National Bank of Serbia

2018 May

INFLATION REPORT

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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 an 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 statutory task of the National Bank of Serbia.

The May *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 10 May 2018.

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

Executive Board of the National Bank of Serbia:

Jorgovanka Tabaković, Governor

Veselin Pješčić, Vice Governor

Diana Dragutinović, Vice Governor

Željko Jović, Director of the Administration for Supervision of Financial Institutions

ABBREVIATIONS

bn – billion

bp – basis point

CPI – Consumer Price Index

EBRD – European Bank for Reconstruction and Development

ECB – European Central Bank

EIB – European Investment Bank

EMBI – Emerging Markets Bond Index

EU – European Union

FAO – UN Food and Agriculture Organization

FDI – foreign direct investment

Fed – Federal Reserve System

FOMC – Federal Open Market Committee

GDP – gross domestic product

H – half-year

IFEM – Interbank Foreign Exchange Market

IMF – International Monetary Fund

LHS – left hand scale

mn – million

NAVA – non-agricultural value added

NPL – non-performing loan

OFO – other financial organisation

OPEC – Organization of the Petroleum Exporting Countries

pp – percentage point

Q – quarter

q-o-q – quarter-on-quarter

RHS – right hand scale

s-a – seasonally-adjusted

SDR – Special Drawing Right

SORS – Statistical Office of the Republic of Serbia

tn – trillion

y-o-y – year-on-year

Other generally accepted abbreviations are not cited.

Contents

I. Overview

Consistent with expectations, since the start of 2018 inflation has slowed down considerably, with the main contribution coming from the drop-out of early-2017 one-off price hikes from the year-on-year calculation. Still, the slowdown in inflation in the past three months to 1.4% in March was greater than expected, mainly owing to lower import prices and the still low food production costs. That inflationary pressures are low is also confirmed by movements in core inflation, which decelerated to 0.8% year-on-year in March, its lowest level since inflation has been measured by the consumer price index. The quarterly increase in prices by 0.8% was mostly caused by the rise in the prices of a small number of products and services, mainly the seasonal increase in the prices of fresh fruit and vegetables and the February cigarette excise tax increase. Working in the opposite direction were the seasonal decline in the prices of clothes and footwear, and travel packages.

Inflationary pressures fell further since the start of the year, as confirmed by the greater than expected slowdown in headline and core inflation, and the drop in the inflation expectations of the financial and corporate sectors below 3%.

Global economic growth outlook improved further since the February Report. This mostly resulted from a more favourable outlook for growth in the euro area, our most important trade partner, which spilled over to economic activity in Central and South-Eastern Europe as well. The United States also made a significant contribution to global economic growth; its gross domestic product is on the rise, supported by increased investment and consumption, and the effects of adopted tax reforms. Economic growth did not spur any significant inflationary pressures, resulting in still relatively low inflation in most countries. Such developments were recorded despite the continued rise in the prices of primary commodities, mainly oil, which in April reached their highest level in more than three years. Monetary policies of leading central banks – the Federal Reserve System and European Central Bank – became even more divergent, with growing uncertainty regarding the pace of their normalisation going forward. Despite somewhat heightened instability in the international financial market, global financial conditions remained favourable.

Developments in the international environment since the February Report were marked by the further improvement in global economic growth outlook, continued low inflationary pressures despite the rise in the prices of primary commodities, primarily oil, and increasingly diverging monetary policies of leading central banks.

Closely following the developments in the domestic and international environment, in the period since the February Report, the Executive Board assessed that the inflation outlook and its factors in the coming period opened up room for further monetary policy easing. In view of the above, the Executive Board made decisions to cut the key policy rate by 25 basis points in both March and April, to 3%. The Executive Board made the

The decision of the Executive Board to continue monetary policy easing was based on the fact that inflationary pressures generated by most domestic factors were further dampened, despite the uncertainty in the international commodity and financial markets.

decisions on further monetary policy easing taking into consideration not only that the February medium-term inflation projection was lower than the previous one, both for this and next year, but also that inflationary pressures weakened further after the February projection. On the other hand, monetary policy caution in the period observed was mandated by uncertainty in the international commodity market, mainly regarding the movements in oil prices. Caution was also required due to diverging monetary policies of the Federal Reserve System and European Central Bank.

Lending activity rose (by 7.5% year-on-year in March) on account of factors on both the supply and demand side. This and the efforts made to resolve the issue of non-performing loans made the share of these loans fall further, to 9.2% in March.

Monetary policy easing in the previous period, which significantly drove down interest rates on dinar loans, the effects of increased interbank competition, economic growth and recovery in the labour market, a decline in the risk premium, and low interest rates in the euro area money market all contributed to an acceleration in lending activity. Despite the considerable write-offs of non-performing loans, March saw year-on-year growth in total loans (excluding the exchange rate effect) by 7.5%. Since the beginning of the year, year-on-year growth in loans to corporates has accelerated further (to 5.1%), while growth in loans to households slowed down slightly (to 10.9%). Owing to the successful implementation of the NPL Resolution Strategy and the rise in lending activity, the share of non-performing loans in total loans was drastically reduced to below the pre-crisis level, equalling 9.2% in March.

Favourable fiscal trends continued into 2018. Fiscal policy contributed to the sources of growth of domestic demand, but not to the extent which would cause high inflationary pressures.

Favourable fiscal trends continued in early 2018, as can be seen from the fiscal surplus in the first quarter, amid considerably greater government capital expenditures and higher outlays for salaries and pensions. Positive fiscal trends continued mainly on the back of the rise in the profitability of corporates, recovery of the labour market and enhanced tax collection efficiency. A contribution came from falling interest expenses against the background of the government's reduced need to borrow and the lower cost of borrowing, significantly owing also to the monetary easing by the National Bank of Serbia and the sharp decline in the country risk premium. In accordance with the Fiscal Strategy for 2018–2020, the general government deficit envisaged for the medium run is 0.5% of gross domestic product. This medium-term deficit target will ensure a sustained downward trajectory of public debt in the coming period. In fact, taking into consideration the favourable developments since early this year, consolidated budget could record a better result than the deficit of 0.7% of gross domestic product planned for this year.

According to preliminary data, the current account deficit in the first quarter of 2018 was 6.3% lower than in the same period last year. By structure, the trade in goods deficit increased, albeit it was compensated by a higher surplus of trade in services, lower deficit of primary and higher surplus of secondary income. Export growth was driven by higher exports of all sectors of manufacturing except the food industry, which was affected by lower agricultural production due to last year's drought. At the same time, the current investment cycle, spurred also by inflows of foreign direct investment, supported growth in imports of equipment and intermediate goods for industrial purposes, which was also the primary factor of import growth. To an extent, imports were also pushed up by higher global oil prices. In the first quarter, the financial account recorded a net capital inflow, which fully covered the current account deficit, underpinning appreciation pressures in the foreign exchange market. In terms of structure, the net inflow of foreign direct investment is still high, strengthened by the net portfolio investment inflow owing to higher non-resident investment in dinar long-term government securities. We expect that the net inflow of foreign direct investment of around EUR 2.6 billion this year will fully cover the current account deficit. We expect this trend also in the coming period, which will be one of the factors of external sustainability in the medium run.

According to the preliminary estimate of the Statistical Office, year-on-year gross domestic product growth accelerated significantly in the first quarter of 2018, to 4.5%. Growth was faster than expected primarily owing to extremely favourable developments in the construction sector recorded since the second half of 2017, and faster than expected growth in investment, on the expenditure side. Manufacturing continued to be a positive factor, owing to prior investment and the rise in external demand, as did most service sectors in an environment of positive labour market developments present in the last three years. In line with our expectations, the energy sector recovered in the first quarter. Continued seasonally-adjusted growth in gross domestic product, present for ten consecutive quarters, which we estimated to measure 1.8% in the first quarter, helped economic activity approach to fulfilling its potential.

Owing to implemented reforms and improvement of the investment environment, Serbia has created the basis for sustainable economic growth in the medium run, which we estimate to speed up to around 3.5% this year, maintain a similar pace in 2019, and reach 4% thereafter. Gross domestic product growth will be led by domestic

High growth rates of manufacturing exports endured (12.4% year-on-year), while the rise in imports (11.9% year-on-year) came mainly from increased needs of corporates for equipment and intermediate goods. Dynamic export growth was continued owing to manufacturing, despite the diminished exports of agricultural commodities owing to last year's poor agricultural season.

Gross domestic product growth in the first quarter exceeded our expectations, also thanks to faster than expected investment growth. Taking a longer view, seasonally-adjusted gross domestic product growth has been recorded for ten consecutive quarters.

According to our projection, gross domestic product growth in 2018 and 2019 will accelerate to around 3.5%, and is highly likely to be even higher than estimated. This is indicated by more favourable than expected trends in construction on the production side, and in investment on the expenditure side.

GDP growth projection
(y-o-y rates, in %)
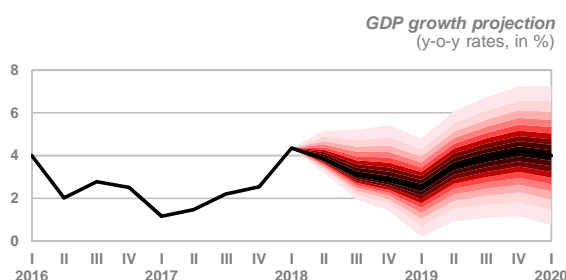
According to our latest central projection, year-on-year inflation will remain low and stable – within in the target tolerance band (3.0±1.5%) until the end of the projection horizon.

Inflation projection
(y-o-y rates, in %)
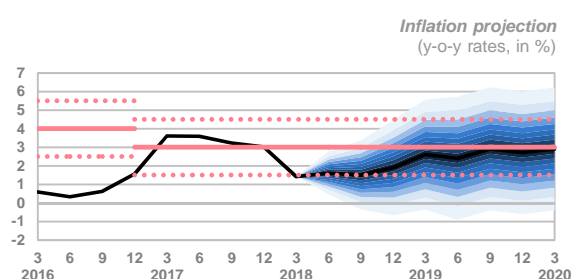
We estimate that the key risks in the coming period emanate from the international environment and, as such, may affect the monetary policy stance.

demand, i.e. investment and household consumption, owing to the further improvement in the business environment, favourable monetary conditions, continued implementation of infrastructure projects and positive labour market trends. Exports are expected to retain a two-digit growth rate, driven by past investment and rising external demand. Owing to the continuation of the investment cycle, we also expect higher imports of equipment and intermediate goods. The risks to the gross domestic product projection for this year are judged to be skewed to the upside, as indicated by more favourable than expected movements of macroeconomic indicators at the start of the year, mainly in construction on the production side, and in investment on the expenditure side. If the rise in **total fixed investment** continues at a similar pace for the remainder of the year, we could expect its share in gross domestic product to rise to around 22% this year.

Under the May central projection, having touched this year's low in April, year-on-year inflation is expected to gradually move towards the target, remaining close to the lower bound of the target until the end of this year. We expect inflation to steadily approach the 3.0% midpoint in the second half of 2019, and to remain stable around that level until the end of the projection horizon. The factors underlying such inflation movements are the low base for some products, the waning of the effects of past appreciation of the dinar and rising aggregate demand. The new medium-term inflation projection is lower than in February, until the end of projection horizon. This is primarily the result of a smaller than expected rise in consumer prices in the first quarter, reflecting the effects of the dinar appreciation in the past period, low inflation in the international environment and persistently low costs of food production. We estimate that the risks to the projected inflation path are symmetric and relate primarily to future developments in the global commodity and financial markets, and to a certain degree, to administered price growth and success of this year's agricultural season.

Looking ahead, monetary policy decisions of the National Bank of Serbia will continue to depend on the assessment of the impact of inflation factors from the domestic and international environment. As the key risks emanate from the international environment, the National Bank of Serbia will continue to closely monitor and analyse movements in the international financial market and the market of primary commodities, notably crude oil and primary agricultural commodities, and will assess their impact on economic developments in Serbia. The National Bank of Serbia will as so far use all available

instruments to make sure inflation remains low and stable over the medium term, which, together with the preservation of financial stability, will contribute to sustainable economic growth and stronger resilience to external uncertainties.

II. Monetary policy since the February *Report*

Since the February Inflation Report, the key policy rate was trimmed by a total of 50 bp, to 3.0%, its new lowest level in the inflation targeting regime. The NBS Executive Board made the decisions on further monetary policy easing taking into consideration not only that the February medium-term inflation projection was lower than the previous one, both for this and next year, but also that inflationary pressures weakened further after the February projection. This is confirmed by the record-low core inflation and the further fall in inflation expectations.

Low inflationary pressures and reduced macroeconomic risks enabled further monetary policy easing. Serbia's resilience to potential adverse effects of global factors improved owing to structural improvements and the narrowing in internal and external imbalances, lower country risk premium and higher credit rating and capital inflow. However, caution was still mandated due to uncertainties in the international environment, mainly on account of the movements of global prices of primary commodities, primarily oil, diverging monetary policies of leading central banks, and geopolitical tensions.

The Executive Board assessed that inflation will continue to move around the lower bound of the target tolerance band until the end of the year. It may be expected to gradually approach the target midpoint next year, above all owing to the expected growth in domestic demand, aided by wage and employment growth, and the effects of past monetary policy easing.

Closely following the developments in the domestic and international environment, in the period since the February Report, the Executive Board assessed that the inflation outlook and its factors in the coming period opened up room for further monetary policy easing. In view of this, it decided to trim the key policy rate **by 25 bp in both March and April, to 3.0%**. By reducing the key policy rate amid low inflationary pressures, the NBS provides additional support to credit activity and economic growth. Parallel to lowering of the key policy rate, in April the Executive Board decided to narrow the interest rate corridor from ±1.5 pp to ±1.25 pp relative to the key policy rate, so as to allow market interest rates to stay within the narrower corridor against the backdrop of the lowest key policy rate in the inflation targeting regime.

The decisions on monetary policy in the period observed were based on the February inflation projection, which, same as the previous one, predicted that y-o-y inflation would continue to move within the target tolerance band of 3.0±1.5% until the end of the projection horizon (in the next two years). As the previous one, the February

projection predicted low inflationary pressures based on most factors from the domestic and international environment, with the high base effect for fruit and vegetable prices and, in the short-term, for energy prices, which would contribute to a considerable slowdown in inflation since the start of this year. Conversely, the projection assumed a gradual recovery of domestic demand, which would lead to a moderate rise in inflation in the medium run and ensure that it continued to move within the target tolerance band. However, the February projection was lower than the November projection. The main reasons for this were the smaller than expected rise in consumer prices in Q4 2017 and the assumption of lower import prices of primary agricultural commodities expressed in dinars. For this reason, the February projection predicted that inflation would move closer to the lower bound of the target tolerance band in 2018.

From the start of the year, inflationary pressures were lower than expected, and inflation fell to 1.4% y-o-y in March. Low inflationary pressures are also indicated by movements in core inflation, which dropped to 0.8% y-o-y

in March, its lowest level since inflation has been measured by CPI. Also, both short- and medium-term inflation expectations were anchored – according to the Ipsos survey, the financial and corporate sectors expected both one- and two-year ahead inflation to be at the target midpoint (3.0%), and the April Bloomberg survey showed that the financial sector expected even lower inflation in April 2019 (2.8%).

Low inflationary pressures and reduced macroeconomic risks enabled further monetary policy easing. The Executive Board underscored that, owing to structural improvements and the narrowing in internal and external imbalances, Serbia's resilience to potential adverse effects of global factors improved. The results achieved in terms of fiscal consolidation and sustainability of public finance are best illustrated by data on the move from a fiscal deficit to surplus since last year, lower risk premium and improved country credit rating. Judging by the price they were willing to pay for government securities, investors believed that Serbia was a considerably more secure investment destination than in the previous period. The Executive Board assessed that the improvement in Serbia's risk perception was key for more favourable treatment and financial conditions the country may encounter in the international financial market. In addition, improved risk perception leads to lower costs of borrowing of corporates and households. Also, the fact that investors believe Serbia to be significantly safer for investment attracts higher FDI inflows and higher investment of foreign investors in dinar government securities, contributing to continued appreciation pressures in the foreign exchange market in this year as well.

Further improvement in the business environment, a high and project-diversified FDI inflow, implementation of infrastructure projects and past monetary policy easing are likely to lend a further impetus to private investment, which will remain one of the drivers of economic growth. In addition, a growing positive contribution should come from household consumption on account of further labour market recovery. The Executive Board assessed that domestic demand strengthened thanks to the rise in employment and wages, and past monetary easing. Lending activity continued up, supported by the fact that the key policy rate is at its lowest level in the inflation targeting regime, and in view of the increased interbank

competition, low country risk premium and low interest rates in the euro money market. These are the main factors underlying the expectation of the Executive Board that GDP growth will accelerate to around 3.5% this year and retain a similar pace in 2019 as well. As assessed by the Executive Board, this will contribute to the weakening of disinflationary pressures with respect to domestic demand and the gradual closing of the negative output gap, which will ensure that inflation approaches the target midpoint in 2019.

Besides domestic demand, the Executive Board assessed that external demand would recover further as well. More favourable growth prospects of the euro area and Central and South-Eastern Europe, along with the effects of earlier investment, should boost further export growth. However, it was assessed that, besides positive impacts from the international environment, negative effects are also possible in the coming period. This is why the Executive Board made monetary policy decisions in consideration of the uncertainty in the international financial and commodity markets, which still mandates caution. Uncertainties in the international financial market continued to stem largely from the diverging monetary policies of leading central banks, the Fed and the ECB, and could affect the relationship between their currencies and capital flows to emerging economies, Serbia included. The Fed continued to normalise its monetary policy and raised its policy rate in March, while the ECB pursued an accommodative monetary policy, amid growing market expectations that, due to improved economic outlook for the euro area, it could end the quantitative easing programme after September. There was also uncertainty surrounding the movements of global prices of primary commodities, particularly of oil, and geopolitical tensions. Still, the Executive Board assessed that there is room for further monetary easing and that the resilience of the Serbian economy to potential adverse effects from the international environment has increased, owing to the strengthening of domestic macroeconomic fundamentals and a more favourable outlook for the period ahead.

Taking into account the effects of past monetary easing and the expected movement in inflation and its underlying factors according to the May inflation projection, **in May the NBS Executive Board voted to keep the key policy rate on hold**.

III. Inflation movements

Consistent with expectations, since the start of 2018 inflation has slowed down considerably, with the main contribution coming from the drop-out of early-2017 one-off price hikes from the y-o-y calculation. Still, the slowdown in inflation in the past three months was stronger than expected, mainly owing to lower import prices and low food production costs. In March inflation stood at 1.4% y-o-y, indicating a further reduction in inflationary pressures. That inflationary pressures are low is also confirmed by movements in core inflation, which decelerated to 0.8% y-o-y in March, its lowest level since inflation has been measured by the consumer price index.

The quarterly increase in prices by 0.8% was mostly caused by the rise in the prices of a small number of products and services, mainly the seasonal increase in the prices of fresh fruit and vegetables and the February cigarette excise tax increase. Working in the opposite direction were the seasonal decline in the prices of clothes and footwear, and travel packages.

Inflation movements in Q1

Since the start of the year, y-o-y inflation has slowed down, moving around the lower bound of the target tolerance band in Q1. Relative to December, all inflation components made a smaller contribution to y-o-y inflation, which measured 1.4% in March. The greatest contribution to the slowdown came from the prices of fruit and vegetables, followed by petroleum products, and, to a somewhat lesser degree, processed food and mobile telephony services, i.e. the products and services that saw one-off price increases in early 2017. Weak inflationary pressures are also indicated by core inflation, which in Q1 moved below the target tolerance band, reaching the new low in March – 0.8% y-o-y.

In accordance with the methodology of the Serbian Statistical Office, the regular annual adjustment of weights according to the structure of the consumer basket was carried out in early 2018. According to the new structure of weights, the share of food and non-alcoholic beverages was slightly reduced, as opposed to the share of the category of services and the basket of products and services making up core inflation (up from 45.3% to 45.9%), i.e. the part of inflation affected the most by monetary policy measures.

Relative to the February short-term central projection, inflation was lower in March by 0.6 pp, which resulted the most from the lower contribution of prices of industrial products, mainly on account of lower import prices

Table III.0.1 **Contribution to y-o-y consumer price growth**
(in pp)

	2017	2018	Difference
	December	March	
Consumer prices (CPI)	3.0	1.4	-1.6
Unprocessed food	0.9	0.3	-0.6
Fruit and vegetables	*0.9*	*0.3*	*-0.6*
Fresh meat	*0.0*	*0.1*	*0.1*
Processed food	0.4	0.2	-0.2
Industrial products excluding food and energy	0.6	0.4	-0.2
Energy	0.6	0.2	-0.4
Petroleum products	*0.3*	*0.0*	*-0.3*
Services	0.5	0.3	-0.2

Sources: SORS and NBS calculation.

Chart III.0.1 **Short-term inflation projection from February 2018**
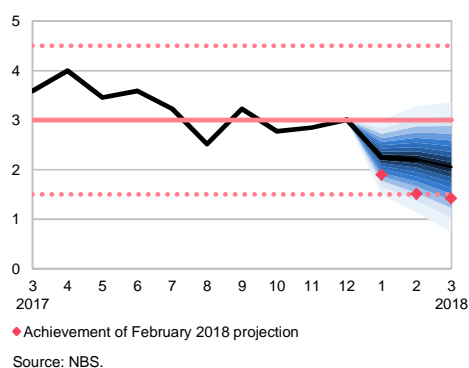(y-o-y rates, in %)

● Achievement of February 2018 projection

Source: NBS.

Table III.0.2 **Consumer price growth by component**
(quarterly rates, in %)

	Share in CPI	2017 II	2017 III	2017 IV	2018 I
Consumer prices (CPI)	100.0	0.5	-0.2	0.2	0.8
Unprocessed food	11.1	2.9	-2.5	-3.1	5.6
Processed food	20.6	0.3	0.1	0.2	0.5
Industrial products excluding food and energy	28.6	0.4	0.4	0.7	-0.1
Energy	15.5	-1.3	0.0	1.8	0.6
Services	24.3	1.0	0.1	0.3	0.1
Core inflation indicators					
CPI excluding energy	84.5	0.9	-0.2	-0.1	0.8
CPI excluding energy and unprocessed food	73.5	0.6	0.2	0.4	0.2
CPI excluding energy, food, alcohol and cigarettes	45.9	0.7	-0.2	0.6	-0.4
Administered prices	18.4	0.0	1.1	0.6	1.2

Sources: SORS and NBS calculation.

Chart III.0.2 **Price movements**
(y-o-y rates, in %)

Sources: SORS and NBS calculation.

Chart III.0.3 **Contribution to y-o-y consumer price growth**
(in pp)

Sources: SORS and NBS calculation.

expressed in dinars. Slower growth in food prices and a lower than expected rise in the prices of petroleum products also contributed to the deviation from the projection.

At quarterly level, consumer prices picked up by 0.8%. Prices of food and non-alcoholic beverages, up by 2.2%, gave the strongest boost to inflation in Q1 (0.7 pp). Specifically, the contribution of unprocessed food amounted to 0.6 pp, resulting from the expected seasonal rise in the prices of vegetables (10.3%) and fruit (10.0%). Fresh meat prices dropped in January and February, only to bounce back in March due to the rise in these prices in the global market, making a neutral contribution to inflation in Q1. In addition, the prices of processed food rose somewhat (0.5%, contribution: 0.1 pp), mainly due to the increase in the prices of milk and dairy products.

Energy prices went up by 0.6% in Q1 (contribution: 0.1 pp). The rise in the global prices of crude oil in Q1 (3.5%) pushed up the prices of petroleum products by 1.5% (contribution: 0.1 pp). Prices of solid fuel (coal and firewood) grew less than expected for the season, primarily due to a relatively mild winter.

The drop in the prices of industrial products excluding food and energy by 0.1% in Q1 was predominantly driven by the seasonal decline in the prices of clothes and footwear (contribution: -0.1 pp each). The prices of most other products in this group also fell in Q1. The rise in cigarette prices in February (by 4.1%) and the modest increase in the prices of alcoholic beverages and pharmaceuticals worked in the opposite direction.

Service prices inched up (by 0.1%), mainly reflecting the rise in the prices of cable TV subscription, medicinal services, apartment repair services and transport services. On the other hand, a negative contribution to inflation (-0.1 pp) came from travel packages, whose prices lost 10.8%, in line with seasonal trends.

After rising in Q4, core inflation (measured by CPI excluding prices of energy, food, alcohol and cigarettes) equalled -0.4% in Q1. The drop resulted the most from the seasonal decline in the prices of clothes and footwear and travel packages, while the rise in the price of cable TV subscription worked in the opposite direction.

Administered prices rose by 1.2% in Q1 (contribution: 0.2 pp), almost entirely because of the increase in cigarette prices in February by 4.1% due to excise adjustment. Y-o-y, at end-Q1 the rise in administered prices measured 2.9% (contribution: 0.5 pp), also driven by cigarette prices (contribution: 0.4 pp), and to a lesser extent, by electricity prices (0.1 pp).
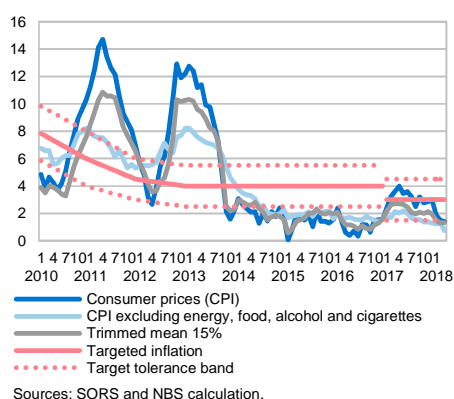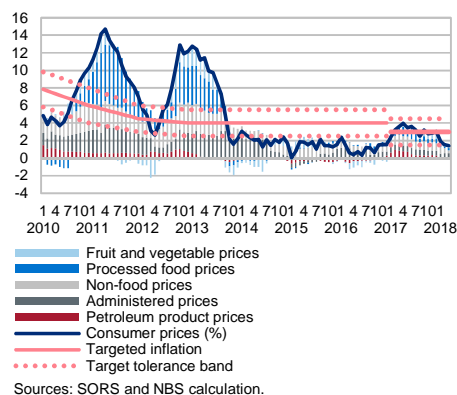
Text box 1: Inflation since early 2018 in Serbia and other countries with inflation targeting policy

Inflation considerably slowed down in early 2018, as had been announced in the NBS reports and press releases – it was lowered from the midpoint at end-2017 to 1.9% in January, and then to 1.5% in February and 1.4% in March. Inflation slowdown was primarily due to the drop out of one-off price hikes of some products and services (fruit and vegetables, mobile telephony services and energy) from y-o-y calculation in early 2017.

The impact of the above group of products on y-o-y inflation in 2017, and at the beginning of this year is illustrated in the Chart O.1.1 which shows groups of products and services that account for around 70% of consumer basket. The rectangle area represents their relative shares in consumer basket, and the colour stands for the range of y-o-y price hikes. It is discernible that shades of blue prevailed in March indicating that the dominant portion of consumer basket now records a y-o-y price increase below the targeted 3.0%. The products and services that experienced more significant changes to price dynamics can also be observed. Particularly prominent is the change to the price dynamics of vegetables – in December their y-o-y increase hit 10.8%, and in March it stood at -0.4%. Petroleum products also exhibited visible changes (4.7% in December relative to 0.2% in March), as well as solid fuels (8.7% to 2.1%) and telephone services (12.3% to 0%).

However, compared to the expectations from the February Inflation Report, inflation slowdown in Q1 2018 was faster than expected. Lower-than-expected inflation in the international environment, coupled with the dinar appreciation in the previous period brought about lower than expected increases in the prices of industrial products excluding foods and energy in Q1, in y-o-y terms. Thus, prices of clothes and footwear recorded a drop in March, which amounted to 1.1% and 2.0%, respectively, in y-o-y terms. The prices of audio and TV devices, computers and mobile phones also fell down (0.6%), as well as the prices of cars and car spare parts (2.7%). Furthermore, contrary to the expectations that the prices of primary agricultural commodities in the domestic market will go up, possibly affecting the food prices to a certain extent, the food production costs remained relatively low. Cigarette prices worked in the opposite direction (8.5% y-o-y), but this hike was in line with our expectations and conditioned by the regular annual excise adjustment in February and July.

Chart O.1.1 **Y-o-y rise in prices of selected products and services**
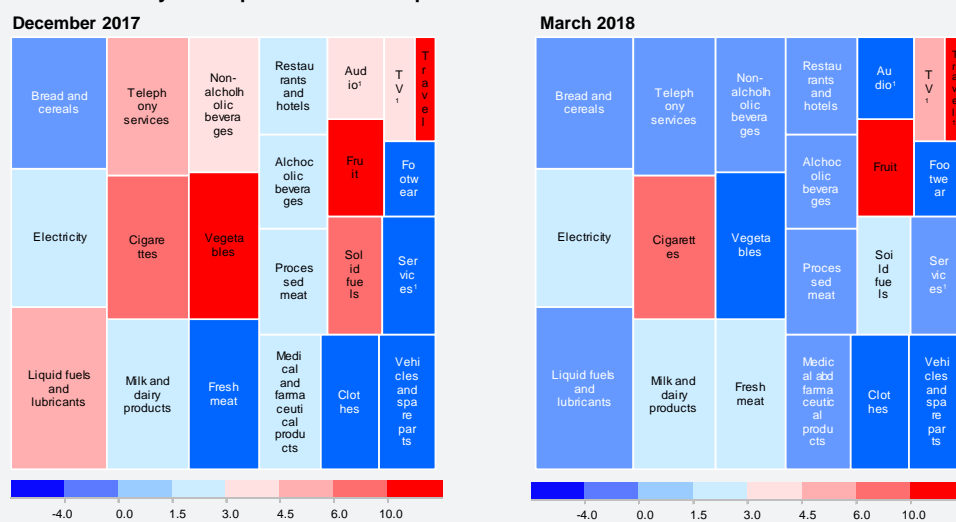
Sources: SORS, NBS calculation.

Note: The rectangular area represents a share in consumer basket , while colours stand for the y-o-y price growth range of the category in question.

[1] Audio– audio, TV, computers, telephones and other equipment; TV – TV and CTV subscription; Travel– travel packages; Services – apartment maintenance and repair services.

The distribution of the y-o-y rate of consumer price increases for December 2017 and March 2018 (Charts O.1.2. and O.1.3), which comprises the entire consumer basket of 645 products and services, leads to similar conclusions. Thus, in March a y-o-y price increase of 25.1% of consumer basket was within the targeted band 1.5–4.5% (on average it stood at 2.7%), with 0.7 pp joint contribution to inflation. The presented distribution of consumer prices, according to which 58.4% of consumer basket reached y-o-y growth below 1.5% in March, also confirms that inflationary pressures remained low.

Compared to the European countries whose central banks target inflation (Chart O.1.4), since early 2018 Serbia is in the group of countries where inflation moved around the lower bound of the target band (as well as in Poland, Albania, and Hungary).

Chart O.1.2 **Distribution of CPI y-o-y growth rates in December 2017**

Decline above 6%	Contribution to CPI (in pp)
	-0,27
Vegetables	-0,10
Sugar	-0,05
Clothes	-0,04
House painting services	-0,03
Full-coverage motor vehicle insurance	-0,03
Other	-0,02

Decline above 12%	Contribution to CPI (in pp)
	1,34
Vegetables	0,56
Fruit	0,36
Mobile telephony services	0,22
Travel packages	0,11
Fresh fish	0,05
Other	0,05

Sources: SORS, NBS calculation.

Chart O.1.3 **Distribution of CPI y-o-y growth rates in March 2018**

Decline above 6%	Contribution to CPI (in pp)
	-0,56
Vegetables	-0,29
Eggs	-0,10
Sugar	-0,07
Clothes and footwear	-0,04
House painting services	-0,02
Other	-0,04

Decline above 12%	Contribution to CPI (in pp)
	0,67
Fruit	0,31
Vegetables	0,20
Travel packages	0,14
Weeklies	0,02
Other	0,00

Sources: SORS, NBS calculation.
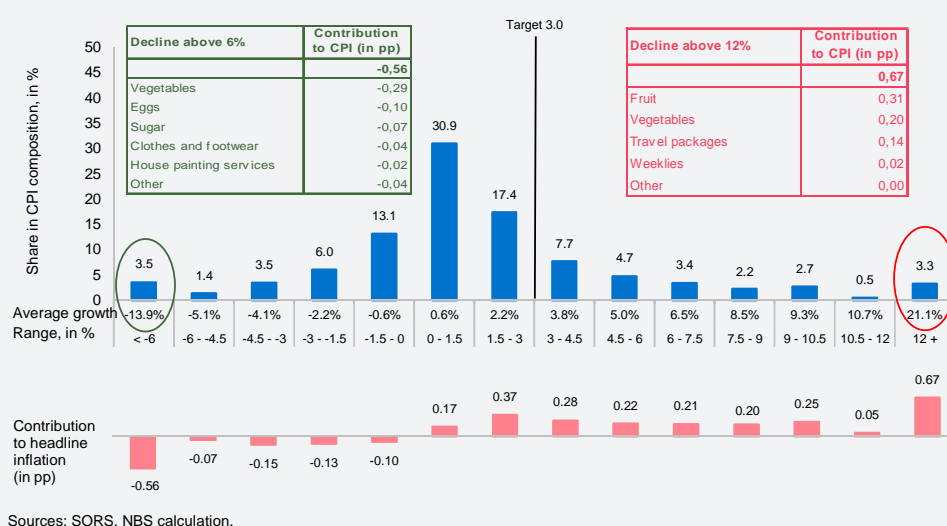
Chart O.1.4 **Inflation and target by country in March 2018**
(in %)

×Inflation
◆Target
▬Target tolerance band
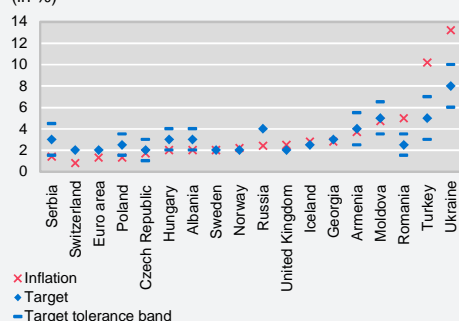
Sources: Eurostat and websites of central banks.

Chart O.1.5 **Central inflation projection for 2018**
(in %)

May 2017   August 2017
November 2017   February 2018
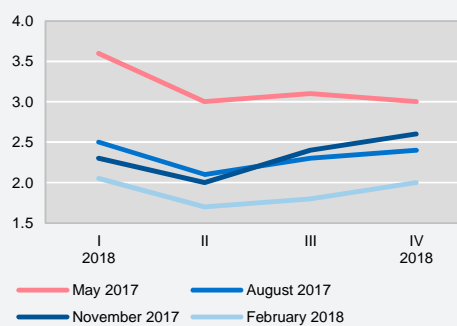
Source: NBS.

The difference between the actual and expected inflation in Serbia and the reference countries stems primarily from different nature and weight of certain domestic factors. Hence, different monetary policy responses. This also explains why some central banks, such as the Czech and Romanian central banks, started a monetary policy tightening cycle while, for example, monetary policy easing was pursued by Hungary (using non-standard measures), in addition to the NBS, while the Polish central bank has kept the key policy rate at a historical low of 1.5% for three years now.

In the specific case of the NBS, the decision to keep up with the monetary policy easing was determined by the expected low inflationary pressures in the period to come, and by the fact that they had additionally subdued relative to the February mid-term inflation projection which also pointed out to low inflationary pressures (Chart O.1.5).

Chart III.0.4 **Contribution to quarterly producer price growth***
(in pp)
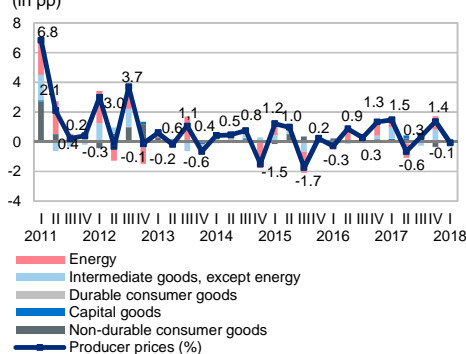
Sources: SORS and NBS calculation.
* Industrial producer prices for the domestic market.

Table III.0.3 **Price growth indicators**
(y-o-y rates, in %)

	2017			2018
	June	Sep.	Dec.	March
Consumer prices	3.6	3.2	3.0	1.4
Domestic industrial producer prices	3.0	3.3	2.6	0.8
Prices of elements and materials incorporated in construction	4.8	2.2	1.8	-0,2

Sources: SORS and NBS calculation.

Chart III.0.5 **Domestic inflation and import prices**
(y-o-y rates, in %)
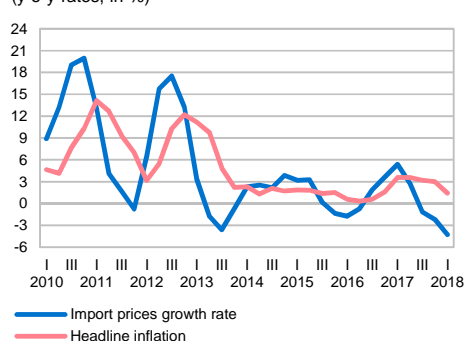
Sources: Destatis, FAO, Bloomberg, Eurostat, SORS and NBS calculation.

Producer and import prices

Industrial producer prices in the domestic market dropped slightly in Q1 (by 0.1%), slowing their y-o-y growth down to 0.8% in March.

Q1 saw a mild decline in the prices of energy and non-durable consumer goods. The producer prices of energy diminished (0.2%) predominantly due to lower costs in the production of coke and petroleum products (by 0.9%). The reduction in the producer prices of non-durable consumer goods was mainly driven by lower costs in food industry (by 0.4%).

On the other hand, a contribution to producer price growth in Q1 came from the prices of intermediate goods due to higher costs of production of metal products (by 2.0%) and construction materials (by 1.8%), and from higher costs in the production of rubber and plastics and basic pharmaceutical products and preparations. Within this category, lower costs in the production of chemicals and chemical products (by 0.7%) worked in the opposite direction.

Similarly to producer prices in industry, **prices of elements and materials incorporated in construction** also fell in Q1 (by 4.5%), which, along with the high base effect, caused a y-o-y decline in these prices by 0.2%.

After an increase in Q4, the indicator used to track the changes in the prices of goods and services imported into Serbia shows that **dinar-denominated import prices**[1] declined by 0.4% in Q1. This was supported by lower global food prices, which, expressed in USD, continued down at the level of quarterly average (1.7%), and by lower euro area consumer prices, which are used to approximate prices of imported services. Import prices expressed in dinars also declined owing to the dinar's strengthening against the dollar, which was largely caused by the euro's appreciation vis-à-vis the dollar. On the other hand, global oil prices expressed in USD were, on average, 9.1% higher than in Q4, primarily owing to the extension of the agreement of OPEC member countries and Russia to cap production until the end of 2018, and to the still present geopolitical tensions. An increase (0.5%) was also recorded in the prices of German exports, which are used to approximate prices of imported equipment and intermediate goods. Y-o-y, dinar-denominated import prices continued down (by

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[1] The weighted average of the global oil and food price index (FAO index), euro area consumer prices, and export prices of Germany, one of Serbia's main trade partners, is used as an indicator of import prices.

4.2% in Q1), which was, to some extent, caused by the high base from early 2017.
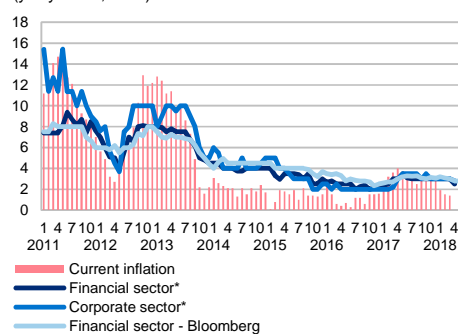
Inflation expectations

Short- and medium-term inflation expectations of the financial and corporate sectors are anchored around the inflation target midpoint of the NBS, indicating that these sectors expect price stability to be maintained both in the short- and medium-term.

According to the Ipsos survey, the financial sector expects inflation in Q1 2019 to remain at the level of 3.0%, i.e. the target midpoint, and to be lower in April 2019 (2.5%). According to the Bloomberg survey, one-year ahead inflation expectations of the financial sector have been on a downward trajectory since the start of the year, declining from 3.2% in January to 2.8% in April and May, most probably owing to the inflation slowdown since the start of the year. If a longer period is observed, it may be seen that for four and a half years already, specifically since October 2013, financial sector expectations have moved within the NBS target tolerance band.

According to the Ipsos survey, short-term inflation expectations of the corporate sector were anchored at the target midpoint of 3.0% in Q1, dropping to 2.8% in April. On the other hand, as is customary, the household sector had higher expectations than other sectors, though they were also stable, standing at 5.0% since May 2017. The results of the qualitative survey[2] show that the index of perceived inflation continued to record higher values than the index of expected inflation, indicating that households expected inflation to be lower in the next year than in the past twelve months. Also, the net percentage of respondents, i.e. the difference between the respondents expecting that over the next 12 months prices will increase more than mildly and the respondents expecting that prices will fall or remain unchanged, was lower than at the start of the year, equalling 23.4 index points in April.

Medium-term inflation expectations of the financial sector have been moving within the NBS target tolerance band since their monitoring began (March 2014), standing at 3.5% in January, and falling to 3.0% in the next three months. Two-year ahead inflation expectations of the corporate sector have been anchored at 3.0% since the start of the year. Medium-term inflation expectations
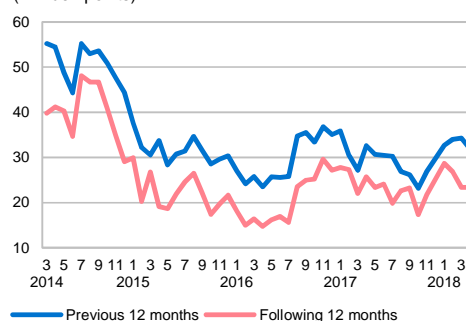

Chart III.0.6 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)

Sources: Gallup, Ipsos/Ninamedia, Bloomberg and NBS.
* Ipsos and Gallup agencies until December 2014, Ninamedia agency since December 2014, and Ipsos agency since January 2018.

Chart III.0.7 **Household perceived and expected inflation***
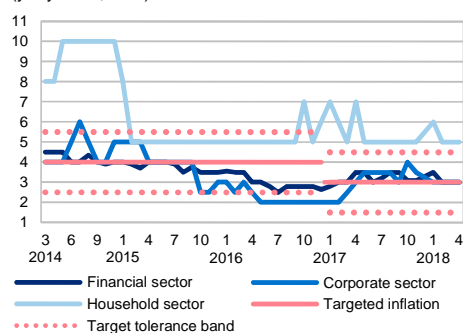(in index points)

Sources: Ipsos/Ninamedia and NBS (Ninamedia since December 2014).
* Ipsos and Gallup agencies until December 2014, Ninamedia agency since December 2014, and Ipsos agency since January 2018.

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[2] For details on qualitative expectations of households, see Text box 2 of the February 2016 *Inflation Report*, p. 15..

Chart III.0.8 **Two-year ahead inflation expectations***
(y-o-y rates, in %)

Sources: Ipsos/Ninamedia and NBS (Ninamedia since Dec. 2014).
* Ipsos and Gallup agencies until December 2014, Ninamedia agency since December 2014, and Ipsos agency since January 2018.

of households have been stable at 5.0% since May 2017 with the exception of January 2018.

The fact that the short- and medium-term inflation expectations of the financial and corporate sectors are anchored around the inflation target midpoint signals stronger credibility of the monetary policy. It should be pointed out that one-year ahead inflation expectations of the financial sector have been within the NBS target band since October 2013. Two-year ahead inflation expectations of the financial sector have also been within those bounds since their monitoring began in March 2014. In addition to lower expected inflation in the coming period, expectations of economic agents considerably improved with respect to other key economic parameters, particularly the business conditions in the following 12 months, and lending and economic growth.

IV. Inflation determinants

1. Financial market trends

The NBS monetary policy easing led to a decrease in interest rates in the interbank money market, where the pass-through occurs promptly, and coupled with higher demand in the dinar security auctions, also to a further fall in the cost of the dinar government borrowing.

The dinar appreciation pressures present since the beginning of the year are a reflection of firming macroeconomic fundamentals in the preceding period, as confirmed by a successful completion of a three-year arrangement with the IMF in February. Whereas depreciation pressures were present early in the year, primarily due to seasonally heightened demand for foreign currency by domestic enterprises, mainly energy importers, appreciation pressures have prevailed since February, driven by a great interest and considerable increase of non-residents' investment in the dinar securities, as well as a high inflow of FDI and sustained exports expansion.

Interest rates

Lowering of the key policy rate in March pushed down the average repo rate[3], which stood at 2.4% at the end of the month, and was diminished by 0.2 pp relative to end-2017.

Early in the year **interest rates in the interbank money market** slightly rose under the influence of the reduction in the banking sector liquidity surplus, to come down in March, following the NBS key policy rate lowering. Thus the average value of the BEONIA interest rate was at 2.3% in March, down by 0.1 pp, relative to December 2017. BELIBOR interest rates were trimmed by the same amount and in March their average values ranged from 2.4% for the shortest maturity to 3.2% for the longest maturity, which is lower by 0.1 pp compared to their

Chart IV.1.1 **Dinar liquidity**
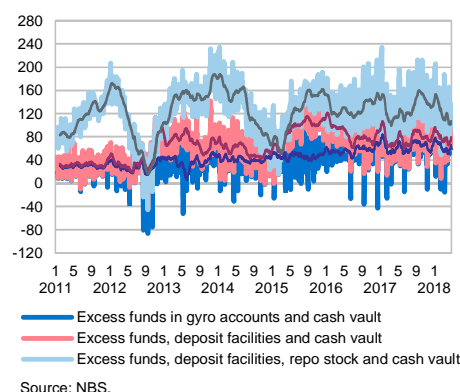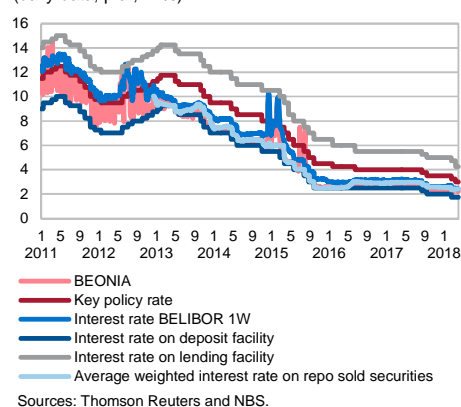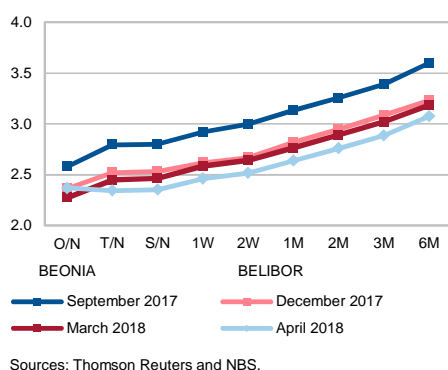(daily stock and 30-day moving averages, in RSD bn)

— Excess funds in gyro accounts and cash vault
— Excess funds, deposit facilities and cash vault
— Excess funds, deposit facilities, repo stock and cash vault

Source: NBS.

Chart IV.1.2 **Interest rate movements**
(daily data, p.a., in %)

— BEONIA
— Key policy rate
— Interest rate BELIBOR 1W
— Interest rate on deposit facility
— Interest rate on lending facility
— Average weighted interest rate on repo sold securities

Sources: Thomson Reuters and NBS.

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[3] The rate achieved at repo auctions weighted by the amount of sold securities.

Chart IV.1.3 **Yield curve in the interbank money market**
(average values, p.a., in %)

Sources: Thomson Reuters and NBS.

Chart IV.1.4 **Interest rates in the primary market of government securities**
(p.a., in %)

Source: Ministry of Finance.
* Excluding coupon securities with the rate linked to the NBS key policy rate.

Chart IV.1.5 **Stock of sold dinar government securities**
(in RSD bn)

Source: Ministry of Finance.

average value in December 2017. Activity in the interbank overnight money market was somewhat intensified – trading volumes in Q1 averaged RSD 2.9 bn, up by RSD 0.4 bn from Q4 2017.

Following the April key policy rate lowering, interest rates in the interbank money market were lowered by 0.1 pp each, on average, in April.

High demand at auctions, fall in the country risk premium, as well as the key policy rate lowering contributed to a further drop in interest rates in the **primary market of dinar government securities**. The shortest maturity of government borrowing in this market in Q1 was three years, with the rates on these securities trimmed by 0.5 pp, to 3.8% in February. In Q1 the government was predominantly selling benchmark five-year and ten-year securities. Five auctions of five-year securities were held, with rates constantly falling – from 4.3% in January, to 4.15% at end-March. The rate in March was down by 2.35 pp compared to October 2015, when the last auction for this maturity was held before 2018. In February and March the government organised auctions of ten-year securities for the first time since October 2014. Interest rates on these securities were lowered to 5.2% in March, down by 7.8 pp compared to October 2014. The demand at these auctions considerably exceeded supply (at February auction even as much as by five times), and thus significantly higher-than-planned amount of securities was sold to investors. Non-residents also contributed to high demand as they bought three fourths of ten-year securities, as well as around 15% of five-year securities. In terms of maturity composition, since the last one-year securities fell due in January, the shortest initial maturity that is currently in the government debt stock based on the dinar securities is two years.
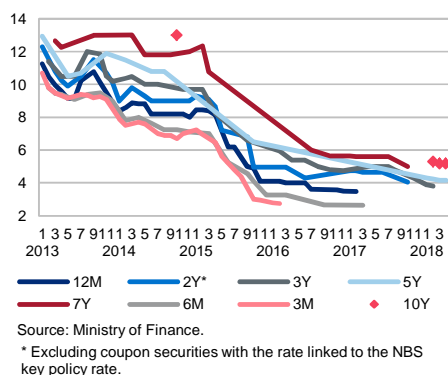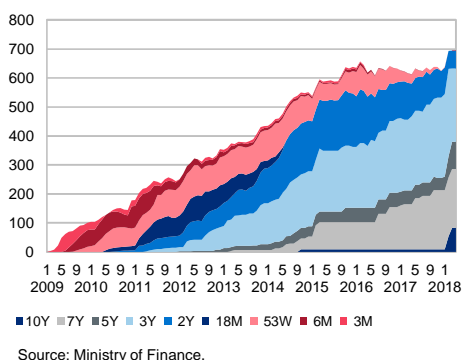
Interest rates at auctions of **government euro securities** were also revised downward in Q1, for longer maturities. Rates on three-year securities fell by 0.3 pp to 1.2% and those on five-year and ten-year securities by 0.5 pp to 1.9% and 3.5% respectively. On the other hand, rates on securities with the shortest maturity were almost unchanged – one-year securities were sold at the rate of 0.5%, and two-year securities at the rate of 1.0%.

Total trading volume in the **secondary market of government securities** in Q1 (RSD 160.2 bn) was similar to the one in the previous quarter, while rates of return dropped, more prominently for securities with longer maturity. In March, the rates of return ranged from 3.1% for the remaining up to two-month maturity to 5.2% for the 119-month maturity.

Average interest rates on **new dinar corporate loans** stood at 4.9% in March, up by 0.2 pp compared to December, while the price of dinar household loans (10.6%) was unchanged relative to end-2017. After falling to new lows in December, interest rates on all types of dinar corporate loans rose in Q1 – by 1.4 pp, to 6.9% on investment loans, by 0.1 pp, to 4.4%, on current assets loans, and by 0.2 pp, to 5.2% on other loans. Interest rates on cash household loans decreased (by 0.2 pp, to 10.9%) and March also saw dinar housing loans, granted at the lowest average rate so far (4.7%). Rates on consumer loans (8.3%) were unchanged relative to end-2017, while rates on other loans went up (by 0.9 pp, to 9.9%).

The average weighted interest rate on **new corporate euro and euro-indexed loans** went up from 2.8% in December 2017, to 2.9% in March, under the influence of rising interest rates on current assets loans and euro-indexed loans for other purposes, which rose by 0.2 pp each, reaching 2.8% and 2.9% respectively, in March. At the same time, interest rates on import loans (2.2%) were almost unaltered compared to December, whereas the price of investment loans went down by 0.3 pp relative to end-2017, to 3.0% in March. In Q1 the average interest rate on euro-indexed household loans dropped by 0.2 pp, to 4.0% in March, on account of lowered interest rates on housing loans (by 0.2 pp), which went down to the lowest level on record (2.8%) in February and March, and a decrease in interest rates on other loans which went down by 0.6 pp, to 5.9%. On the other hand, rates on cash and consumer loans went up by 0.1 pp each, relative to end-2017, and stood at 3.0% and 5.1% respectively, in March.

In Q1 interest rates on dinar household savings went down by 0.5 pp, to 2.6%, while the rate on termed euro savings (0.9%) was unchanged relative to end-2017. The interest rate on dinar corporate deposits (2.7%) was trimmed by 0.2 pp, relative to December 2017, whereas the interest rate on termed euro deposits went up by 0.2 pp, to 0.7% in March.

Risk premium

After falling to its lowest level on record in early 2018 (85 bp on 18 January), Serbia's risk premium, measured by EMBI, as the premia of other emerging economies, picked up moderately owing to global factors, though it was, on average, still lower in Q1 (109 bp) than in the previous quarter (113 bp). Judging by the movements in EMBI for Serbia, investors believe that Serbia is now a more secure investment destination than in the previous period. At end-March, Serbia's risk premium measured
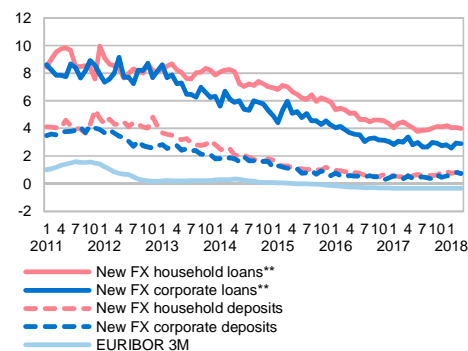
Chart IV.1.6 **Interest rates on dinar loans and deposits of corporates and households***
(weighted average values, p.a., in %)

— New dinar household loans
— New dinar corporate loans
--- New dinar household deposits
--- New dinar corporate deposits
— Key policy rate, period-average
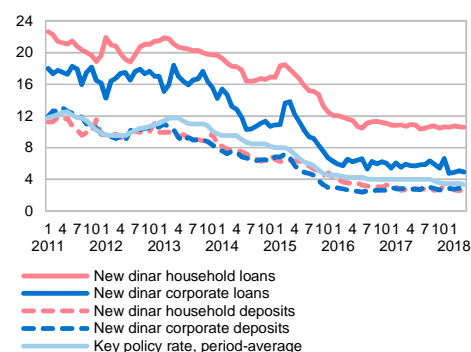
Source: NBS.

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

Chart IV.1.7 **Interest rates on FX loans and deposits of corporates and households***
(weighted average values, p.a., in %)

— New FX household loans**
— New FX corporate loans**
--- New FX household deposits
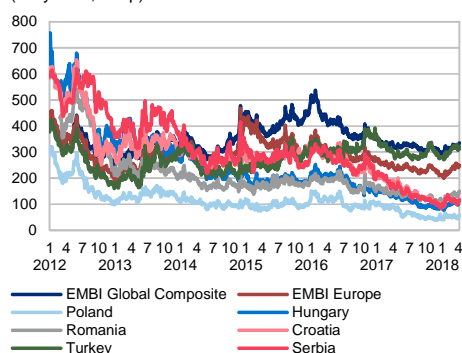--- New FX corporate deposits
— EURIBOR 3M

Sources: European Banking Federation and NBS.

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

** Euro and euro-indexed.

Chart IV.1.8 **Risk premium indicator – EMBI by country**
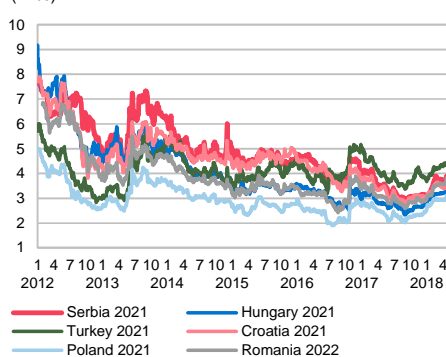(daily data, in bp)

Source: JP Morgan.

Chart IV.1.9 **Yields on eurobonds of countries in the region**
(in %)

Source: Bloomberg.

Chart IV.1.10 **Current account deficit and net capital inflow**
(in EUR mn)

■ Current account deficit

■ Capital and financial account (excl. IMF loan, SDR allocation and changes in NBS FX reserves)

Sources: SORS and NBS.

* Preliminary data.

by EMBI equalled 114 bp, up by 12 bp from end-2017. However, it rose less than EMBI Europe (by 20 bp to 246 bp) and EMBI Global (by 15 bp to 326 bp). Serbia's risk premium recorded no significant movements in April as compared to Q1, averaging 110 bp.

Of global factors, the risk premia of Serbia and other emerging economies were affected by greater volatility in the international financial market in February, which resulted from the many challenges it faces. Though the March federal funds rate hike was entirely expected, as was the reduction in net monthly asset purchases by the ECB since the start of 2018, there was higher uncertainty surrounding the pace of normalisation of monetary policies of leading central banks going forward. Also, the observed period was marked by geopolitical tensions, which reflected negatively on investors' willingness to take risk. Still, the impact of the higher uncertainty in the international financial market on the risk premia of countries in the region, Serbia included, was largely compensated by expectations of faster global growth and optimistic outlook going forward.

Domestic factors continued to work towards lower Serbia's risk premium. Risk perception with regard to Serbia improved owing mainly to the narrowing of imbalances and improvement in the business environment, and to more favourable growth outlook in the period ahead. The results achieved in terms of fiscal consolidation and sustainability of public finance are best illustrated by the fact that the fiscal deficit became a surplus last year, by the successful conclusion of the arrangement with the IMF and by credit rating upgrades by all three ratings agencies. Through improving macroeconomic fundamentals and narrowing its internal and external imbalances, Serbia raised its resilience to potential negative effects of global factors.
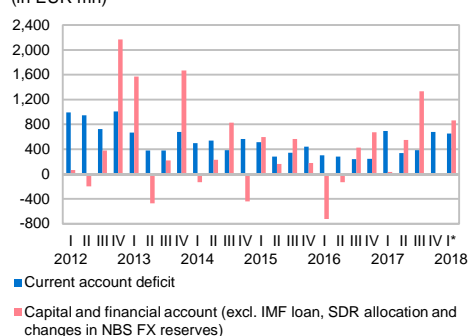
Foreign capital inflow

In Q1, the financial account recorded a net capital inflow, which fully covered the current account deficit, underpinning continued appreciation pressures in the foreign exchange market. In terms of structure, FDI inflows remained high, portfolio investment recorded considerable inflows, and government borrowing from foreign creditors went up.

The net **FDI** inflow in Q1 was somewhat higher than in the same period last year. According to preliminary data, it measured EUR 569.1 mn. By activity, investment in manufacturing was dominant (34%), and significant

amounts were also channelled to the financial sector, trade, construction and real estate business. Three-quarters of FDI related to investment from the EU, around 12% to investment from other European countries, and around 9% to investment from Asian countries.

At year level, the net FDI inflow is expected to measure around EUR 2.6 bn (6.6% of GDP), and to fully cover the current account deficit, as in the last three years.

The Q1 net inflow with respect to **portfolio investment** (EUR 327.8 mn) was the highest quarterly inflow since Q1 2015, resulting primarily from non-resident investment in long-term dinar government securities.

An outflow of EUR 4.7 mn was recorded with respect to financial loans, mainly due to outflows recorded by banks on these grounds (EUR 93.8 mn), which mostly related to the repayment of short-term loans (EUR 55.1 mn) taken out in the previous period. At the same time, liabilities of the NBS fell by EUR 3.8 mn. Conversely, government liabilities to foreign creditors rose by EUR 93.0 mn. Corporate borrowing remained unchanged in Q1.

Trends in the FX market and exchange rate

End-of-period, the dinar inched up against the euro (0.1%), and at the level of quarterly average it strengthened by 0.6%. Relative to the dollar, end-of-period, in Q1 the dinar appreciated by 3.2%, since the euro's strengthening vis-à-vis the dollar continued amid a more favourable outlook for euro area economic growth.

At the quarterly level, Q1 saw a high FDI inflow and further export growth, and since March, appreciation pressures have also been fuelled by the rise in FX-indexed bank assets.[4] Observed by month, in January depreciation pressures were caused by seasonal factors, above all higher FX demand of energy importers. Depreciation pressures also came from the reduction in FX-indexed bank assets, in the conditions of somewhat lower purchases of foreign cash from exchange dealers and natural persons. However, appreciation pressures have been prevalent since February, primarily due to peaked interest and a significant increase in non-resident investment in long-term dinar securities in February and

Chart IV.1.11 **Structure of the financial account**
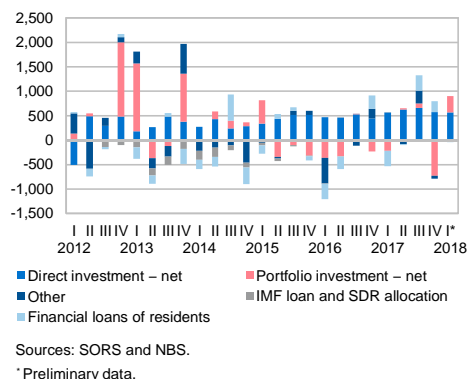(in EUR mn)

Sources: SORS and NBS.
* Preliminary data.

Chart IV.1.12 **Financial loans of residents – change in net borrowing**
(in EUR mn)

Source: NBS.
* Preliminary data.
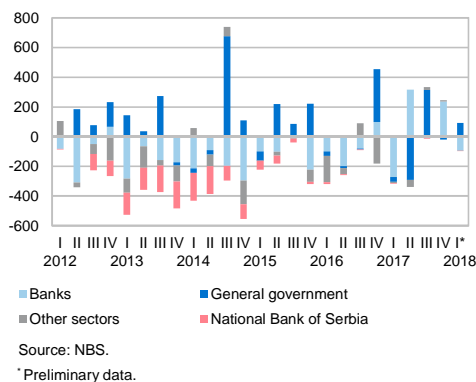
Chart IV.1.13 **Movements in RSD/USD and EUR/USD exchange rates**

Source: NBS.
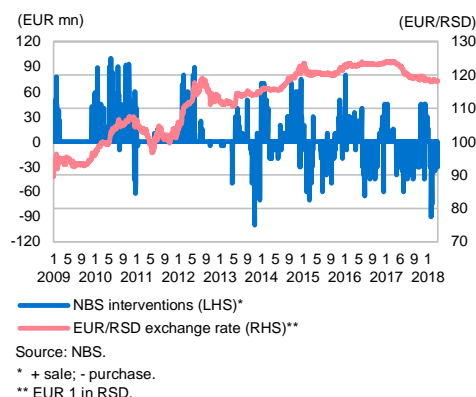* USD 1 in RSD.
** USD 1 in EUR.

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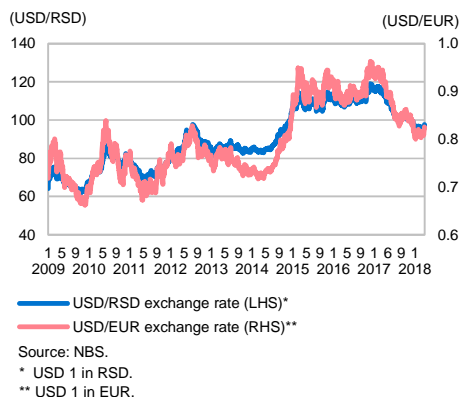
[4] Aiming to balance their long open foreign currency positions, thus reducing exposure to exchange rate risk, banks sell foreign currency, which results in the dinar's strengthening.

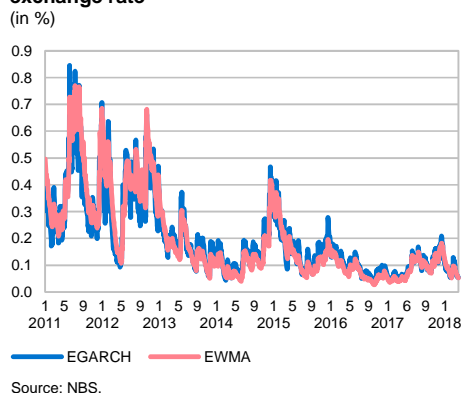Chart IV.1.14 **Movements in EUR/RSD exchange rate and NBS FX interventions**

(EUR mn)   (EUR/RSD)

NBS interventions (LHS)*
EUR/RSD exchange rate (RHS)**

Source: NBS.
* + sale; - purchase.
** EUR 1 in RSD.

Chart IV.1.15 **Short-term volatility of the RSD/EUR exchange rate**
(in %)

EGARCH   EWMA

Source: NBS.

Chart IV.1.16 **Exchange rates of selected national currencies against the euro***
(daily data, 31 December 2010 = 100)

Czech Republic   Romania
Poland   Hungary
Turkey   Serbia

Sources: NBS and websites of central banks.
* Growth indicates appreciation.

March. At the same time, FX demand of enterprises declined, and the purchase of foreign cash from exchange dealers increased. Appreciation pressures in March were also strengthened by the increase in banks' net currency clause-indexed assets.

To ease excessive short-term volatility of the exchange rate, in Q1 the NBS intervened in the IFEM by net purchasing EUR 400.0 mn, selling foreign currency in January and buying it in February and March. Incidentally, FX purchases amounting to EUR 400.0 mn in March were the highest monthly purchases on record.

Appreciation pressures also prevailed in April, mainly due to seasonally higher purchases of foreign cash in conditions of low net sales of foreign currency to residents and non-residents. The NBS continued to intervene in the IFEM in April by purchasing EUR 205.0 mn.

Trading volumes in the IFEM[5] in Q1 averaged EUR 37.3 mn a day, with the highest value recorded in January (EUR 42.0 mn daily average). Relative to Q4 2017, average daily trading volumes were lower by EUR 10.0 mn, leading to a mild decrease in the volatility of the dinar's exchange rate against the euro, measured by EWMA[6] and EGARCH.[7] Compared to the same period last year, trading volumes doubled.

The volume of transactions at regular swap auctions organised by the NBS in Q1 was smaller than in Q4 2017. At three-month auctions the NBS bought and sold EUR 80.0 mn (EUR 48.0 mn more than in Q4), while at two-week auctions it bought and sold EUR 22.0 mn (EUR 68.0 mn less than in Q4).
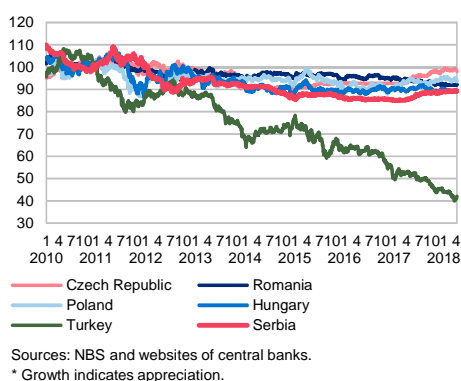
Of the currencies of countries in the region running similar exchange rate regimes, besides the dinar, only the Czech koruna appreciated (0.4%). The value of the Romanian leu remained unchanged, while the Hungarian forint lost 0.8%, the Polish zloty 0.9% and the Turkish lira 7.5%.

Stock exchange trends

Even though BELEX15 (the index of the most liquid shares) went up in January, it has declined mildly since February, resulting in a fall at the level of the entire quarter by 2.2% to 742.8 index points. At end-quarter, the

[5] Excluding the NBS.

[6] EWMA – Exponentially Weighted Moving Average.

[7] EGARCH – Exponential General Autoregressive Conditional Heteroskedasticity.

general index BelexLine measured 1,564.3, down by 5.9% from end-2017. Still, the increase in the index BELEXsentiment to 109.2 in April suggests improved investor sentiment in the capital market.

As in the previous quarters, in Q1 investors predominantly traded in debt securities on the Belgrade Stock Exchange (BSE). Thus, total trading in bonds amounted to RSD 17.5 bn, down by 12.6% compared to the previous quarter. Non-resident participation in trading in bonds fell from RSD 0.4 bn in Q4 to RSD 0.3 bn in Q1.

For the third consecutive quarter, trading in shares grew – in Q1 trading went up by 26.3% to RSD 2.5 bn.[8] In Q1, trading increased primarily in the MTP (unregulated) segment, whereas trading in shares in the regulated segment was 5.2% lower than in Q4 2017. Non-resident participation in total trading in shares measured 45.9%, whereby non-residents net purchased shares in the amount of RSD 0.2 bn.

Stock exchange turnover should also benefit from the implementation of the project IPO Go! by the Belgrade Stock Exchange in cooperation with the EBRD. The project is aimed at promotion and aid to private companies in initial public offerings.

BSE market capitalisation declined by RSD 9.0 bn to RSD 539.7 bn in Q1 due to reduced open market capitalisation. As GDP grew at the same time, the share of market capitalisation in estimated GDP fell by 0.4 pp to 11.9%.

Indices of stock exchanges from countries in the region recorded varying movements in Q1, with two-digit growth in the indices of stock exchanges in Sarajevo (SASX10, 13%) and Bucharest (BET, 12.4%), and the most prominent drop in the Hungarian index (BUX, -5.4%).

2. Money and loans

Money supply was lower in Q1, mainly due to the drop in dinar transaction deposits and the decline in cash in circulation, which is usual for the start of the year. Money supply continued to benefit from lending activity, which rose by 7.5% y-o-y in March despite banks' continued efforts to unburden their balance sheets from distressed assets.

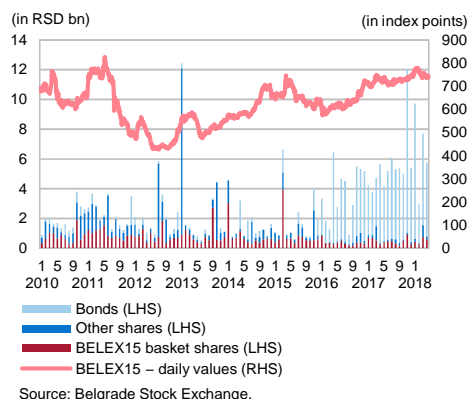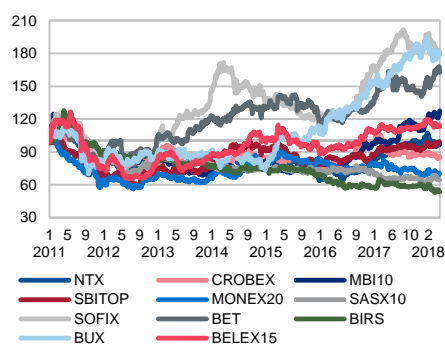Chart IV.1.17 **BELEX15 and Belgrade Stock Exchange turnover**

(in RSD bn)   (in index points)

Bonds (LHS)
Other shares (LHS)
BELEX15 basket shares (LHS)
BELEX15 – daily values (RHS)

Source: Belgrade Stock Exchange.

Chart IV.1.18 **Stock exchange indices across the region**
(in index points, normalised, 31 December 2010 = 100)

NTX   CROBEX   MBI10
SBITOP   MONEX20   SASX10
SOFIX   BET   BIRS
BUX   BELEX15

Sources: BSE and websites of regional stock exchanges.

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[8] The values of trading in shares were still relatively low, as confirmed by the comparison to Q1 2017, when trading equalled RSD 3.2 bn.

Table IV.2.1 **Monetary aggregates**
(real y-o-y rates, in %)

	2017		2018		Share in M3
	June	Sep.	Dec.	March	March 2018 (in %)
M3	3.7	2.4	0.6	1.9	100.0
FX deposits	0.1	-0.5	-1.9	-0.9	62.8
M2	10.6	7.7	4.7	7.0	37.2
Time and savings dinar deposits	14.7	16.7	-2.0	4.6	9.1
M1	9.4	5.0	7.0	7.9	28.1
Demand deposits	11.9	7.3	9.5	9.7	21.3
Currency in circulation	2.1	-1.8	-0.1	2.4	6.7

Source: NBS.

Chart IV.2.1 **Monetary aggregates and CPI**
(y-o-y rates, in %)

M1 (LHS)   M2 (LHS)
M3 (LHS)   CPI (RHS)

Sources: SORS and NBS.
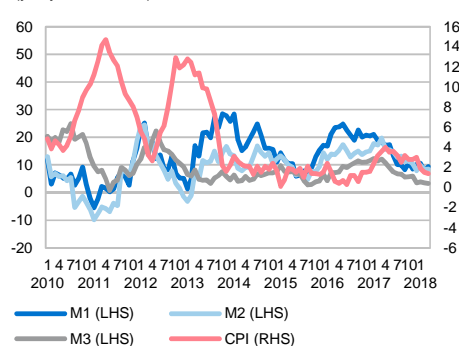
Chart IV.2.2 **Contribution to y-o-y growth in M2, by sector**
(in pp)

Corporates
Households
Other financial organisations
Currency in circulation
Local authorities
Non-profit and other organisations

Source: NBS.
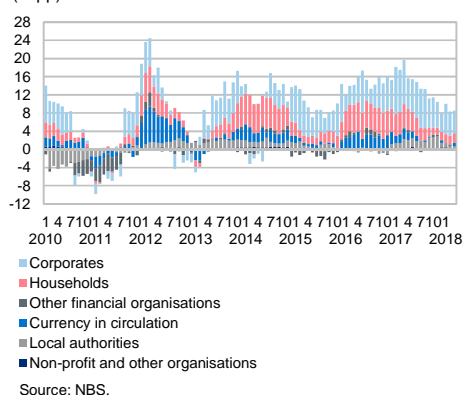
Monetary aggregates

As usual for the season, in Q1 dinar reserve money fell by 11.3% in nominal and 12.1% in real terms. The decline in total reserve money was less striking (6.0% in nominal and 6.8% in real terms), since banks held a higher amount of FX deposits with the NBS at end-March than at end-2017. Y-o-y, in March, growth in dinar reserve money accelerated to 4.5%, and in total reserve money to 2.8% in real terms.

The largest contribution to the decrease in dinar reserve money in Q1 came from the government. Owing to continued positive fiscal trends, dinar government deposits with the NBS gained RSD 44.5 bn in Q1, despite the foreign currency purchases used to settle the government's FX liabilities (on which grounds RSD 59.9 bn was drawn). On the other hand, bank dinar liquidity grew in Q1 mostly on the back of FX purchases of the NBS in the IFEM (RSD 35.3 bn) and FX payment transactions with Kosovo and Metohija (RSD 12.1 bn). To a lesser extent, the Q1 rise in liquidity came from somewhat lower bank investment in repo securities (by RSD 5.1 bn), whose stock at end-March measured RSD 40.0 bn.

Other monetary aggregates also declined in Q1. As usual for the season, the decline in cash in circulation and funds in transaction accounts drove down dinar monetary aggregates in Q1, bringing M1 and M2 down by 6.2% and 4.6%, respectively, in real terms, at end-March compared to end-December. The rise in FX deposits in the period under review partly compensated the drop in dinar money supply, thus M3 fell to a lesser degree (by 1.7% in real terms).

Total transaction deposits lost RSD 24.1 bn in Q1, mainly as a consequence of lower balances in accounts of enterprises. Deposits of enterprises in the trade, manufacturing and energy sectors fell the most. On the other hand, enterprises in other service sectors rose. Transaction deposits of citizens, local authorities and non-profit organisations declined to a lesser extent.

Unlike transaction deposits, local authorities and citizens held greater amounts of funds in dinar term deposits, which was the main reason why this category of deposits rose by RSD 3.4 bn in Q1. Dinar household savings expanded by RSD 1.4 bn in Q1, equalling RSD 50.9 bn at end-March.

Total FX deposits also went up (by EUR 119.0 mn in Q1), primarily on account of a rise in FX savings of citizens

(by EUR 180.7 mn), which measured over EUR 9.2 bn at end-March. On the other hand, higher payments for imports drove down the balances in corporate FX accounts, which lost EUR 62.2 mn in Q1.

Y-o-y, growth in all monetary aggregates slowed down in nominal terms, also owing to the positive results of fiscal consolidation. The slowdown in y-o-y inflation in Q1 helped growth in M1, M2 and M3 to accelerate to 7.9%, 7.0% and 1.9%, respectively, in real terms, in March relative to end-2017.

Loans

Excluding the exchange rate effect, in Q1 domestic loans were up by 1.0%, mainly on account of rising household loans. Despite reduced lending at the start of the year, which is customary for the season, for the first time since 2012 corporate loans increased by 0.4% in Q1. In y-o-y terms, domestic loans went up by 7.5% in March, with household lending slowing its growth to 10.9%, and corporate lending speeding up to 5.1%.

In 2018, banks continued to cleanse their balance sheets from distressed assets – in Q1, they wrote off NPLs worth RSD 7.7 bn and sold RSD 2.6 bn to non-banking sector entities (a third of sold NPLs was in banks' balance sheets at the moment of sale). Despite this, private sector lending increased, confirming further recovery of lending. Excluding the NPL write-off and sale effect[9], y-o-y growth in domestic loans came at 14.0% in March, of which 14.4% to households and 13.9% to corporates.

Excluding the exchange rate effect, **corporate lending** expanded by RSD 3.7 bn in Q1. Loans to companies went up, while public companies' debt went down compared to end-2017. Broken down by activity, lending to the sectors of trade, construction, energy and manufacturing continued to rise. A decline was observed primarily for loans to companies in transportation and agriculture. By purpose, current assets loans (48.8%) and investment loans (31.8%) continued to account for the bulk of bank claims on the corporate sector.

A lower rise in corporate loans in Q1 is due to the seasonally reduced extension of new loans in early year. The amount of new corporate loans in Q1 (RSD 182.9 bn) was higher by 1.3% compared to the same period a

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Chart IV.2.3 **Domestic loans to the non-monetary sector and M3**
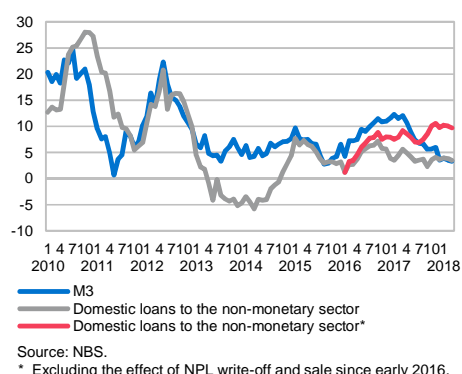(nominal y-o-y rates, in %)

Source: NBS.
* Excluding the effect of NPL write-off and sale since early 2016.

Chart IV.2.4 **Lending activity and GDP**
(y-o-y rates, in %)

Sources: NBS and SORS.
* Excluding the exchange rate effect.
** Excluding the effect of NPL write-off and sale since early 2016.
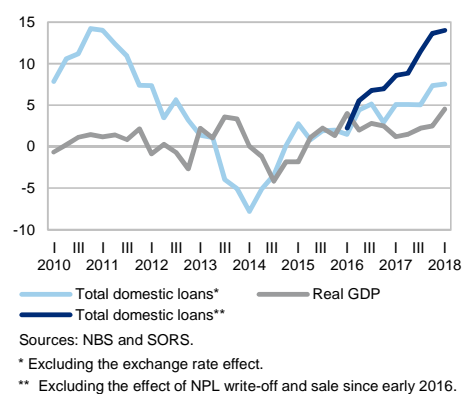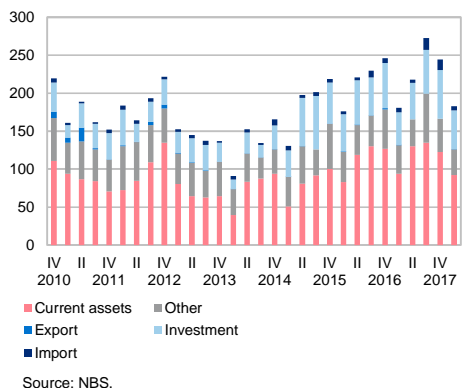

Chart IV.2.5 **Structure of new corporate loans**
(in RSD bn)

Source: NBS.

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[9] Excluding the NPL write-off and sale effect, from the start of 2016 until March 2018, banks wrote off NPLs worth RSD 154.0 bn (of which RSD 117.1 bn of corporates and RSD 32.5 bn of households), and sold NPLs worth RSD 54.9 bn, which were in their balance sheets at the moment.

Chart IV.2.6 **Impact of individual factors on changes in credit standards as applied to the approval of loans and credit lines to enterprises**
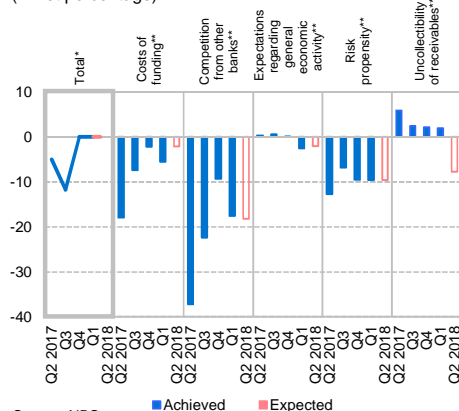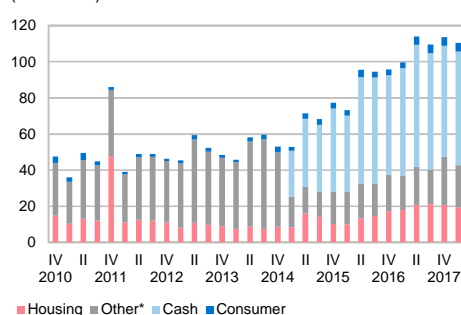(in net percentage)

Source: NBS.
* Positive values indicate tightening and negative easing of credit standards relative to the previous quarter.
** Positive values indicate the contribution of individual factors to tightening, and negative values indicate the contribution to easing of credit standards.

Chart IV.2.7 **Structure of new household loans**
(in RSD bn)

Source: NBS.
* Until December 2014, the 'Other loans' category included both cash and other loans.

year before, or by 16.6% excluding the effect of loans refinanced with the same bank. As so far, more than a half of new corporate loans were current assets loans (50.4%), while the share of investment loans rose to 28.0% (vs. the 2017 average of 23.3%). The share of new import loans fell to 3.1% as increased realisation was noted only in January.

According to the April NBS Bank Lending Survey[10], corporate credit standards remained unchanged in Q1, with no change expected in Q2 either. Judging by the criterion of company size, banks assessed that the standards for lending to SMEs were moderately eased, while those concerning large companies were tightened. The easing related to FX long-term loans, mostly on account of interbank competition and higher risk propensity, including lower costs of funding and expected economic growth. As assessed by banks, corporate borrowing terms were more favourable due to lower interest margins and accompanying costs, the extension of maturity and maximum loan amount. After an extended period of time, collateral requirements were loosened as well, owing to banks' increased participation in projects where international financial institutions provide a part of guarantee support. Companies' elevated loan demand, led by the need to finance capital investment and current assets, and to a lesser extent by debt restructuring, continued into Q1. These same factors should remain key drivers of demand in Q2.

Excluding the exchange rate effect, in Q1 **lending to households** picked up by 2.2% or RSD 19.5 bn. Cash loans (including refinancing loans) and housing loans remained the most dominant category of loans, going up by RSD 10.4 bn and RSD 5.3 bn in Q1 respectively.

The volume of new household loans in Q1 (RSD 110.5 bn) was by 2.8% lower than in Q4 2017, and by 10.9% higher than in the same period a year before. In Q1 citizens continued to use predominantly dinar cash loans and refinancing loans, which made up 57.1% of new household loans, with almost three-quarters of these loans having the repayment term over five years. The volume of new housing loans (RSD 19.2 bn) was higher by 7.0% than in Q1 2017, or by 28.8% excluding loans refinanced with the same bank. Current account overdrafts were somewhat higher than at end-2017, while household borrowing under credit cards declined.

According to the results of the April Bank Lending Survey, in Q1 banks eased further household credit

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[10] The NBS has conducted the survey since early 2014.

standards, which they expect to be continued in Q2. The standards were eased for dinar cash loans and refinancing loans, as well as for FX housing and consumer loans, owing mainly to interbank competition and lower funding costs. As assessed by banks, household borrowing terms were more favourable on account of lower interest margins, longer loan repayment terms and eased collateral requirements. The main factors spurring the growth in demand included the refinancing of current obligations, real estate purchases and wage growth. As indicated by the survey, banks expect that the same factors will continue to drive up demand in Q2, with an additional impulse coming from employment growth.

At end-March, the share of dinar loans in total corporate and household loans stood at 32.5%. The dinarisation of household loans went up to 51.9% and the dinarisation of corporate loans declined to 16.2% in March, under the impact of elevated FX borrowing and partly due to the write-off of dinar receivables.

The downward trend in NPLs continued in 2018. Having implemented all measures under its NPL Action Plan, in September 2017 the NBS adopted the Decision on the Accounting Write-Off of Bank Balance Sheet Assets. For somewhat more than two and a half years, since the NPL Resolution Strategy was adopted, the NPL amount more than halved and the NPL share in total loans fell by 13.2 pp. Since the start of 2018, the NPL share in total loans fell by 0.6 pp to 9.2% in March. Of this, the NPL share in the corporate sector fell by 0.7 pp to 9.7% in March[11], and the share in the household sector was down by 0.4 pp to 5.2%.[12] The NPL coverage is high – allowances for loan impairment came at 73.2% of NPLs in March, and loan loss reserves continued to fully cover gross NPLs – by 135.7% in March. Also, after the introduction of Basel III standards[13], the capital adequacy ratio rose further, to 22.6% at end-2017, indicating the high capitalisation of the domestic banking sector.

3. Real estate market

In Q1, the real estate market was characterised by a rise in turnover and a mild increase in prices. Continued recovery of the real estate market may be expected in the coming period as a result of expanded real estate supply and demand.

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[11] Includes companies and public enterprises. Looking at companies only, the share of NPLs in total loans stood at 10.1% in March, down by 0.7 pp from December 2017.

[12] With entrepreneurs and private households included, the share decreased by 0.4 pp to 5.4%.

[13] The regulatory framework of Basel III standards came into force on 30 June 2017.

Chart IV.2.8 **Impact of individual factors on changes in credit standards as applied to the approval of loans and credit lines to households**
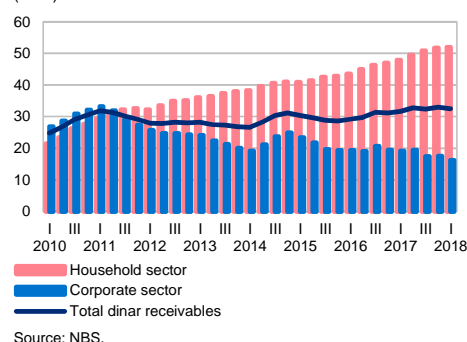(in net percentage)
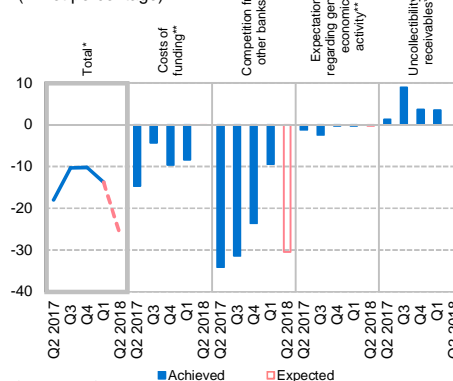
Source: NBS.
* Positive values indicate tightening and negative easing of credit standards relative to the previous quarter.
** Positive values indicate the contribution of individual factors to tightening, and negative values indicate the contribution to easing of credit standards.

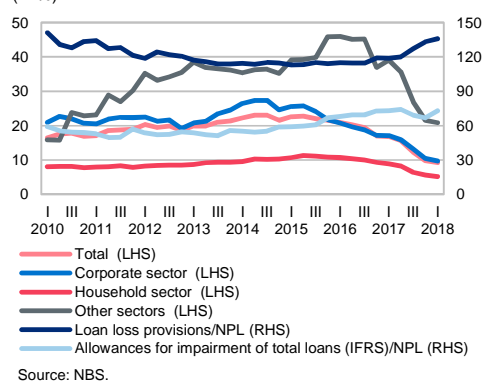Chart IV.2.9 **Share of dinar in total bank receivables from corporate and household sectors**
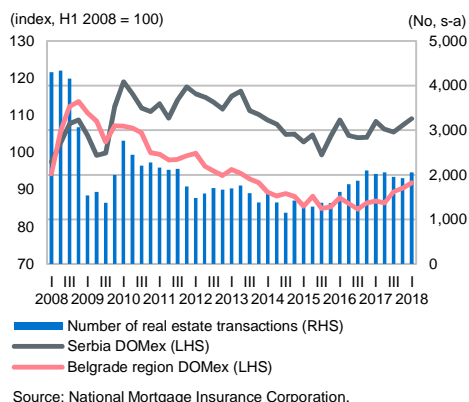(in %)

Household sector
Corporate sector
Total dinar receivables
Source: NBS.

Chart IV.2.10 **NPL share in total loans, gross principle**
(in %)

Total (LHS)
Corporate sector (LHS)
Household sector (LHS)
Other sectors (LHS)
Loan loss provisions/NPL (RHS)
Allowances for impairment of total loans (IFRS)/NPL (RHS)
Source: NBS.

Chart IV.3.1 **DOMex and number of real estate transactions**

(index, H1 2008 = 100)   (No, s-a)

Source: National Mortgage Insurance Corporation.

Chart IV.3.2 **Indices of the number of issued construction permits**
(3M averages s-a, 2017 = 100)

Sources: SORS and NBS calculation.

Table IV.4.1 **Movement in main indicators and sources of household consumption**
(real y-o-y growth rates in %)

	2017			2018
	Q2	Q3	Q4	Q1
Household consumption	**1.6**	**1.8**	**1.9**	**3.3***
Indicators				
Retail trade	4.2	4.1	2.2	3.2
Catering turnover	7.2	7.2	5.9	6.5**
Number of domestic tourists	10.1	7.6	9.8	10.1
Number of overnight stays of domestic tourists	10.8	7.5	11.3	9.2
Consumer goods imports (BEC classification), nominal	1.8	5.0	0.7	7.7
Sources				
Total wage bill, nominal	7.4	6.7	5.9	8.4**
Net remittances inflow, nominal	7.5	0.9	22.7	12.0
New cash loans, nominal	14.7	9.6	11.5	6.2

* NBS estimate.
**January-February.
Sources: SORS and NBS calculation.

As measured by DOMex,[14] the average price of real estate in Serbia increased by 1.7% in Q1. Prices went up in all regions, except Šumadija and western Serbia. Y-o-y, prices of real estate in Serbia rose by 0.7% in Q1.

In Q1, the average real estate price in Serbia equalled EUR 904.4 per square metre, and in the Belgrade region – EUR 1,196.9. The ratio of the prices in the Belgrade region and other regions dropped slightly from the last quarter, to 1.84.

The number of real estate transactions[15] grew by 6.7% s-a in Q1, rising in all regions except Belgrade. Similar trends were recorded in y-o-y terms – the number of real estate transactions increased by 1.7%.

Positive developments may be expected in the real estate market going forward. On the supply side, this is indicated by the further rise in the number of issued residential construction permits, which, on average, went up by 24.1% s-a in the first two months of 2018 compared to Q4 2017, and by 108.1% in y-o-y terms. Demand in this market is also expected to gradually recover, which should, apart from the expected rise in wages and employment, result from the still favourable terms of borrowing of citizens in housing lending, as shown by the April lending survey.

4. Aggregate demand

Further improvement of the business environment, faster implementation of infrastructure projects, continued strong FDI inflows and greater profitability of companies supported the growth in fixed investment, which, along with household consumption, aided by continued favourable trends in the labour market, were the main contributors to GDP growth of 1.8% s-a in Q1. Further export growth buttressed GDP growth in Q1 as well, but the contribution of net exports remained negative since imports grew faster. The accelerated rise in household consumption and government investment spurred y-o-y GDP growth, which, according to the preliminary estimate of the Statistical Office, measured 4.5% in Q1.

Domestic demand

According to our estimate, **household consumption** growth accelerated to 1.1% s-a in Q1 (contribution to

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[14] The DOMex is published by the National Mortgage Insurance Corporation and relates only to real estate purchased by insured loans.

[15] The number of real estate transactions and flat prices per square metre also relate only to real estate purchased by insured loans.

GDP growth: 0.8 pp), owing to the continued rise in private sector employment, higher minimum wage and favourable monetary conditions. A faster rise in household consumption is primarily indicated by higher growth in retail trade turnover in Q1 (1.0% s-a) than in Q4 2017 (0.4% s-a), and by the greater number of arrivals of domestic tourists (2.8% s-a) and their overnight stays (1.8% s-a). Y-o-y, household consumption growth accelerated to 3.3%, contributing to GDP by 2.6 pp.

Higher private sector employment and a minimum wage increase supported growth in the nominal wage bill in Q1, which measured 4.2% s-a according to our estimate. Also, growth in sources of household consumption in Q1 is suggested by the continued y-o-y rise in new consumer loans, and by higher inflows of remittances from abroad than in the same period last year.

A positive contribution to GDP growth of 0.1 pp in Q1 came **from final government consumption**, which, according to our estimate, grew by 0.6% s-a. Such movement resulted from the increase in public sector wages, as indicated by higher wage expenditures in Q1. On the other hand, expenditures for the purchase of goods and services declined. Final government consumption continued up in Q1 in y-o-y terms as well (2.0%), with a positive contribution to GDP of 0.4 pp.

Robust investment growth in Q4 2017 continued into early 2018 owing to the further improvement of the business environment, implementation of infrastructure projects and favourable monetary conditions. Specifically, **government investment** recorded relatively high growth (25.4% s-a according to our estimate, contribution: 0.8 pp), as indicated by the considerably faster government capital expenditure in Q1. A positive contribution to GDP growth (0.5 pp) came from the further rise in **private investment**, which, according to our estimate, equalled 2.5% s-a. Strong growth is signalled primarily by indicators in construction, i.e. higher production of construction materials (0.9% s-a) and value of construction works (6.4% s-a). Also, an increase in the number of issued construction permits (13.5% s-a) and the anticipated value of the works based on those permits (33.1% s-a) point to continued favourable trends in construction going forward. Favourable trends in investment in Q1 are also indicated by the rise in equipment imports (6.4% s-a) and higher domestic production of capital goods (4.9% s-a). In y-o-y terms, fixed investment grew by 16.5%, giving a 2.9 pp positive contribution to GDP.

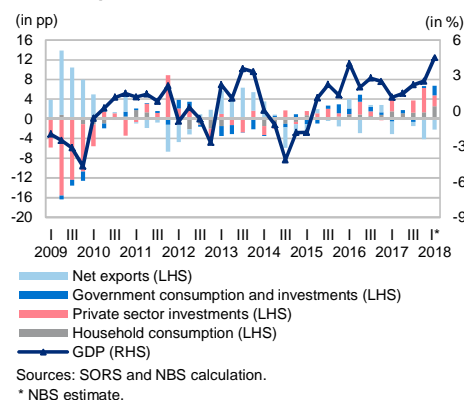Chart IV.4.1 **Contributions to y-o-y GDP growth rate – expenditure side***

Sources: SORS and NBS calculation.
* NBS estimate.

Chart IV.4.2 **Household consumption**
(s-a data, H1 2008 = 100)

Sources: SORS and NBS calculation.
* NBS estimate for Q1 2018.
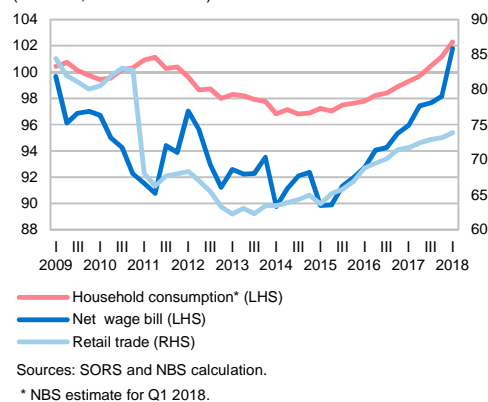
Table IV.4.2 **Investment indicators**

	2017				2018
	I	II	III	IV	I
Real indicators (seasonally-adjusted, quarterly growth, in %)					
Industrial inventories	5.6	2.6	1.2	4.2	1.9
Industrial production of capital goods	8.4	-1.5	2.0	-5.6	4.9
Exports of equipment*	-1.8	3.7	3.1	10.5	6.3
Imports of equipment*	0.9	6.2	4.5	15.5	6.4
Inventories of capital goods	7.7	3.7	-1.2	-2.9	-6.0
Industrial production of intermediate goods	4.0	5.2	0.0	-0.4	5.2
Exports of intermediate goods*	6.9	5.5	2.1	2.2	6.3
Imports of intermediate goods*	11.9	17.5	18.1	12.9	13.1
Inventories of intermediate goods	6.2	1.9	2.5	4.5	6.0
Industrial production of construction materials	7.4	6.2	-7.5	-0.6	0.9
Inventories of construction materials	1.2	4.1	0.4	3.8	4.4
Government investment**	-5.7	3.6	2.6	5.8	25.4

Sources: SORS and NBS calculation.
* Exports and imports are denominated in euros.
** Government investment spending is deflated by the industrial producer price index.

Chart IV.4.3 **Government consumption**
(in real terms)

Sources: SORS, Ministry of Finance and NBS calculation.
* NBS estimate for Q1 2018.

Chart IV.4.4 **Exports and imports of goods and services**
(in previous-year constant prices, ref. 2010)

Sources: SORS and NBS calculation.
* NBS estimate for Q1 2018.
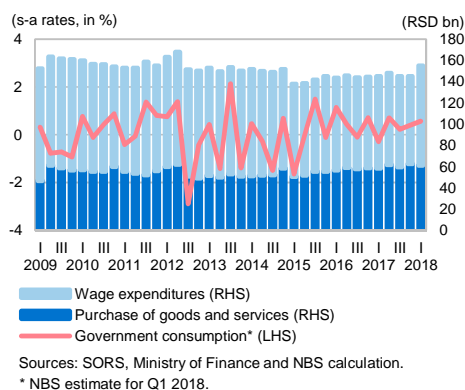
As in the prior period, investments were largely financed from own funds of enterprises, whose financial results improved significantly at the level of the overall economy in 2017. This is indicated by the positive net result of companies, which, according to the preliminary data of the Business Registers Agency, stood at RSD 437.2 bn in 2017, significantly more than in 2016 (RSD 187.4 bn). Also, depreciation costs, i.e. funds allocated by companies for the replacement of fixed assets, equalled RSD 365.8 bn at the level of the overall economy in 2017, up by RSD 18.7 bn from 2016. Improved macroeconomic fundamentals, enhanced business environment and favourable growth outlook spurred further growth in net FDI inflows, which measured EUR 569.1 mn in Q1, up by 1.9% y-o-y. In addition, a part of the investments was financed by investment loans, which rose by 19.6% y-o-y in Q1. Besides fixed investment, we estimate that the rise in **inventories** also contributed positively to GDP in Q1. Inventories of finished industrial products gained 1.9% s-a in Q1, owing mainly to higher inventories in automobile and chemical industries, and the production of rubber and plastic products.

Net external demand

Exports of goods and services sped up in real terms in Q1 (5.6% s-a), owing primarily to earlier investment and continued positive effects of external demand from the euro area and surrounding countries. Manufacturing exports continued their strong growth, and Q1 also saw a recovery in the exports of agricultural commodities. On the other hand, the continued rise in investment and activity in industry, construction and service sectors supported further growth in imports of equipment and intermediate goods, leading to a real increase in the imports of goods and services by 4.9% s-a in Q1, causing a negative contribution of net exports to GDP in Q1 (0.5 pp). Y-o-y, the rise in the exports of goods and services accelerated to 10.6% in real terms, mitigating the negative contribution of net exports to 2.2 pp in Q1.

According to data on foreign trade, in Q1 euro-denominated commodity exports gained 7.0% s-a. As in the previous period, they were driven by continued extremely positive trends in manufacturing. Manufacturing exports remained broadly dispersed, given that exports expanded in 18 out of 23 sectors of manufacturing in Q1, providing grounds for their sustainable growth. The strongest contribution to growth came from the exports of base metals, owing both to higher production at the domestic steel mill and to the rise in the prices of steel and copper in the global market. In line with such movements, the Smederevo
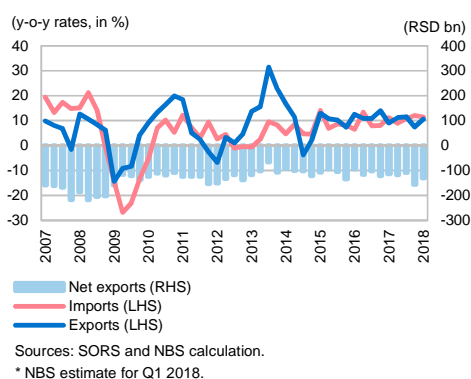
steel mill was the second largest individual domestic exporter in Q1, boasting exports in excess of EUR 200 mn, two-thirds higher than in the same period last year. Besides base metals, export growth in Q1 also gained much from other traditionally export-oriented sectors – chemical products, rubber and plastics, electrical equipment, and other machinery and equipment. Also, after three quarters, exports of food products started to recover. Conversely, Q1 saw lower exports of petroleum products, motor vehicles and metal products.

Quarterly export growth, for the first time in the mercantile season, was also recorded in agricultural commodities (37.2% s-a), resulting to an extent from lower exports in H2, following a bad season. Exports were higher in Q1 mostly thanks to the recovery in cereal exports, in part due to higher prices of corn and wheat in the global market.

In y-o-y terms, in Q1 almost all manufacturing sectors recorded high growth rates of exports, while lower exports were noted in food industry and agricultural commodities, as was expected owing to the last year's poor agricultural season. In Q1, y-o-y exports grew in the automobile industry as well, despite Fiat's lower exports (by around EUR 60 mn), pointing to good export performance of other companies in this area (growth by around EUR 130 mn), as a result of earlier investment.

Preliminary data show continued positive trends in the exports of services, which continued up in Q1 2018 (3.2% s-a). The greatest contribution to the rise in service exports, as in 2017, continued to come from information and communications services (1.7 pp) and business services (1.3 pp). Also, growth was recorded in the exports of transport and tourism services, while construction services exports dropped. In y-o-y terms, service exports, as in 2017, continued to recorded double-digit growth rates (15.2% in Q1 2018), with a positive contribution of all types of services.

According to data on foreign trade, the rise in euro-denominated commodity imports continued in Q1 (5.2% s-a), retaining a relatively favourable structure. Due to the needs of the current investment cycle in industry, the growing trend of equipment imports, present in the last three years, continued into Q1 (6.4% s-a). Besides higher imports of equipment, imports of intermediate goods continued to rise (6.6% s-a), resulting from higher activity in industry, construction and service sectors. Also, the recovery in household consumption pushed up imports of consumer goods (5.6% s-a). Favourable trends in the movements of imports are also indicated by the structure of imports by economic destination of the EU, which

Chart IV.4.5 **Movement of indicators of external demand for Serbian exports**
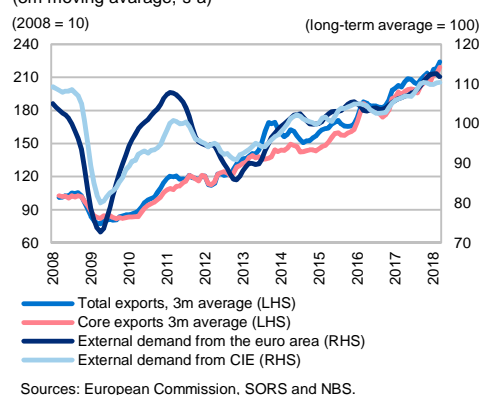(3m moving avarage, s-a)
(2008 = 10)   (long-term average = 100)

Total exports, 3m average (LHS)
Core exports 3m average (LHS)
External demand from the euro area (RHS)
External demand from CIE (RHS)

Sources: European Commission, SORS and NBS.

Chart IV.4.6 **Exports of services**
(s-a data, in EUR mn)

Transport   Tourist
Construction   ICT services
Business   Other services

Sources: SORS and NBS calculation.
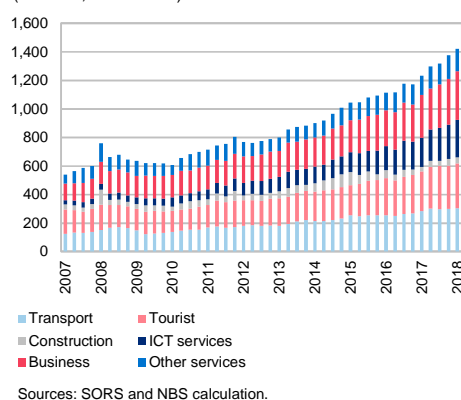
Chart IV.4.7 **Energy imports**
(s-a data, in EUR mn)

Oil (LHS)
Gas (LHS)
Electricity (RHS)

Sources: SORS and NBS calculation.

Chart IV.4.8 **Commodity trade in euros**
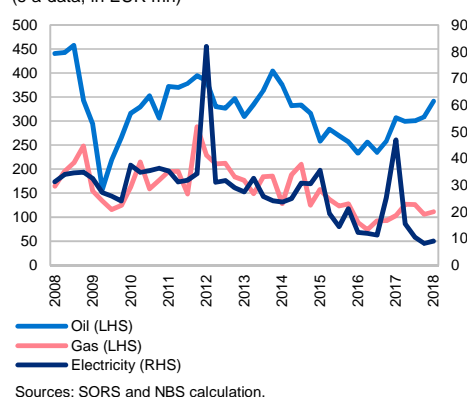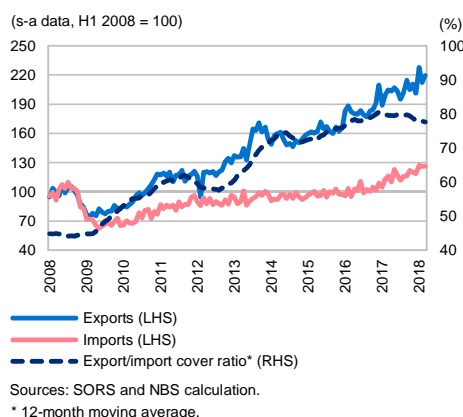
(s-a data, H1 2008 = 100)

Sources: SORS and NBS calculation.
* 12-month moving average.

shows that the rise in imports was largely driven by continued imports of intermediate and capital goods.

Relative to the same period last year, all categories of imports except energy went up in Q1. Imports of equipment and intermediate goods were the highest, in line with the current investment cycle. On the other hand, despite the increased needs of the economy, energy imports remained at a similar level as in Q1 2017, which was supported by favourable weather early this year compared to last year.

Owing to faster export growth in Q1, the export/import cover ratio, measured by a 12-month moving average, stood at 77.6% in March, or 86.1% if services are also included. In addition, in March commodity exports exceeded their pre-crisis level by 119.5%, while imports surpassed their pre-crisis level by 26.5%.

5. Economic activity

The positive effects of earlier investment and high external demand boosted growth in manufacturing, which, together with the recovery of the energy sector, drove GDP growth up to 1.8% s-a in Q1. Increased activity in construction and most service sectors was another positive factor, resulting from the ongoing implementation of infrastructure projects and recovery of domestic demand. According to the preliminary estimate of the Statistical Office, GDP growth accelerated to 4.5% y-o-y. According to our estimate, GDP growth is expected to rise to around 3.5% in 2018, on the back of continued positive tendencies in manufacturing and service sectors, and further growth in construction. Risks to this projection are asymmetric to the upside, i.e. growth is more likely to be higher than the projected 3.5%.

In Q1, GDP growth accelerated to 1.8% s-a, thanks to higher activity in manufacturing and the recovery of the energy sector. A contribution to GDP growth came also from exceptionally favourable developments in construction and most service sectors, supported by the continued intensified implementation of infrastructure projects and further recovery of domestic demand. **Continued seasonally-adjusted GDP growth, present since Q4 2015, i.e. for ten consecutive quarters, helped push economic activity in Q1 further above the pre-crisis level[16] – 7.0% measured by GDP and 8.2% measured by NAVA.**

Table IV.5.1 **Contributions to quarterly GDP growth**
(in pp)

	2017				2018
	Q1	Q2	Q3	Q4	Q1*
GDP (in %, s-a)	**0.0**	**0.6**	**1.3**	**0.7**	**1.8**
Agriculture	-0.7	-0.3	0.2	0.0	0.4
Industry	0.1	0.3	0.4	-0.1	0.6
Construction	0.1	0.1	0.2	0.3	0.3
Services	0.1	0.4	0.4	0.3	0.4
Net taxes	0.1	0.0	0.1	0.1	0.1

Sources: SORS and NBS calculation.
* NBS estimate.

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[16] H1 2008.

According to the preliminary estimate of the Statistical Office, GDP growth in Q1 accelerated to 4.5% y-o-y. The NBS estimates that the main contribution came from positive developments in industry, whose growth sped up from 3.7% y-o-y in Q4 2017 to 5.9% y-o-y in Q1 2018, boosting GDP growth by 1.3 pp. Service sectors (1.4 pp) and construction (0.8 pp) also remained positive contributors to GDP growth in Q1. Another positive factor was agriculture (0.3 pp), mostly due to the low base owing to last year's poor agricultural season.

The greatest positive contribution to quarterly GDP growth in Q1 (0.6 pp) came from the rise in industry (3.0% s-a). The recovery of industrial output in Q1 was predominantly driven by favourable trends in manufacturing, whose physical volume of production increased by 2.7% s-a, with growth recorded in 20 out of 24 sectors. By sector, growth continued in the production of base metals, chemical products and motor vehicles, and favourable trends in construction supported further growth in production of construction materials and furniture. Also, some sectors taking up a considerable share of exports, such as rubber and plastic products, metal products, machinery and equipment, electrical equipment, and beverages and tobacco, continued to recover relative to the previous quarter. On the other hand, the production of petroleum products dropped. In y-o-y terms, the physical volume of production in manufacturing grew for the thirteenth consecutive quarter, measuring 5.0% in Q1 and contributing to the physical volume of total industrial output by 3.3 pp.

Favourable developments in industry in Q1 also came from the recovery in electricity, gas and steam supply, whose physical volume of production rose by 6.9% s-a. On the other hand, the physical volume of production in mining continued down in Q1 (3.9% s-a), as a consequence of the reduced exploitation of coal, metals and crude oil. Y-o-y, in Q1 the physical volume of production in electricity, gas and steam supply recorded the fastest growth in two years (10.9%), underpinning growth of overall industry by 2.6 pp. Growth kept on in the mining sector (3.0% y-o-y), contributing to the rise in overall industry by 0.2 pp.

Favourable trends in construction from H2 2017 continued into early 2018, largely owing to the continued intensified implementation of infrastructure projects. The NBS estimates that growth in construction in Q1 measured 6.1% s-a, contributing to GDP growth by 0.3 pp, as indicated by the continued rise in the production of construction materials (0.9% s-a) and the physical volume

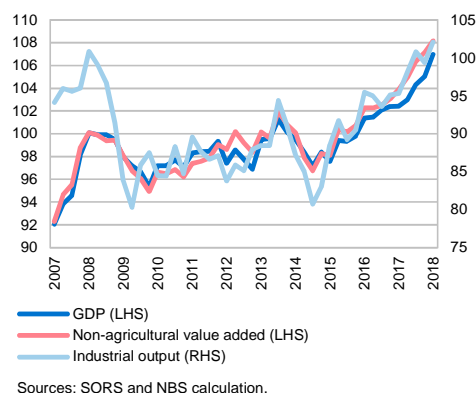Chart IV.5.1 **Economic activity indicators**
(s-a, H1 2008 = 100)

Sources: SORS and NBS calculation.

Chart IV.5.2 **Physical volume of production by branch of manufacturing**
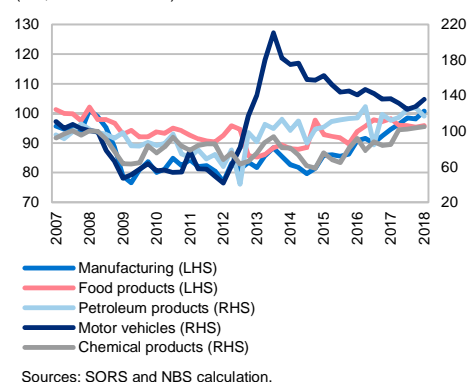(s-a, H1 2008 = 100)

Sources: SORS and NBS calculation.

Chart IV.5.3 **Physical volume of production in energy and mining**
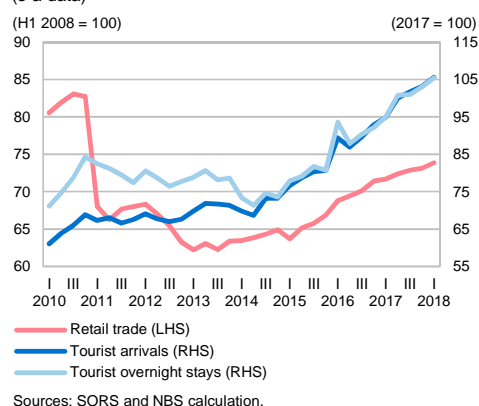(s-a, H1 2008 = 100)

Sources: SORS and NBS calculation.
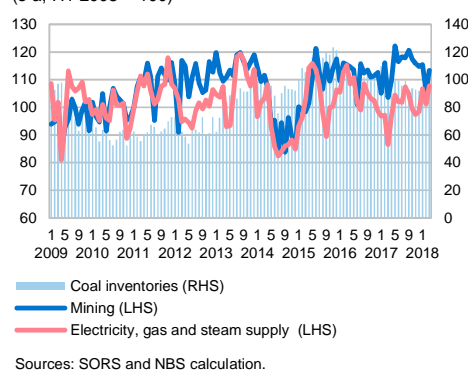
Chart IV.5.4. Construction activity indicators
(3M averages s-a, 2017 = 100)

- Production of construction material
- Number of issued construction permits
- Inventories of construction material
- Other mining and quarrying

Sources: SORS and NBS calculation.

Chart IV.5.5 Service sector indicators
(s-a data)

- Retail trade (LHS)
- Tourist arrivals (RHS)
- Tourist overnight stays (RHS)

Sources: SORS and NBS calculation.
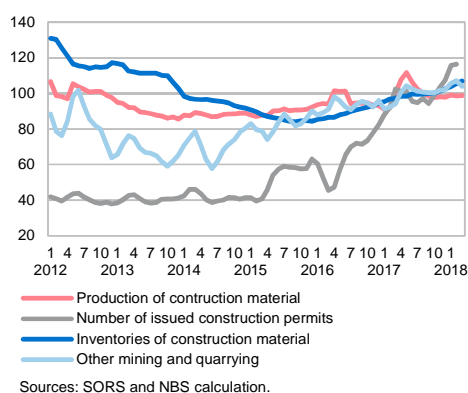
of production in exploitation of raw materials for construction (1.7% s-a),[17] as well as higher employment in construction. Also, the number of issued construction permits continued rising steadily (13.5% s-a), owing also to legislative improvements in construction in previous years. Y-o-y, growth in construction significantly accelerated in Q1 – to 25.0%, contributing to GDP growth by 0.8 pp.

According to our estimate, a positive contribution to quarterly GDP growth in Q1 (0.4 pp) came also from higher service sector activity, which grew by 0.7% s-a in aggregate terms. Continued favourable trends in trade are indicated by higher turnover in retail trade (1.0% s-a) in Q1, while increased numbers of tourist arrivals (2.4% s-a) and overnight stays (2.3% s-a) point to continued positive trends in accommodation and food services as well. Also, higher activity in service sectors is suggested by the continued rise in employment, which was recorded in all sectors in Q1. In Q1, service sector activity continued up in y-o-y terms as well (2.7%), positively contributing to GDP growth by 1.4 pp.

Since this year's agricultural season is only starting, we still have no indicators to accurately estimate the movements in agricultural production. For our projection we therefore assumed that yields of main crops will be at the level of their ten-year averages. Under this assumption, 2018 is expected to see growth in agricultural production by around 5% and a positive contribution to GDP growth by 0.3 pp.

According to our estimate, GDP growth should accelerate to 3.5% in 2018. As in 2017, it should be driven by continued positive trends in manufacturing and construction, and by further growth in service sectors. Energy sector recovery is also expected to be a positive contributor (as indicated by positive developments early this year), as is agriculture, which should recover following last year's poor agricultural season. Risks to the GDP growth projection for 2018 are asymmetric to the upside, i.e. growth is more likely to be higher than projected (3.5%).

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[17] This sector mostly involves the exploitation of ore, stone and raw materials for the production of construction materials (sand, gravel, stone, clay, limestone).

6. Labour market developments

Positive labour market developments continued into 2018, with a further y-o-y rise in formal employment, reduction in unemployment and sustained wage growth in January and February. Employment growth lagging behind GDP growth accounted for the continued productivity growth of the overall economy in Q1, with industry recording similar developments.

Wages and labour productivity

In line with its announcement, in 2018 the Statistical Office of the Republic of Serbia changed the methodology for monitoring wages.[18] Data on average wage calculated under the new methodology, available for 2017 and January and February 2018 indicate continued favourable developments in this area. Owing to sustained economic growth, higher minimum wage and elevated public sector wages, the average net wage went up again in early 2018. In January and February 2018, it was up by 6.6%, on average, compared to wages in the same period the year before, in nominal terms. Both public (7.4%) and non-public sector wages (6.5%) were on the rise.

January and February saw a y-o-y rise in nominal net wage in almost every sector of economic activity, while high elevation was recorded in the sectors of information and communications, accommodation and food services, trade, manufacturing and construction, which largely contributed to GDP growth. In addition, wages were also higher in the sectors of public administration, education, health and social protection, as a result of the above public sector wage increase. On the other hand, nominal net wage dropped in the mining sector.

An increase in employment and average wage contributed to elevated nominal net wage bill outside of the public sector which was up by 10.3% in January and February 2018, relative to the same period of the year before. Nominal net wage bill in the public sector also recorded a 5.6% y-o-y increase.

In y-o-y terms, **overall economic productivity** continued to go up in Q1, as employment growth was lagging behind GDP growth. Industry also experienced greater productivity in Q1, along with the expansion of employment, largely on account of the recovered production in the energy sector.

Chart IV.6.1 **Average nominal net wage**
(in RSD)

■ January–February 2017　■ January–February 2018
Source: SORS.
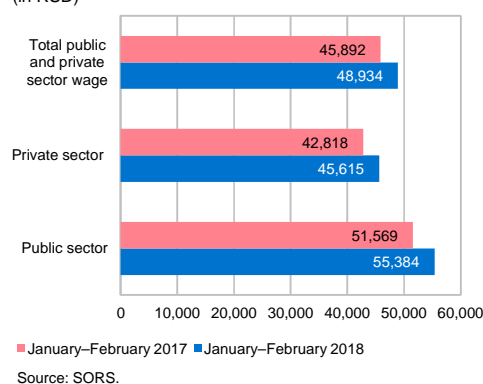
Chart IV.6.2 **Nominal net wage by economic sector**
(in RSD thousand)

■ January–February 2017　■ January–February 2018
Source: SORS.

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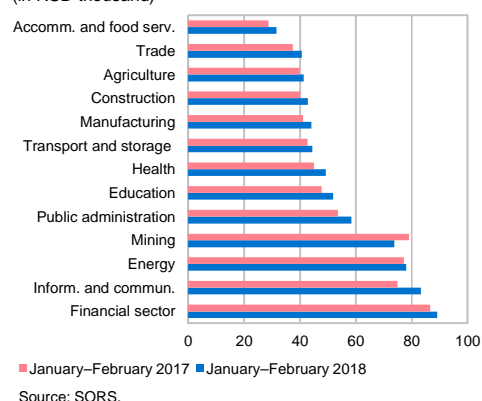
[18] See Text box 2, page 36.

Text box 2: Changed methodology for monitoring wages in the Republic of Serbia

Since January 2018 the Statistical Office uses a new methodology for monitoring wages in the Republic of Serbia. The major change is reflected in the fact that the new methodology monitors wages for the month they were calculated for, and not, as has been the case so far, for the month of payment. In this way, the average wage should exhibit less monthly fluctuations, overcoming the problem of the past years, when wages in December reported a high monthly increase (primarily due to the payment of a portion of a December wage before the end of the month). Under the new methodology, the average wage is calculated based on the full-time equivalent (FTE), meaning that this is the wage paid on average for full-time work in a given month. This is a standard used internationally and therefore, the new monitoring method should provide international comparability in addition to greater accuracy. What will also contribute to accuracy is a more complete coverage of employees included in the calculation of average wage. Namely, the calculation covers people employed under temporary and occasional contracts as well as employees of the Ministry of Interior and Ministry of Defence of the Republic of Serbia. Additionally, the average wage will be calculated as per place of residence in the future, and not, as has been the case so far, as per employer's location, which should produce a more accurate picture of income at municipal level in Serbia.

The above methodological improvements have been made possible by the source of data. Namely, instead of using the data collected through the monthly survey RAD-1, the new methodology uses the Tax Administration data base. Data on average wages will from now on be available 55 days upon the expiry of the survey month, as employee's electronic tax returns, submitted to the Tax Administration not later than 45 days upon the expiry of the survey month, will enter the wage calculation.

Use of the administrative data will shift the burden of specific statistical reporting from companies. Furthermore, greater coverage and better quality of data should enable the computation and monitoring of other statistical indicators as well, such as: wage median, public sector average wage, type of employment contract, and the legal form of employer.

Even though the new source provides for a better coverage, survey RAD-1/G will still be conducted annually in order to collect data on gender pay gap, average wage broken down by gender and age groups, economic activity, educational level, bonuses, hours worked.

Comparing data on average wages under the old and new methodologies, it can be seen that average net wage in 2017 was somewhat lower under the new calculation (RSD 46,600 compared to RSD 47,893), which is, in our estimate, primarily due to the inclusion of persons employed under temporary and occasional contracts. Seasonal character in the average wage trends has significantly subdued, as expected (Chart O.2.1).

Chart O.2.1 **Average nominal net wages**
(monthly, in RSD)
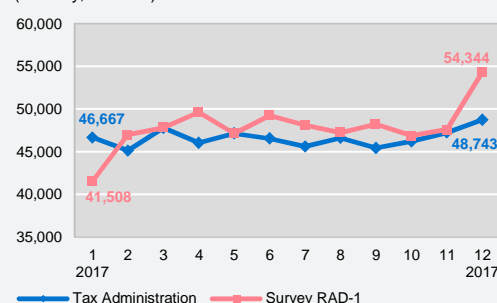
Source: SORS.

Employment

The rise in formal employment recorded throughout the past year, remained uninterrupted into Q1 2018. Overall formal employment at end Q1 was up by 3.5% relative to the same period the year before. According to the data of the Statistical Office obtained from the Central Registry of Mandatory Social Insurance, private sector expansion of employment accounted for the increase in formal employment, while public sector employment continued to fall. An increase in overall employment is primarily a result of economic growth acceleration, which is also expected in the remainder of 2018, in our estimate. Employment with legal entities was on the rise, as well as the number of entrepreneurs and their employees, while the number of individual farmers fell in Q1.

An increase in private sector formal employment in Q1 is on account of employment expansion in almost all sectors of economic activity, primarily in manufacturing, administrative and auxiliary services, trade, construction, accommodation and food services, information and communications. On the other hand, agriculture, energy, water supply and public administration saw a drop in formal employment.

Sustained reduction in unemployment is in line with the increase in formal employment. According to the National Employment Service, at end Q1, unemployment headcount stood at 618,322 persons, down by 69,574 persons relative to the same period the year before. Implementation of active labour market policies (job fairs, training and retraining) contributed to this trend, in addition to the growing recruitment needs of corporates. Unemployment declined among almost all occupational groups, and to the largest extent among occupations related to manufacturing, trade, catering and tourism, as well as agriculture.

According to the Labour Force Survey, the average unemployment rate in 2017 was at 13.5%, down by 1.8 pp relative to 2016. The fall in unemployment was accompanied with the rise in the participation rate by 1.1 pp, to 66.7% y-o-y. Breakdown by age groups indicates the unemployment reduction was the most prominent, on average, among younger population groups (15–24), by 3.0 pp. Additionally, the long-term unemployment rate also remained on the downward path (1.8 pp), at 8.2%, on average, in 2017. Furthermore, informal employment dropped by 1.3 pp, to 20.7% suggesting overall employment expansion was primarily driven by the increase in formal employment.

Table IV.6.1 **Movements in formal employment and unemployment**
(y-o-y growth rates, end-of-period)

	2017			2018
	Q2	Q3	Q4	Q1
Total number of formally employed	2.7	3.1	2.5	3.5
Employed with legal persons	2.4	2.9	2.3	3.5
Entrepreneurs and their employees	5.9	5.7	5.6	6.1
Individual farmers	-3.9	-4.6	-6.6	-7.4
The unemployed	-8.7	-9.0	-11.7	-10.1
First-time job seekers	-9.4	-9.8	-12.4	-10.6
Used to be employed	-8.3	-8.6	-11.4	-9.9

Sources: SORS and National Employment Service.

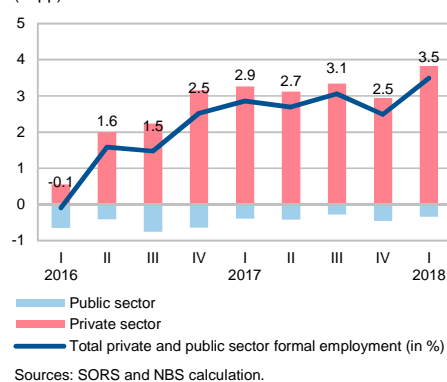Chart IV.6.3 **Composition of y-o-y rise in formal employment**
(in pp)

Sources: SORS and NBS calculation.

Chart IV.6.4 **Labour market indicators according to the Labour Force Survey**
(in %)

Source: SORS.
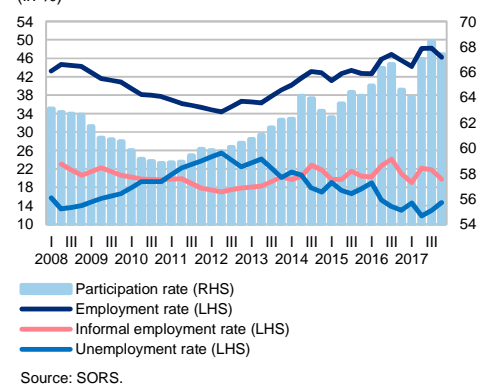
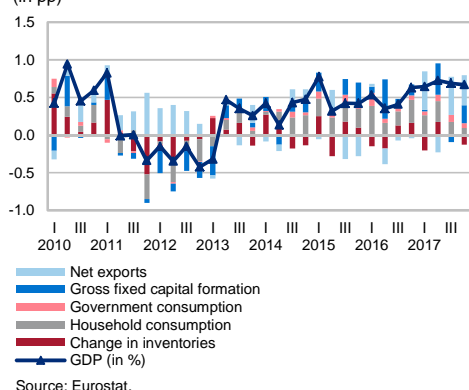## Chart IV.7.1 **Contributions to s-a GDP growth rate of the euro area**
(in pp)

Net exports
Gross fixed capital formation
Government consumption
Household consumption
Change in inventories
GDP (in %)

Source: Eurostat.

Chart IV.7.2 **Movements in GDP and economic activity indicators of the euro area**
(quarterly rates)

GDP, s-a (LHS)*
EuroCoin (LHS)
Euro area composite PMI (RHS)
Eurozone Economic Sentiment Indicator (RHS)

Sources: Eurostat, Markit Group, Banca d'Italia and European Commission.
* Eurostat's preliminary flash estimate for Q1 2018.
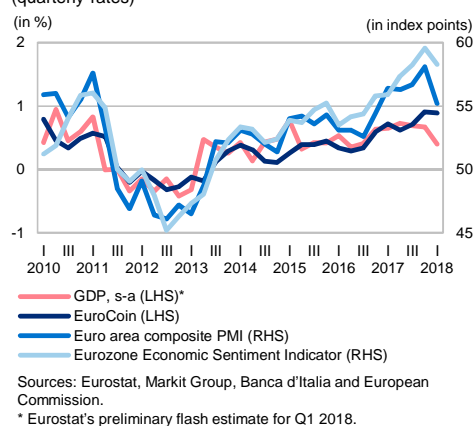
Chart IV.7.3 **PMI Manufacturing for selected countries**
(in index points)

Germany   France
Italy   China

Source: Markit Group.

7. International environment

Robust economic growth in the euro area in 2017 translated into faster growth of the Central and Southeast European region through higher external demand and investment. Although Q1 2018 saw somewhat subdued economic performance, the euro area economic growth is expected to remain strong and broad-based in the coming period. A significant contributor to global economic growth is the USA, whose GDP growth is supported by a rise in investment and consumption, as well as effects of the adopted tax reform.

Economic growth did not give rise to any major inflationary pressures, therefore the majority of countries still have a relatively low inflation, which is particularly reflected through low core inflation. Such movements are recorded despite the fact that the period since the previous Report was marked by a hike in the prices of primary commodities, notably oil – in April it touched its highest level in more than three years. Despite the somewhat greater instability in the international financial market, global financial conditions have remained favourable. The character of monetary policies of leading central banks diverged further, amid growing uncertainty in terms of the pace of their normalisation in the period ahead.

Economic activity

Robust **GDP growth in the euro area** continued in Q4 2017 (0.7% s-a) and was still broadly diversified across sectors and countries. It was supported by a rise in net exports which was led by the global economic recovery and an increase in investment and private consumption. At the annual level, GDP growth in 2017 equalled 2.4%, its highest growth rate in ten years. Economic activity continued in Serbia's key trade partners Italy and Germany as well, with Germany's growth in 2017 touching its peak level since 2011.

According to the Eurostat flash estimate, GDP growth in the euro area decelerated to 0.4% s-a in Q1. Leading indicators of economic activity pointed to the slackening of economic growth early in the year. However, although the PMI Composite for the euro area in Q1 (57.0 points[19] on average) was lower than in Q4, it still exceeded the

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[19] Index value above 50 points indicates expansiveness, and below 50 a decline in economic activity.

average for 2017 and since mid-2013 it has constantly indicated economic expansion. Having reached its maximum in Q4 after several years, the Economic Sentiment Indicator also declined slightly in Q1 (114.1 points[20]). At the same time, unemployment rate in February touched its lowest level since 2008 (8.5%) and remained there in March as well.

Relative to December projections, in March the ECB revised up the euro area's GDP growth rate for 2018 from 2.3% to 2.4%, keeping growth forecasts for 2019 and 2020 at 1.9% and 1.7%, respectively. Low interest rates and favourable borrowing terms, labour market recovery, higher profitability of companies and rising external demand are expected to continue to sustain economic growth. Also, relative to previous forecasts, the IMF revised up its economic growth projections in all leading euro area economies due to the higher than anticipated domestic demand and brighter prospects in terms of external demand. Hence, according to the IMF forecast, as well as the April Consensus Forecast, euro area growth in 2018 will most likely remain at 2.4%, up by 0.2 pp compared to their earlier projections. According to both the latest and the previous projection for 2019, the IMF expects growth to slow down to 2.0%, while the Consensus Forecast predicts growth at 1.9% rather than 1.8% as was expected three months ago.

Despite the slightly slower-paced growth in Q4 (0.7% s-a), **the USA** was one of the fastest growing advanced economies in 2017, with growth accelerating from 1.5% in 2016 to 2.3% in 2017. According to the preliminary estimate of the US Bureau of Economic Analysis, GDP growth in Q1 2018 decelerated further – to 0.6% s-a, due to the slower rise in private consumption, investment and exports. Unemployment rate remained unchanged from Q4 2017 (4.1%), which is its lowest level since December 2000, with the still relatively high monthly increase in the number of new nonfarm payrolls of around 200,000 on average.

As in the euro area, US growth projections have been revised up. The IMF raised the projections by 0.2 pp each relative to January, to 2.9% for 2018 and 2.7% for 2019. The Consensus Forecast revised growth figures from 2.7% to 2.8% for 2018, and from 2.4% to 2.6% for 2019. As in the prior period, economic growth in the USA is expected to rely on higher investment and consumption due to the still favourable borrowing terms and high

Chart IV.7.4 **Leading economic indicators in the USA**

Source: Institute for Supply Management, Conference Board.
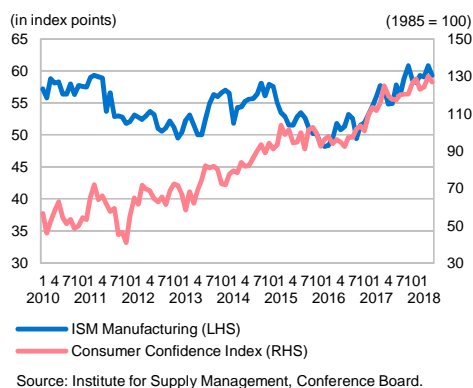
Chart IV.7.5 **US labour market**
(monthly rates, in %)

Source: Bureau of Labor Statistics.
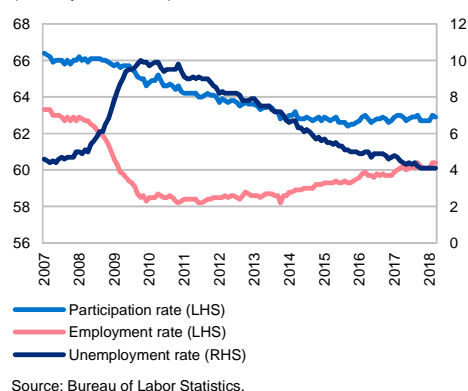
Table IV.7.1 **Economic growth estimate by country**
(in %)

	Consensus Forecast April 2018		IMF April 2018	
	2018	2019	2018	2019
Poland	4.1	3.4	4.1	3.5
Czech Republic	3.5	3.0	3.5	3.0
Hungary	3.8	3.0	3.8	3.0
Albania	3.9	3.9	3.7	3.8
Bulgaria	3.7	3.4	3.8	3.1
Bosnia and Herzegovina	3.0	3.2	3.2	3.5
Macedonia	3.0	3.2	2.8	3.0
Romania	4.7	3.6	5.1	3.5
Slovenia	4.3	3.4	4.0	3.2
Croatia	2.8	2.7	2.8	2.6

Sources: Consensus Forecast and IMF.

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[20] The index has been designed to indicate long-term average with 100 points.

Chart IV.7.6 **Revisions of real GDP growth forecasts for 2018 and 2019 by the IMF**
(in %)
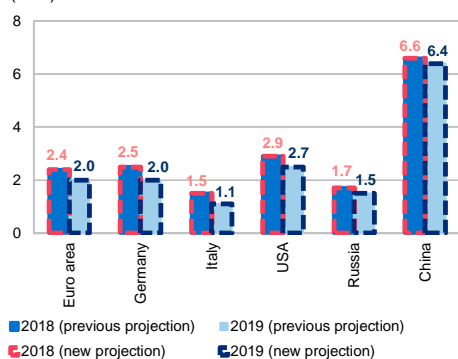
Sources: IMF WEO Update (January 2018) and IMF WEO (April 2018).

consumer confidence, with the adopted fiscal reforms providing an additional boost to domestic demand.

In 2017, the region of **Central Europe** posted growth of 4.4% that was broadly dispersed across countries. Preliminary indicators suggest a continuation of economic expansion at the onset of 2018 as well. Prolonged growth is expected to be supported largely by the increasing exports to the euro area, utilisation of EU funds and favourable movements in the labour market. Relative to January projections, the April Consensus Forecast revised the region's growth figure up from 3.6% to 3.9% in 2018 and from 3.2% to 3.3% in 2019.

According to the April Consensus Forecast, growth in the **Southeast European region** increased relative to January, from 3.8% to 4.0% in 2018 and from 3.3% to 3.4% in 2019, which is a further slowdown compared to the 4.9% recorded in 2017. According to the latest World Bank report, the Western Balkan region posted growth of 2.4% in 2017. The main driver of growth was still private consumption supported by the declining unemployment rate and rise in lending activity. The region's future growth prospects are looking bright – economy is expected to grow 3.2% in 2018 and 3.5% in 2019 led by investment and exports. Also conducive to growth should be the EU's economic recovery, global trade growth and improved financing conditions.

Though **Russia's GDP growth** was somewhat slower in Q4, higher oil revenue, boosted business confidence and a looser monetary policy contributed to economic growth in 2017 (1.5%). In early 2018 business confidence continued to grow, as did oil prices, which should reflect positively on extended export growth. According to the IMF projection, growth in 2018 is likely to be 1.7%, after which 2019 will see a moderate slowdown (1.5%). The Consensus Forecast gave higher figures, predicting that the Russian economy will grow by 2.0% in 2018 and by 1.9% in 2019, each higher by 0.1 pp relative to the previous forecast.

In Q1 2018, **the Chinese economy** maintained the growth rate from Q4 2017 (6.8% y-o-y), led primarily by consumption and investment. On the supply side, growth was largely driven by industrial acceleration, due to less restrictive requirements in terms of limiting production on account of environmental issues, as well as due to the continued rise in the services sectors. According to the IMF's assessments, as in January, China's economic

growth is likely to decelerate slightly, from 6.9% in 2017 to 6.6% in 2018 and 6.4% in 2019, due to the further rebalancing of China's growth structure – from investments to private consumption and from industrial production to the services sector.

Inflation movements

The continued recovery in global economic activity did not give rise to any major inflationary pressures, therefore inflation in the international environment is still relatively low. Of countries in the region, Turkey and Romania had inflation running above the target level at end-Q1, and Poland below it. Inflation in Hungary was at the lower bound of the target tolerance band and in the Czech Republic around the target midpoint.

Average y-o-y inflation in **the euro area** of 1.2% during Q1 edged down relative to Q4 2017 (1.4%). The still low inflation is partly attributable to the fact that, despite the lowest unemployment rate since the outbreak of the crisis in 2008, wage rise was still rather tepid. In addition, the appreciation of the euro also affected the slowdown in inflation. This reflected on core inflation which remained low, despite economic growth, and equalled 1.0% y-o-y in Q1. In euro area countries which are Serbia's key foreign trade partners, inflation is also somewhat lower than in the previous quarter. Namely, average y-o-y inflation in Germany edged down from 1.6% in Q4 to 1.4% in Q1 2018, while in Italy it dipped from 1.1% to 0.9%. However, in addition to continued economic growth sustained by investment and external demand, it is expected that signing a new collective agreement on wages in industry will be conducive to a rise in wages and, in turn, of inflation in Germany.

The ECB estimates that inflation will approach the target level of "below, but close to 2%" over the medium term, bearing in mind stable and diversified economic growth owing to which growth projections have been revised upwards, as well as extremely favourable financing conditions resulting from monetary policy measures, further absorption of economic slack and the anticipated gradual wage growth. According to March projections, the ECB expects inflation to measure 1.7% in 2020, after equalling 1.4% in 2018 and 2019. Relative to the December projection, only the inflation projection for 2019 has been slightly revised down. The April Survey of Professional Forecasters[21] expects stable inflation growth going forward, from 1.5% in 2018 to 1.6% in 2019 and

Chart IV.7.7 **Inflation and target by country in March 2018**
(in %)

× Inflation   ◆ Target

Sources: Eurostat and websites of central banks.
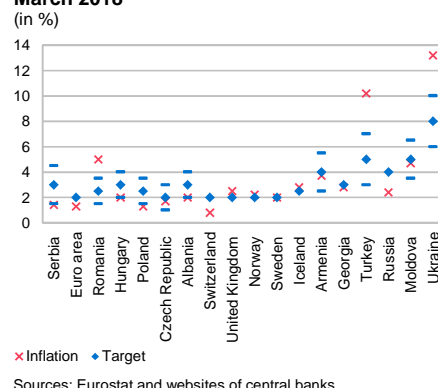
Chart IV.7.8 **HICP across selected countries**
(y-o-y rates, in %)

Sources: Eurostat, Bureau of Labor Statistics and statistical offices of selected countries.
* CPI.

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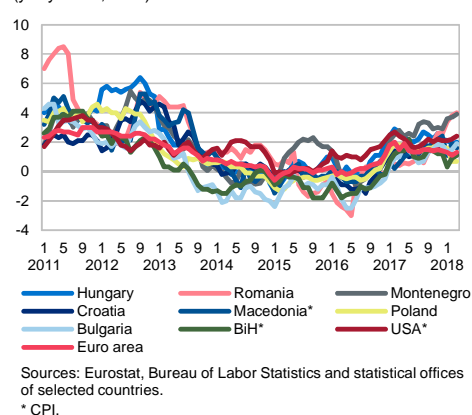
[21] ECB Survey of Professional Forecasters (SPF).

1.7% in 2020. Compared to the January survey, expectations for 2018 have not been changed, while those for 2019 and 2020 have been revised down by 0.1 pp each. Long-term inflation expectations, which refer to 2022, have been kept at 1.9%. Obtained through a survey, these long-term expectations are still slightly higher than long-term market expectations which have been trimmed from 1.73% in January to 1.70%[22] at the end of April.

After rising in the prior quarter, inflation in the majority of **Central and Eastern European** countries declined during Q1. Having reached its five-year record in November 2017 (2.5% y-o-y), inflation in Poland declined in the following months owing to low inflationary pressures at home and it averaged 1.5% in Q1. Relative to a quarter earlier, average y-o-y inflation in Q1 was also lower in Hungary (2.0%), Bulgaria (2.0%), Macedonia (1.5%), Croatia (1.0%) and Bosnia and Herzegovina (0.8%). Inflation in Russia was also lowered further, to 2.3% y-o-y on average in Q1, while the Russian central bank expects inflation to reach 3–4% at the end of the year. Analysts estimate that weakening of the rouble during April could reflect on faster inflation growth. By contrast, during Q1, inflation in Romania reached its highest level since mid-2013 and equalled 4.7% y-o-y on average, and it also picked up in Montenegro to an average of 2.7% in the same period. Although inflation in Turkey decreased in the previous months (to 10.3% y-o-y on average in Q1), it is still considerably above the central bank's target (5.0±2%). The main trigger of high inflation is the weakening lira, which continued to depreciate in Q1 2018.

US inflation touched its twelve-month maximum in March and equalled 2.4% y-o-y. Excluding volatile components of inflation, i.e. energy and food prices, and after measuring 1.8% y-o-y in January and February, core inflation reached 2.1% y-o-y in March, its highest level since last February. Inflation increase is mostly attributable to the low base effect from the prices of mobile telephony services. At the same time, inflation measured by the personal consumption expenditure price index, which the Fed targets, also posted growth and equalled 1.9% in March. Amid rising producer prices, as well as encouraging data from the labour market, the rise in prices is deemed sustainable. In addition, estimates hint at the possibility of faster inflation growth in the USA due to the introduced trade barriers.

Chart IV.7.9 **Long-term inflation expectations in the euro area***
(in %)

Source: Thomson Reuters.
* Five-year, five-year breakeven forward.

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[22] The five-year, five-year breakeven forward.

Monetary policy

Monetary policy measures of the ECB and the Fed adopted during Q1 were in tune with expectations and diverged even further.

In Q1, as well as in the meeting in April 2018, **the ECB** kept its interest rates at historic minimums (key rate at 0%, and deposit and marginal lending facility rates at -0.4% and 0.25% respectively). The ECB expects the rates to remain at their present levels for an extended period of time, and well past the horizon of the quantitative easing programme. As for non-standard monetary policy measures, the ECB confirmed the decision to run the monthly net asset purchases at the lower amount of EUR 30 bn until the end of September 2018, or until the Governing Council is certain that inflation is on a sustainable path to its target. However, as of March, the statements no longer indicate that in case of any aggravated prospects in terms of growth or financing conditions, the Governing Council would be prepared to increase the asset purchase programme in terms of size and/or duration.

As all FOMC members positively assessed the prospects of further economic and inflation growth in the USA, a decision was passed in March to raise the target range for **the Fed's** rate to 1.50–1.75%. Such decision was fully aligned with expectations of market participants, while the main remaining uncertainty is the pace of rate hikes during 2018 and 2019. According to Fed's March projections, the interest rate will reach 2.1% in 2018, meaning that the Fed expects two more hikes before the end of the year. However, there are even more FOMC members now who feel that 2018 should see four rate hikes, bearing in mind the revised growth projections and greater confidence in inflation returning to the target level. Three rate hikes are expected in 2019 (to 2.9%), whereas December projections anticipated two increases (to 2.7%). Market expectations for the current year do not deviate greatly from the Fed's March projection, while interest rate will most likely be raised at the meeting in mid-June 2018. In contrast to that, based on market expectations, the interest rate trajectory is somewhat below the Fed's forecast for 2019.

Monetary policy makers in the USA believe that favourable labour market movements, weakening of the dollar, as well as the fiscal stimuli in the form of tax cuts and increased public investments are yet to show their

Chart IV.7.10 **Policy rates across selected countries**
(p.a., in %)

Sources: Central banks of selected countries.
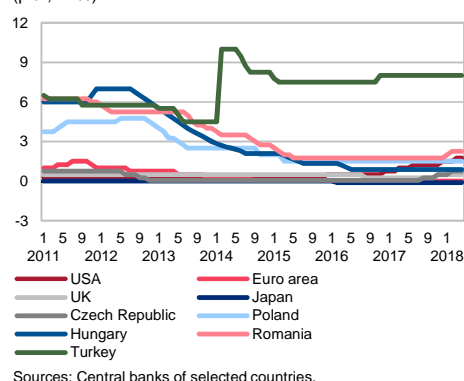
Chart IV.7.11. **Achieved and expected Fed funds rate***
(p.a., in %)

Sources: Bloomberg and Fed.
* Futures-based market expectations.
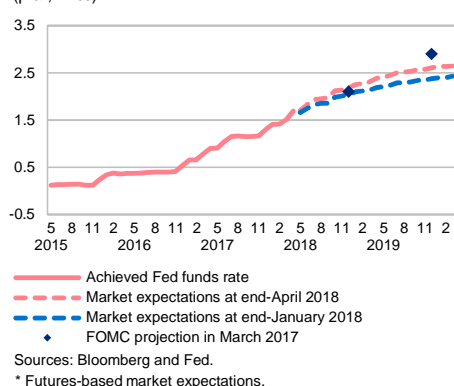
effect on economic activity. The Fed estimates that the continued normalisation of the balance sheet, which began in October, did not have a major effect on market developments. Some Fed representatives underlined the need to modify its communication practice with respect to monetary policy measures in a way that would signal its future neutral or moderately restrictive character.

Economic developments at home had a key impact on the monetary policies of the majority of central banks in **Central and Eastern European countries**. Following the February hike to 0.75%, the Czech central bank kept the key policy rate unchanged and emphasised the possibility of one more increase during 2018. The Romanian central bank held the key policy rate at 2.25% in April, after lifting it by 0.25 pp in each of the previous two meetings, bearing in mind that in Q1 inflation trended above the upper bound of the target tolerance band and at its highest since June 2013. Interest rates of the central bank of Turkey remained unchanged during Q1 – the key policy rate was at 8% while the possibility of further monetary policy tightening was emphasised in order to lower inflation to the target level of 5.0±2%.

In Q1 2018, the Bank of Russia continued to trim its key policy rate – by 0.25 pp in both February and March – bringing it to 7.25%. It said in a statement that it will continue with rate cuts in the coming period, with expectations that monetary policy will take on a neutral character by the end of 2018. The Hungarian central bank also pursued monetary policy relaxation in Q1, resorting to an expanded set of unconventional measures introduced in January, while keeping the key policy rate on hold (0.9%). Of the observed central banks in the region, the central bank of Poland has kept its monetary policy unchanged longer than the others, its key policy rate trending at the three-year minimum of 1.5%.

Financial and commodity markets

Global financial conditions are still favourable despite increased volatility in the international financial market which, according to the implicit measure of **financial market volatility** (VIX), rose from 10% in January to 37% in early February, its highest level since August 2015. The rise in volatility was attributed to the announcement about wage increase in the USA which was not only higher than expected, but also the highest since 2009, indicating the possibility of faster inflation growth and increasing the probability of a quicker rise in US interest rates. In addition, the global trade policy was also uncertain, as was the possibility of tightening

Chart IV.7.12 **Implied volatility of the global financial market***
(in %)
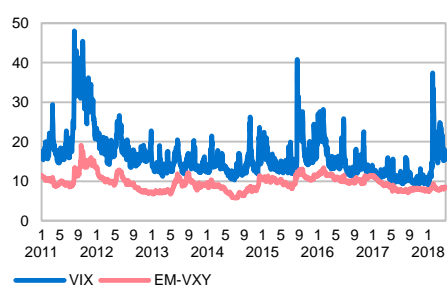
Source: Bloomberg.
* VIX (Chicago Board Options Exchange Market Volatility Index) measures implied volatility of the S&P 500 index; EM-VXY (JPMorgan emerging markets implied volatility index) measures aggregate volatility of emerging market currencies based on three-month forward options.

regulations of certain leading technological companies in the USA. In the ensuing weeks, volatility in the global financial market declined, but was still higher than at the start of the year, partly due to geopolitical tension. By contrast, although it was also increased in February, the EM-VXY index – which tracks volatility in emerging market currencies – showed much more stable movements and equalled 8.3% at end-April.

The continued normalisation of the Fed's monetary policy, along with a greater supply of government securities, in accordance with the budget deal reached in early February, reflected on the rise in the yields on US Treasuries in Q1. At the same time, the margin between the yields on ten- and two-year securities shrank, therefore the yield curve flattened to its lowest level since the outbreak of the economic crisis. The narrowing margin is attributable to the faster rise in yields on two-year US Treasuries in anticipation of the Fed stepping up monetary policy normalisation in view of improved prospects of economic and inflation growth, as well as encouraging data coming from the labour market. Yields on ten-year US Treasuries rose from 2.4% at end-2017 to 3.0% at end-April 2018, whereby the spread between those yields and yields on German government securities expanded from 2 pp to 2.4 pp. Amid elevated volatility in financial markets and the weakening dollar, the price of gold rose by 2.5% during Q1.

Despite the Fed's monetary policy normalisation and heightened uncertainty in the global market, which usually leads to increased investments in the dollar as a "safe heaven", the US currency continued to weaken against other leading global currencies. In Q1, the euro gained 2.7% against the dollar owing to improved outlook of euro area economic growth, which the ECB confirmed by revising its projections up in March. Also, the euro strengthened under the impact of increased investment in debt securities of some euro area countries, due to their improved credit rating. At the end of the quarter, the USD/EUR exchange rate was around 1.23. With indications that economic performance in the euro area is more moderate than expected, the trend was reversed at end-April and the euro weakened 2.0% against the dollar relative to the end of March.

Rise in the **global oil prices**, which began last year, continued in January with oil prices hovering around USD 70 per barrel only to dip to an average of USD 65 per barrel in February, after considerable fluctuations. As the price of oil was under the impact of a number of factors, some of which drove the price up and some down,

Chart IV.7.13 **Yield on 10-year bonds of selected countries**
(daily data, in %)

Source: Bloomberg.
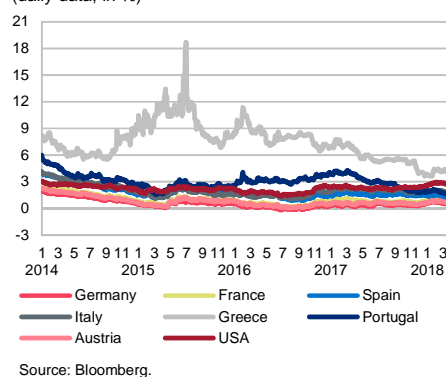
Chart IV.7.14 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)

Source: IMF.
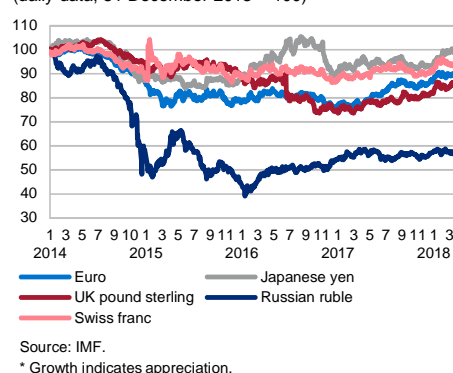* Growth indicates appreciation.

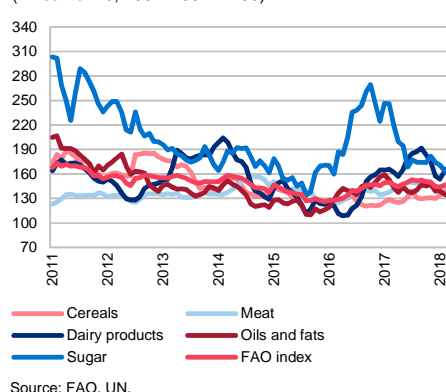Chart IV.7.15 **Oil and copper price movements**
(average monthly prices, in USD)

Source: Bloomberg.
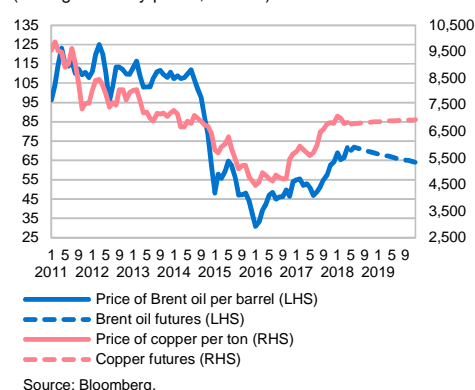
Chart IV.7.16 **Primary Commodity Prices Index**
(2010 = 100)

Non-Energy Price Index
Agriculture
Energy*
Metals and Minerals**

Source: World Bank.
* Crude oil, natural gas and coal.
** Copper, aluminium, iron ore, lead, nickel, zinc, steal and tin.

Chart IV.7.17 **World Food Price Index**
(in real terms, 2002–2004 = 100)

Cereals
Meat
Dairy products
Oils and fats
Sugar
FAO index

Source: FAO, UN.
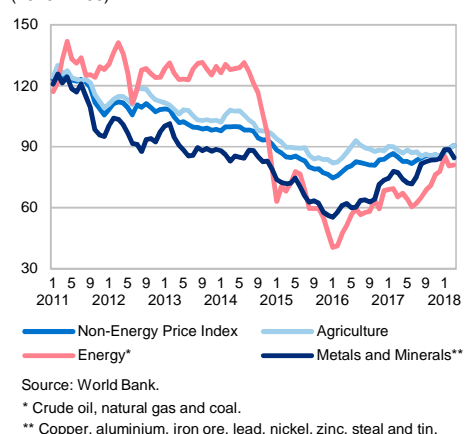
fluctuations continued during March and April as well. The price of oil in Q1 was on average 9.1% higher than in Q4, only to touch its highest level since 2014 at end-April – more than USD 74 per barrel. Factors that pushed oil prices up included the weakening of the dollar, implementation of the agreement on capping oil production between the OPEC countries and other major exporters, as well as the fall in global oil inventories, most notably in the USA (dropping below their five-year average for the first time since 2014). In addition, there has been increased geopolitical tension in the Middle East and lower oil production in Venezuela and Africa. On the other hand, the US oil production increased. There are also concerns that tariffs announced by the USA and China might act as a drag on global trade, thus dampening oil demand and lowering its price.

Based on the World Bank primary commodities' price indices, the growth in the **prices of metals** slowed down further in early 2018, from 1.7% in Q4 2017 to 0.4% in Q1 2018. However, in y-o-y terms, the global prices of metals rose 9.2% at end-March owing to accelerated global economic growth.

After dropping in Q4 2017, **world food prices** regained some ground in Q1 2018 (2.2%), measured by the FAO index. The price of cereals climbed the most (8.6%). Adverse weather conditions in the USA and parts of Europe led to a rise in the prices of wheat. Corn prices moved up even more on account of the anticipated poorer harvest, notably in Argentina, as well as due to increased demand. Having plummeted in the previous quarter, the prices of dairy also rose (7.0%) on the back of stepped up demand and New Zealand's underperformance in milk production, despite high inventories and increased global production. The price of meat first dropped in January and then rose in February and March, hence remaining almost unchanged at the level of Q1 (edged up 0.1%). As for other food products in the FAO index, the prices of sugar (8.9%) and vegetable oil (3.5%) posted a decline in Q1.

Text box 3: Global prices of primary commodities in the forthcoming period

Just like other central banks with price stability as their principal monetary policy goal, the NBS also pays a special attention to monitoring of primary commodity prices in the global market, as they are an important indicator of inflationary/disinflationary pressures on domestic prices. Global primary commodity prices, mainly oil and primary agricultural commodities, weigh on domestic inflation through production costs effect, which then more or less spill over to the prices of consumer goods. In this way, the global price of crude oil spills over to the prices of petroleum products, and other consumer goods and services (such as transportation, utilities, etc.), by influencing costs of production of petroleum products, commensurate with the use of this energy source in their production. The prices of primary agricultural commodities in the domestic market (corn, wheat and soya), as these are tradable goods, are consistent with the developments of these prices in the global market and, though not entering consumer basket directly, they make an important input in food production. In this way, they indirectly impact food prices in the domestic market, which have a significant share in CPI. Additionally, they also affect the economic developments, as Serbia is the net exporter of agricultural commodities, primarily cereals. Meat price developments in the global market, particularly in the EU, have also been significant recently, with rising volatility in the past two years. The prices of primary commodities in the global market may also have a secondary effect on inflation, as they can be passed on to the prices of other products and services, through the influence on inflation expectations.

From the perspective of monetary policy, the developments of the global prices of primary commodities are particularly important, because of their impact on domestic inflation. Since monetary policy affects inflation with a time lag, central banks use the estimate of potential trajectory of the global prices of primary commodities in the future, as one of the important elements of the headline inflation projection. In its estimates, the NBS, as other central banks, relies on futures and estimates of the leading global institutions in this area.

Alongside that, the projection of global primary commodity prices over a longer time horizon (in our specific case, two-year time horizon) is associated with multiple challenges. These prices are affected by numerous complex factors, often with the opposite effects. They are also volatile – responding promptly to the changes of economic conditions, both general and specific, for a specific primary commodity. In addition, their volatility has been significantly rising over the past ten years. Specifically with the outbreak of the global economic crisis, primary commodity prices went up in 2008, to slump in early 2009, with the global growth slowdown. The recovery in the aftermath of the crisis also translated into a gradual increase in the prices of primary commodities, of which the majority reached their peak in 2011. Though they declined afterwards, the global prices of primary commodities are still higher than in the years preceding the crises.

Chart O.3.1 **Primary commodity prices**
(in USD, 2010 = 100)
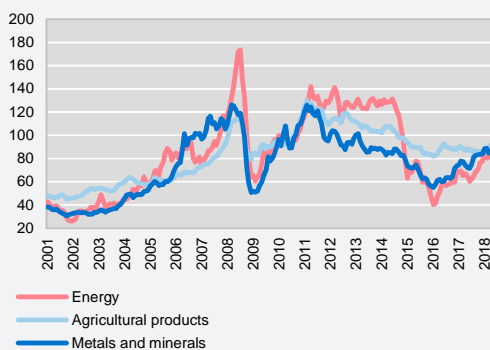
Source: Commodity Markets Outlook, World Bank, April 2018.

Chart O.3.2 **Projection of primary commodity prices**
(constant prices, in USD, 2010 = 100)
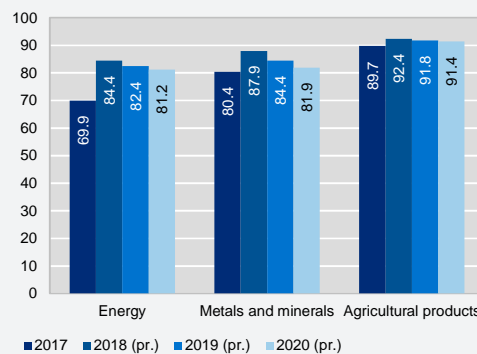
Source: Commodity Markets Outlook, World Bank, April 2018.

Taking futures into consideration, as well as the current projections of the relevant institutions, the hike in the prices of primary commodities is expected in the short run, and then, stabilisation and their drop in the medium term.

The expectation for 2018 is that the **global prices of primary commodities** will be higher than in 2017 in the case of more than a half of primary commodities. Still, the prices of around 4/5 of those commodities will still remain below the ceiling hit in 2011.

Thus, **global energy prices** experienced the sharpest rise in prices since the beginning of the year, primarily the global price of oil and natural gas. In April, global oil price reached USD 74 per barrel more than doubling relative to the floor touched at the beginning of 2016. Such oil price developments were driven primarily by the robust increase in the demand for oil, bolstered by global growth acceleration, curbing of production by OPEC producers and other big exporters, as well as geopolitical tensions. Higher global oil price boosted production growth in the USA since the beginning of the year. However, according to the World Bank projections[1], global oil price is expected to be higher this year than it was last year, which will pass on to the global price of natural gas. Global coal price should continue to decline, in line with the demand shifting towards energy sources which emanate less pollution. Working on that assumption, the World Bank expects global energy prices to go up by around 20% in 2018, which is an upward revision by 16 pp compared to the previous projection from October 2017. Still, stabilisation of energy prices is expected in 2019 and 2020, primarily on account of oil price stabilisation. The estimate is that additional barrels entering the global market should come from the USA, Brazil, Canada, and Norway. According to the March projection of the International Energy Agency (IEA)[2], crude oil production upturn in these countries will be more than sufficient to satisfy rising demand until 2020. However, despite declining costs of production, following 2020 greater investment expansion will be required to satisfy greater demand, as the oil industry is still recovering from investment slump in 2015 and 2016. According to the IEA estimate, the supply in the global oil market in the next period will be marked by the USA production growth, and the demand will be buttressed by economic growth of Asian countries. As regards OPEC countries' production, the IEA expects that a further contraction of production in Venezuela (more than halved in the past 20 years) will be offset by elevated production in Iraq, so that overall production of the group will be on the rise, though slight.

Chart O.3.3 **Crude oil and copper prices**
(nominal prices, in USD)

Price of oil per barrel (LHS)*
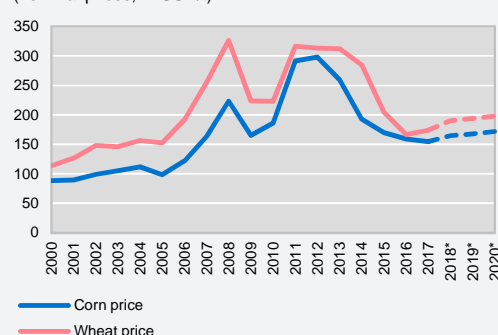Price of copper per tonne (RHS)
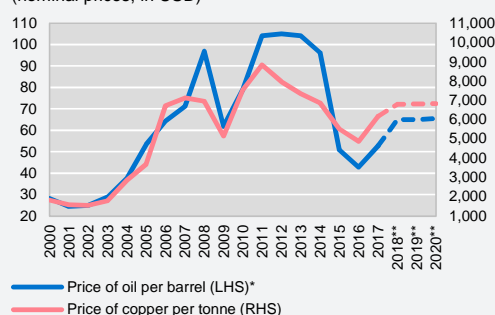
Source: Commodity Markets Outlook, World Bank, April 2018.
* Average price Brent, Dubai and West Texas.
** Projection.

Chart O.3.4. **Prices of cereals**
(nominal prices, in USD/t)

Corn price
Wheat price

Source: Commodity Markets Outlook, World Bank, April 2018.
* Projection.

With regards to primary commodities excluding energy, the World Bank expects their expansion as well, by more than 4% in 2018, and then stabilisation in 2019. Estimates for both years moved up by more than 2 pp compared to the previous projection from October 2017. A 9% hike in **metal prices** is expected in 2018 due to a further demand expansion, while the projected drop in the price of iron ore of 11%, on account of rising production in China, should be more than compensated by the hike in the prices of all other base metals. The copper global price is thus expected to pick up by around 10% in 2018, and then to stabilise in 2019 and 2020.

The prices of agricultural commodities, **important for Serbia**, in Q1 had the highest q-o-q rise in the past two years. In 2016 and 2017 these prices were mainly relatively stable, owing to good production results in most countries – main

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[1] Commodity Markets Outlook, The World Bank, April 2018.
[2] Market Report Series: Oil 2018, Analysis and Forecasts to 2023, IEA, March 2018.

producers, affecting the global expansion of inventories. In Q1 2018, the quarterly average of the prices of agricultural commodities, measured by the World Bank Index, rose by 4.0%, primarily on account of the price hike of cereals (8.8%). Such a development was largely affected by smaller surface areas under corn and soya in the USA, as well as unfavourable weather conditions for soya production in South America. Prices of cereals continued to increase into April (5.1%) largely as a result of higher wheat prices, whose production outlook in the USA worsened because of the drought. However, the expected higher production in other regions, particularly Russia, Ukraine, India, should compensate for the expected drop in the USA. At the level of annual average, in 2018, the World Bank expects a 9.1% rise in the price of wheat and a slight increase of 2.1%, in 2019 owing to relatively high interim inventories. Contracted global corn production is expected primarily due to unfavourable weather conditions in Argentina, and smaller sowed surface areas in the USA. Similarly as in the case of wheat, the prices of corn should record a somewhat higher increase in 2018 (6.8%), and then to stall to 1.8% in 2019.

Though the global prices of primary commodities are still volatile, taking into account futures, and the current projections of relevant institutions, the prices of primary commodities are expected to rise in the near term and then to stabilise and drop in the medium term. This means that expected developments of prices of primary commodities in the global market, over a longer horizon (next two years), do not indicate the possibility of more significant inflationary pressures on the domestic prices on those grounds. However, caution with estimating their impact through all the above channels is necessitated, as indicated by the developments since the beginning of the year.

V. Inflation projection

Under the May central projection, after hitting this year's low in April, y-o-y inflation is expected to gradually move towards the target, staying closer to the lower bound of the target tolerance band until the year's end. It is likely to get closer to the 3.0% midpoint in H2 2019 and move steadily around the midpoint until the end of the projection horizon. The main factors behind such movement are the low base for some products, the waning of the effects of past appreciation of the dinar and elevated aggregate demand. Uncertainty surrounding the inflation projection concerns primarily movements in the international commodity and financial markets and, to an extent, administered price growth and the success of this year's agricultural season.

Owing to the reforms conducive to sustainable medium-term economic growth, Serbia's GDP should speed to around 3.5% in 2018 and maintain a similar pace in 2019. GDP growth will be led by domestic demand, i.e. investment and household consumption, thanks to further improvement of the business environment, favourable monetary conditions, continued implementation of infrastructure projects and further positive trends in the labour market. Exports are expected to post two-digit growth rates in 2018 as well, driven by past investment and rising external demand, whereas, owing to the current investment cycle, we expect a rise in the imports of equipment and intermediate goods. The risks to the GDP projection for this year are assessed to be asymmetric to the upside, as indicated by more favourable than expected macroeconomic indicators at the beginning of the year, notably in construction, on the production side, that is in the field of investment, on the expenditure side.

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

Initial conditions

Consistent with NBS expectations, in the first months of 2018 inflation declined sharply. Compared to December, all components reduced their contribution to y-o-y inflation, while due to the drop-out from calculation of one-off price hikes from early last year, inflation moved around the lower bound of the target tolerance band. However, inflation slowed more than expected – to 1.4% y-o-y in March, notably owing to lower import prices and persistently low costs in food production. Low inflationary pressures are also confirmed by core inflation, which decelerated to 0.8% y-o-y in March, which is its lowest level since inflation is measured by CPI. That inflationary pressures are low is also indicated by inflation expectations of financial and corporate sectors, which declined further and stand below 3%.
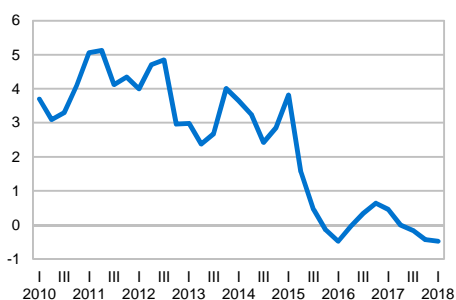

Chart V.0.1 **Monetary conditions index***
(in %)
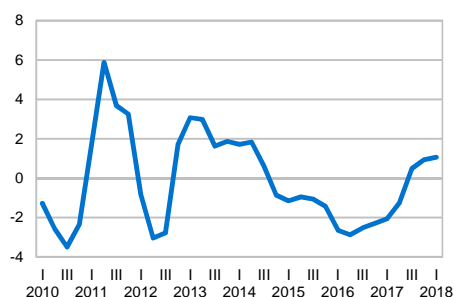
Source: NBS.

* The monetary conditions index is a combined indicator of the gap of the real interest rate and the gap of the real FX exchange rate. Value >0 indicates restrictive monetary conditions, and value <0 indicates expansionary monetary conditions.
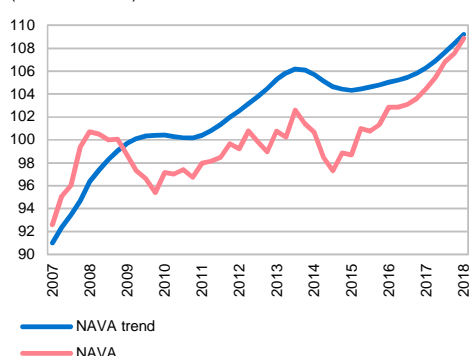
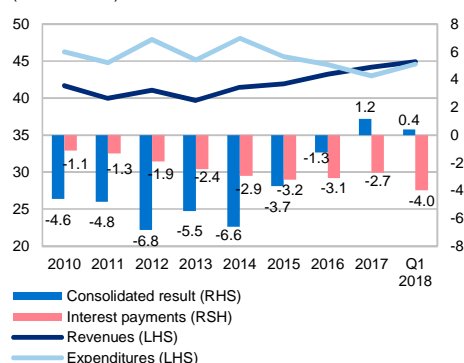Chart V.0.2 **Real interest rate**
(in %)

Source: NBS.

Note: Real interest rate is derived as the difference between one-week BELIBOR and one-year ahead inflation expectations of the financial sector measured by Bloomberg.

Chart V.0.3 **Output gap**
(Q3 2008 = 100)

— NAVA trend
— NAVA

Sources: SORS and NBS calculation.

Chart V.0.4 **Fiscal trends**
(in % of GDP)

Consolidated result (RHS)
Interest payments (RSH)
Revenues (LHS)
Expenditures (LHS)

Source: Ministry of Finance.

Appreciation pressures in the domestic market continued into Q1 and April. They were fuelled by a high FDI inflow, further growth in exports and portfolio investment. In monthly terms, moderate depreciation pressures were observed early in the year, notably due to the seasonally higher FX demand of enterprises, primarily energy importers, and higher FX demand of non-residents. As of February, with a significant rise in non-resident investment in long-term government securities, appreciation pressures prevailed. At the same time, FX demand of enterprises declined, FX purchases from exchange offices increased, and as of March currency-indexed bank assets went up as well.

The Monetary Conditions Index, showing a combined impact of the real interest rate gap and the real exchange rate gap, moved slightly above the neutral level since mid-2017, mainly on account of the nominal appreciation of the dinar. On the other hand, monetary policy easing through the key policy rate was accompanied with a reduced real interest rate trend due to a falling country risk premium. As a result, the difference between real interest and its neutral level remained broadly unchanged compared to Q4.

Further upgrade of the business environment, accelerated infrastructure projects, a vigorous FDI inflow, higher profitability of companies and maintenance of favourable financial conditions, were the main drivers of fixed investment. Along with household consumption prompted by the continuation of favourable labour market trends, fixed investment gave the strongest contribution to GDP growth of 1.8% s-a in Q1. While exports lent an impulse to GDP growth in Q1, the contribution of net exports remained negative due to faster imports growth. Y-o-y, faster growth in private and government investment and private consumption contributed to acceleration of GDP growth to 4.5%[23] in Q1. Acceleration of NAVA[24] gradually narrowed the output gap, negative from early 2009.

Positive fiscal trends continued into early 2018, as indicated by the general government consolidated budget surplus of RSD 3.7 bn (0.4% of GDP) in Q1. Excluding interest expenses, the consolidated surplus was RSD 45.7 bn (4.3% of GDP).[25] Consolidated revenue in Q1 increased by 3.6% y-o-y in real terms in Q1, on account of higher excise revenue due to increased collection of excises on petroleum products, higher social insurance

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[23] Preliminary estimate of the Serbian Statistical Office.

[24] The output gap is calculated based on NAVA. The NAVA trend estimated by the Kalman filter is used as an approximation of potential output.

[25] According to the Fiscal Strategy for the 2018–2020 period, the general government deficit is assessed at 0.7% of GDP in 2018 and 0.5% of GDP in the medium run.

contributions in response to improvement of the formal labour market, and profit tax revenue. In Q1, consolidated expenditure increased by 5.6% y-o-y in real terms, owing mainly to much higher capital expenditure and increased employee expenses, while a drop was recorded for interest and activated guarantee expenses. In regard to the share of Serbia's public debt, its downward trajectory continued and at end-Q1 it stood at 59.0% of projected GDP.

Inflation projection assumptions

External assumptions

Global growth acceleration this and next year (according to World Bank projections from 3.8% in 2017 to 3.9%) should be supported by a positive market sentiment, continued favourable global financial conditions and expected positive effects of the US accommodative fiscal policy. In the medium run, we expect somewhat lower global growth rates (3.7% according to the World Bank) given the assessments that, after the cyclical acceleration and US fiscal stimuli come to end, growth in advanced economies will probably be somewhat weaker due to slower growth in potential output.

In our current projection, the **economic outlook of Serbia's key trade partners** is more favourable than assumed in the previous projection. In the euro area, our most important trade partner, the high growth recorded in 2017 is expected to continue into this year. All relevant institutions raised their euro area growth forecasts for 2018. Thus, compared to its December projections, in March the ECB revised its growth rate from 2.3% to 2.4%. The same growth rate is expected by the IMF and Consensus Forecast, which is by 0.2 pp higher than their previous projection. The main driver of growth should remain private consumption given a rise in employment, low interest rates and higher loan availability, as well as a tax burden reduction in some EU member states. The contribution of net exports is assessed to remain positive in 2018, though somewhat smaller than last year as elevated domestic demand will impact imports growth. Euro area growth is expected to slow in 2019 and 2020 as the pace of private consumption will gradually diminish due to the gradual waning of the effects of ECB monetary policy accommodation through the quantitative

Table V.0.1 **Major projection assumptions**

	2018		2019		2020
External assumptions	Feb	May	Feb	May	May
Euro area GDP growth	2.2%	2.4%	1.8%	1.9%	1.7%
Euro area inflation (annual average)	1.4%	1.5%	1.6%	1.5%	1.7%
3M EURIBOR	-0.3%	-0.3%	-0.1%	-0.1%	0.4%
International prices of primary agricult. commodities (Q4 to Q4)*	14.3%	15.9%	4.8%	2.0%	-1.1%
Brent oil price per barrel (year-end, USD)	66	71	62	66	62
Internal assumptions					
Administered prices (Dec to Dec)	4.1%	4.0%	4.0%	4.0%	4.0%
Trends					
Appreciation trend of the real exchange rate (average)	0.5%	0.4%	0.6%	0.5%	0.6%
Real interest rate trend (average)	0.4%	0.4%	0.3%	0.3%	0.2%

* Composite index of soybean, wheat and corn prices.
Sources: NBS, ECB, Consensus Forecast, BSE, CBOT.

Chart V.0.5 Assumption for euro area inflation
(y-o-y growth, in %)

Historical data
February projection
May projection

Sources: Consensus Forecast and NBS estimate.
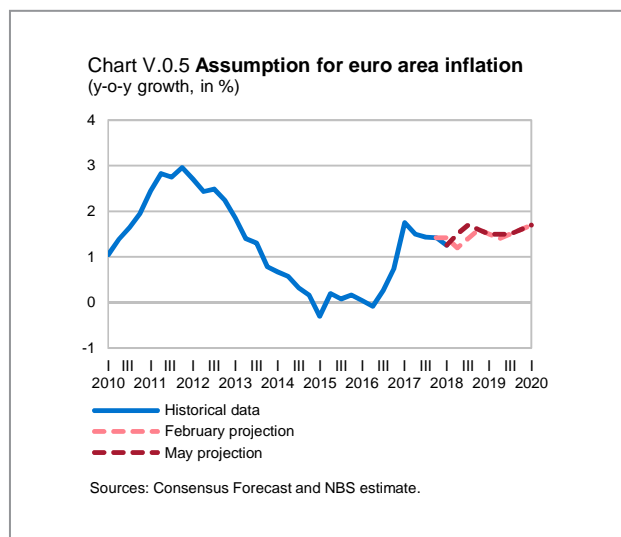
easing programme. As in December, the ECB expects that euro area growth rates will equal 1.9% and 1.7% in 2019 and 2020, respectively. Consensus Forecast expects the same growth rate of the euro area in 2019, i.e. by 0.1% higher than assumed in the projection three months before. The IMF expects that euro area growth will slow to 2.0% in 2019, which is consistent with the earlier forecast. As for our most important trade partners in the euro area, Consensus Forecast raised its growth forecast for Germany compared to three months before, by 0.1 pp both for this and next year, to 2.4% and 1.9%, respectively. In case of Italy, it retained the growth forecast of 1.4% for 2018 , and raised the forecast for 2019 from 1.1% to 1.2%. Euro area growth and favourable outlook going forward spill over to faster growth of countries in the region, which are also Serbia's important trade partners.

The projection also assumes moderate growth in **euro area inflation**. Though we expect its rise, euro area inflation is likely to move below the ECB target until the end of the projection horizon. As assessed by analysts, euro area core inflation will also stay relatively low, on account of the still relatively high unemployment rates in some member states. In addition, possible further appreciation of the euro could constrain inflation growth. According to Consensus Forecast, euro area inflation will be 1.5% in 2018 and 2019. According to March projections, the ECB expects inflation to reach 1.7% in 2020, following 1.4% in 2018 and 2019. Compared to the December projection, the ECB's expectation for inflation was slightly revised down only for 2019. The ECB expects that a gradual rise in inflation and its coming closer to the target will be supported by monetary policy measures, more vigorous economic growth, gradual absorption of economic slack and rising wages. Stronger inflationary pressures are not expected in countries of the region either. Though inflation in these countries increased last year, led by rising economic growth and wages, as well as by a temporary increase in food prices (due to limitations on the supply side in the market of some agricultural commodities), we expect it to move below the long-term average in the majority of countries in the region.

The divergence of **monetary policies of leading central banks** increased further since the start of the year. Bearing in mind the still moderate inflationary pressures in the euro area, despite acceleration of economic activity, it is expected that the ECB could, as it announced, keep the key rate around zero, and the deposit rate in negative territory for some time yet, certainly after the completion of the quantitative easing

programme. In line with this, short-term rates on marginal lending facility are expected to stay negative for some time – according to end-April futures, three-month EURIBOR will be negative in 2018 and 2019, only to enter positive territory in early 2020. At the same time, the ECB is expected to implement net asset purchases until end-September 2018, in monthly amounts of EUR 30.0 bn. Uncertainty pertains to the continuation of the programme, with increased market expectations that it could end in September. On the other hand, the Fed is expected to continue with gradual monetary policy normalisation, in line with improvement in the labour market and prospects that inflation will stabilise around the target.

Under the impact of both demand- and supply-side factors, **global primary commodity prices** increased in early 2018, but most of them are still below the 2011 peak. Faster global economic growth fuelled demand for primary commodities, facing supply-side restrictions for a larger number of products. Thus, the global **oil price** hike, which began last year, continued. Oil prices reached a higher level in early 2018 than it could be assumed based on year-end futures at the time of preparing the previous projection. In addition to elevated demand, the oil price hike was under the impact of capped production by OPEC countries and other major producers, including disruptions in production and transport caused by geopolitical tensions. Although our assumption about global oil prices is now higher than in the previous projection, in accordance with futures prices, we still expect a gradual reduction in global oil prices during the projection horizon, i.e. in the next two years. According to the analyses of relevant institutions as well, global oil prices will decline despite OPEC countries capping production due to the expected significant increase in production in the US. As assessed by analysts, oil producers in the US, after major financial problems, are now more profitable and oil prices, rising since summer last year, are stimulating enough for them to increase investment in production. According to the latest available futures, global oil prices are likely to move at around USD 71 per barrel until the end of this year, and around USD 66 and 62 per barrel at end-2019 and 2020, respectively.

In terms of **other primary commodities**, growth in metal prices is expected in the global market, as well as, after almost three years of relative stability, growth in prices of primary agricultural commodities. According to the March projection of the International Grains Council (IGC), global grains production is expected to decline moderately in both seasons – 2017/2018 and 2018/2019.

Chart V.0.6 **Assumption for Brent oil prices**
(USD/barrel)

Historical data
February projection
May projection

Sources: Bloomberg and NBS.
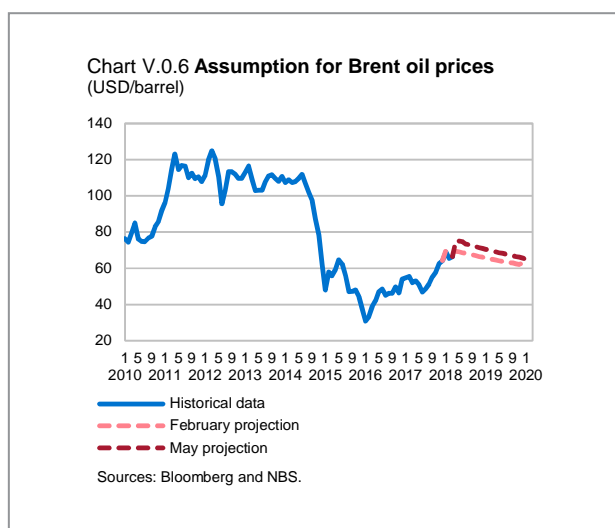
Chart V.0.7 **Assumption for international prices
of primary agricultural commodities**
(Q4 2013 = 100)

Sources: BSE, CBOT and NBS.
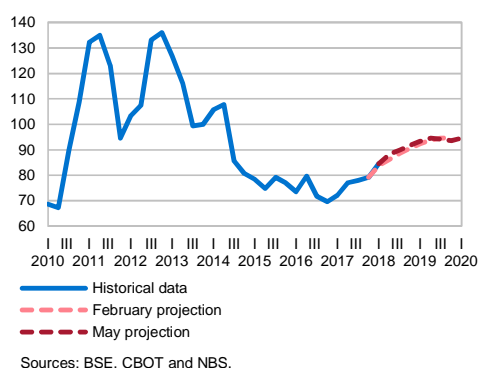
However, though the global harvest of 2017/2018 will be below the record previous one, it is estimated that it will remain above the five-year average. Contracted production relative to the previous season concerns mainly corn and barley, while the production of wheat, according to the latest estimates, increased to the new record level owing to elevated production in Russia, India and the EU. A reduction in corn production was prompted by falling production in Brazil and Ukraine, but due to depletion of earlier inventories, corn prices did not increase much despite increasingly higher demand. The expected growth in global and European prices of gains is ascribed mainly to the constant increase in demand. At the same time, growing demand for wheat and barley should remain stable, while growth in corn demand will be additionally spurred by its use for industrial purposes, notably in the biofuels production. However, grain prices are not expected to rise significantly, as they will be limited by supply, assessed to be, after all, satisfactory.

According to futures on the Chicago Mercantile Exchange, which we use for projection purposes, our new assumption of growth in agricultural commodity prices for 2018 is by 15.9% higher than in the February projection, while it is lower for 2019 (2.0% vs. 4.8%).

Internal assumptions

Corn and wheat prices in the domestic market declined in January and February, only to gradually recover in March with rising external demand. Falling prices in the major part of Q1 lowered further food production costs below the neutral level so that the RMCP gap entered negative territory again. However, trends recorded in late March and in April are consistent with movements of global primary agricultural commodity prices, so that starting from Q2 we first expect the depletion of the disinflationary effect, and then mild inflationary pressures on account of food production costs. We expect that prices in the domestic market will, as so far, largely follow the pace of global primary commodity prices and, after rising this year, increase in 2019 as well, though to a much lesser extent.

In line with the current projection, the **output gap**, negative as of 2008, will probably close until end-2018. The negative output gap opened in 2008 due to the spill-over of the global financial crisis to Serbia. Still, it has displayed a closing tendency for more than two years already owing to labour market improvements, past monetary policy easing by the NBS and rising external

demand. Until the end of the projection horizon, i.e. in Q1 2020, the output gap should reach around 1.0%. We expect that demand will rise on account of the continued **positive trends in the labour market**, notably further growth in wages and employment.

Similarly to the previous projection, the new projection assumes **administered price growth** in 2018 and the next two years at around 4%. This year, the strongest contribution is likely to arise from further adjustment of cigarette prices in July, in respect of rising excise prices, which will, together with the February rise, mean a cigarette price hike of 8.0% in 2018. For projection needs only, we assumed that electricity prices will go up this year by around 4.0%, as well as household gas prices, due to the global oil price hike in the prior period.

The projection assumption of **inflation expectations** remained unchanged – we expect inflation expectations of financial and corporate sectors to remain relatively stable in the coming period, moving slightly below the target midpoint.

The current projection assumes that **fiscal trends** in 2018–2020 will be in line with the Fiscal Strategy, which envisaged the medium-term general government deficit at 0.5% of GDP. Such targeted medium-term level of deficit will ensure a downward path of public debt in the coming period and should positively affect the country risk premium and credit rating. Moreover, given favourable movements since the start of this year, the consolidated budget this year may record an even better result than the 0.7% deficit planned by the Fiscal Strategy.

Exports are expected to rise at a two-digit rate in 2018 as well, led by past investment and rising external demand. Owing to the continuation of the investment cycle, we also expect higher imports of equipment and intermediate goods. Taking this into account, the **share of the current account deficit** in GDP this year is estimated to stay at the level similar to the last year's. Given that a stronger impact of the current investment cycle on export growth is expected in the years to come, the share of the current account deficit should gradually decline, to around 4–5% of GDP in the medium run. As so far, FDI will be more than sufficient to cover the current account deficit, which will contribute to relatively stable movements in the FX market in the period to come.

In light of the expected continuation of positive macroeconomic trends in the coming period, domestic factors should have a positive effect on the **country risk**

Chart V.0.8 **Current account deficit and net FDI inflow**
(in % of GDP)

Source: NBS.
* NBS projection.
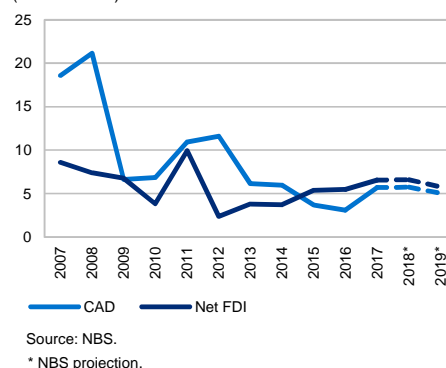
Table V.0.2. **Fiscal strategy 2018–2020**
(in % of GDP)

	2018	2019	2020
Public revenues	42.4	41.8	41.1
Tax revenues	37.3	37.0	36.6
Non-tax revenues	4.7	4.5	4.2
Public expenditures	43.1	42.3	41.6
Expenditures for employees	9.8	9.7	9.6
Pensions	11.1	11.0	11.0
Interests	2.5	2.3	2.1
Capital expenditures	3.6	3.7	3.7
Total balance	-0.7	-0.5	-0.5
Primary balance	1.9	1.8	1.6

Source: Ministry of Finance.

premium until the end of the projection horizon, while the impact of global factors could be more volatile, which is currently hard to assess.

Projection

Inflation projection

According to our current projection, having touched this year's low in April, y-o-y inflation is expected to gradually move towards the target, remaining closer to the lower bound of the target until the end of this year. Its gradual movement towards the target midpoint of 3.0% is expected in H2 2019, whereafter it will move steadily around the midpoint until the end of the projection horizon.

Short-term inflation projection

Movement in y-o-y inflation in Q2 will be under the strongest impact of the base effect. Y-o-y inflation is expected to fall below the March level in April due to the drop-out from calculation of one-off price hikes of some products and services (fresh meat and vegetables) from the previous year. Thereafter, the base effect will change direction, which should, along with the recent hike in global oil prices, bring inflation back within the target tolerance band until end-Q2. At the same time, we expect that core inflation (change in CPI excluding the prices of food, energy, alcohol and cigarettes) will remain low, moving below 1.0% in Q2.

In quarterly terms, consumer price growth in Q2 is expected to underperform the Q1 figure. The price growth will be driven mainly by rising fruit prices which will be, according to our estimate, below the price levels customary for the season and lower than prices of meat and travel packages. Working in the opposite direction will be the falling prices of fresh vegetables.

The risks to the projection concern primarily the movements in unprocessed food prices and trends in global commodity and financial markets.

Medium-term inflation projection

Starting from projection assumptions, we expect that y-o-y inflation will move around the lower bound of the target tolerance band this year, and gradually get closer to the target midpoint next year. The main factors underlying

Chart V.0.9 **Short-term inflation projection**
(y-o-y rates, in %)

Source: NBS.

Chart V.0.10 **Inflation projection**
(y-o-y, in %)

Source: NBS.
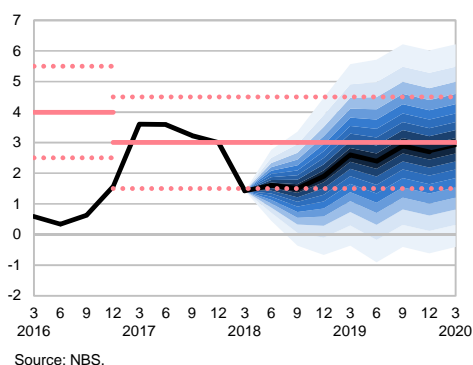
The fan chart depicts probability of various inflation outcomes in the next eight quarters. Central projection is within the darkest central band and the probability that inflation would lie in it is 10%. Each following shade includes 10% probability, which means that outturns of inflation somewhere within the entire fan chart are expected 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%.

such inflation movements are the low base for some products, the waning of the effects of past appreciation of the dinar and rising aggregate demand.

We expect domestic demand to continue to recover over the projection horizon and disinflationary pressures in respect of the negative output gap to wane and disappear by the end of this year. As of 2019, we expect the output gap to be in positive territory. Such movement in the output gap will be supported by positive labour market trends and rising public sector wages and pensions, through the positive influence on household disposable income. Disposable income is expected to rise also on account of the lower level of interest rates and the resulting lower credit costs, achieved with past monetary policy easing by the NBS. Furthermore, ECB's monetary accommodation will have a positive impact on economic growth in Serbia by encouraging external demand and through low interest rates on euro-indexed loans.

We estimate that the costs of raw materials in food production (measured by the RMCP gap[26]) are below the neutral level, where they will stay in the short run. Thereafter, we expect growth in primary agricultural commodity prices, which will be determined by rising demand in an environment of a more favourable global growth outlook. Bearing in mind the link of these prices with those of primary agricultural commodities at home, we expect the costs of food production in the domestic market to increase this year, and to continue into next year, though at a much more moderate pace.

Dinar's appreciation in the past period had a disinflationary effect through lower import prices expressed in dinars. In this regard, we expect disinflationary pressures for some time yet, though they will diminish in time. However, given the expected moderate price growth in the euro area, our most important trade partner, and the expected relative stability of the dinar exchange rate, the rise in dinar-denominated import prices is likely to stay relatively low.

In terms of inflation components, y-o-y growth in **food prices** (excluding fruit and vegetables) will slow in H1, notably due to the high base for pork prices. Thereafter, we expect a moderate rise in food inflation due to the projected rise in primary agricultural commodity prices, and the weakening of disinflationary pressures on account of domestic demand and past appreciation of the dinar.

Chart V.0.11 **Output gap projection**
(Q3 2008 = 100)

NAVA
NAVA trend

Sources: SORS and NBS calculation.
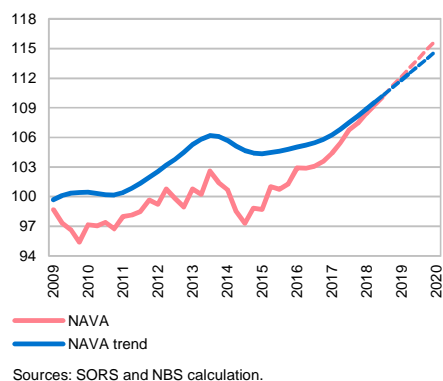
Chart V.0.12 **Impact of RMCP on food prices**
(in %)

RMCP gap
Food prices, excl. fruit and vegetable prices
(s-a growth, annualised)

Source: NBS.

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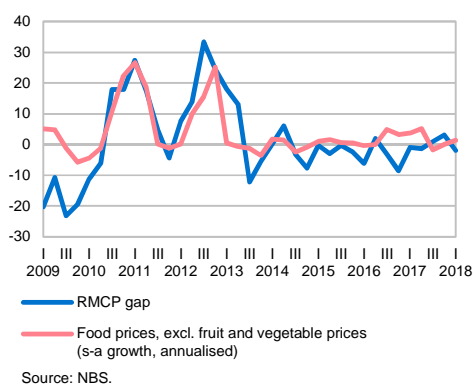
[26] Real marginal costs of processed food producers (RMCP) are calculated as the ratio of primary agricultural commodity prices and food prices. A negative RMCP gap opens when these costs fall below the trend level.

Chart V.0.13 **Projection of inflation components**
(average y-o-y rate, in %)
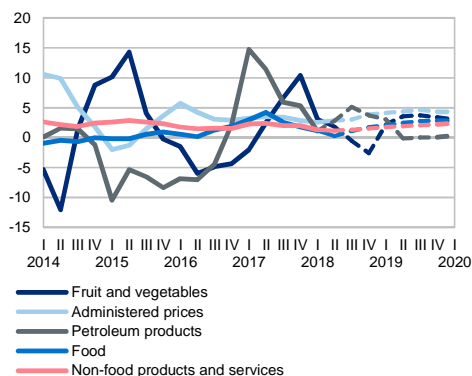
Source: NBS.

Non-food inflation is expected to display a similar trend – after some one-off price hikes drop out from y-o-y calculation, it should touch its lowest level in April. As of mid-2018, rising aggregate demand and gradual waning of the effects of past appreciation of the dinar should lead to the gradual rise in non-food inflation, which should stay below 3% over the projection horizon. We estimate that **fruit and vegetable prices**, owing to exceptionally favourable circumstances this year and the high base last year, are now below their neutral level, and are likely to gradually increase in the coming period. Next year, this will affect y-o-y inflation rates, while during this year the contribution of these prices to inflation will fluctuate around zero, depending on the base. **Petroleum product prices** are expected to be under the impact of the current global oil price hike this year, which will be, along with the low base from May, one of the factors contributing to inflation's return within the target tolerance band in the short run. According to futures prices, 2019 and 2020 are likely to see somewhat lower global oil prices, which should spill over to petroleum product prices in the domestic market. In regard to **administered prices**, we expect them to rise at the rate of around 4% this and the next two years, contributing around 0.5 pp to headline inflation.

Uncertainty surrounding the inflation projection relates primarily to movements in the international commodity and financial markets and, to an extent, administered price growth and the success of this year's agricultural season.

According to the latest available information from the futures market, we assumed that global oil prices will decline mildly from their current level until the end of the projection horizon. Since these prices are highly volatile and under the impact of a great number of factors on both the supply and demand side, it is very likely that oil prices might deviate from the assumed path over the projection horizon. The risks to the upside primarily concern potential supply constraints caused by geopolitical tensions and a possible agreement between OPEC countries and other major oil producers about a greater-quantity or longer-term cap on supply. On the other hand, looser implementation of that agreement and a greater than expected rise in US production would trigger a decline in global oil prices. On the demand side, faster than expected global growth would exert an upward pressure on global oil prices and vice versa. Bearing all these factors in mind, we judge that risks to the projection on these grounds are skewed to the upside. As for the global prices of primary agricultural commodities, they are expected to go up in this and the

next two years, driven by the growing demand of emerging economies. Nevertheless, same as in the case of oil, the actual prices of primary agricultural commodities might deviate from what is projected. Given that over the past few years the prices of primary agricultural commodities in the global markets edged up slightly or even lost some ground, while futures forecasted their growth, we estimate that risks to the projection in this regard are skewed to the downside.

Risks to the projection concern also the movements in the international financial market, primarily the stance of Fed's and ECB's monetary policies and, consequently, the relation between the euro and the dollar. In case that the Fed speeds up monetary policy normalisation and the ECB reduces its accommodation relative to what markets expect, capital inflows to emerging economies, including Serbia, and primarily portfolio investment, could narrow down. On the other hand, given the still moderate inflationary pressures, the leading central banks might normalise their monetary policies at a slower pace, despite the accelerated economic activity. Even if the ECB decides to wind up its quantitative easing programme in September, it has announced to keep its interest rate on the main refinancing operations around zero and the rate on the deposit facility in the negative territory for a while, and definitely beyond the withdrawal of the quantitative easing programme. Risks to the projection on these grounds are assessed to be symmetrical. Our projection rests on the assumption that in 2018 and the next year administered prices would rise at a rate of around 4.0%. However, taking into account that over the last two years administered prices rose less than projected, we assess that risks to the projection in this regard are mildly skewed to the downside.

Risks to the projection are to some degree associated also with the performance of the agricultural season, which is highly dependent on weather conditions. Potential adverse weather conditions (drought, flood) might reflect negatively on the agricultural production. On the other hand, more favourable weather conditions could push yields above the multi-year averages, which we used as projection assumptions.

On balance, the risks to the projected inflation path are judged to be symmetric.

Looking ahead, monetary policy decisions of the NBS will continue to depend on the assessment of the impact of inflation factors from the domestic and international environment. As the key risks emanate from the

international environment, the NBS will continue to closely monitor and assess movements and trends in the international financial market and the market of primary commodities, notably crude oil and primary agricultural commodities, and assess their impact on economic developments in Serbia. The NBS will as so far use all available instruments to make sure inflation remains low and stable over the medium term which, together with the preservation of financial stability, will contribute to sustainable economic growth and stronger resilience to external uncertainties.

GDP projection

Owing to implemented reforms and improvement of the business environment, Serbia has created the basis for sustainable economic growth in the medium run. We therefore assess that Serbia's GDP will speed up to around 3.5% this year, maintain a similar pace in 2019, and reach 4% thereafter.

The acceleration of GDP growth in 2018, suggested also by better than expected performance of macroeconomic indicators early in the year, should be led by domestic demand, i.e. investment and household consumption. Further improvement of the business environment, along with favourable monetary conditions and continued implementation of infrastructure projects, should ensure the continuation of the current investment cycle in the future period, characterised by project-diversified growth of investment channelled mainly into export-oriented branches. Also, the growth of disposable income of households, primarily based on higher employment and wages, and the gradual recovery of consumer confidence, should lead to a further expansion of household consumption.

As a result of implementation of earlier investment and high external demand stemming from uninterrupted economic growth in the euro area and in the neighbouring countries, goods and services exports are also expected to positively contribute to GDP growth in 2018. However, the contribution of net exports will most likely be negative, due to the expected rise in imports of equipment and intermediate goods meeting the needs of the current investment cycle in industry and higher imports of consumer goods, in response to the recovery of household consumption.

On the supply side, GDP growth in 2018 should be primarily driven by continued positive trends in industry, construction and service sectors, and to a certain extent, the recovery of agriculture. Apart from positive trends in

Chart V.0.14 **GDP growth projection**
(y-o-y rates, in %)

Source: NBS.
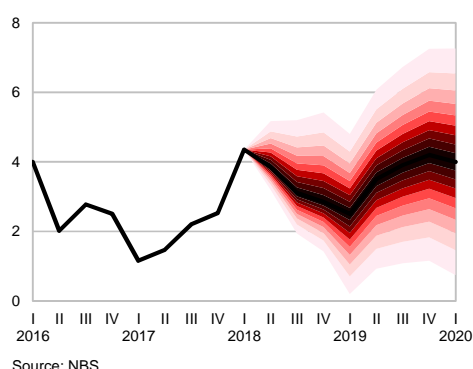
Chart V.0.15 **Contributions to real GDP growth**
(in pp)

Net exports
Government consumption and investments
Private sector investments
Household consumption
GDP (in %)

Sources: SORS and NBS calculation.
* NBS estimate.
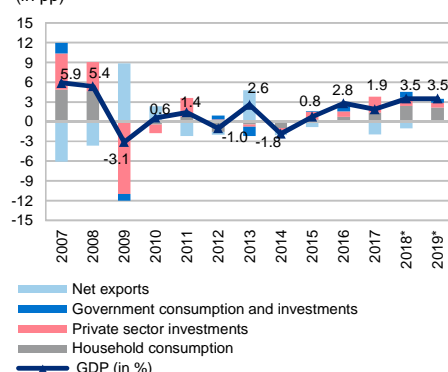
manufacturing owing to the implementation of earlier investment and continued growth in the euro area, total industry should also rise on the back of the sustained recovery in mining and energy sectors suggested by movements recorded early in the year. The increasing number of construction permits issued and the projected value of the works to be performed on those grounds, as well as the intensive implementation of infrastructure projects, suggest that the growth of construction activity has significantly accelerated since H2 2017. The continuation of positive trends is expected in the majority of service sectors, thanks to the further recovery of domestic demand. Also, due to the low base, agriculture is expected to give a positive impetus to GDP growth.

Factors that have positively influenced economic activity in the current year are expected to work in the same direction in the coming year, so GDP should keep the growth rate of around 3.5% in 2019 as well, and accelerate further to 4% in 2020. Further improvement of the business and macroeconomic environment, continuation of the EU accession process and expectedly high external demand should continue to provide a positive impetus to investment and exports growth, and sustained recovery in the labour market should boost household consumption. We also anticipate continued imports growth, driven mainly by increased imports of equipment needed for new investment and of intermediate goods, reflecting increased activity in industry, service sectors and construction, i.e. sectors which should remain GDP drivers on the production side.

The risks to the GDP projection for this year are skewed to the upside, as suggested by faster than expected growth in construction since the start of the year, looking at the production side, i.e. faster growth of investment, looking at the expenditure side. Risks to the GDP projection stemming from the international environment are judged to be symmetrical and concern the pace of growth in the euro area and in other important foreign trade partners, as well as developments in the international financial and primary commodity markets. To a lesser extent, risks to the projection are associated with the performance of the domestic agricultural season, with equal probability of deviation in both directions.

In case that positive developments recorded in construction early this year continue in the quarters ahead, as suggested by the sustained strong growth of construction permits issued and the projected value of the works to be performed, GDP growth could outperform the expected 3.5%. Looking at the expenditure side, this could result in faster than expected growth of total fixed investment and an increase of their share in GDP to

Chart V.0.16 **Assumption for euro area output gap**
(level)
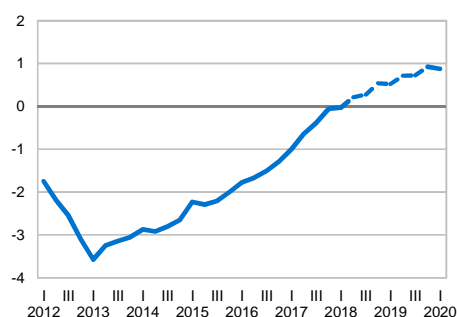
Sources: IMF and OECD calculation.

around 22% already in 2018, which lays the foundation for faster economic growth in the next year and in the medium term in general.

A strong impetus to Serbian GDP growth in the past period also came from sustained exports growth which benefited not only from earlier investment, but also from favourable external movements, i.e. high growth of demand in the euro area and Central and Eastern Europe countries. Owing to the expected continued growth of activity of our main foreign trade partners, our projection assumes that external demand in the medium term will continue to significantly spur GDP growth. Potential faster growth in the euro area and in other important foreign trade partners, on account of a more favourable global growth outlook, could additionally boost demand for Serbian exports and accelerate GDP growth. On the other hand, since the beginning of this year, economic indicators in the euro area have suggested a gradual growth slowdown, which is for the time being assessed to be temporary. Should the slowdown of growth in the euro area persist in the coming quarters, it could, in the scenario of rising protectionism in global trade and tightening of geopolitical tensions, bear down on global growth and translate into the shrinking of external demand and slower growth of Serbian GDP.

Apart from the trade channel, as a small and open economy, Serbia is also exposed to factors that impact the developments in the international financial market, which have been volatile in the recent period, primarily due to divergent monetary policies of leading central banks. Despite the expectation of the wind-down of the quantitative easing programme in September 2018, it is anticipated that the ECB will not change its interest rate on the main refinancing operations for some additional period, so interest rates in the euro area money market should remain low.
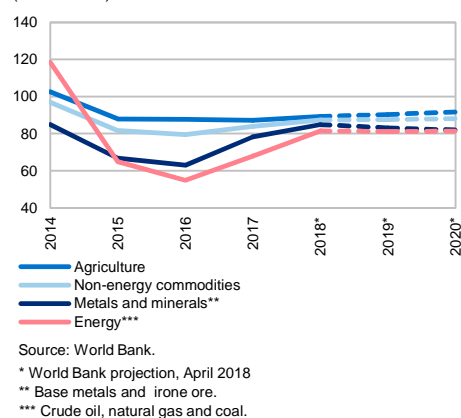

Chart V.0.17 **Current vs. previous GDP growth projection**
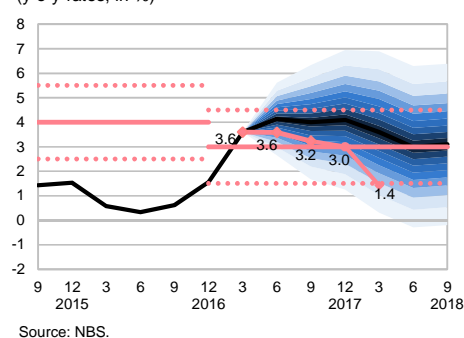
February projection
(y-o-y rates, in %)

May projection
(y-o-y rates, in %)

Source: NBS.
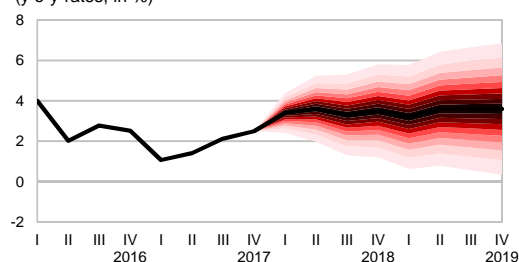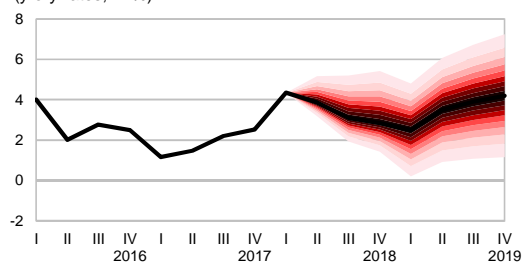
To a degree, Serbian GDP is also under the influence of world prices of primary commodities, primarily oil, cereals and base metals, which have been on the rise since the start of this year[27]. Given that Serbia is a net importer of oil, a potential rise in oil prices in the global market would probably translate into smaller disposable income of households and increased operating costs for businesses, consequently leading to deceleration of economic growth. On the other hand, continued growth of prices of cereals and base metals, that are net exported by Serbia, would work in the opposite direction, i.e. lead to faster than expected exports growth.

One of the risks to the GDP projection for 2018 is associated with the performance of the agricultural season. Since in this part of the year we still do not have detailed data on the performance of the agricultural season, our projection assumes that the yields of major agricultural crops in this year's season will reach multi-year averages. Under this assumption, and bearing in mind the underperforming last year's season and consequently low base, agriculture is expected to give a positive contribution to GDP movements in 2018. Given that the agricultural season is only starting and that it is difficult to assess what conditions, primarily weather, will prevail in the coming months, the actual yields might diverge from the assumed multi-year averages in either direction.

Comparison and outcome of inflation projections

Inflationary pressures in the new projection are weaker than in the previous one, so the **new medium-term inflation projection is lower than the one published in the February *Inflation Report***, until the end of the

Chart V.0.18 **Projection of movement in primary commodity prices**
(2010 = 100)

Agriculture
Non-energy commodities
Metals and minerals**
Energy***

Source: World Bank.
* World Bank projection, April 2018
** Base metals and irone ore.
*** Crude oil, natural gas and coal.

Chart V.0.19 **Current vs. previous inflation projection**

February projection
(y-o-y rates, in %)

May projection
(y-o-y rates, in %)

Source: NBS.

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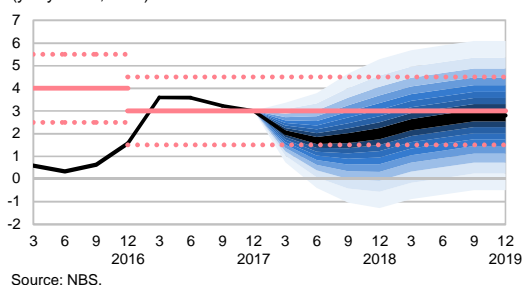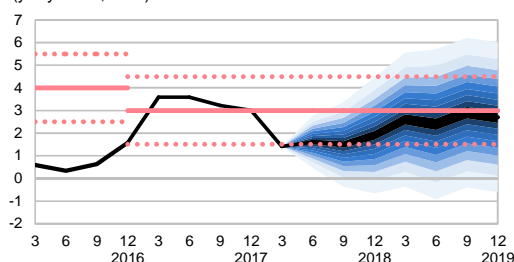
[27] See Text Box 3, p. 47.

Chart V.0.20 **Achievement of May 2017 inflation projection**
(y-o-y rates, in %)

Source: NBS.

Table V.0.3 **Projections of key macroeconomic indicators for Serbia**

	2018	2019	2020
Inflation (annual average, in %)			
IMF	2.7	3.0	3.0
World Bank	3.0	3.0	3.0
European Commission	1.7	2.7	-
Consensus Forecast	2.5	3.4	-
*Moody's**	3.0	3.0	
Bloomberg	2.3	3.0	3.2
GDP (%)			
IMF	3.5	3.5	4.0
World Bank	3.0	3.5	4.0
European Commission	3.3	3.5	-
Consensus Forecast	3.0	3.2	-
Moody's	3.0	3.5	-
Bloomberg	3.0	3.3	3.5
Fiscal result (% of GDP)			
IMF	-0,3	-0.2	-0.4
World Bank	-0.6	-0.5	-0.5
European Commission	0.6	0.5	-
Consensus Forecast	-	-	-
Moody's	0.0	0.0	-
Bloomberg	-0.5	-0.5	-0.5

Sources: IMF (WEO April 2018), World Bank (RER March 2018), European Commission (Spring Forecast 2018), Consensus Forecast (April 2018), Moody's (Annual credit analysis March 2018) and Bloomberg Quarterly Survey (April 2018).
* End-year.
** Based on NBS projection of dollar GDP.

projection horizon. This is primarily the result of a smaller than expected rise in consumer prices in Q1, reflecting the effects of the dinar appreciation in the past period, low inflation in the international environment and persistently low costs of food production. On the other hand, relative to the previous projection, we expect the negative output gap to close somewhat more quickly owing to faster than expected growth in the euro area, as well as owing to higher than expected growth of aggregate demand in Serbia in Q1 2018. Oil prices are also higher than in the previous projection.

In the past year inflation has been moving within the range projected in the May 2017 *Inflation Report*, but below the central projection, notably in Q1 2018. The actual growth of consumer prices underperformed our expectations from the last year, mainly due to lower import prices expressed in dinars and low food production costs.

Projections of other institutions

Projections of key macroeconomic indicators for Serbia developed by relevant international institutions largely converge with our projections. For example, all institutions put GDP growth in 2018 and 2019 in the range 3.0–3.5%, which is close to our projection of 3.5% for both years. Also, the consolidated budget deficit that was projected by the World Bank, IMF in the April *World Economic Outlook* and Bloomberg is close to the projection from the Fiscal Strategy, of 0.7% of GDP in 2018 and 0.5% of GDP in 2019, as opposed to the projection given by the European Commission, which expects a budget surplus in both years.

International institutions assess that inflation will remain low and stable in the medium term and within the NBS target tolerance band.

Table A.
Indicators of Serbia's external position

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1 2018
EXTERNAL LIQUIDITY INDICATORS (in %)														
FX reserves/imports of goods and services (in months)	6.1	9.0	7.5	5.4	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.3	5.3[2]
FX reserves/short-term debt	177.0	265.1	250.6	162.6	220.6	191.2	299.8	237.4	268.6	294.0	256.4	239.7	234.1	
FX reserves /GDP	23.3	36.9	32.7	24.2	34.6	33.6	36.1	34.5	32.7	29.7	31.0	29.5	27.1	27.1
Debt repayment/GDP	5.0	10.3	10.3	10.7	12.8	12.0	12.4	13.0	13.4	14.2	12.1	12.8	11.4	
Debt repayment/exports of goods and services	19.8	36.2	37.5	37.5	48.8	37.5	37.3	36.0	33.0	32.7	25.7	25.6	21.7[2]	
EXTERNAL SOLVENCY INDICATORS (in %)														
External debt/GDP	59.3	58.5	59.0	62.3	72.7	79.0	72.2	80.9	74.8	77.1	78.3	76.5	69.9	
Short-term debt/GDP	13.2	13.9	13.1	14.9	15.7	17.6	12.0	14.5	12.2	10.1	12.1	12.3	11.6	
External debt/exports of goods and services	234.9	205.7	214.3	218.9	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	133.1	
FINANCIAL RISK EXPOSURE INDICATORS (in %)														
FX reserves/M1	290.3	356.1	306.7	300.4	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	191.4
FX reserves/reserve money	169.8	179.5	173.8	140.7	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	202.1
OPENNESS OF ECONOMY (EXPORTS+IMPORTS)/GDP	70.8	77.4	80.1	82.6	69.0	79.8	82.7	89.8	92.6	97.7	102.6	106.8	113.3	119.3[2]
MEMORANDUM: (in EUR million)														
GDP[1]	21,103	24,435	29,452	33,705	30,655	29,766	33,424	31,683	34,263	33,319	33,491	34,617	36,795	8,883[2]
External debt	12,520	14,291	17,382	20,982	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,735	
External debt servicing	1,054	2,513	3,039	3,594	3,922	3,564	4,154	4,130	4,595	4,728	4,043	4,442	4,198	
Central bank foreign exchange reserves	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	10,235
Short-term debt[3]	951	968	1,044	1,832	1,852	1,758	612	455	196	99	303	676	889	
Current account balance	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,090	-650[2]

CREDIT RATING (change of rating and outlook)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017
	July/May	Feb	July	March/Dec	Dec	Nov	March	Aug	July	Jan	Dec	Jan/March/June/Dec	March	Dec
S&P	BB-/stable	BB-/positive	BB-/stable	BB-/negative	BB-/stable		BB/stable	BB-/negative				BB-/positive		BB/stable
Fitch	BB-/stable			BB-/negative		BB-/stable		BB-/negative		B+/stable	B+/positive	BB-/stable		BB/stable
Moody's									B1/stable			B1/positive	Ba3/stable	

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of end-of-period foreign exchange reserves to average monthly imports of goods and services during period under review.
Foreign exchange reserves/short-term debt (in %) - ratio of foreign exchange reserves to stock of short-term debt at remaining maturity at end-of-period.
Foreign exchange reserves/GDP (in %) - ratio of end-of-period foreign exchange reserves to GDP.
Debt repayment/GDP (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to GDP during period under review.
Debt repayment/exports (in %) - ratio of debt repayment (excl. early repayment of a part of debt to London Club creditors) to exports of goods and services during period under review.
External debt/GDP (in %) – ratio of end-of-period outstanding debt to GDP.
Short-term debt/GDP – ratio of end-of-period short-term debt at remaining maturity to GDP.
External debt/exports (in %) – ratio of end-of-period outstanding debt to annual value of exports of goods and services.
Foreign exchange reserves/M1 (in %) - ratio of foreign exchange reserves to money supply at end-of-period.
(Exports+imports)/GDP (in %) - ratio of value of exports and imports of goods and services to GDP during period under review.

[1] According to ESA 2010.

[2] NBS estimate.

[3] At original maturity.

Notes:

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

2. Starting from 2007 data on exports and imports of goods and services are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to BPM5.

3. As of 1 January 2010 the Serbian Statistical Office applies the general trade system of registration of exports and imports which is a 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 the special trade system. Trade with Montenegro is registered within relevant transactions as of 2003.

4. In September 2010, the methodology of external debt statistics was changed – public sector external debt now includes liabilities under SDR allocation (EUR 461.6 mn) used in December 2009. Private sector external debt excludes loans concluded before 20 December 2000 in respect of which no payments are made (EUR 934.8 million, of which EUR 402.0 million relating to domestic banks and EUR 532.8 million to domestic enterprises).

5. External debt repayment does not include: short-term debt repayment and early debt repayment.

Table B.
Key macroeconomic indicators

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1 2018
Real GDP growth (in %)[1]	5.5	4.9	5.9	5.4	-3.1	0.6	1.4	-1.0	2.6	-1.8	0.8	2.8	1.9	4.5
Consumer prices (in %, relative to the same month a year earlier)[2]	17.7	6.6	11.0	8.6	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	1.4
NBS foreign exchange reserves (in EUR million)	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	10,235
Exports (in EUR million)[3]	5,329	6,948	8,110	9,583	8,043	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,330	4,845[6]
- growth rate in % compared to a year earlier	19.1	30.4	-	18.2	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.2	10,5[6]
Imports (in EUR million)[3]	9,612	11,970	15,468	18,267	13,099	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,365	5,751[6]
- growth rate in % compared to a year earlier	0.7	24.5	-	18.1	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.1	13.0[6]
Current account balance[3]														
(in EUR million)	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,090	-650[6]
as % of GDP	-8.4	-9.6	-18.6	-21.2	-6.6	-6.8	-10.9	-11.6	-6.1	-6.0	-3.7	-3.1	-5.7	-7.3[6]
Unemployment according to the Survey (in %)[7]	20.8	20.9	18.1	13.6	16.1	19.2	23.0	23.9	22.1	19.2[7]	17.7	15.3	13.5	
Wages (average for the period, in EUR)[8]	210.4	257.8	347.1	402.0	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	383.9	412,9
RS budget deficit / surplus (in % of GDP)[4]	0.5	-1.7	-1.6	-1.7	-3.2	-3.4	-4.0	-5.9	-5.2	-6.3	-2.8	-0.2	0.8	0.6
Consolidated fiscal result (in % of GDP)[4]	1.2	-1.5	-1.9	-2.6	-4.4	-4.6	-4.8	-6.8	-5.5	-6.6	-3.7	-1.3	1.2	0.4
RS public debt, (central government, in % of GDP)	50.2	35.9	29.9	28.3	32.8	41.8	45.4	56.2	59.6	70.4	74.7	71.9	61.5	59,0
RSD/USD exchange rate (period average)	66.87	67.03	58.39	55.76	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	96.34
RSD/USD exchange rate (end of period)	72.22	59.98	53.73	62.90	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	96.08
RSD/EUR exchange rate (period average)	82.99	84.11	79.96	81.44	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.43
RSD/EUR exchange rate (end of period)	85.50	79.00	79.24	88.60	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.39
MEMORANDUM:														
GDP (in EUR million)[5]	21,103	24,435	29,452	33,705	30,655	29,766	33,424	31,683	34,263	33,319	33,491	34,617	36,795	8,883[6]

[1] At constant prices of previous year.

[2] Retail prices until 2006.

[3] Starting from 2007 data on exports and imports of goods and services are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to BPM5. Due to the break in the series for 2007, exports and imports growth rates are not shown. As of 1 January 2010, the Serbian Statistical Office applies the general trade system of registration of exports and imports which is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. The Statistical Office has published comparable data for 2007, 2008 and 2009. Previous years are disseminated using the special trade system. Trade with Montenegro is registered within relevant transactions as of 2003.

[4] Includes below-the-line items (payment of called guarantees, bank recapitalisations and debt takeover) in line with IMF methodology, as of 2008 on RS budget level and as of 2005 on consolidated level.

[5] According to ESA 2010.

[6] NBS estimate.

[7] New methodology of Labour Force Survey since 2014.

[8] By 2017, wages according to the old methodology. Since 2017, wages are published according to the new methodology and data are based on Tax administration evidence. Wages for the first quarter of 2018 are average of two available months. For conversion of wages from RSD to Euros used exchange rate RSD/EUR average of the period.

Notes:
1. Data are subject to corrections in line with official data sources.
2. Source for the data on unemployment: Labour Force Survey, Statistical Office.
3. Source for public debt: MoF.

Index of charts and tables

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Charts in text boxes

Executive Board meetings and
changes in the key policy rate

2017

Date	Key policy rate (p.a, in %)	Change (in basis points)
12 January	4.00	0
14 February	4.00	0
14 March	4.00	0
11 April	4.00	0
12 May	4.00	0
8 June	4.00	0
10 July	4.00	0
10 August	4.00	0
7 September	3.75	-25
9 October	3.50	-25
9 November	3.50	0
7 December	3.50	0

2018

Date	Key policy rate (p.a, in %)	Change (in basis points)
11 January	3.50	0
8 February	3.50	0
8 March	3.25	-25
12 April	3.00	-25
10 May	3.00	0
7 June		
12 July		
9 August		
6 September		
8 October		
8 November		
6 December		

Press releases from NBS Executive
Board meetings

Press release from Executive Board meeting held on 14 March 2018

At its meeting today, the NBS Executive Board decided to trim the key policy rate to 3.25%. In making that decision, the Executive Board was primarily guided by the inflation projection and inflation factors in the coming period.

In accordance with the NBS's expectations, inflation in February was lowered to 1.5% year-on-year, primarily on account of the high base from the prices of products that underwent one-off hikes early in 2017. Another confirmation of low inflationary pressures is core inflation, which measured 1.3% year-on-year in February. According to the February central projection, a slowdown in inflation, on account of the base effect, is also expected in the coming months, while in the course of 2019 inflation will gradually approach the target midpoint. Growth in domestic demand will also contribute to this. That inflationary pressures have remained subdued is also indicated by anchored inflation expectations – the financial and corporate sectors expect both one- and two-year ahead inflation to be at the target midpoint (3.0%). By lowering the key policy rate amid low inflationary pressures, the NBS will provide additional support to credit activity and economic growth.

The Executive Board pointed out that caution in the conduct of monetary policy is still mandated by the international environment developments, primarily the developments in the international financial market and movements of global primary commodity prices. Uncertainty in the international financial market still prevails on account of the monetary policies of leading central banks, the Fed and the ECB, as well as the relationship between their currencies. Even though the movement of global primary commodity prices is still volatile, they are not expected to rise significantly in the coming period. The Executive Board pointed out that the resilience of the Serbian economy to potential adverse effects from the international environment has increased, owing to the strengthening of domestic macroeconomic fundamentals and a more favourable outlook for the period ahead.

The next rate-setting meeting will be held on 12 April 2018.

Press release from Executive Board meeting held on 12 April 2018

At its meeting today, the NBS Executive Board decided to trim the key policy rate to 3%. At the same time, the decision was made to narrow the interest rate corridor from ±1.5 to ±1.25 percentage points, meaning that the deposit facility rate remains unchanged.

In making such a decision, the Executive Board assessed that the expected movement in inflation and its underlying factors going forward allow for further monetary policy easing.

The slowdown in inflation in the past three months was stronger than expected. In March, year-on-year inflation equalled 1.4%, indicating a further reduction in inflationary pressures. That inflationary pressures are low is also confirmed by movements in core inflation, which decelerated to 0.8% year-on-year in March, its lowest level since inflation has been measured by the consumer price index. As highlighted by the Executive Board, under the projection, inflation will stay around the current level in the coming months. It is expected to come closer to the midpoint during 2019, also on account of growth in domestic demand. Inflationary pressures remain subdued as also indicated by anchored inflation expectations of the financial and corporate sectors, which expect even two-year ahead inflation to be at the target midpoint (3.0%). By lowering the key policy rate amid low inflationary pressures, the NBS will provide additional support to credit activity and economic growth.

The Executive Board pointed out that caution in the conduct of monetary policy is still mandated by the developments in the international financial market and movements of global primary commodity prices. Uncertainty in the international financial market still prevails on account of the monetary policies of leading central banks, the Fed and the ECB, as well as the relationship between their currencies. Even though the movement of global primary commodity prices is still volatile, they are not expected to rise significantly in the coming period. The Executive Board pointed out that the resilience of the Serbian economy to potential adverse effects from the international environment has increased, owing to the strengthening of domestic macroeconomic fundamentals and a more favourable outlook for the period ahead.

The next rate-setting meeting will be held on 10 May 2018.

At today's meeting, the NBS Executive Board voted to keep the key policy rate on hold, at 3.0%.

In making such a decision, the NBS Executive Board was primarily guided by the expected movement in inflation and its underlying factors going forward, and the effects of past monetary policy easing. According to the May projection, the Executive Board expects y-o-y inflation to gradually approach the target, after reaching this year's low in April. Inflation should remain close to the lower bound of the target tolerance band by the end of this year, and should approach the target midpoint of 3.0% in the second half of 2019. Both the financial and corporate sectors expect one-year ahead inflation to be below the target midpoint, and two-year ahead inflation to be at the 3.0% target. That inflationary pressures are still low is also indicated by core inflation, which is at its lowest level since inflation has been measured by the consumer price index.

Uncertainty in the international commodity market, primarily in terms of movements in global oil prices, which continued up in 2018, still mandates caution in the conduct of monetary policy. However, according to futures and assessments by relevant international institutions, the period ahead is not likely to see it rise significantly, and even a decline in oil prices is projected over the medium term. Caution is also needed because of the increasingly diverging policies of the Federal Reserves and the European Central Bank, and heightened uncertainty in terms of the pace of their normalisation going forward. The NBS Executive Board pointed out that the resilience of the Serbian economy to potential adverse effects from the international environment has increased, owing to the reduction in internal and external imbalances and a more favourable macroeconomic outlook for the period ahead.

At today's meeting, the NBS Executive Board adopted the May Inflation Report, which will be presented to the public on 17 May, when monetary policy decisions and the underlying macroeconomic developments will be discussed in more detail.