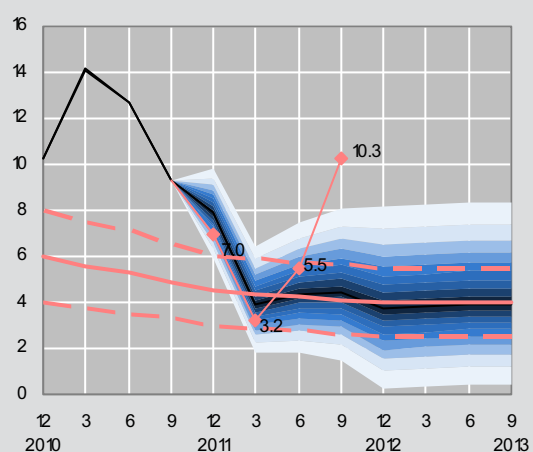
Source: NBS.

**November projection**  
(y-o-y rates, in %)



*The projected spread of inflation outcomes in 2013 is higher than in the August projection.*

Chart V.0.8 **Inflation outturn vs. November 2011 inflation projection**  
(y-o-y rates, in %)



Source: NBS.

*In Q3, y-o-y inflation stepped out of the band projected in November 2011.*

## Future monetary policy response

Future monetary policy measures will depend chiefly on movements in prices of primary commodities, notably agricultural, and on how the situation in the international environment evolves.

**Table A**  
**Indicators of Serbia's external position**

|  | 2002   | 2003   | 2004   | 2005   | 2006         | 2007   | 2008         | 2009         | 2010       | 2011    | Q1<br>2012 | Q2<br>2012   | Q3<br>2012          |
|--|--------|--------|--------|--------|--------------|--------|--------------|--------------|------------|---------|------------|--------------|---------------------|
| <b>EXTERNAL LIQUIDITY INDICATORS (in %)</b>              |        |        |        |        |              |        |              |              |            |         |            |              |                     |
| Forex reserves/imports of goods and services (in months) | 4.1    | 4.7    | 3.9    | 6.1    | 9.0          | 7.2    | 5.2          | 9.4          | 8.1        | 8.7     | 7.9        | 7.1          | 6.9                 |
| Forex reserves/short-term debt                           | 360.7  | 535.6  | 702.2  | 519.2  | 941.7        | 917.5  | 380.8        | 528.8        | 546.4      | 1,860.8 | 1,914.1    | 2,970.6      | 2,710.7             |
| Forex reserves /GDP                                      | 13.6   | 16.4   | 16.3   | 24.2   | 38.7         | 33.8   | 25.0         | 36.6         | 35.7       | 38.7    | 35.6       | 33.4         | 33.1                |
| Debt repayment/GDP                                       | 1.4    | 2.0    | 3.9    | 4.7    | 7.0          | 10.1   | 10.6         | 11.5         | 12.3       | 13.1    | 12.3       | 14.5         | 10.6                |
| Debt repayment/exports of goods and services             | 7.0    | 9.0    | 16.4   | 17.7   | 23.5         | 33.2   | 34.0         | 39.1         | 33.8       | 35.5    | 33.7       | 34.3         | 25.0                |
| <b>EXTERNAL SOLVENCY INDICATORS (in %)</b>               |        |        |        |        |              |        |              |              |            |         |            |              |                     |
| External debt/GDP  | 58.7   | 55.9   | 49.8   | 60.1   | 60.9         | 60.2   | 64.6         | 77.7         | 84.9       | 77.5    | 77.4       | 79.2         | 83.7                |
| Short-term debt/GDP                                      | 3.8    | 3.1    | 2.3    | 4.7    | 4.1          | 3.7    | 6.6          | 6.9          | 6.5        | 2.1     | 1.9        | 1.1          | 1.2                 |
| External debt/exports of goods and services              | 300.9  | 251.6  | 211.5  | 228.9  | 204.1        | 197.3  | 207.6        | 265.3        | 236.2      | 210.3   | 211.0      | 208.5        | 213.2               |
| <b>FINANCIAL RISK EXPOSURE INDICATORS (in %)</b>         |        |        |        |        |              |        |              |              |            |         |            |              |                     |
| Forex reserves/M1  | 143.3  | 195.1  | 220.1  | 290.3  | 356.1        | 306.7  | 300.4        | 393.4        | 416.6      | 429.6   | 462.9      | 437.4        | 389.8               |
| Forex reserves/reserve money                             | 131.9  | 167.8  | 165.5  | 169.8  | 179.5        | 173.8  | 140.7        | 190.5        | 196.4      | 207.6   | 219.4      | 192.2        | 184.7               |
| <b>OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP</b>       |        |        |        |        |              |        |              |              |            |         |            |              |                     |
|  | 59.3   | 63.9   | 73.7   | 73.6   | 81.2         | 85.8   | 86.8         | 73.6         | 90.3       | 90.2    | 94.9       | 102.3        | 101.1               |
| <b>MEMORANDUM:<br/>(in EUR million)</b>                  |        |        |        |        |              |        |              |              |            |         |            |              |                     |
| GDP (in EUR million)                                     | 16,028 | 17,306 | 19,026 | 20,306 | 23,305       | 28,468 | 32,668       | 28,957       | 28,006     | 31,140  | 6,916      | 7,188        | 7,236 <sup>1)</sup> |
| External debt  | 9,402  | 9,678  | 9,466  | 12,196 | 14,182       | 17,139 | 21,088       | 22,487       | 23,786     | 24,125  | 24,068     | 24,086       | 24,832              |
| External debt servicing                                  | 218    | 348    | 736    | 945    | 1,635        | 2,885  | 3,453        | 3,314        | 3,403      | 4,072   | 848        | 1,039        | 771                 |
| Central bank foreign exchange reserves                   | 2,186  | 2,836  | 3,104  | 4,921  | 9,020        | 9,634  | 8,162        | 10,602       | 10,002     | 12,058  | 11,073     | 10,161       | 9,833               |
| Short-term debt  | 606    | 529    | 442    | 948    | 958          | 1,050  | 2,143        | 2,005        | 1,830      | 648     | 579        | 342          | 363                 |
| Current account balance                                  | -671   | -1,347 | -2,620 | -1,778 | -2,356       | -5,053 | -7,054       | -2,084       | -2,082     | -2,770  | -1,177     | -738         | -543                |
| <b>CREDIT RATING</b>                                     |        |        |        |        |              |        |              |              |            |         |            |              |                     |
|  |        | 2004   | 2005   | 2006   | 2007         | 2008   | 2009         | 2010         | 2011       | 2012    |            |              |                     |
|  |        | Nov    | May    | July   | Feb          | Apr    | Jun          | Dec          | Dec        | Nov     | Mar        | Aug          |                     |
|  | S&P    | B+     |        | BB-    | BB-/positive |        | BB-/stable   | BB-/negative | BB-/stable |         | BB-/stable | BB-/negative |                     |
|  | Fitch  |        | BB-    |        | BB-/stable   |        | BB-/negative |              | BB-/stable |         | BB-/stable | BB-/negative |                     |

**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.

<sup>1)</sup> NBS estimate.

**Notes:**

1. Data are subject to corrections in line with the official data sources.

2. 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 harmonised, at the level of the IMF, for all countries. We have adjusted our financial risk exposure indicators accordingly.

3. Trade with Montenegro is registered within relevant transactions as of 2003.

4. Foreign debt repayment does not include: short-term debt repayment and advanced debt repayment.

5. In accordance with BPM 5, a portion of estimated remittances was transferred from the financial account to the current account.

6. As of 01.01.2010 Statistical Office, according to UN recommendations, applies general trade system which is broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Statistical Office has published comparable data for 2007, 2008 and 2009. Previous years are disseminated using special trade system.

7. In September 2010, the methodology of external debt statistics was changed – public sector external debt includes liabilities under SDR allocation (EUR 443.5 mln) used in December 2009, as well as the capitalised interest to the Paris Club Creditors (EUR 86.4 mln). Private sector external debt excludes loans concluded before 20 December 2000 in respect of which no payments are made (EUR 875.4 mln, of which EUR 397 mln related to domestic banks and EUR 478.4 mln to domestic enterprises).

Table B

## Key macroeconomic indicators

|   | 2002   | 2003   | 2004   | 2005   | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    | Q1<br>2012 | Q2<br>2012 | Q3<br>2012          |
|---|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|------------|------------|---------------------|
| Real GDP growth (in %) <sup>1)</sup>  | 4.3    | 2.5    | 9.3    | 5.4    | 3.6     | 5.4     | 3.8     | -3.5    | 1.0     | 1.6     | -2.5       | -0.8       | -2.2                |
| Consumer prices (in %, relative to the same month a year earlier) <sup>2)</sup> | 14.8   | 7.8    | 13.7   | 17.7   | 6.6     | 11.0    | 8.6     | 6.6     | 10.3    | 7.0     | 3.2        | 5.5        | 10.3                |
| NBS foreign exchange reserves (in EUR million)                                  | 2,186  | 2,836  | 3,104  | 4,921  | 9,020   | 9,634   | 8,162   | 10,602  | 10,002  | 12,058  | 11,073     | 10,161     | 9,833               |
| Exports (in EUR million) <sup>3)</sup>  | 3,125  | 3,847  | 4,475  | 5,330  | 6,949   | 8,686   | 10,157  | 8,478   | 10,070  | 11,472  | 2,519      | 3,031      | 3,082               |
| - growth rate in % compared to a year earlier                                   | 16.0   | 23.1   | 16.3   | 19.1   | 30.4    | 25.0    | 16.9    | -16.5   | 18.8    | 13.9    | -2.6       | 5.2        | 3.2                 |
| Imports (in EUR million) <sup>3)</sup>  | -6,387 | -7,206 | -9,543 | -9,613 | -11,971 | -16,016 | -18,843 | -13,577 | -14,838 | -16,627 | -4,042     | -4,323     | -4,232              |
| - growth rate in % compared to a year earlier                                   | 27.2   | 12.8   | 32.4   | 0.7    | 24.5    | 33.8    | 17.7    | -28.0   | 9.3     | 12.1    | 5.5        | 6.3        | 1.2                 |
| Current account balance <sup>4)</sup> (in EUR million)                          | -671   | -1,347 | -2,620 | -1,778 | -2,356  | -5,053  | -7,054  | -2,084  | -2,082  | -2,770  | -1,177     | -738       | -543                |
| as % of GDP   | -4.2   | -7.8   | -13.8  | -8.8   | -10.1   | -17.7   | -21.6   | -7.2    | -7.4    | -8.9    | -17.0      | -10.3      | -7.5                |
| Unemployment according to the Survey (in %) <sup>5)</sup>                       | 13.3   | 14.6   | 18.5   | 20.8   | 20.9    | 18.1    | 13.6    | 16.1    | 19.2    | 23.0    | 25.5       | /          | /                   |
| Wages (average for the period, in EUR)  | 152.1  | 176.9  | 194.6  | 210.4  | 259.5   | 347.6   | 402.4   | 337.9   | 330.1   | 372.5   | 357.6      | 363.5      | 351.8               |
| RS budget deficit/surplus (in % of GDP) <sup>6)</sup>                           | -4.3   | -2.6   | -0.3   | 0.3    | -1.9    | -1.7    | -1.7    | -3.4    | -3.7    | -4.2    | -7.1       | -7.2       | -4.0                |
| Consolidated fiscal result (in % of GDP)  | -1.8   | -2.4   | 0.8    | 0.9    | -1.9    | -2.0    | -2.6    | -4.5    | -4.7    | -5.0    | -7.3       | -7.0       | -4.2                |
| RS public debt (external + internal, in % of GDP) <sup>6)</sup>                 | 72.9   | 66.9   | 55.3   | 52.2   | 37.7    | 31.5    | 29.2    | 34.7    | 44.5    | 48.7    | 52.1       | 56.3       | 55.9                |
| RSD/USD exchange rate (average, in the period)                                  | 64.70  | 57.56  | 58.44  | 66.90  | 67.01   | 58.39   | 55.76   | 67.47   | 77.91   | 73.34   | 82.38      | 88.77      | 93.55               |
| RSD/USD exchange rate (end of period)   | 58.98  | 54.64  | 57.94  | 72.22  | 59.98   | 53.73   | 62.90   | 66.73   | 79.28   | 80.87   | 83.31      | 92.15      | 88.94               |
| RSD/EUR exchange rate (average, in the period)                                  | 60.66  | 65.13  | 72.70  | 83.00  | 84.10   | 79.96   | 81.44   | 93.95   | 103.04  | 101.95  | 108.11     | 113.73     | 116.95              |
| RSD/EUR exchange rate (end of period)   | 61.52  | 68.31  | 78.89  | 85.50  | 79.00   | 79.24   | 88.60   | 95.89   | 105.50  | 104.64  | 111.36     | 115.82     | 115.03              |
| <b>Memorandum</b>   |        |        |        |        |         |         |         |         |         |         |            |            |                     |
| GDP (in EUR million)  | 16,028 | 17,306 | 19,026 | 20,306 | 23,305  | 28,468  | 32,668  | 28,957  | 28,006  | 31,140  | 6,916      | 7,188      | 7,236 <sup>9)</sup> |

<sup>1)</sup> At constant prices of previous year.<sup>2)</sup> Retail prices until 2006.<sup>3)</sup> Trade with Montenegro is registered within relevant transactions as of 2003.<sup>4)</sup> In accordance with BPM 5, a portion of estimated remittances was transferred from the financial account to the current account.<sup>5)</sup> Source: Labour Force Survey, Statistical Office.<sup>6)</sup> Source: MoF for public debt and NBS for estimated GDP.<sup>7)</sup> Government securities at nominal value.<sup>8)</sup> As of 1 January 2010, the Statistical Office, according to UN recommendations, applies the general trade system which is a broader concept and includes all goods entering/exiting the country's economic territory, apart from goods in transit. The Statistical Office published comparable data for 2007, 2008 and 2009. Previous years are disseminated under a special trade system.<sup>9)</sup> NBS estimate.

Notes:

1. Data are subject to corrections in line with the official data sources.

## Index of charts and tables

### Charts

|         |   |    |
|---------|---|----|
| III.0.1 | Price movements (y-o-y rates)   | 7  |
| III.0.2 | Price movements (quarterly rates)   | 8  |
| III.0.3 | Contribution to quarterly consumer price growth   | 8  |
| III.0.4 | Contribution to y-o-y consumer price growth   | 9  |
| III.0.5 | Domestic and imported inflation   | 9  |
| III.0.6 | Short-term inflation projection   | 10 |
| III.0.7 | Current inflation and one-year ahead inflation expectations – by sector                         | 11 |
| III.0.8 | One-year ahead expected and targeted inflation – financial sector                               | 11 |
| III.0.9 | Expectations of enterprises regarding a change in prices of their inputs, products and services | 12 |
| IV.1.1  | Interest rate movements   | 13 |
| IV.1.2  | Yield curve in the interbank money market   | 14 |
| IV.1.3  | Interest rates in the primary market of government securities                                   | 14 |
| IV.1.4  | Yield curve in the secondary market of government securities                                    | 15 |
| IV.1.5  | Interest rates on new dinar corporate and household loans                                       | 15 |
| IV.1.6  | Interest rates on new euro and euro-indexed corporate and household loans                       | 16 |
| IV.1.7  | Interest rates on new time household and corporate deposits                                     | 16 |
| IV.1.8  | BELEX15 and Belgrade Stock Exchange turnover  | 17 |
| IV.1.9  | Stock exchange indices across the region  | 17 |
| IV.1.10 | Monetary aggregates and consumer prices   | 18 |
| IV.1.11 | Contribution to M3 growth   | 19 |
| IV.1.12 | Loans to GDP and lending activity growth  | 20 |
| IV.1.13 | Contributions to quarterly rate of lending growth   | 20 |
| IV.1.14 | Share of dinar in total bank receivables on corporate and household sectors                     | 21 |
| IV.2.1  | Movements in the RSD/EUR exchange rate and NBS FX interventions                                 | 22 |
| IV.2.2  | Short-term volatility of the RSD/EUR exchange rate  | 22 |
| IV.2.3  | Risk premium indicators – EMBI by country   | 23 |
| IV.2.4  | Movements in exchange rates of national currencies against the euro                             | 23 |
| IV.2.5  | Current account deficit and net capital inflow  | 24 |
| IV.2.6  | Structure of the financial account  | 24 |
| IV.3.1  | Contribution to quarterly GDP growth rate—expenditures side                                     | 30 |
| IV.3.2  | Household consumption   | 31 |
| IV.3.3  | Government consumption  | 31 |
| IV.3.4  | Exports and imports of goods and services   | 32 |
| IV.3.5  | Imports by key components   | 32 |
| IV.3.6  | Oil and copper price movements  | 32 |
| IV.3.7  | World food prices index   | 33 |
| IV.4.1  | Economic activity indicators  | 36 |
| IV.4.2  | Contribution to y-o-y GDP growth rate – production side   | 36 |
| IV.4.3  | Output gap  | 37 |
| IV.5.1  | Average net wages   | 40 |
| IV.5.2  | Movements in productivity, gross real wages and unit labour costs in the industry               | 40 |
| IV.5.3  | Employment figures and unemployment rate  | 41 |

|        |  |    |
|--------|--|----|
| IV.6.1 | Movements in GDP and economic activity indicators of the euro area | 42 |
| IV.6.2 | Revisions of real GDP forecasts for 2012 and 2013 by the IMF       | 42 |
| IV.6.3 | Yield on sovereign bonds of euro area members                      | 43 |
| IV.6.4 | GDP movements of Serbia's key foreign trade partners               | 43 |
| V.0.1  | Monetary Conditions  | 46 |
| V.0.2  | Real exchange rate and its trend                                   | 47 |
| V.0.3  | Real interest rate and its trend                                   | 47 |
| V.0.4  | Inflation projection   | 49 |
| V.0.5  | GDP growth projection  | 50 |
| V.0.6  | Current vs. previous GDP projection                                | 50 |
| V.0.7  | Current vs. previous inflation projection                          | 51 |
| V.0.8  | November 2011 inflation projection outturn                         | 51 |

## Tables

|          |  |    |
|----------|--|----|
| III.0.1  | Consumer price growth by component       | 7  |
| III.0.2  | Price indicators                         | 8  |
| IV.1.1   | Monetary aggregates                      | 18 |
| IV.3.1   | Investment indicators                    | 30 |
| V.0.1    | Projection assumptions                   | 48 |
| Table A. | Indicators of Serbia's external position | 52 |
| Table B. | Key macroeconomic indicators             | 53 |

## Charts in boxes

|       |   |    |
|-------|---|----|
| O.1.1 | Gross exposure of BIS reporting banks to emerging markets, loans, deposits and debt securities (September 2008 = 100)         | 27 |
| O.1.2 | Gross exposure of BIS reporting banks to emerging markets, loans, deposits and debt securities (as a percentage of GDP, in %) | 27 |
| O.4.1 | Agricultural production in 2012   | 35 |

## Tables in text boxes

|       |  |    |
|-------|--|----|
| O.2.1 | Serbia's ranking on the ease of doing business               | 29 |
| O.3.1 | Public debt reduction – baseline scenario                    | 35 |
| O.4.1 | Projected production of most important agricultural products | 38 |

Sources of data: the National Bank of Serbia and Serbian Statistical Office, unless stated otherwise.

## Executive Board meetings and changes in the key policy rate

### 2011

| Date        | Key policy rate<br>(p.a., in %) | Change<br>(in basis points) |
|-------------|---------------------------------|-----------------------------|
| 17 January  | 12.00                           | +50                         |
| 10 February | 12.00                           | 0                           |
| 10 March    | 12.25                           | +25                         |
| 7 April     | 12.50                           | +25                         |
| 12 May      | 12.50                           | 0                           |
| 9 June      | 12.00                           | -50                         |
| 7 July      | 11.75                           | -25                         |
| 11 August   | 11.75                           | 0                           |
| 8 September | 11.25                           | -50                         |
| 6 October   | 10.75                           | -50                         |
| 10 November | 10.00                           | -75                         |
| 8 December  | 9.75                            | -25                         |

### 2012

| Date        | Key policy rate<br>(p.a., in %) | Change<br>(in basis points) |
|-------------|---------------------------------|-----------------------------|
| 19 January  | 9.50                            | -25                         |
| 9 February  | 9.50                            | 0                           |
| 8 March     | 9.50                            | 0                           |
| 12 April    | 9.50                            | 0                           |
| 10 May      | 9.50                            | 0                           |
| 7 June      | 10.00                           | +50                         |
| 12 July     | 10.25                           | +25                         |
| 9 August    | 10.50                           | +25                         |
| 6 September | 10.50                           | 0                           |
| 9 October   | 10.75                           | +25                         |
| 8 November  | 10.95                           | +20                         |
| 6 December  |                                 |                             |

### 2013

| Date         | Key policy rate<br>(p.a., in %) | Change<br>(in basis points) |
|--------------|---------------------------------|-----------------------------|
| 17 January   |                                 |                             |
| 7 February   |                                 |                             |
| 7 March      |                                 |                             |
| 11 April     |                                 |                             |
| 13 May       |                                 |                             |
| 6 June       |                                 |                             |
| 11 July      |                                 |                             |
| 8 August     |                                 |                             |
| 12 September |                                 |                             |
| 17 October   |                                 |                             |
| 7 November   |                                 |                             |
| 12 December  |                                 |                             |



## **Press releases from NBS Executive Board meetings**

### **Press release from Executive Board meeting held on 6 September 2012**

After reviewing economic developments, the Executive Board of the National Bank of Serbia voted to keep the key policy rate at 10.50 percent.

The Executive Board decided to maintain the degree of monetary restrictiveness because the impact of changes in the key policy rate on the factors spurring current inflation growth would be rather limited.

The Executive Board also expects positive results of fiscal stabilisation. Measures geared at increasing government income will have a one-off effect on inflation, while reduction on the expenditure side will dampen demand, and thus alleviate inflationary pressures and pressures on the exchange rate.

In the best collective judgement of the Executive Board, the factors driving inflation growth in Serbia are the rise in domestic and international food prices caused by the bad agricultural year, the anticipated growth in administered and import prices, and the waning of the effects of past depreciation of the dinar.

The Executive Board notes that the degree of monetary policy restrictiveness in the coming period will depend on the impact of external factors, success in containing inflation expectations and the effects of fiscal consolidation.

The next rate-setting meeting is scheduled for 18 October.

### **Press release from Executive Board meeting held on 9 October 2012**

In its meeting today, the Executive Board of the National Bank of Serbia voted to raise the key policy rate from 10.50 to 10.75 percent.

The Board noted that the degree of monetary policy restrictiveness in the coming period will depend on the success in containing inflation expectations, the impact of external factors and the effects of fiscal consolidation.

Year-on-year inflation came at 7.9 percent in August and was above the upper bound of the target tolerance band. The Executive Board judges that the key factors driving inflation are strong cost push pressures from food prices attributable to bad agricultural year, the anticipated rise in administered prices and the one-off effects of the increase in VAT and excise duties.

In view of higher than expected growth in food and administered prices and elevated inflation expectations, the Executive Board decided to raise the key policy rate to prevent the spillover to other prices.

The Executive Board assesses that the effect of the above factors on inflation is one-off and temporary and that low aggregate demand will exert a strong disinflationary influence in the period ahead. Positive effects are also expected from fiscal stabilisation on the expenditure side, which will ease pressures on inflation and the exchange rate. According to the NBS projection, inflation will peak in the first half of 2013 and subsequently retreat within the target band of  $4 \pm 1.5$  %.

The next rate-setting meeting of the Executive Board is scheduled for 8 November 2012.

### **Press release from Executive Board meeting held on 8 November 2012**

At its meeting today, the Executive Board decided to raise the key policy rate by 0.20 percentage points, to 10.95 percent.

Consistent with the National Bank of Serbia's projection, year-on-year inflation continues to rise, moving above the upper bound of the target tolerance band. Monetary policy tightening aims to counter heightened inflationary pressures and to prevent the spillover of the effects of price increases, notably food, to other prices. Together with the measures taken by the National Bank of Serbia earlier, this upward revision of the key policy rate should contribute to the drop in year-on-year inflation next year and its retreat within the target band by the end of 2013.

As assessed by the Executive Board, inflation is rising mainly on account of food price hikes driven by a bad agricultural year, whose effects will be exhausted with the onset of the new agricultural season, as well as by the VAT and excise increases, and the expected administered price growth.

Persistently low aggregate demand will continue to produce a disinflationary effect, while the publication of the Draft Fiscal Strategy sends a positive signal of the Government's commitment to the fiscal consolidation programme.

The next rate-setting meeting of the Executive Board will take place on 6 December 2012.



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