National Bank of Serbia

February 2020

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 February *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 13 February 2020.

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

Željko Jović, Vice Governor

Ana Ivković, Vice Governor

Dragana Stanić, Vice Governor

ABBREVIATIONS

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
GVA – gross value added
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
RMCP – real marginal cost of processed food production
s-a – seasonally-adjusted
SDR – Special Drawing Right
SORS – Statistical Office of the Republic of Serbia
y-o-y – year-on-year

Other generally accepted abbreviations are not cited.

Contents

I Overview

In terms of international developments, the period since the last Inflation Report saw positive signals regarding the global economic recovery and loosened trade tensions, which soothed uncertainty in the global financial market, but also geopolitical tensions that grew in strength, causing volatility in global primary commodity prices.

In 2019, **global economic growth** experienced the sharpest slowdown since the world economic crisis. However, late in the year signals of a nascent recovery emerged, spurred by the monetary and fiscal stimuli and reduced trade tensions after China and the United States reached agreement on a Phase One trade deal. Compared to the expectations from three months ago, relevant international institutions revised down their global growth forecasts for this and the next year, though expecting that growth will be higher than in 2019 and accelerate gradually, and assessing that the downside risks to the projection are now less pronounced. Reduced trade tensions and more balanced risks to the global economic growth outlook, as well as Middle East geopolitical tensions in the short run, fuelled the rise in **global prices of oil and other primary commodities in Q4**. However, by end-January this year the oil price subsided below its early-October level, due to the rise in inventories. The fall in oil prices also reflected potential negative effects of the coronavirus contagion on global growth. Due to the increase in food and energy prices, **inflation in the international environment** was on a rising path late in the year, while inflationary pressures on the demand side remained relatively low. After the Federal Reserve System cut the federal funds rate in October and the European Central Bank embarked on a new asset purchase programme in November, there were no announcements on further **monetary policy** easing by these central banks. Owing to the effects of monetary policy easing and reduced trade tensions, the terms of financing remained favourable. This also resulted in the lower **risk premium** for the majority of emerging markets. Serbia's risk premium was also pushed down by domestic factors, so by the year-end it was among the lowest in the region, indicating greater readiness to invest in Serbia. Another confirmation of Serbia's successful economic policy is the upgrade in the country's credit rating by Fitch and Standard&Poor's, to only one notch below investment grade, which should additionally contribute to the favourable terms of borrowing and availability of funds for investment.

In Q4, y-o-y inflation in Serbia exhibited similar dynamics as in other countries of the region, determined by food prices and the low base effect for petroleum product prices.

Despite a higher than expected rise in domestic demand and positive trends in the labour market, **inflation** remained low and stable in 2019 as well (1.9% y-o-y in December). A somewhat faster dynamics of y-o-y

inflation in Q4 than expected in the previous *Report* was triggered by food prices, namely the rise in fresh pork prices resulting from their increase in the global market, and a stronger increase in vegetable prices than typical for the season. The rising prices of petroleum products, mirroring movements of the global oil price, also had some, albeit smaller impact. Other key components of the Consumer Price Index moved relatively stable, providing almost even contributions to the December y-o-y inflation. Core inflation remained low and stable, at 1.1% y-o-y in December, close to its annual average. At the same time, inflation expectations of the financial and corporate sectors, which moved in the lower half of the target tolerance band, confirm, consistent with the NBS projection, that inflationary pressures will remain low in the period ahead.

Strong growth in lending, at favourable financial terms, gives a considerable contribution to economic growth, without any prejudice to the maintenance of price and financial stability.

Since the previous *Report*, the NBS Executive Board has kept the **key policy rate** at 2.25%, its lowest level in the inflation targeting regime. In making the decision, the Executive Board was guided by the outlook for inflation and other macroeconomic indicators from the domestic and international environment, and the fact that the full effects of the past rate cuts are yet to unfold. Thanks to the effects of past monetary policy easing, persistently low interest rates in the international money market, lower country risk premium and higher interbank competition, the terms of private sector financing stayed favourable during Q4 as well, while interest rates on dinar loans recorded a new minimum. Despite the high base effect from late 2018, this contributed to an almost two-digit y-o-y growth in lending, which was to a larger extent driven by the increase in corporate loans. The favourable structure of lending and its significant support to economic growth is indicated by the fact that the overall growth in corporate loans in 2019 referred to investment loans. The room for further credit growth is created also by the reduced share of non-performing loans in total loans, to 4.1% at end-2019, which at the same time additionally strengthens financial stability.

Despite strong support to economic growth, primarily to investment, the trend of favourable fiscal results continued, which helps to further reduce the share of public debt in GDP.

Despite the rise in capital expenditure and outlays for wages and pensions in Q4, **the fiscal result** in 2019 was better than planned (consolidated budget deficit of 0.2% of GDP, instead of the planned deficit of 0.5% of GDP). Favourable fiscal movements were supported by the economic growth and higher corporate profitability on that account, positive trends in the labour market and lower costs of government borrowing achieved thanks to the effects of the NBS monetary policy easing, more favourable risk premium and further improvement in the country's credit rating. The reduced fiscal imbalance, along with the reduced currency and refinancing risks, helped to bring the public debt-to-GDP ratio within

sustainable boundaries – at the end of the year, central government debt stood at 52.0% of the projected GDP (compared to 53.7% at end-2018), and is expected to remain on a downward path in the period ahead. A significant step in further development of the domestic financial market is the placement of government dinar securities on Index Watch Positive for potential inclusion in the J.P. Morgan GBI-EM Index (Global Diversified Index), which will additionally broaden the base of investors investing in the Serbian economy.

In 2019 as well, balance of payments trends were under the sway of the domestic investment cycle, the slowdown of external demand and taxes on products delivered to Kosovo and Metohija.

Activation of past investments, despite the slowdown in external demand, helped to maintain the high rate of growth of **goods and services exports** in 2019, which was even higher than in the year before (10.5% vs. 9.6%). Investments also largely impacted on the dynamics and structure of goods and services imports which rose in 2019 by 10.7%, driven by greater corporate needs for intermediate goods and equipment and, to a lesser extent, also by the growth in consumer demand. While the current account deficit widened on that account in 2019, imported equipment will boost the export capacities of the Serbian economy, so in the medium-term the current account deficit share in GDP is expected to go down and the pace of that reduction will depend on the dynamics of the investment cycle in the coming period.

Same as in the previous four years, in 2019 the current account deficit was fully covered by the net inflow of foreign direct investments, and is expected to remain so in the period ahead.

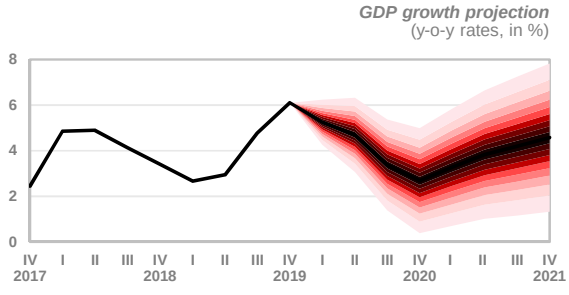
For the fifth year in a row, **the current account deficit** is fully covered by the **net inflow of foreign direct investments**. According to preliminary data, the inflow of foreign direct investments of around EUR 3.8 bn has been project-diversified and, for a longer period of time, mostly channelled to tradable sectors, supporting the country's external sustainability and sound economic growth. Heightened interest of foreign investors in government securities in the domestic market generated net inflow of close to EUR 200 mn from portfolio investment. These movements in external trade and financial transactions resulted in a EUR 1.9 bn rise in FX reserves – to EUR 13.4 bn at year-end, which further fortified our economy's resilience to external shocks.

Economic activity gained 4.2% in 2019, led by investment growth and supported by other components of domestic demand and accelerated export growth.

After picking up to 4.8% y-o-y in Q3, **GDP** growth had even stronger dynamics in Q4 (6.1%), largely determining growth in the Western Balkans region, as noted by the European Commission in its fourth-quarter report. Growth gained momentum in the second half of the year as a result of implementation of infrastructure projects and private sector investment in the conditions of an improved business environment and favourable sources of financing, which resulted in stronger than expected growth estimated at 4.2% for the entire year. Household consumption increased further, thanks to continued positive trends in the labour market – jobs

creation, wage rise, primarily in the private sector, lowering of the unemployment rate to a single-digit level, and subdued costs of borrowing. On the other hand, though net exports provided a negative contribution, resulting from the investment cycle at home and the consequent rise in equipment imports, and further slackening of external demand, this contribution was lower than in the first half of the year as export growth picked up. On the production side, faster economic growth in the second half of the year reflected a recovery in manufacturing following completion of overhauls in the oil and chemical industries and the activation of prior investment, as well as brisker activity growth in construction and service sectors.

We expect GDP growth of 4% in 2020 and in the medium term.

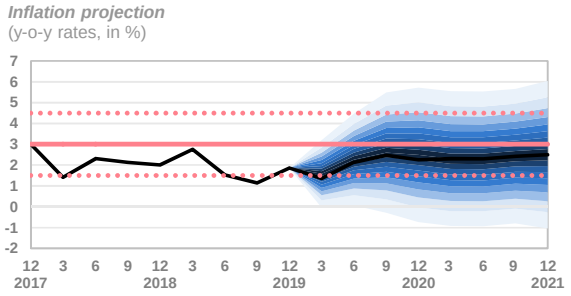


We estimate that **GDP** will grow by 4% this and the next year, led by investment, exports and a sustainable rise in household consumption. Investment growth was supported primarily by continued implementation of infrastructure projects, improvement in the business environment and favourable sources of private sector financing, while household consumption growth was guided by positive labour market trends. Though external demand slackened, exports maintained favourable dynamics thanks to investment in tradable sectors. Export growth also benefited from geographical and sectoral distribution, with positive trends expected to continue in the period ahead on the back of an anticipated gradual rebound in external demand. On the production side, all sectors are expected to provide a positive contribution in 2020, other than agriculture where an average season is assumed. Moreover, growth in industry is expected to speed up thanks to rising investment in export-oriented sectors, but also due to the base effect, i.e. the fact that last year's industrial production was dampened by the slowdown in external demand, 100% taxes on products delivered to Kosovo and Metohija and the overhaul in the oil and chemical industries. Medium-term risks to the GDP projection are judged to be symmetric, with those stemming from the international environment judged to be tilted to the downside and those from the domestic environment to the upside, mostly on the grounds of possibly faster than expected investment growth, as was the case in the preceding two years.

Under the February central projection, y-o-y inflation will move around the lower bound of the target tolerance band in the first half of the year, whereafter it will gradually approach the target midpoint, but remain below it until the end of the projection horizon.

Under the February central projection, **y-o-y inflation** will move around the lower bound of the target tolerance band until mid-2020 and gradually approach the target midpoint thereafter, which will in the short run reflect the base effect of vegetable prices, and in the medium run – growth in aggregate demand and unit labour costs, as well as the recovery in euro area inflation. Still, we expect inflation to stay below the target midpoint of 3% over the projection horizon, i.e. in the next two years. Compared to

the projection in the November *Inflation Report*, the new medium-term inflation projection is somewhat higher in 2020 on account of stronger growth in food prices and faster closing of the output gap than in the November projection, while in 2021 it is almost unchanged from November. Uncertainties surrounding the inflation projection continue to be associated primarily with developments in the international environment and relate to the pace of global economic growth and trade, monetary policy stance of leading central banks, capital flows to emerging economies and prices of oil and other primary commodities. To a smaller extent, risks to the projection are also associated with administered price movements at home, character of the new agricultural season and domestic demand growth. On the whole, risks to the projection are judged to be symmetric. Accordingly, monetary policy decisions in the coming period will be based on the assessment of the effects of past monetary easing on inflation and the impact of other domestic factors, and will also largely hinge on the impact of factors from the international environment. As so far, monetary policy will be predictable and consistent in delivering low and stable inflation in the medium run, while at the same time maintaining financial stability and contributing to sustainable economic growth and preservation of macroeconomic stability.



II Monetary policy since the November *Report*

After cutting the key policy rate by 25 bp in November, to 2.25%, its lowest level in the inflation targeting regime, the NBS Executive Board has kept the rate on hold. In setting the key policy rate in the period since the last Inflation Report, the Executive Board took into account the outlook for inflation and other macroeconomic indicators at home and abroad, as well as the fact that the full effects of the previous cuts are yet to unfold.

Domestic factors continued to contribute to low and stable inflation, while conditions in the international environment still mandate caution in the conduct of monetary policy. Although monetary policies of leading central banks became more accommodative, it is uncertain to what extent they will diverge from market expectations in the period ahead, which could affect capital flows toward emerging markets, Serbia included. In addition, persisting geopolitical tensions increase uncertainty regarding the movements in the prices of oil and other primary commodities in the global market. However, the Executive Board pointed out repeatedly that the resilience of the Serbian economy to potentially adverse effects from the international environment has increased, owing to favourable macroeconomic indicators and prospects.

In deciding to keep the key policy rate unchanged in December and January, the NBS Executive Board had in mind that **domestic factors still contribute to low and stable inflation, while international developments warrant caution** in the conduct of monetary policy. Also, it took into account that the effects of the past monetary policy easing – key rate cuts in July, August and November 2019 by a total of 75 bp, to 2.25% – are yet to manifest.

The NBS continued to conduct its monetary policy in favourable domestic macroeconomic conditions. Inflation was kept low and stable for the sixth year in a row, measuring 1.9% y-o-y in December. In deciding on the monetary policy, the Executive Board was guided by the expectation that inflationary pressures would be low in the period ahead, as confirmed by the November inflation projection, which was the basis for monetary policy making in this period. According to that projection, y-o-y inflation would move around the lower bound of the target tolerance band by mid-2020, whereafter it would gradually approach the target midpoint. Such movements would be driven by the low base effect from vegetable and administered prices in the short term and by the rising aggregate demand in the medium term. Low inflationary pressures were also indicated by both short- and medium-term inflation expectations of the financial and corporate sectors, which moved within the NBS target band both for one and two years ahead.

As in the previous projections, in the medium term inflation would approach the target midpoint mainly owing to the rise in domestic demand, which, as assessed by the Executive Board, would fully offset the adverse effects of the expected softer external demand in 2020. Domestic demand would be driven by economic growth and positive labour market trends which are best illustrated by the data on the wage and employment growth, with the unemployment rate falling to a single-digit level. Domestic demand growth is also supported by the NBS's past monetary policy easing, which resulted in more favourable financing conditions and higher disposable income of households and corporates on account of the lower key policy rate. Also, new regulations adopted by the NBS in December provide incentive to dinar lending to corporates, mainly micro, small and medium-sized enterprises, entrepreneurs and farmers. The room for continued lending and economic growth is provided through high capitalisation and liquidity of the banking sector and relative stability of the domestic currency, coupled with the lowest NPL ratio on record (4.1% at year-end). In addition, interest rates on euro-indexed loans are still low, aided by the increased

ECB's monetary accommodation, as well as by stronger interbank competition and a further decline in Serbia's risk premium.

Overall macroeconomic stability and development prospects of the country have been also underpinned by positive fiscal movements. A significant increase in government capital expenditure and the rise in public sector wages and pensions represent sources of financing investments and consumption, though not to the extent that would cause major inflationary pressures and disrupt the downward trajectory of the public debt-to-GDP ratio. In 2019, the fiscal deficit at the consolidated level amounted to 0.2% of GDP, lower than planned, and the central government public debt-to-GDP ratio declined to 52.0% at year-end. Fiscal discipline is expected to be preserved in the period ahead, with a planned fiscal deficit of 0.5% of GDP, which provides for a further reduction of public debt, while opening fiscal room for capital investments and further easing of the labour tax burden. The economic policy makers in Serbia remain committed to further implementation of structural reforms in 2020 with a view to improving Serbia's potential growth and favourable investment climate.

Full coordination of monetary and fiscal policy measures resulted in robust economic growth, underpinned by investments, consumption and exports. Growth in investment was spurred by further implementation of infrastructure projects, improved business environment and favourable financing conditions that reflect past NBS monetary policy easing. The Executive Board expects that GDP growth will pick up to around 4% in 2020 and maintain similar dynamics in the medium term, led by investments, exports and a sustainable rise in household consumption.

As a result of the activation of investments in tradable sectors, goods and services export continued to record robust growth, despite the euro area economic slack, the quotas on steel exports to the European Union and introduction of 100% taxes on products and services delivered to Kosovo and Metohija. According to preliminary estimates, in 2019 commodity exports in euro terms went up by 8.8% and imports by 9.2%. Exports of the manufacturing industry made a key contribution to the growth of exports, while the rise in imports was primarily the result of elevated imports of investment equipment and industrial raw materials. Also, imports of consumer goods picked up amid rising living standard of households. The Executive Board expects gradual improvement in Serbia's external position in the period ahead, with the current account deficit still fully covered by the net FDI inflow.

Net FDI inflow to Serbia reached a record high in 2019 (EUR 3.6 bn), covering the current account deficit fully for the fifth year in a row. Stronger investor confidence is confirmed also by Serbia's risk premium, which is among the lowest in the region and which fell in December to its lowest level on record. A confirmation of the achieved progress and favourable growth outlook came also from rating agencies and the IMF, contributing to further improvement of financing conditions and investment growth in Serbia. After Moody's upgraded its outlook on Serbia from stable to positive and Fitch Ratings upgraded Serbia's Long-Term Foreign- and Local-Currency Issuer Default Ratings to BB+, S&P also raised Serbia's credit rating from BB to BB+. Even though that rating is only a step below investment grade, the very low country risk premium, strong FDI inflow and two successful issuances of ten-year eurobonds in the international market in 2019, at low interest rates and high demand, indicate that Serbia already enjoys the reputation of an investment grade country. S&P estimated that the outlook for further upgrading is positive, sending a strong signal that further improvements in the credit rating of our country are possible in the future. As regards the IMF, the third review of Serbia's performance under the PCI-supported economic programme was successfully completed in December. The IMF Executive Board assessed that the implementation of Serbia's economic programme is on track, with good domestic growth factors, low inflation, sound financial system, advancing structural reforms and a declining public debt-to-GDP ratio.

Unlike favourable macroeconomic conditions at home, developments in the international environment still mandate caution in the conduct of monetary policy. Even though the tensions surrounding trade policies of leading world economies have subsided somewhat, uncertainty in the international financial and commodity markets largely stemmed from geopolitical tensions. Support to the global economy came from the monetary policies of leading central banks. In addition to lowering the deposit facility rate deeper into the negative territory in September and starting the implementation of a new, third series of longer-term refinancing operations (TLTRO III), effective until March 2021, the ECB also reintroduced the asset purchase programme in November, with a monthly net purchase of EUR 20 bn. In addition, after the last policy rate cut in October, the Fed is unlikely to change its monetary policy for some time, estimating that any further easing would depend on developments in the real sector. The current cycle of monetary policy easing of leading central banks should favourably affect the conditions in the international financial market and capital flows to emerging markets, and therefore to Serbia. However, it remains uncertain to what extent the

monetary policies of leading central banks will differ from market expectations, which might affect capital flows toward emerging economies. Caution in monetary policy decisions of the Executive Board was also required because of the uncertain pace of the global prices of oil and primary agricultural commodities, considering the intricate impact of numerous factors – both supply- and demand-side on their movements.

The Executive Board stressed that trends in the international financial and primary commodity markets, especially markets of crude oil and primary agricultural commodities, will continue to be closely monitored and analysed. The resilience of the Serbian economy to potential adverse effects from the international environment has increased, owing to more favourable macroeconomic indicators and prospects. As so far, the NBS will successfully maintain price stability in the medium term. Together with preserving financial stability, this will contribute to sustainable economic growth and strengthen resilience to external uncertainties.

The resilience to potential adverse effects from the international environment is also warranted by the high level of NBS FX reserves, which at end-December 2019 hit their highest end-year level on record (since 2000). Gross FX reserves came at EUR 13.4 bn, up by EUR 2.1 bn from end-2018, this being fully attributable to NBS activities – net purchase of foreign currency (EUR) in the domestic FX market (the effect of EUR 2.7 bn). Net FX reserves, i.e. total reserves less banks' FX balances on account of required reserves and other grounds, equalled EUR 11.4 bn, up by EUR 2.6 bn from end-2018.

Having in mind the February inflation projection and other macroeconomic indicators at home and abroad, as well as past monetary policy easing, the Executive Board **decided in its February meeting to keep the key policy rate on hold**.

III Inflation movements

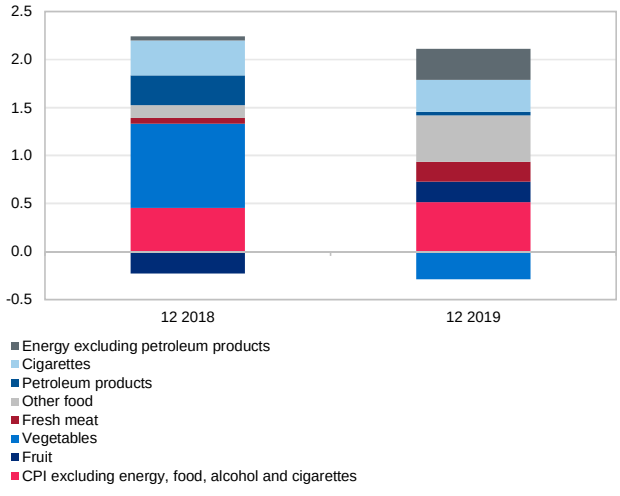
Despite the faster than expected rise in domestic demand and positive trends in the labour market, inflation remained low and stable in 2019. Y-o-y inflation stood at 1.9% in December, which is also its average value for the year as a whole. Y-o-y inflation profile in 2019 was largely determined by unprocessed food and energy prices, mirroring the dynamics of their global counterparts, with core inflation being low and stable and averaging 1.3% y-o-y. Low inflationary pressures are also indicated by inflation expectations of the financial and corporate sectors, which stand in the lower part of the target band in both short and medium term.

At quarterly level, consumer prices increased by 0.8% in Q4, driven mainly by the higher prices of fresh vegetables and electricity, the increase in processed food prices and the seasonal rise in the prices of clothes and footwear, while the decline in the prices of fresh fruit worked in the opposite direction.

Inflation movements in Q4

In Q4, y-o-y inflation in Serbia exhibited similar dynamics as in other countries of the region. After returning within the target band in November, it measured 1.9% y-o-y in December, which is its average in 2019,[1] slightly lower than in 2018. A slightly faster y-o-y inflation dynamics in Q4 than expected at the time of the previous *Report* was determined by food prices (the rise in fresh pork prices resulting from the increase in their global counterparts due to unexpectedly small supply, and a more pronounced increase in vegetable prices than usual for the season). To a lesser degree, it was also determined by the rise in petroleum product prices, which mirrored the movement in global oil prices. Despite higher than expected rise in Q4, vegetable prices at end-2019 were still lower than at end-2018 as a result of their previous strong decline since May, when the new agricultural season kicked in. Other CPI components had a relatively stable movement, providing almost equal contributions to the December y-o-y inflation – processed food (0.5 pp), services (0.5 pp) and industrial products excluding food and energy (0.4 pp). Core inflation remained low and stable, measuring 1.1% y-o-y in December, close to its average for the year as a whole (1.3%).

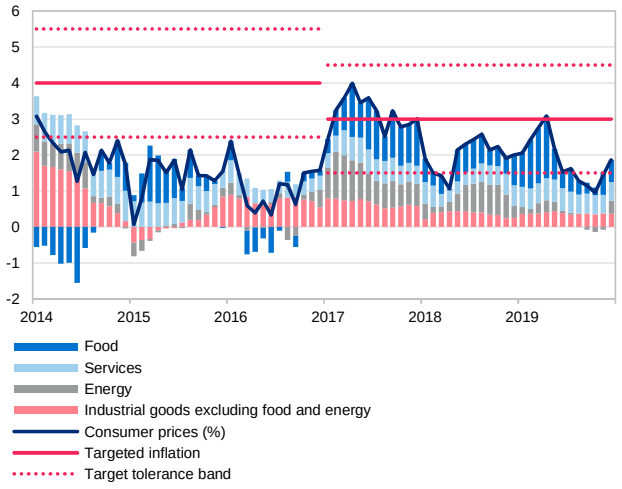
Chart III.0.1 **Contribution to y-o-y inflation in December 2018 and 2019**
(in pp)



Sources: SORS and NBS calculation.

[1] According to the Statistical Office, average y-o-y inflation in 2019 equalled 1.7%. The average annual inflation rate is the arithmetic mean of 12 published monthly CPIs relative to the average of the previous year. Hence, the average annual rate reflects not only the change in prices, but also the effect of the change in weights.

Chart III.0.2 **Contribution to y-o-y consumer price growth**
(in pp)



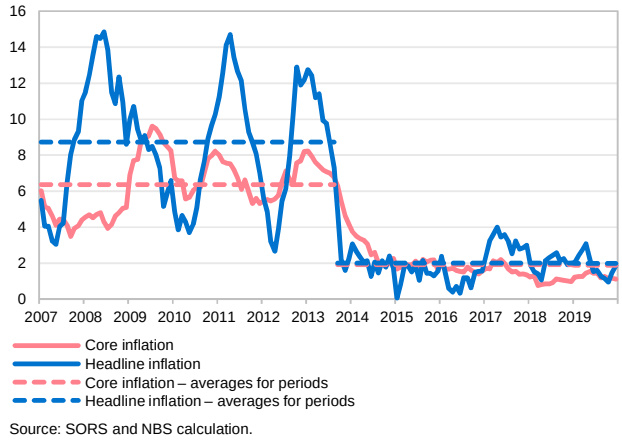
Sources: SORS and NBS calculation.

Table III.0.1 **Growth and contribution of components to consumer price growth in Q4 2019**
(quarterly rates)

	Growth rates (%)	Contribution (pp)
Consumer prices (CPI)	**0.8**	**0.8**
Unprocessed food	2.7	0.3
Processed food	0.6	0.1
Industrial products excluding food and energy	0.4	0.1
Energy	1.6	0.2
Services	0.4	0.1
CPI excluding energy, food, alcohol and cigarettes	0.4	0.2
Administered prices	1.2	0.2

Sources: SORS and NBS calculation.

Chart III.0.3 **Headline and core inflation**
(y-o-y rates, in %)



Source: SORS and NBS calculation.

At quarterly level, consumer prices picked up by 0.8%. In Q4, the prices of **food and non-alcoholic beverages** increased by 1.3%, mostly under the impact of higher fresh vegetable prices (15.5%, contribution: 0.45 pp), while the cheapening of fresh fruit (-9.7%, contribution: -0.2 pp) worked in the opposite direction. The prices of fresh meat rose (by 0.4%) on account of the higher prices of pork, even though it is usual for them to be in decline in this part of the year. In aggregate terms, the prices of **unprocessed food** increased by 2.7%, giving a 0.3 pp contribution to inflation. Though at a slower pace, the prices of **processed food** recorded a rise in Q4 (0.6%, contribution to quarterly inflation: 0.1 pp), led by the higher prices of meat products (1.4%), on which the increase in fresh pork prices reflected the most.

Energy prices increased in Q4 (1.6%, contribution: 0.2 pp), largely due to the upward revision of electricity prices in December (3.9%). After falling in Q3, petroleum product prices went up by 0.6% in Q4, pushing their y-o-y growth to 0.7% in December. In y-o-y terms, energy prices rose by 2.4% after declining for four consecutive months.

At 0.4% in Q4 (contribution: 0.1 pp), the growth in the prices of **industrial products excluding food and energy** was almost entirely a result of the seasonal increase in the prices of clothes and footwear (2.4%). Lower prices of vehicles and car parts (-0.9%), as well as audio and TV devices (-0.3%) worked in the opposite direction, providing a negligible contribution to inflation in Q4.

The **prices of services** rose by 0.4% in Q4, giving a 0.1 pp contribution to inflation. Somewhat higher prices were recorded in most of the services, mainly catering and educational, followed by crafts and apartment maintenance and repair services. An increase in the prices of services related to recreation and culture worked in the same direction, even though the prices of travel packages edged down in Q4 (by 0.1%).

The **administered prices** growth of 1.2% in Q4 (0.2 pp contribution) is attributable to the upward adjustment of the prices of electricity (3.9%) and utility services (0.7%). This pushed up their y-o-y growth from 2.3% in September to 3.4% in December.

As opposed to Q3, the **prices within core inflation** (measured by CPI excluding food, energy, alcohol and cigarettes) increased by 0.4% in Q4, giving a 0.2 pp contribution to the quarterly inflation, consistent with our expectations.

Producer and import prices

Movements in **industrial producer prices in the domestic market** indicate that cost-push inflationary pressures remained low throughout 2019. After falling in Q3 by 0.2% y-o-y, producer prices climbed to 1.2% y-o-y in December. Y-o-y growth in producer prices was driven by the increase in the **prices of non-durable consumer goods** (mostly in food production) and the **energy production prices** (due to rising prices of domestic crude oil and electricity). As in Q3, the **prices of elements and materials incorporated in construction** fell by 1.2% y-o-y in Q4, confirming also low cost-push pressures.

Dinar-denominated import prices[2] rose by 1.4% y-o-y in December. Though moderated by the effect of the dinar gaining ground against the dollar, the dynamics of import prices was determined by higher global oil and food prices (each contributing 0.7 pp to import prices). Working in the same direction were the higher consumer prices in the euro area (0.1 pp), which are used to approximate prices of imported services. In contrast, a negative contribution (0.2 pp) stemmed from lower prices of German exports, which are used to approximate prices of imported equipment and intermediate goods.

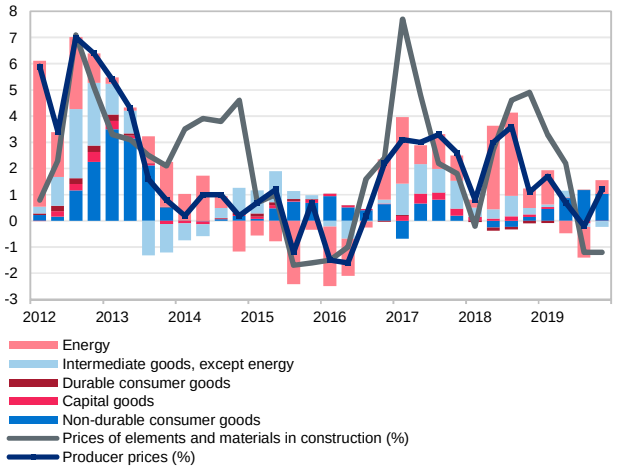
Inflation expectations

The achieved price and financial stability contributes to higher credibility of the NBS and reflects the confidence of market participants in its measures.

According to the results of the Ipsos survey, the **financial sector** expects inflation to be stable at 2.0% in Q4 2020, as well as in January 2021. The Bloomberg survey results point to similar conclusions: one-year ahead inflation expectations of the financial sector were gradually lowered from 2.2% in October to 2.0% in December. They are also expected to stand at 2.0% in January 2021, speeding up slightly to 2.2% in February 2021. Looking at the longer horizon, the financial sector has expected inflation within the NBS target tolerance band for more than six years now (since October 2013). Anchored inflation expectations are also reflected in the lower dispersion of individual expectations of financial sector representatives.

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

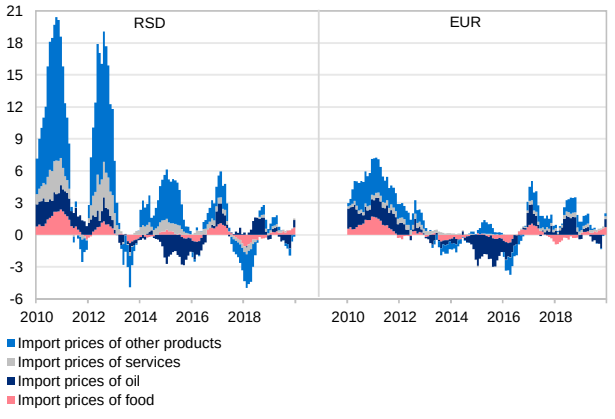
Chart III.0.4 **Contribution to y-o-y producer price growth***
(in pp)



Sources: SORS and NBS calculation.

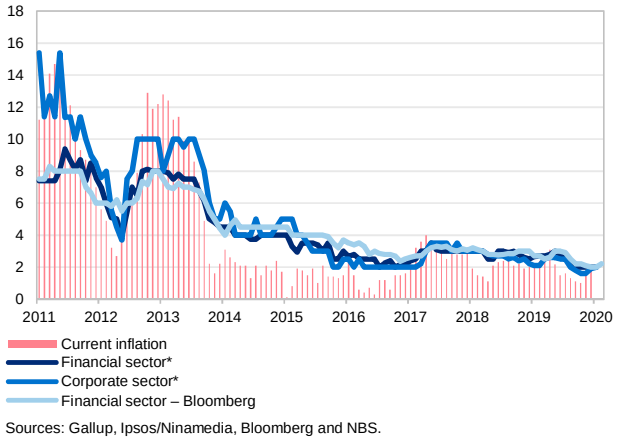
* Industrial producer prices for the domestic market.

Chart III.0.5 **Contribution of individual components to y-o-y rate of import price growth**
(in pp)



Sources: Destatis, FAO, Bloomberg, Eurostat, SORS and NBS calculation.

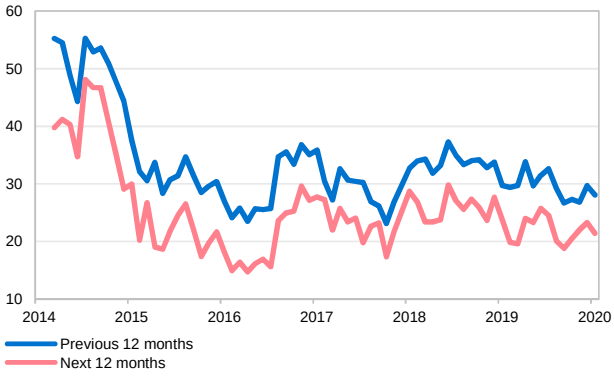
Chart III.0.6 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)



Sources: Gallup, Ipsos/Ninamedia, Bloomberg and NBS.

* Ipsos and Gallup until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

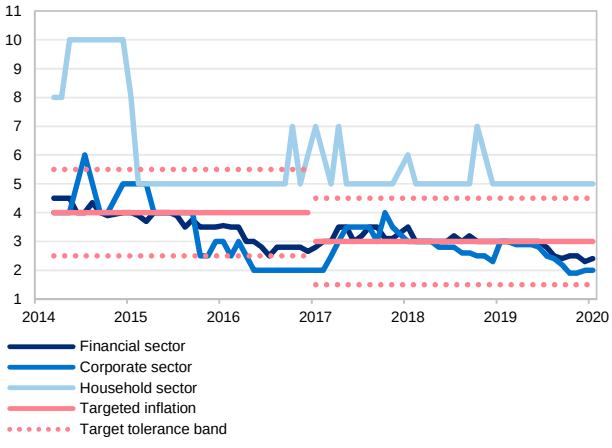
Chart III.0.7 **Household perceived and expected inflation***
(in index points)



Sources: Ipsos/Ninamedia and NBS calculation.

* Ipsos until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

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



Sources: Ipsos/Ninamedia and NBS.

* Ipsos until December 2014, Ninamedia since December 2014, and Ipsos since January 2018.

One-year ahead inflation expectations of **corporates** moved in the lower part of the target band in Q4, ranging from 1.6% to 1.9%. In January they rose to 2.0%. At the same time, more than two thirds of corporates expect that the prices of production inputs will not change over the next twelve months.

Typically higher than those of other sectors, **one-year ahead inflation expectations of the household sector** were stable at 5.0% in H2, and stayed unchanged in January this year. On the other hand, the results of the qualitative survey of household inflation expectations[3] show that the index of perceived inflation continued to record higher values than the index of expected inflation, indicating that households expect inflation to be lower over the next 12 months than in the past year.

Two-year ahead inflation expectations of the financial sector are anchored within the NBS target tolerance band since their monitoring began (March 2014), moving in the range 2.3–2.5% in Q4, while those of the **corporate sector** ranged between 1.9% and 2.0%[4]. **Two-year ahead inflation expectations of households** have been stable at 5.0% over the past fourteen months.

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

[4] The financial sector expects inflation to stand at 2.4% in January 2022, while the corporates expect it to stand at 2.0%.

IV Inflation determinants

1. Financial market trends

Monetary policy easing in November spurred a further fall in interest rates in the money and loan market. The value of the dinar against the euro stayed broadly unchanged in Q4.

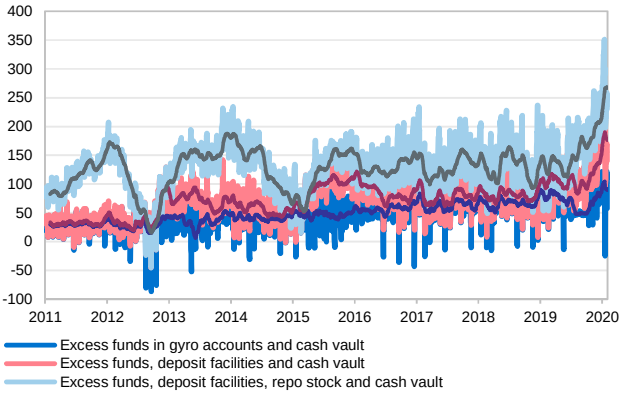
Interest rates

Consistent with the November key policy rate cut, the average rate on one-week NBS repo operations decreased in Q4 by 0.25 pp, to 1.02% in late December, staying close to the deposit facility rate (1.0%).

The average daily turnover in the overnight **interbank money market** amounted to RSD 2.7 bn in Q4, down by RSD 1.05 bn from a quarter earlier. The q-o-q decline can be put down to increased excess dinar liquidity and consequently weaker demand. At the quarterly level, BEONIA also mirrored the key policy rate cut and fell to 1.06% at end-December. BELIBOR rates of all maturities decreased as well (by around 0.3 pp), moving between 1.1% and 1.8% at the close of the year. Interest rates in the interbank money market remained stable in January, their levels slightly lower than at end-2019.

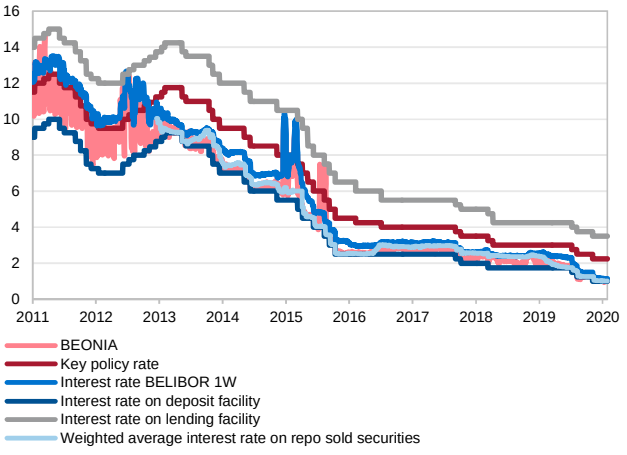
Two auctions of seven-year benchmark dinar bonds were organised in the **primary market of government securities** in Q4. The whole lot of remaining issued bonds was sold in these auctions, with the interest rate falling by 0.7 pp, to 2.7%.[5] In addition, one auction of five-year securities was held in December, at the yield rate of 2.25%.[6] It should be noted that better than planned fiscal results in 2019 helped to reduce government needs for borrowing, which explains why in H2 there were no auctions of the benchmark three-year bonds issued early in the year. A better fiscal position enabled the government to hold in Q4 additional buyback auctions for dinar securities of original three-year maturity, due for payment in April 2020.

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



Source: NBS.

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

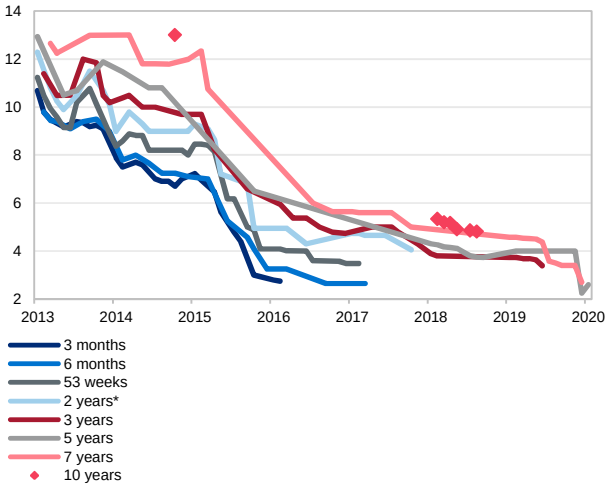


Sources: Thomson Reuters and NBS.

[5] In several auctions held from the beginning of the year, the government sold the entire issue of seven-year benchmark bonds worth RSD 150 bn.

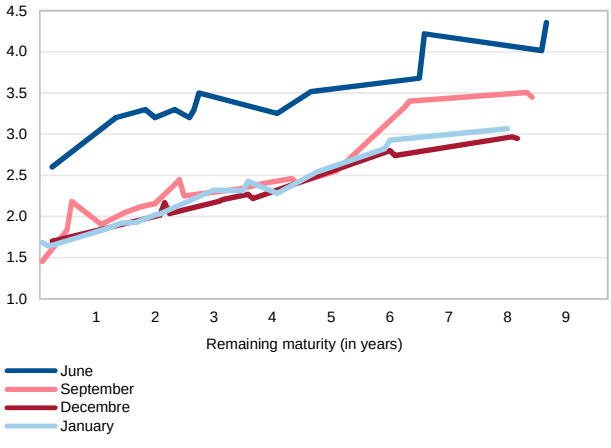
[6] The yield rate at the previous auction of five-year bonds held in February was 4%.

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



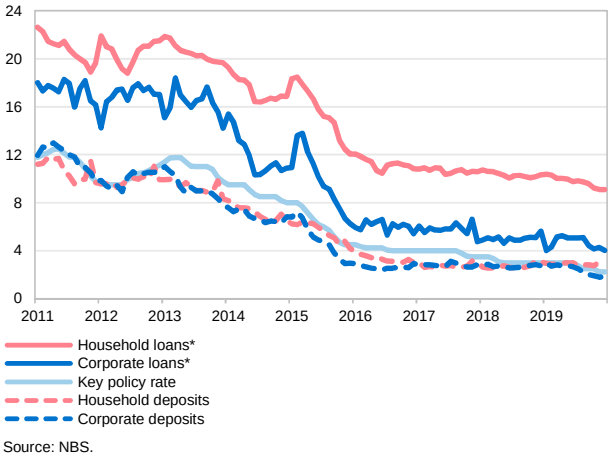
Source: Ministry of Finance.
* Excluding coupon securities with the rate linked to the NBS key policy rate.

Chart IV.1.4 **Yield curve in the secondary government securities market**
(average values, p.a., in %)



Source: Central Securities Depository and Clearing House.

Chart IV.1.5 **Interest rates on new dinar loans and deposits**
(weighted average values, p.a., in %)



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

Two auctions of three- and ten-year euro-denominated securities were held in October. The relevant yield rates of 0.6% and 1.9% indicate continued downward trend in the interest rates in this segment of the market, present throughout 2019 and especially pronounced since end-June when the government realised successfully its first euro-denominated eurobond issue in the international financial market.

The stock of sold dinar securities increased slightly q-o-q (RSD 3.3 bn), reaching RSD 774.1 bn at year-end. Of this amount, 31.1% was of non-residents. The stock of sold euro securities, on the other hand, increased by EUR 87.9 mn, settling at EUR 2,769 mn.

January saw the first sale auction of 20-year euro-denominated securities at the coupon rate of 3.5%. The entire issue worth nominal EUR 150 mn was sold out amid strong demand. The share of foreign investors was significant and the effective rate turned out lower than the coupon (3%). January also saw a sale auction of the new issue of five-year dinar bonds maturing in June 2025. Due to stronger demand, the effective interest rate at this auction (2.6%) was also lower than the coupon rate (3.0%).

Consistent with the fall in interest rates and smaller supply in the primary market of dinar securities, yield rates in the **secondary market** of government dinar securities continued down, ranging in December from 1.7% for the remaining three-month maturity to 3.0% for the remaining eight-year (97 months) maturity. In January, the yield-to-maturity rates stayed almost unchanged relative to December.

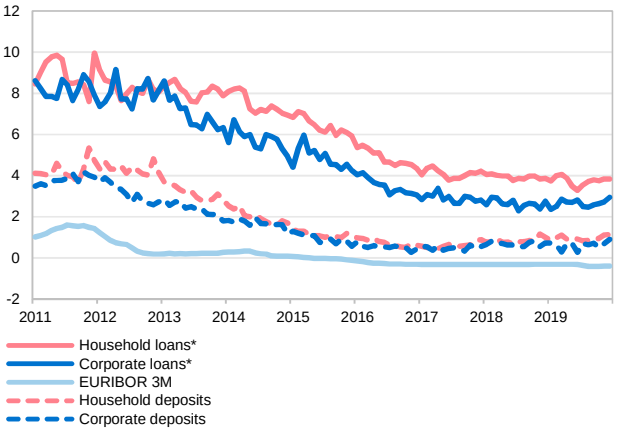
Continued monetary policy easing led to a further fall in **interest rates on new dinar loans** for corporates and households, which in December stood at 4.0% and 9.1%, respectively, these being their lowest levels in the inflation targeting regime. Interest rates on all types of dinar household loans declined in Q4. In December they ranged from 3.5% on consumer loans to 9.4% for cash loans. The fall in interest rates on dinar corporate loans, on the other hand, was driven by the lower rates on investment and other unclassified loans, while the rates on current assets loans increased mildly q-o-q, reaching 4.4% in December.

Interest rates on euro-indexed household **loans** remained unchanged in Q4 relative to September (3.8%), just as those on euro-indexed housing loans (2.8%). Interest rates on euro-indexed corporate loans for current

assets exhibited the same trend (2.7%), while those on investment loans and other unclassified loans in euros increased slightly until December, when they equalled 4.4% and 3.4%, respectively.

Interest rates on household **savings** edged up by 0.2 pp in Q4, reaching in December 3.0% for deposits in dinars and 1.1% for the ones in euros. Interest rates on time euro deposits of corporates also recorded a mild increase (0.9% in December), while those on their time dinar deposits decreased negligibly, equalling 1.9% in December.

Chart IV.1.6 **Interest rates on new euro and euro-indexed loans and deposits**
(weighted average values, p.a., in %)



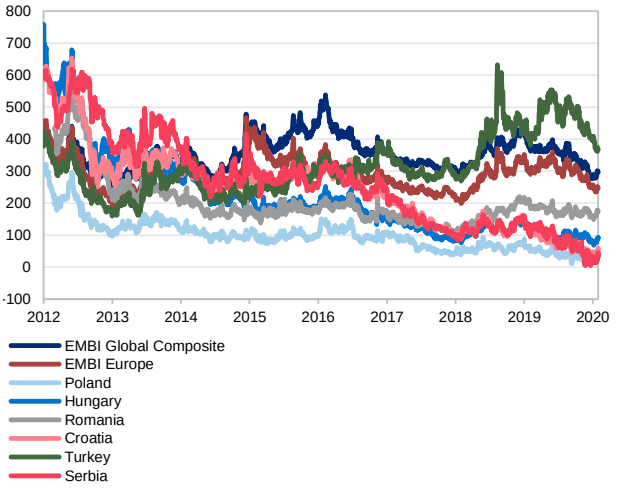
Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

Risk premium

Owing to progress in negotiations between the US and China in Q4 and agreeing on the first phase of a broader trade deal in early December, investor optimism increased and uncertainty in the international financial market abated. This led to a decline in emerging markets' risk premia, whose composite measure EMBI Global Composite fell by 61 bp from Q3, to 277 bp by year-end. At the same time, EMBI Europe, risk premium indicator for European emerging markets, declined by 52 bp, settling at 249 bp by end-2019.

The risk premia of all regional peers, except Turkey, were considerably lower than EMBI Global Composite and EMBI Europe. Turkey's risk premium recorded the sharpest fall in Q4, but still remained the highest in the region at year-end. The fall in Serbia's risk premium was second in terms of intensity – by 45 bp, to 19 bp. Serbia's risk premium was among the lowest in the region in Q4. Besides, on 23 December it touched a new low (5 bp), which only confirms investor confidence in Serbia's favourable macroeconomic prospects and indicates their greater readiness to invest in our country[7]. The outbreak of the coronavirus in China in early 2020 has fuelled uncertainty in global financial markets and pushed up the risk premia of emerging economies. Thus, by the end of January EMBI Global Composite measured 299 bp and EMBI Serbia 45 bp.

Chart IV.1.7 **Risk premium indicator – EMBI by country**
(daily data, in bp)



Source: J.P. Morgan.

After outlook upgrade by Moody's and credit rating increase by Fitch in September, another recognition of Serbia's successful economic policy came in December from S&P. Sending a positive signal to investors, S&P, just as Fitch, increased Serbia's credit rating from BB to BB+, bringing it only a step away from investment grade. The

[7] A more in-depth analysis of the factors underlying movements in the risk premia of Serbia and other countries in the region is presented in Text box 1.

Table IV.1.1 **Credit rating**
(change of rating and outlook)

	2016	2017	2018	2019
S&P	BB- /stable[1] /positive[5]	BB /stable[5]	BB /positive[5]	BB+ /positive[5]
Fitch	BB- /stable[3]	BB /stable[5]		BB+ /stable[4]
Moody's	B1 /positive[2]	Ba3 /stable[2]		Ba3 /positive[4]

Source: NBS.
[1]January, [2]March, [3]June, [4]September, [5]December.

upgrade reflects the Serbian economy's proven resilience to external shocks and its investment-led growth, marked strengthening of macroeconomic fundamentals, firm fiscal discipline, and the well proven operational independence and adequate monetary and prudential policy of the NBS. S&P assessed the outlook as positive, which is a strong signal that further rating upgrades are possible in the coming period.

Text box 1: Serbia's risk premium and its determinants

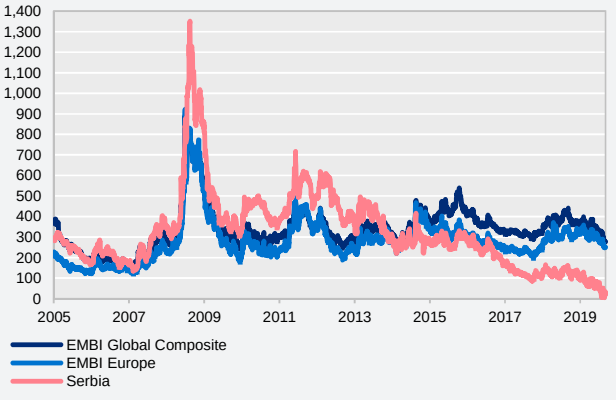
The indicator most often used to assess the risk premium of an emerging economy such as Serbia is the EMBI (Emerging Markets Bond Index), which is the weighted spread between yield rates on government securities issued by emerging economies in the international financial market and benchmark securities denominated in the same currency and of similar maturity. The benchmark rate for US dollar-denominated securities is the yield rate on US Treasuries, while for euro-denominated securities it is the mid swap rate used in euro interest rate swaps.

In addition to serving as a benchmark of performance of emerging economies' financial assets, i.e. a reference value used to assess the debt servicing costs, as well as a measure of a country's risk premium, the EMBI also provides information on instruments traded in the international financial market, while at the same time enhancing the visibility of the government securities' markets of emerging economies.

To be included in the EMBI, a country's securities must meet a number of structure and liquidity requirements, in particular with regard to the type of financial instrument, currency of denomination, type of issuer, maturity, price availability (liquidity), amount of the issue, etc.

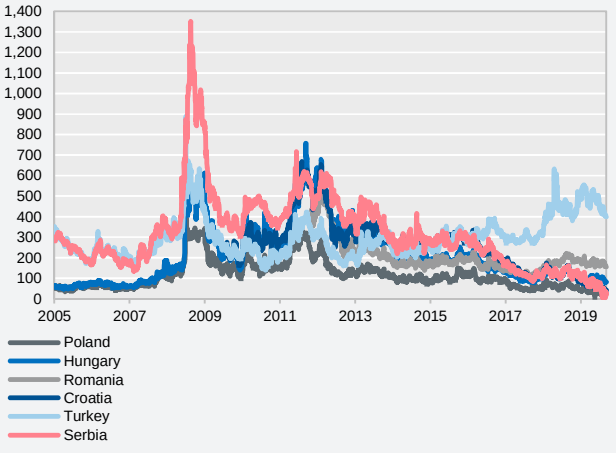
The EMBI data for Serbia, monitored and posted by JP Morgan and calculated based on US dollar-denominated eurobonds, have been available since April 2005. A comparison of EMBI for Serbia with EMBI Global Composite and EMBI Europe shows that Serbia's risk premium mostly hovered above the average risk premium for all emerging economies and European emerging economies up until early 2014 but dropped below this level from 2014 onwards. Also, until 2014 Serbia's risk premium almost entirely mirrored movements in the global (and European) risk premium, as reflected in the correlation coefficient of over 95% for this period; since that time the correlation between domestic and global risk premium weakened (correlation coefficient below 50%). Moreover, when the global risk premium swelled during the global economic crisis (2008–2009) and the euro area sovereign debt crisis (2011–2012), Serbia's risk premium increased more than the average for emerging economies, signalling dented investor sentiment toward Serbia. Since end-2012, Serbia's risk premium has been on an almost uninterrupted downward path, decreasing by 372 bp until end-2019 (from 391 bp to 19 bp), which is also the sharpest decline among regional peers included in the EMBI. At the end of 2019, Serbia's risk premium was 258 bp below EMBI Global Composite, which signals that investors view investment in Serbia as much less risky than the average for emerging economies. In the same period, EMBI Global and EMBI Europe have not only failed to go down, but are even somewhat higher than at end-2012 (by 11 bp and 41 bp, respectively), which indicates that the decrease in Serbia's risk premium

Chart O.1.1 **Risk premium indicator – EMBI Composite, EMBI Europe and EMBI for Serbia**
(daily data, in bp)



Source: J.P. Morgan.

Chart O.1.2 **Risk premium indicator – EMBI for countries of the region (for USD-denominated debt)**
(daily data, in bp)



Source: J.P. Morgan.

was mostly due to domestic factors, including in particular the achieved macroeconomic stability and shrinking internal and external imbalances.

This is also confirmed by the econometric assessment of EMBI determinants, conducted for Serbia only and for a panel of six European emerging economies (Hungary, Poland, Romania, Croatia, Turkey and Serbia). The analysis for Serbia was made for the 2007–2019 period, using quarterly data series, while the analysis for the panel was made for the 2012–2019 period, i.e. since EMBI data are available for all countries in the sample. VIX, as the standard measure of volatility in the global financial market[1], global price of oil and the 3-month US dollar LIBOR interest rate were used to assess the impact of global factors on the risk premium, while GDP per capita, y-o-y GDP growth rate, y-o-y inflation rate, public debt-to-GDP ratio, current account-to-GDP ratio, fiscal balance-to-GDP ratio, NPLs-to-total loans ratio, etc. were used for assessing the impact of domestic factors.

The assessment for Serbia was done using the error correction method, while the assessment for the panel was done by applying the pooled mean group estimate. Theoretically speaking, a country's risk premium is expected to have a positive correlation with VIX, LIBOR interest rate, global oil prices, inflation, public debt-to-GDP ratio, NPLs-to-total loans ratio, and a negative correlation with the GDP growth rate, GDP per capita, current account-to-GDP ratio and fiscal balance-to-GDP ratio. The results presented in Table 1, including different specifications, show that long-term movements in Serbia's risk premium are not only shaped by global factors, but also, significantly, by domestic ones as well. The coefficients relating to domestic macroeconomic variables are preceded by the expected signs and are statistically significant. Hence, for instance, in the model with the real GDP growth rate, y-o-y inflation, public debt-to-GDP ratio and NPLs-to-total loans ratio, a 1% y-o-y inflation rate decrease produces a 0.06% drop in Serbia's risk premium, while a 1% decrease in the public debt-to-GDP ratio results in a 0.01% risk premium drop and a 1% decrease in the NPLs ratio leads to a 0.07% decline in risk premium. In other words, the above results show that lower inflation, accelerated economic growth, and reduced fiscal and external imbalances (as measured by the public debt-to-GDP ratio and current account-to-GDP ratio), as well

Table O.1.1 **Determinants of risk premium for Serbia**

	Model 1	Model 2	Model 3
Dependent variable: DEMBI (log)			
Long-term relation:			
GDP per capita (log)	-12.163 ***	-2.958 ***	
GDP (y-o-y growth rates, %)			-0.068 **
Current account balance/GDP (%)	-0.128 ***		
CPI (log)	6.012 ***		
Inflation (y-o-y growth rates,%)		0.111 ***	0.059 ***
Public debt/GDP (%)		0.043 ***	0.01 **
NPL ratio			0.066 ***
LIBOR (%)	0.390 ***		
Global oil price (log)		0.548 ***	0.439 ***
C	59.793	21.713	1.957
Error correction to equilibrium	-0.138 ***	-0.264 ***	-0.254 ***
Exogenous variable: VIX (log)	0.456 ***	0.504 ***	0.328 ***
R^2	0.68	0.67	0.62
Adjusted R^2	0.62	0.61	0.53
JB normality test	1.08	0.47	0.17
Analysed period:	Q2 2008 – Q3 2019	Q1 2007 – Q3 2019	Q1 2009 – Q3 2019

Source: NBS calculation.
*** denotes statistical significance level of 1%, ** statistical significance level of 5%.

Table O.1.2 **Risk premium determinants for Serbia and European emerging economies**

	Model 1	Model 2	Model 3
Dependent variable: DEMBI (log)			
Long-term relation:			
GDP per capita (log)	-0.573 ***	-0.520	-0.608 ***
Inflation (y-o-y growth rates, %)		0.065 ***	
Public debt/GDP (%)	0.058 ***	0.110 ***	
Fiscal balance/GDP (%)	-0.144 ***	-0.158 ***	-0.158 ***
Current account balance/GDP (%)			
HICP (log)			0.791
VIX (log)	1.486 ***	2.499 ***	1.367 ***
Speed of adjustment	-0.211 **	-0.108 ***	-0.246 ***
Analysed period:	Q1 2012 - Q3 2019	Q1 2012 - Q3 2019	Q1 2012 - Q3 2019

Source: NBS calculation.
Note: Assessment based on the PMG method (*Pesaran*, *Shin* and *Smidth*, 1997), which assumes the same coefficients in long-term relation for all countries, while coefficients relating to short-term variables differ from country to country. Assessment made for Hungary, Romania, Croatia, Poland, Turkey and Serbia.
*** denotes statistical significance level of 1%, ** statistical significance level of 5%.
HICP - Harmonized Index of Consumer Prices.

[1] VIX – (Chicago Board Options Exchange Market Volatility Index) is a measure of implicit volatility of the S&P 500 index options.

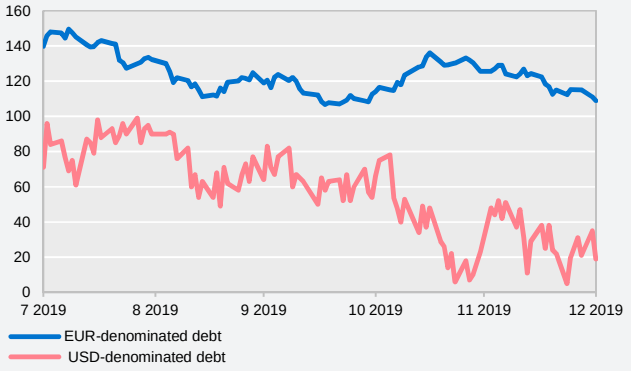
as the resolution of the NPLs issue, contributed to the decrease in Serbia's risk premium since late 2012. The results obtained on the basis of the panel were similar (Table 2).

Since risk premium, by definition, reflects not only current developments but also investor expectations for the period ahead, and Serbia's risk premium has been on a downward path under the impact of domestic factors, it can be concluded that investors assess that the achieved price stability and overall macroeconomic stability will be preserved in the coming period and that the fiscal policy will be responsible.

Following the eurobond issue in the international financial market in euros in June (and its reopening in November 2019), data on the EMBI on the basis of euro-denominated securities have been available for Serbia from July onwards. Though Serbia's risk premium indicator calculated in this way is higher than the EMBI in US dollars, it is still below the EURO EMBIG (composite index) and lower than for most regional peers. Also, similarly to the EMBI in US dollars, it was on a decline from July through December. Data on EURO EMBIG have been available since March 2001, when the index included 11 countries, i.e. 49 instruments, with market capitalization of EUR 34.6 bn. The share of Latin American countries in the index was 66%, that of European countries – 30%, while that of Asian and African countries was 2% each. Serbia was included in the calculation in July 2019 with a share of 0.50%, which increased to 0.78% after a further issue of eurobonds in November.

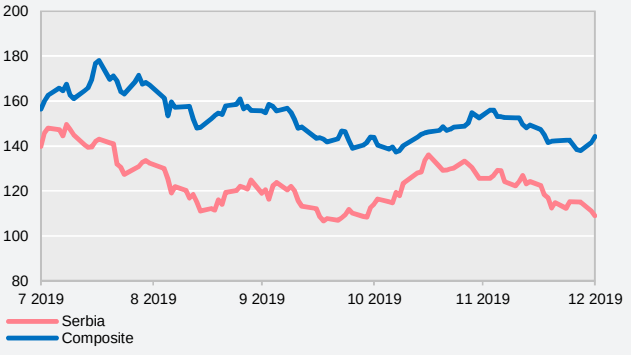
Going forward, we will continue to monitor and analyse movements in this indicator too, as another gauge of investor sentiment toward Serbia, especially given that US dollar-denominated securities will mature in September 2021 and that, according to parameters for their inclusion in the EMBI, they should mature in at least one year.

Chart O.1.3 **Risk premium indicators for Serbia**
(daily data, in bp)



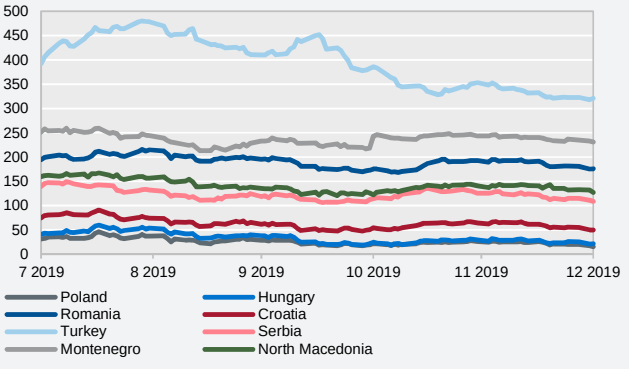
Source: J.P. Morgan.

Chart O.1.4 **Risk premium indicator for Serbia and composite (for EUR-denominated debt)**
(daily data, in bp)



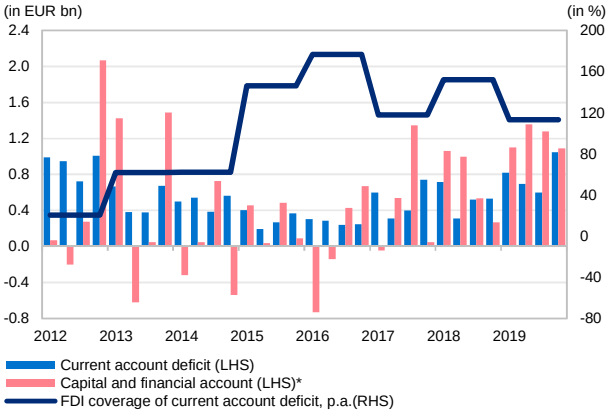
Source: J.P. Morgan.

Chart O.1.5 **Risk premium indicator for countries of the region (for EUR-denominated debt)**
(daily data, in bp)



Source: J.P. Morgan.

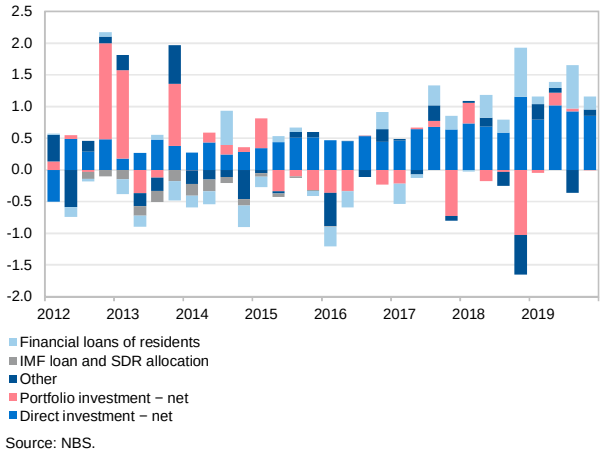
Chart IV.1.8 **Current account deficit and net capital inflow**



Source: NBS.

Note: Revised data for 2018 and 2019. Preliminary data for Q4 2019.
* Excluding changes in NBS FX reserves.

Chart IV.1.9 **Structure of the financial account**
(in EUR bn)



Source: NBS.

Note: Revised data for 2018 and 2019. Preliminary data for Q4 2019.

Foreign capital inflow

Favourable trends on the financial account of the balance of payments continued in Q4. As before, most of the inflows originated from FDI, which covered the current account deficit fully for the fifth year in a row. Inflow was also registered on account of higher external borrowing by banks and corporates.

The relatively high **FDI** inflow to Serbia was sustained in Q4. According to preliminary data, net FDI inflow came at EUR 852.0 mn in Q4 and EUR 3.6 bn in 2019 as a whole, which is 13.5% more than a year earlier. This is the highest inflow since 1997, i.e. since comparable FDI statistics is available, and yet another confirmation of the significance of the achieved macroeconomic stability and improved business environment for investment growth. In 2019 FDI stayed highly diversified by project and geography, and most of it was channelled to manufacturing (26%), transport (25%), and construction and real estate (18%). Around 88% of FDI came from European countries, of which around 54% from the EU, while investment from Asian countries accounted for around 8% of total FDI inflow.[8]

November saw the re-opening of the ten-year eurobond. Additional EUR 550 mn worth of bonds was sold at even better terms than in June 2019 when these bonds were first issued. Namely, the achieved yield rate (1.25%) was by 37 bp lower than in June. The lowering of the yield rate to a new minimum reflects foreign investors' readiness to accept lower yields given the monetary policy easing by leading central banks, but also the fact that Serbia has become an attractive investment destination owing to the achieved and maintained macroeconomic stability. As the funds raised were used for the early buyback of a portion of eurobonds maturing in February 2020,[9] a net outflow of EUR 8.6 mn was registered on account of **portfolio investment** in Q4. At year level, however, portfolio investment provided a net inflow of EUR 188.4 mn.

In Q4, resident liabilities under financial loans went up by EUR 203.8 mn net, driven mainly by banks, whose liabilities, predominantly long-term, climbed by EUR 147.1 mn net. Overall in 2019, net inflow from financial loans equalled EUR 1.1 bn.

[8] Based on data for January–September 2019.

[9] Issued in US dollar in 2013, at a considerably higher coupon rate (4.875%).

Trends in the FX market and exchange rate

At end-December the dinar was almost unchanged against the euro relative to end-September, while gaining 2.4% against the dollar due to the euro's strengthening vis-à-vis the greenback. End-of-period, the dinar appreciated by 0.5% against the euro in 2019, extending the multiyear trend of relatively stable movements. In January, the value of the dinar against the euro stayed broadly unchanged relative to end-2019.

Despite the seasonal growth in energy importers' FX demand in Q4, some enterprises boosted FX supply under the impact of favourable balance of payments trends, notably FDI inflow and export growth. Non-residents were the net buyers of foreign exchange in Q4, and more so than in Q3. On the other hand, the rise in FX-indexed lending, i.e. FX-indexed bank assets,[10] the high purchase of foreign cash and non-resident card payments in Serbia made FX supply considerably higher than demand in Q4.

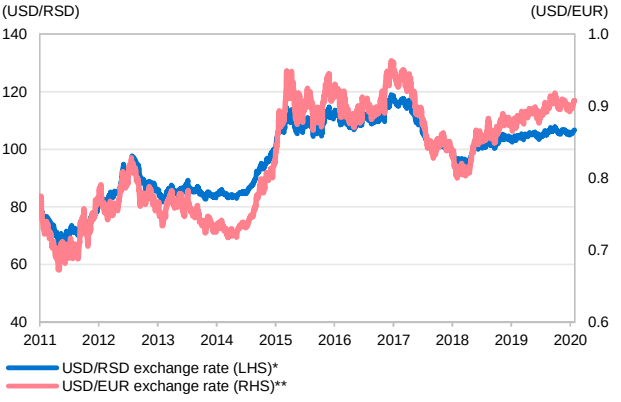
To ease excessive short-term volatility of the dinar against the euro, in Q4 the NBS intervened in the IFEM buying EUR 805.0 mn and selling EUR 215.0 mn. Overall in 2019, NBS interventions in the IFEM boosted the country's FX reserves by EUR 2,695.0 mn.

The daily trading volume in the IFEM[11] averaged EUR 32.5 mn in Q4, up by EUR 11.2 mn from Q3. The highest trading volume was registered in October (on average EUR 35.0 mn a day).

Trading volumes in the regular two-week and three-month FX swap auctions organised by the NBS in Q4[12] were higher than in the quarter before. In the two-week auctions the NBS bought/sold from/to banks EUR 72.0 mn each (EUR 10.0 mn more than in Q3), while in the three-month auctions it bought/sold EUR 20.0 mn each (EUR 5.0 mn more than in Q3).

The currencies of regional peers running similar exchange rate regimes exhibited divergent movements in Q4. Looking at the end-of-period values, strengthening against the euro was registered for the Polish zloty (2.7%), Czech koruna (1.6%) and Hungarian forint (1.2%), and weakening for the Romanian leu (0.6%) and Turkish lira (7.0%).

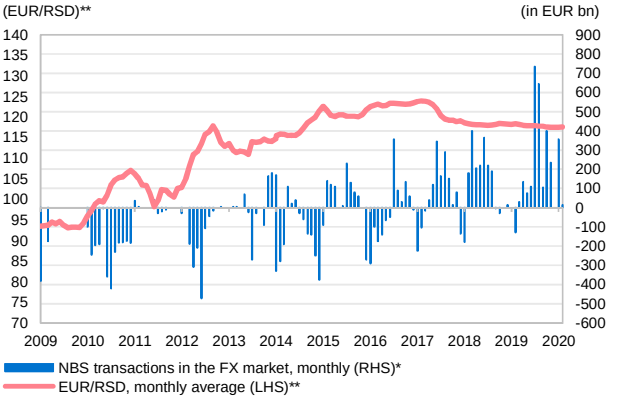
Chart IV.1.10 **Movements in USD/RSD and USD/EUR exchange rates**



Source: NBS.

* USD 1 in RSD.
** USD 1 in EUR.

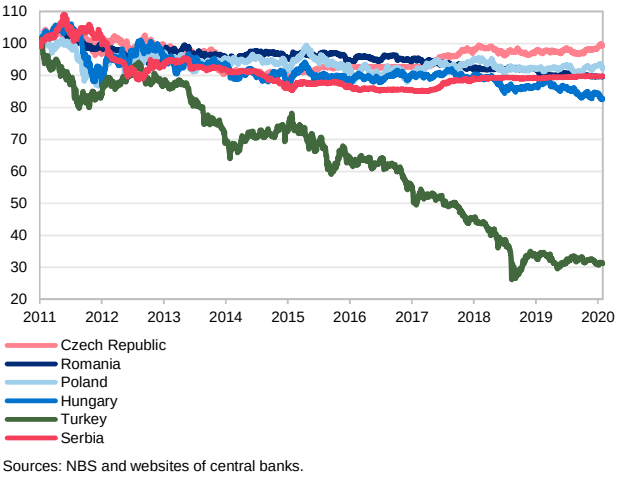
Chart IV.1.11 **Dinar exchange rate and NBS transactions in the FX market**



Source: NBS.

* + net purchase; - net sale.
** EUR 1 in RSD.

Chart IV.1.12 **Exchange rates of selected national currencies against the euro***
(daily data, 31 December 2010 = 100)



Sources: NBS and websites of central banks.

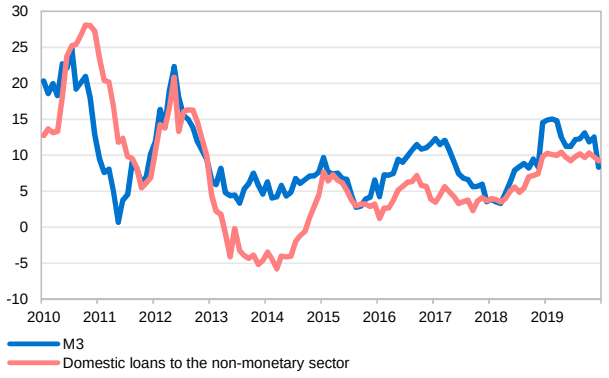
* Growth indicates appreciation.

[10] Aiming to balance their open long FX position and thus reduce the exposure to FX risk, banks sell foreign currency, which leads to the strengthening of the dinar.

[11] Excluding the NBS.

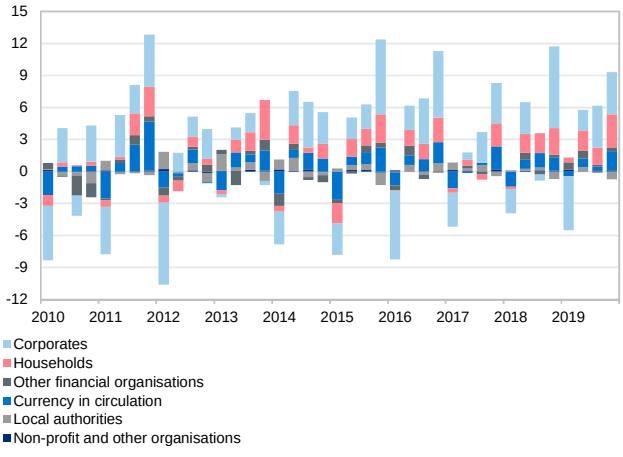
[12] As in the quarter before, no additional swap auctions were organised in Q4.

Chart IV.2.1 **Domestic loans to the non-monetary sector and M3**
(nominal y-o-y rates, in %)



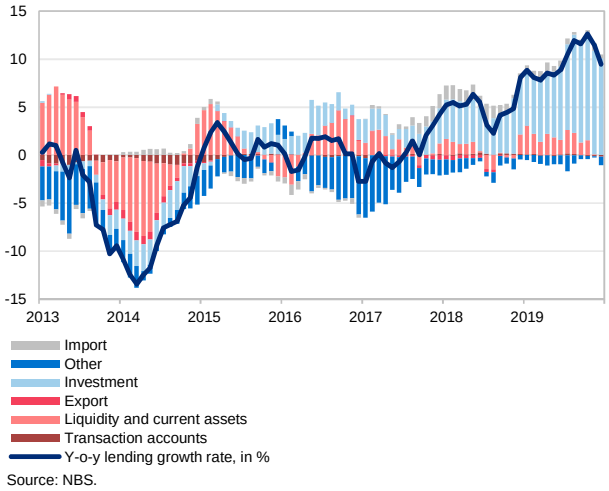
Source: NBS.

Chart IV.2.2 **Contributions to quarterly growth in M2, by sector**
(in pp)



Source: NBS.

Chart IV.2.3 **Contributions to y-o-y corporate lending growth**
(in pp, excluding the exchange rate effect)



Source: NBS.

2. Money and loans

Monetary aggregates M1, M2 and M3 recorded two-digit y-o-y growth in December, receiving positive contribution from vibrant credit and economic activity all year round. Despite the high last year's base, credit activity posted an almost two-digit growth in 2019.

Monetary aggregates

In Q4, the broadest monetary aggregate M3 increased by 4.6%, and over three fourths of this increase originated from the rising dinar component. In terms of individual categories, typically for the season, **sight deposits** rose the most, by RSD 56.2 bn. This growth was almost equally driven by the rising transaction deposits of households and corporates, mostly resulting from positive trends in the labour market, i.e. increase in wages and employment, as well as the acceleration in economic activity. Other sectors' account balances remained almost unchanged from end-Q3.

Time dinar deposits of non-monetary sectors increased by RSD 17.8 bn in Q4, and over 80% of this growth stemmed from the rise in corporate deposits. Second most pronounced were household deposits, which in Q4 recorded the largest quarterly increase (RSD 5.5 bn) since Q4 2013. Also, dinar savings posted the highest annual growth on record – 30.7%. Hence, the dynamic growth of dinar savings continued, reflecting the rising household confidence in the stability of the domestic currency, as a result of the achieved price and macroeconomic stability. Dinar savings are more attractive than FX savings thanks to higher interest rates and a more favourable tax treatment.

The share of dinar in total deposits has been on the rise, both in the corporate and household segment, reaching new maximums. The degree of dinarisation of corporate deposits in 2019 increased by 5.2 pp to 58.3% in December, and of household deposits by 2.8 pp to 22.1%.

FX deposits increased by EUR 252.0 mn in Q4, primarily thanks to the rising household savings, which reached their new maximum of EUR 10.5 bn in December.[13] At the annual level, household FX deposits went up by EUR 825.6 mn, rising almost evenly on a half-year basis.

[13] Money supply M3 includes only resident funds. With non-resident funds included, at end-December dinar savings equalled RSD 79.6 bn and FX savings EUR 10.8 bn.

Loans

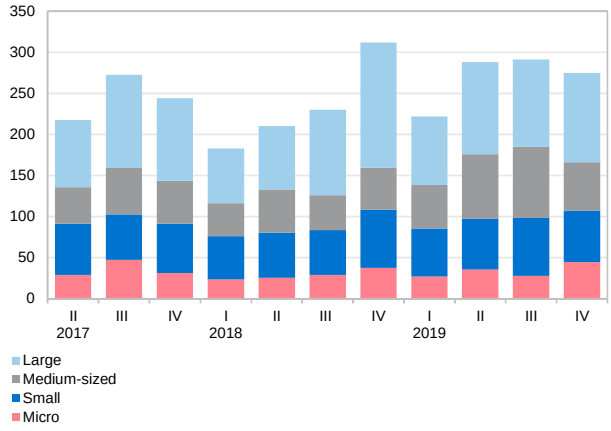
Total domestic loans extended their steady and sustainable growth which in December, excluding the exchange rate effect, equalled 9.8% y-o-y. Despite the relatively high base from 2018, credit activity posted an almost two-digit growth rate, driven by the rise in corporate and household lending.[14] Credit structure remained favourable, contributing to sustainable economic growth, thanks primarily to the expansion of corporate investment loans and housing lending to households.

In 2019, **corporate loans**, excluding the exchange rate effect, increased by RSD 108.6 bn, with three fourths of this growth generated in H2. At the annual level, almost the entire growth in credit activity was driven by investment loans, representing one of the important sources of investment financing ever since 2015, which also corresponds to the investment cycle. Corporate loan growth in Q4 equalled RSD 40.5 bn, RSD 38.3 bn of which relating to investment loans, which took the lead in the corporate loan segment (45.2% in December). Current assets loans rose by RSD 7.7 bn in Q4, while their share in total corporate loans came at 39.1% at year-end. In Q4 2019, corporate loan growth was dispersed across all sectors, most notably transport, trade, real estate and construction.

The stock of new corporate loans in Q4 stood at RSD 274.8 bn, and over 60% of these loans were approved to micro, small- and medium-sized enterprises. This market segment took up almost 70% of new investment loans and almost two thirds of current assets loans in Q4.

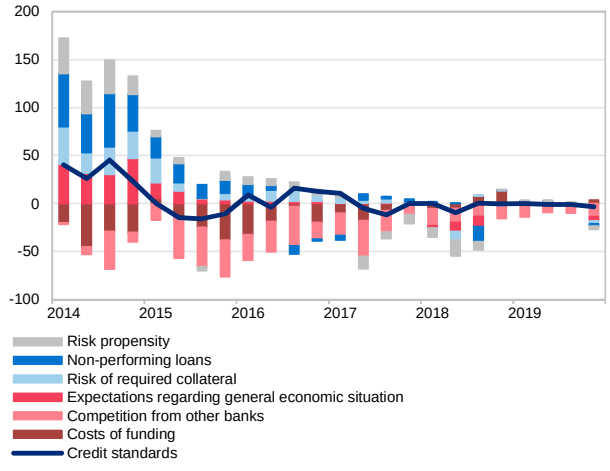
The results of **the NBS's Bank Lending Survey in January**[15] indicate that competition in the banking sector and acceleration of economic activity contributed to the easing of corporate credit standards in Q4 2019. Banks expect further easing of standards for dinar loans in Q1 2020, on account of the above factors, as well as the stronger risk appetite of banks. They assess that corporate loan demand is on the rise, primarily in the segment of small- and medium-sized enterprises. Capital investment and current assets financing remain the strongest factors driving corporate loan demand.

Chart IV.2.4 **Structure of new corporate loans, by enterprise size**
(in RSD bn)



Source: NBS.

Chart IV.2.5 **Change in corporate credit standards and contributing factors**
(in net %)



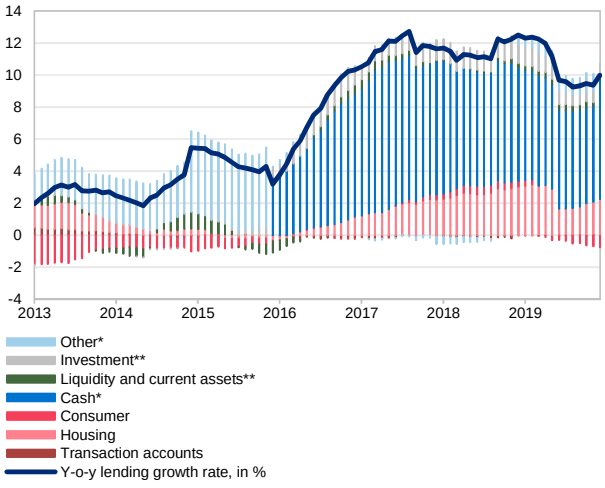
Source: NBS.

Note: Growth indicates the tightening and decline indicates the easing of credit standards.

[14] In December, y-o-y growth of corporate loans reached 9.5%, and of household loans 10.0%.

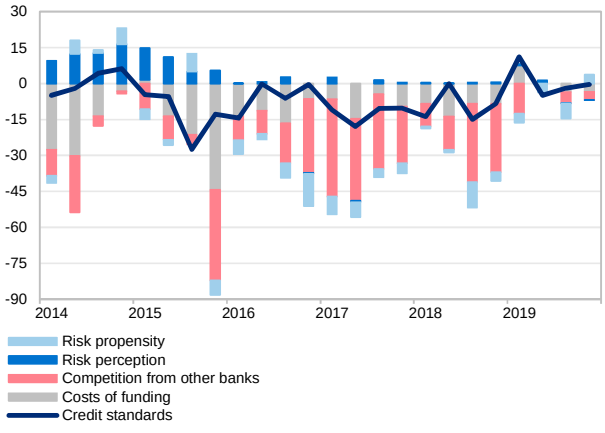
[15] The NBS implements the survey since the start of 2014.

Chart IV.2.6 **Contributions to y-o-y household lending growth**
(in pp, excluding the exchange rate effect)



Source: NBS.
* Until December 2015, the contribution of cash loans is shown within the contribution of other loans.
** Loans extended to entrepreneurs.

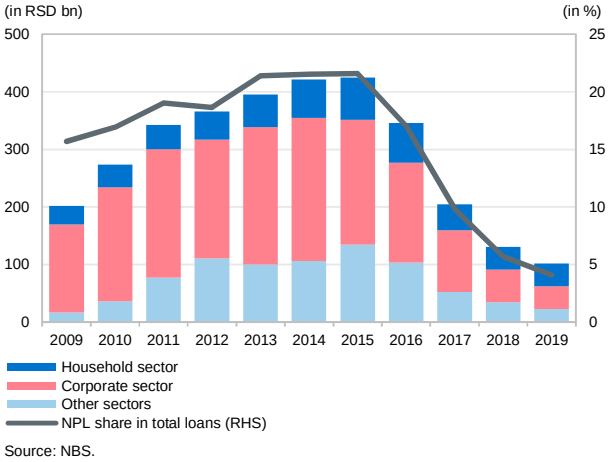
Chart IV.2.7 **Change in household credit standards and contributing factors**
(in net %)



Source: NBS.

Note: Growth indicates the tightening and decline indicates the easing of credit standards.

Chart IV.2.8 **NPL share in total loans, gross principle**



Source: NBS.

In 2019, excluding the exchange rate effect, **household loans** increased by RSD 100.8 bn, and 30% of this growth was generated in Q4. By purpose, cash and housing loans were the dominant category of household loans at end-Q4 – 43.7% and 36.4%, respectively. A relatively quick and simple procedure of loan approval was conducive to the growth of cash loans, whose maturity tended to shorten in 2019. The share of cash loans maturing in over eight years declined from over 30% (at the start of the last year) to 19.6% at end-Q4. At the same time, positive labour market trends and recovery of the real estate market reflected on housing loan growth which was higher than last year, excluding the effect of the write-off of 38% of the value of CHF-indexed loans at conversion to EUR-indexed loans, in accordance with the Law on Conversion of Housing Loans Indexed to Swiss Francs.

The volume of new household loans in Q4 2019 was RSD 140.6 bn, with two-digit growth recorded in almost all types of loans compared to the same period last year.

The results of the **January Lending Survey** indicate that, in banks' view, standards of approval were eased for FX-indexed housing loans, and slightly tightened for dinar cash loans. Further shortening of maximum maturity of cash loans will contribute to the tightening of credit standards in Q1. However, banks stress that household demand is on the rise, driven mainly by real estate purchases, the refinancing of existing liabilities, growth in wages and employment and positive developments in the real estate market.

At end-December, the share of dinar receivables in total **corporate and household** receivables stood at 33.1%. Dinarisation of household receivables has been stable, at 55.4% since September, its highest level so far. Measuring 13.9% at end-December, dinarisation of corporate receivables has declined slightly, due to a significant rise in investment loans, which are mostly approved in foreign currency.

Vibrant economic and credit activity and successful implementation of the measures envisaged by the NPL Resolution Strategy helped to bring down **gross NPL ratio** to the lowest level since this indicator of asset quality is monitored – 4.1% in December.[16] In 2019, NPL share in total loans decreased by 1.6 pp, with the

[16] Relative to July 2015, i.e. the period just before the Strategy adoption, this indicator declined by 18.3 pp, while the NPL stock contracted by RSD 327.9 bn (76.3%).

corporate NPL ratio going down to 3.2%,[17] and the household one to 3.9%.[18] NPL coverage remained high – allowances for impairment of total loans measured 83.2% of NPLs in December, while allowances for impairment of NPLs stood at 60.7% of NPLs. According to the latest available data, **capital adequacy ratio**[19] measured 23.6% at end-Q3 2019, indicating high capitalisation and resilience of the banking sector (regulatory minimum 8.0%).

[17] Includes companies and public enterprises. Looking only at companies, the share of NPLs in total loans came at 3.4% in December, down by 1.8 pp from December 2018.

[18] Including entrepreneurs and private households, the share fell by 0.5 pp to 4.0%.

[19] The regulatory Basel III framework is applied as of 30 June 2017.

Text box 2: Euro interest rate benchmark reform

Since their introduction in the 1980s, benchmark rates on unsecured (uncollateralised) interbank borrowings (LIBOR, TIBOR and EURIBOR) have become the key element of the global financial market and the instrument through which the monetary policy transmission mechanism functions, given that the prices of a large number of contracts and financial products (loans, securities, derivatives etc.) are determined based on them.

Due to shaken confidence during the global economic crisis and contracted liquidity in the international financial market, the volume of unsecured interbank transactions in the post-crisis period sharply declined. As liquidity in this market segment decreased, benchmark rates reflected market movements to a smaller extent and attempts to manipulate their value opened additional questions. Banks manipulated when quoting interest rates at which they were ready to borrow or lend, making the method of computing these rates unreliable. As a result, this became the source of financial vulnerability. That is why the reform of benchmark interest rates was initiated in 2012 at the global level. The aim of the reform, considered pivotal in the global capital market in recent history, is to ensure greater transparency in defining the rates, their greater reliability, and their increased representativeness and resilience to any manipulation, as well as better protection of financial service consumers and investors. As a result, LIBOR rates for all currencies (the dollar, euro, pound sterling, Japanese yen and Swiss franc) will be replaced with new rates as of early 2022, while EURIBOR rates will remain, but will be computed according to a new methodology.

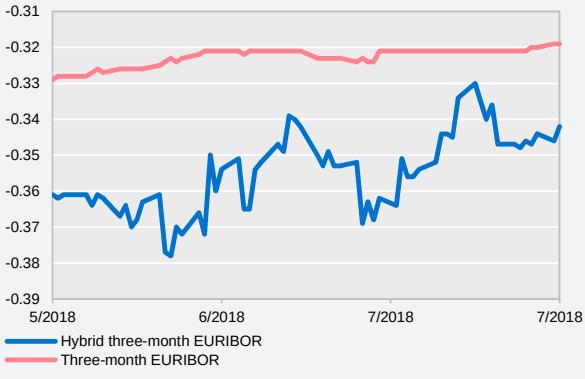
So far, the two main euro area benchmark rates were EONIA (Euro OverNight Index Average) – the weighted average of overnight interbank lending between panel banks, and EURIBOR – the average rate that banks in EU and EFTA countries pay for euro borrowings with other banks, without collateral for the period of up to one year. While overnight swap indices in euros (OIS) were usually linked to EONIA, loans (mainly mortgage loans), securities, interest rate swaps and other derivative instruments were most often linked to EURIBOR.

The working group on euro risk-free rates plays the key role in reforming these rates. It consists of private sector representatives and cooperates with the ECB, European Commission and other institutions. Its task was to direct and ensure smooth transition of all market participants to new or reformed rates, and to analyse and recommend risk-free rates as an alternative to EONIA and EURIBOR rates.

EONIA was replaced with €STR (euro short-term rate), published by the ECB as of 2 October 2019. It reflects the euro unsecured borrowing costs of euro area banks in the overnight market. EONIA will continue to exist until end-2021, computed as €STR plus a fixed spread (8.5 bp) and will be published each business day based on data of the previous day, instead of two days ago, as it was the case before. In the transition period, market participants should replace EONIA with €STR for all financial contracts and products.

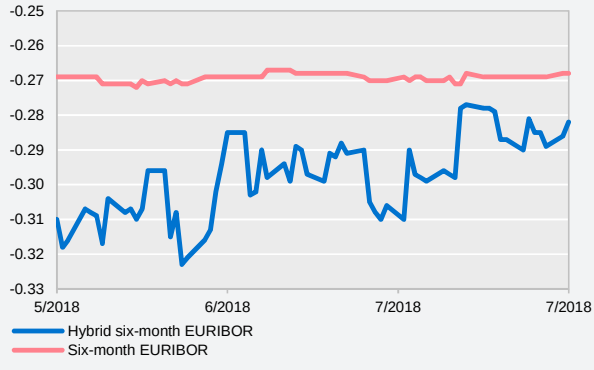
In terms of EURIBOR, the European Money Markets Institute (EMMI), as the administrator of the rate, has over the past several years reduced the number of maturities for which EURIBOR is calculated to five (one week, one, three, six

Chart O.2.1 **Comparison between three-month and hybrid three-month EURIBOR in the test phase**
(in %)



Source: EMMI.

Chart O.2.2 **Comparison between six-month and hybrid six-month EURIBOR in the test phase**
(in %)



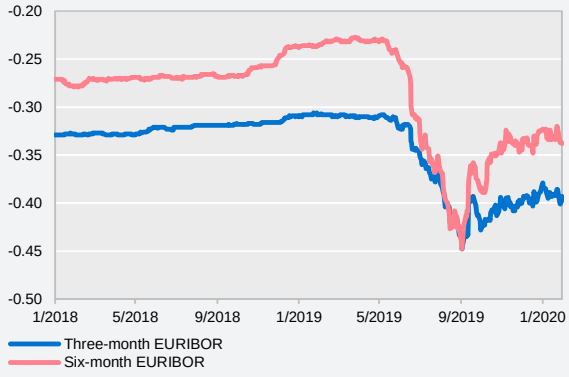
Source: EMMI.

and 12 months) and developed the new EURIBOR methodology. The aim is to switch from the quote-based to the transaction-based methodology, to the extent possible, in order to avoid manipulation. However, as it was hard to ensure that the rate be based exclusively on transactions, particularly for longer maturities as such transactions are few and are carried out among a limited number of participants, the so-called hybrid methodology was developed. The proposed solution entails a combination of modelling techniques and expert assessment when the volume of actual transactions is insufficient, so as to have a longer-maturity benchmark rate each day.

After the Financial Services and Markets Authority (FSMA) confirmed that such EURIBOR rates are compliant with the EU Benchmark Regulation 2016/1011 (BMR), on 28 November 2019 the EMMI declared the successful completion of the phase-in of all EURIBOR panel banks to the hybrid methodology. The new hybrid EURIBOR will also apply as of 1 January 2020 to new financial instruments and contracts. Although the calculation inputs and methodology changed, EURIBOR still measures practically the same interest. The EMMI tested the methodology for hybrid EURIBOR over the period May–July 2018 and ascertained that EURIBOR calculated with the hybrid methodology tends to be lower than quote-based EURIBOR by 1–5 bp, depending on the tenor.

The long-term future of EURIBOR under the changed methodology depends, among other things, on the panel of banks supporting it. As the rate may be abolished or fundamentally changed, the working group on euro risk-free rates recommends market participants incorporate fallback provisions in all new financial instruments and contracts referencing EURIBOR. The aim is to diminish uncertainty concerning potential volatility of the rate, maintain financial market stability and improve the protection of investors and their clients.

Chart O.2.3 **Three-month and six-month EURIBOR**
(in %)



Source: EMMI.

The fallback provisions have still not been incorporated at the EU level and final recommendations are still unknown. In November 2019, the working group issued recommendations for fallback provisions in all EURIBOR-referencing financial contracts and instruments. For legacy contracts which do not contain fallback provisions or which do not contain appropriately worded fallback provisions, to the extent practicable, market participants should consider including EURIBOR fallback provisions, or enhancing existing provisions, when such financial instruments and contracts are amended or during any scheduled future update. In the coming period the working group will conduct analysis and propose recommendations on the most appropriate EURIBOR fallback rates for specific asset classes and/or financial product types, including the methodology to address potential differences between EURIBOR and the fallback rate.

Taking into account the above considerations regarding the fallback rate and the applicable adjustments, a generic EURIBOR fallback provision may take the following form:

Unless otherwise agreed by the parties, the EURIBOR replacement rate will be the rate (inclusive of any spreads or adjustments) formally recommended by (i) the working group on euro risk-free rates established by the Financial Services and Markets Authority (FSMA), the European Securities and Markets Authority (ESMA) and the European Commission, or (ii) the European Money Market Institute, as the administrator of EURIBOR, or (iii) the competent authority responsible under Regulation (EU) 2016/1011 for supervising the European Money Market Institute, or (iv) the national competent authority designated by each Member State or (v) the ECB.[1]

The working group stated that the recommendations are not binding for market participants who will independently decide on what extent they will accept and apply them in their financial instruments and contracts. In particular, market

[1] Report by the working group on euro risk-free rates, 6 November 2019:
https://www.ecb.europa.eu/pub/pdf/other/ecb.wgeurofr_highlevelrecommendatioseuriborfallbacks~abc6ca6268.en.pdf.

participants introducing fallback clauses should consider the market practice and valid laws of a country, and the need for information and education of less sophisticated financial service users.

Given that the Serbian financial market is connected with the EU financial market and that some euro-indexed corporate and household loans are EURIBOR-linked (around a third of total corporate and household loans, according to our estimates), the NBS keeps a close eye on all developments concerning the euro benchmark rate reform. The reform is not likely to affect the level of interest rates in the EU or Serbia. It pertains only to the way they are applied to new and current financial instruments and contracts. The reform is gradual so as to ensure that the clients of banks and other financial institutions have no impediments in servicing their obligations and making profit.

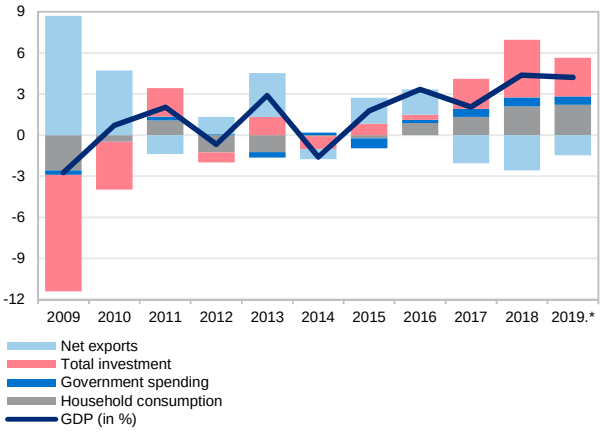
In the event of an initiative to amend contracts between banks and financial service consumers in Serbia for the purpose of introducing fallback provisions similar to those in the EU, the NBS expects this to be done in line with valid legislation in the Republic of Serbia, notably the Law on the Protection of Financial Service Consumers. Given that currently there is no market practice relating to the introduction of the said provisions and that there are still some dilemmas in this respect in the EU, the NBS will carefully analyse the trends pertaining to the relevant regulatory framework and practice. If it deems necessary, it shall, within its remit, timely undertake adequate regulatory and/or other measures to ensure smooth transition to the new rules, while at the same time preserving financial stability and exercising its function of protecting financial service consumers.

3. Aggregate demand

Owing to the implementation of infrastructure projects, as well as the record high FDI inflow, the dynamic growth in fixed investments led to the acceleration of GDP growth from 4.8 % y-o-y in Q3 to 6.1% y-o-y in Q4. Consumption continued its steady rise in Q4, while exports grew faster than imports, which helped to further reduce the negative contribution of net exports.

According to NBS estimate, the annual GDP growth measured 4.2%, resulting mainly from the strong expansion of investments in transport and energy infrastructure, as well as in equipment, which sped up significantly in H2, pushing economic growth above our previous projections.

Chart IV.3.1 **Contributions to y-o-y GDP growth rate – expenditure side**
(in pp)



Sources: SORS and NBS calculation.
* NBS estimate for Q4 2019.

Domestic demand

Since the start of the year, household consumption has been on a steady rise, which is estimated to have extended into Q4, reaching 3.5% y-o-y and adding 2.4 pp to GDP growth. Consumption growth was mainly supported by the positive trends in the labour market, as signalled by the 14.1% y-o-y increase in the wage bill in the period October–November. Consumption also received a positive impetus from further monetary policy easing, which reflected on lower costs of servicing of outstanding loans and the rise in new loans intended for consumption. On the other hand, after rising in Q3, remittances inflow subsided in Q4.

Table IV.3.1 **Movement in main indicators and sources of household consumption in 2019**
(real y-o-y growth rates, in %)

	Q1	Q2	Q3	Q4
Household consumption	**3.3**	**3.3**	**3.1**	**3.5** *
Indicators				
Retail trade	9.5	7.8	8.2	11.4
Catering turnover	10.2	8.1	10.7	14.4 **
Number of domestic tourists	3.5	7.1	7.1	10.5
Number of overnight stays of domestic tourists	1.3	7.6	5.4	16.6
Consumer goods imports (BEC classification), nominal	11.1	17.5	15.9	7.1
Sources				
Total wage bill, nominal	14.3	14.0	14.6	14.1 ***
Net remittances inflow, nominal	5.6	-7.5	2.5	-3.4
Stock of loans intended for consumption, nominal	18.5	15.7	13.9	13.2

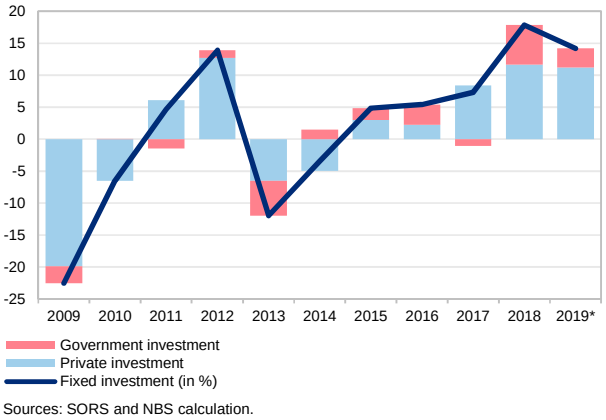
Sources: SORS and NBS calculation.
* NBS estimate.
** October (SORS estimate).
*** October–November.

Q4 saw an increase in government consumption as well (4.6% y-o-y, with a 0.8 pp contribution to GDP growth), as confirmed by the higher expenditure for the purchase of goods and services which rose at 7.1% y-o-y in Q4. A positive contribution to private consumption is also reflected in the rise of consolidated employee expenditure by 12.5% y-o-y.

Trade and tourism indicators also point to private consumption growth – real retail trade turnover and overnight stays of domestic tourists, which rose at a faster pace than in the previous quarters.

Faster GDP growth in Q4 stemmed primarily from the dynamic investment growth (20% y-o-y, adding 4.6 pp to GDP growth), thanks to the implementation of infrastructure projects, improvement in the business environment and favourable sources of financing. Apart from the activation of new production facilities in manufacturing, investment growth was also reflected in higher investments in transport infrastructure and in the energy sector, which helped to boost construction activity

Chart IV.3.2 **Fixed investment**
(y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* NBS estimate for Q4 2019.

Table IV.3.2 **Investment indicators in 2019**

	Q1	Q2	Q3	Q4
Real y-o-y growth rates (in %)				
Fixed investment (national accounts)*	7.4	8.8	17.3	20.0
Construction (national accounts)*	9.8	18.1	34.7	48.9
Government investment	32.9	33.3	10.6	30.8
Number of construction permits issued	0.0	6.9	18.4	18.5
Production of construction material	10.5	-0.6	3.4	0.3
Value of works performed	11.2	20.3	39.9	56.3
Imports of equipment, nominal	18.3	6.8	16.0	37.8
Production of domestic machinery and equipment	16.0	-4.1	-9.1	13.0
Finished product inventories in industry	1.9	-1.6	-1.9	-3.7

Sources: SORS and NBS calculation.
* NBS estimate for Q4 2019.

by almost 50% y-o-y in Q4. Imports of capital goods picked up significantly (37.8% y-o-y), while production of machinery and equipment expanded by 13.0% y-o-y.

As for the sources of investment financing, improvement in the investment environment, along with favourable macroeconomic outlook, had a positive bearing on FDI inflow, which reached EUR 852 mn in Q4. Investments were also financed by investment loans which in quarterly terms rose by RSD 42.7 bn.

A negative contribution to GDP growth in Q4 came from inventories (-0.5 pp), which can be associated with a significant build-up in inventories of agricultural products by the end of the previous year, due to the lower exports caused by the low water levels on the Danube. On top of this, inventories of industrial products increased less in Q4 than in the same period of 2018 (-3.7% y-o-y in December, relative to -1.9% y-o-y in September).

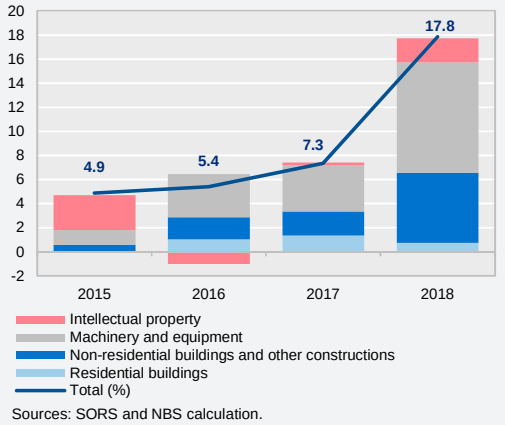
In quarterly terms, stable consumption growth extended into Q4 (0.9% s-a), which, coupled with investment growth of 3.5% s-a, helped economic activity grow 1.4% s-a in Q4.

Text box 3: Dynamics and structure of fixed investments

Long-term growth and development of the domestic economy are largely based on fixed investments (investments in fixed assets), which on the one hand, expand the country's production and export base through building of new and expansion of existing production capacities, and on the other, establish the preconditions for increasing the wealth of households and corporates and for job creation. From the standpoint of factors driving their dynamics, the ambience in which they are implemented, and the future effects of investments, it is important to look at their structure, primarily in terms of investment purpose and sources of financing.

From 2014 to 2019 gross fixed capital formation[1] in Serbia **increased at the average annual rate of 9.8% in real terms**, i.e. posted cumulative growth of almost 60%. As a result, its share in real GDP increased from 17.5% to nearly 24%, and its average contribution to annual GDP growth measured 1.5 pp. A particularly strong pace of investment growth was recorded in the last two years, when they increased by 34.6% in cumulative terms, accounting for almost three fourths of Serbia's economic growth.

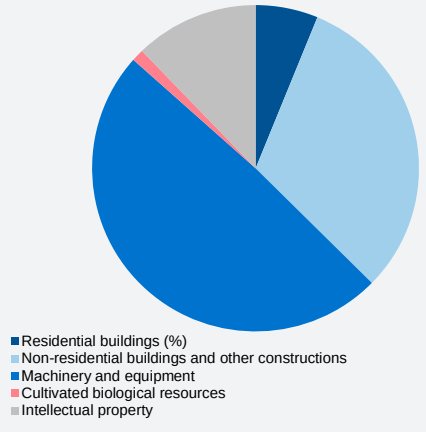
Chart O.3.1 **Contribution of individual components to growth in gross fixed capital formation**
(in pp)



Sources: SORS and NBS calculation.

In terms of the technical structure, from 2014 to 2018, the last year for which data are available, **realised investments posted above-average growth** (which in the period under review measured 8.3%) when it comes to **investments in machinery, equipment and buildings and other constructions**[2] (8.6–8.7% on average per year). The share of investments in equipment, intellectual property[3] and biological resources remained relatively stable and amounted to almost two thirds of total investments. Of the remaining investments, around 84% related to non-residential facilities, primarily plants and infrastructure (Chart O.3.2). Keeping that in mind, it is evident that investment growth contributed not only to the current GDP growth, but also to its outlook going forward, thanks to the expansion of the production potential of our economy.

Chart O.3.2 **Technical structure of gross fixed capital formation in the period 2014–2018**
(in pp)



Sources: SORS and NBS calculation.

In terms of economic sectors, based on the data on realised investments in the period 2014–2018, **the value added was mostly used for investments in industry and transport** (on average around 27%, and in 2018 around 32%). These two economic sectors are leaders in expenditure for equipment, especially industry, which allocated 16.9% of the added value for this purpose. Thanks to that, tradable sectors[4] earmarked on average 25.1% of the value added for investments and non-tradable sectors 12.6%. In the period under review, allocations for these purposes went up, so the realised investments in 2018 reached 30.5% of the value added in the tradable sector, compared to 14.6% in the non-tradable sector. The difference between the sectors stems from investment in equipment, accounting for 15.2% of the value added in the tradable sector and 4.8% in the non-tradable sector.

[1] **Gross fixed capital formation** refers to procurement reduced by alienation of capital goods through purchase and sale, exchange or capital transfers in kind, adjusted for the costs of ownership transfer.

[2] **Other constructions** include railways, roads, bridges, viaducts, overpasses etc., ports, sailing channels, dams and other hydro construction facilities, electrical and TT lines and cables, pipelines, oil pipelines etc., complex industrial facilities, sports grounds, etc.

[3] **Intellectual property** includes research and development, geological exploration, software and databases, etc.

[4] Includes agriculture, manufacturing, mining, energy, transport and storage and accommodation and food services.

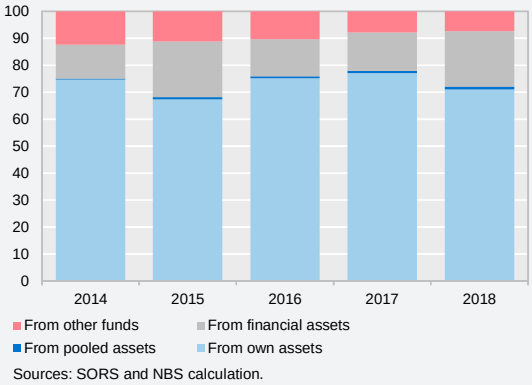
Within manufacturing, in terms of the value added by sector, allocations for investment were the largest in the production of base metals and rubber and plastic products, in assembly and repair of machinery, production of motor vehicles, chemicals, paper, furniture and tobacco products.

The volume of investment expenditure is a logical consequence of differences in capital equipment and applied technologies, and the increase in its share in GDP indicates that the tradable sector operates in an environment conducive to investment and uses that to strengthen the technological basis underlying its competitive position, thus boosting the economy's export potentials.

In terms of the sources of financing, out of the total fixed investments realised in money transactions,[5] the dominant share is financed from own sources (73.1% on average) (Chart O.3.3), i.e. the funds collected on account of depreciation, retained profit and increase of the shareholders' equity. Given that the profitability of the corporate sector increased in the prior period and that corporates received additional equity increases from abroad (EUR 6.0 bn net on account of direct investment in equity capital and inter-company loans), **financing from own sources** increased significantly – in 2018 relative to 2014 it went up by 47% or RSD 176.6 bn. With an average of 16.4% of total investment expenditure going into fixed assets, **financial loans** were the source recording the most dynamic growth – in 2018 relative to 2014 their disbursement increased 2.5 times or by RSD 96.3 bn.

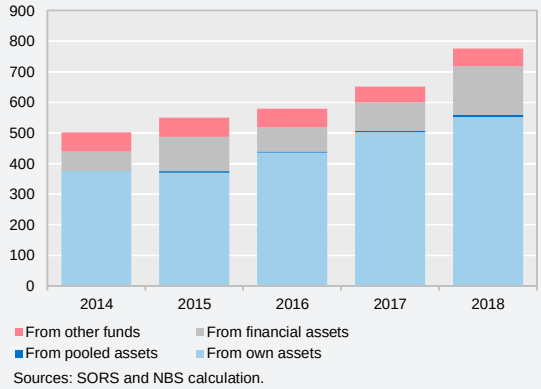
In terms of economic sectors, payments for investments in fixed assets were mostly financed from own sources, while the share of financial loans evidently increased in some sectors. This was primarily the case in manufacturing and other tradable sectors which in 2017 and 2018, much more so than in 2016, used financial loans to finance investments in fixed assets.

Chart O.3.3 **Payments for investments in fixed assets, structure by sources of financing**
(in %)



Sources: SORS and NBS calculation.

Chart O.3.4 **Payments for investments in fixed assets, structure by sources of financing**
(in RSD bn)



Sources: SORS and NBS calculation.

Based on the above analysis, it can be concluded that faster growth in total investment is a visible result of the strengthening and preservation of macroeconomic stability and improvement in the business environment, which boosted on a sustainable basis the competitiveness and profitability of our economy, as well as the total employment and standard of living of our citizens. These results were achieved thanks to the successful coordination with the fiscal policy and with the prominent role of the National Bank of Serbia in the preservation of price and financial stability, as well as relative stability of the exchange rate. The responsible policy of the National Bank of Serbia contributed to the predictability of doing business and favourable terms of financing, which encouraged the willingness to invest in the Serbian economy.

[5] Pertains to all fixed investments in the year in which payments were made, regardless of the moment of construction or purchase of fixed assets. Payments for investments are, as a rule, smaller than gross investment into fixed assets, since they do not include fixed assets produced and kept for own consumption, assets acquired through compensation or received based on capital transfers in kind, as well as housing construction of households and other forms of investments within the non-observed economy. In the period 2014–2018 payments for investment were by around 24% lower than gross investment in current prices.

Net external demand

Real export growth picked up additionally in Q4, to 10.8% y-o-y, while real import growth slowed down to 10.7% y-o-y. As a result, the negative contribution of net exports to GDP continued to weaken, to 1.2 pp in Q4. In annual terms it almost halved compared to 2018.

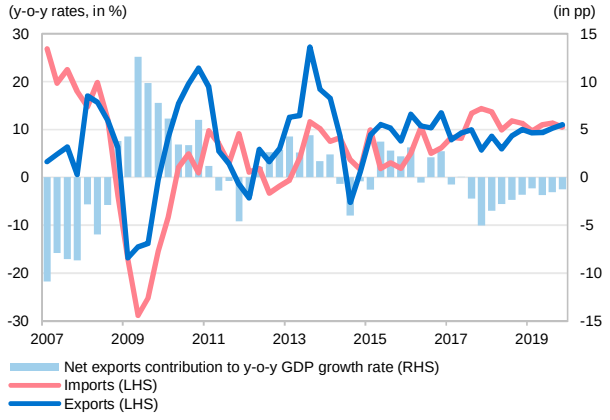
Driven by the robust growth of manufacturing exports, coupled with the positive contribution of agriculture, commodity exports in euro terms, according to the balance of payments data, sped up to 10.0% y-o-y in Q4. As indicated by trade data, manufacturing exports growth came at 9.4% y-o-y in Q4 and was recorded in 17 out of 23 branches. As in the prior part of the year, the greatest contributors were exports of electrical equipment, machinery and equipment, furniture and rubber and plastic products. The automobile industry remained a positive contributor, because lower exports of automobiles were fully offset by the rising exports of other producers in the sector (by 15.9% y-o-y), which pushed the automobile industry share in total exports to 11.7% in 2019. Thanks to the good agricultural season, exports of agricultural and food products continued up (19.2% y-o-y and 10.0% y-o-y, respectively), and this trend is expected to continue in the coming months. Base metals gave a smaller, but positive contribution, mainly owing to copper exports.

Commodity imports in euro terms picked up in Q4 to 9.7% y-o-y, mainly thanks to equipment and intermediate goods whose exports, consistent with the investment growth, sped up to 37.8% and 6.7%, respectively. Though rising at a slower pace (7.1% y-o-y) than in the prior period, the imports of consumer goods indicate that household consumption is recovering. Similar trends are confirmed by the imports structure according to the EU classification into end-use categories, which shows that the greatest contributions to imports came from capital and intermediate goods, followed by non-durable and durable consumer goods, while energy products provided a negative contribution.

According to the balance of payments data, the surplus in services trade continued up, along with the services exports which recorded two-digit growth in Q4 (12.8% y-o-y), spurred by the rising exports of business and ICT services, while services imports rose by 13.7% y-o-y.

In 2019, the commodity export-to-import ratio measured 74.8%, or 83.9% services included.

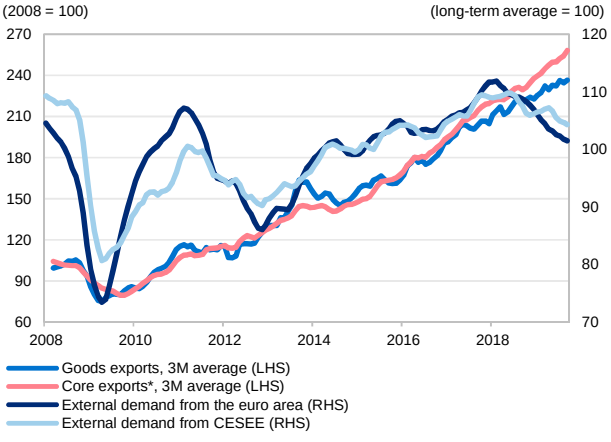
Chart IV.3.3 **Exports and imports of goods and services**
(in previous-year constant prices, ref. 2010)



Sources: SORS and NBS calculation.

Note: NBS estimate for Q4 2019.

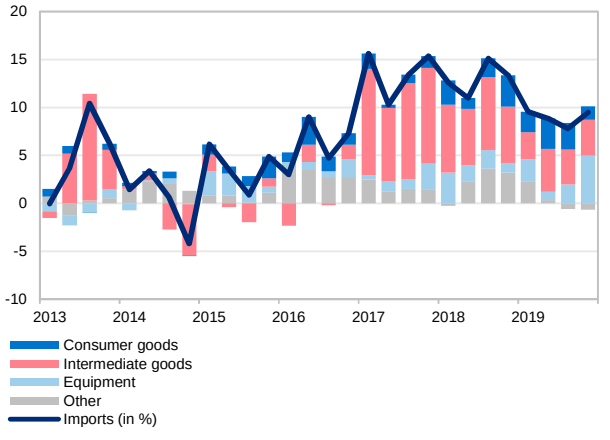
Chart IV.3.4 **Movement of indicators of external demand for Serbian exports**
(3M moving average, s-a)



Sources: European Commission, SORS and NBS.

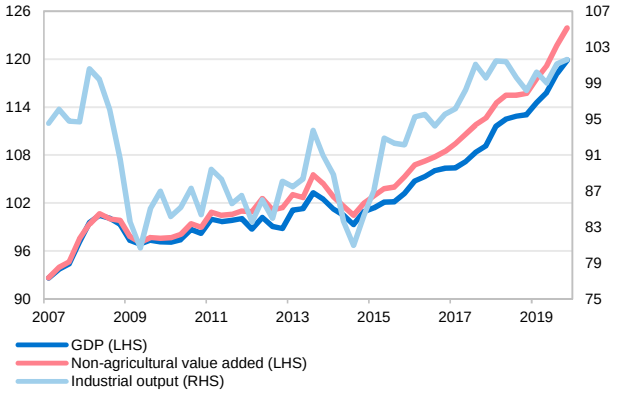
* Core exports are total exports excluding exports of agricultural products, base metals, motor vehicles, petroleum products and electricity.

Chart IV.3.5 **Movement of key import components**
(contributions to y-o-y growth, in pp)



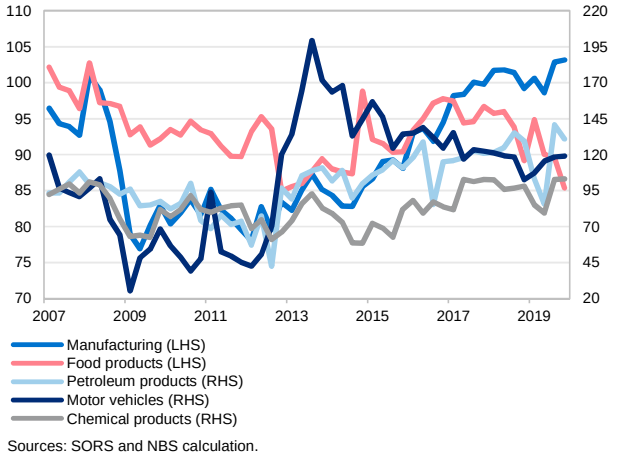
Sources: SORS and NBS calculation.

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



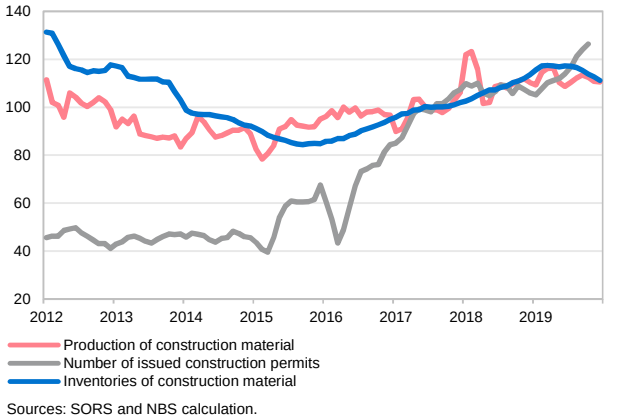
Sources: SORS and NBS calculation.

Chart IV.4.2 **Physical volume of production by branch of manufacturing**
(s-a, H1 2008 = 100)



Sources: SORS and NBS calculation.

Chart IV.4.3 **Construction activity indicators**
(quarterly averages s-a, 2017 = 100)



Sources: SORS and NBS calculation.

4. Economic activity

GDP growth stepped up from 4.8% y-o-y in Q3 to 6.1% in Q4, reflecting the intensive growth in construction, the pick-up in services led primarily by exceptionally favourable labour market trends, and the recovery of manufacturing. In 2019 as a whole, economic growth reached 4.2%.

The 3.0% y-o-y industry growth in Q4 can be linked chiefly to the activation of new production capacities in manufacturing and the low base from the same period a year earlier due to slackened external demand and the imposed taxes on products delivered to Kosovo and Metohija. Faster industry growth is also indicated by the physical volume of manufacturing output, which climbed from 2.1% in Q3 to 3.7% y-o-y in Q4. As a somewhat smaller increase in the physical volume of production was recorded in mining and electricity supply, overall growth in the physical volume of industrial production came at 3.3% y-o-y in Q4. Within manufacturing, the strongest contributions to the y-o-y growth originated from the metal (1.5 pp) and pharmaceutical industries (0.6 pp). The production of machinery and electrical equipment contributed 0.5 pp to the growth in the physical volume of manufacturing output, and so did the automobile industry.

The quarterly dynamics of the physical volume of manufacturing output indicates growth in 17 out of 24 sectors. And yet, the overall growth in the physical volume of manufacturing output was modest (0.3% s-a), which can be attributed primarily to the smaller production volume of the food industry, which slumped for the third quarter in a row (-4.7% s-a in Q4, with a -1.0 pp contribution to manufacturing output).

After growing strongly in Q3, activity in the construction sector stepped up additionally in Q4 (to almost 50% y-o-y, adding 2.4 pp to GDP growth), reflecting the implementation of infrastructure projects in the transport and energy sectors and booming housing construction. This is also confirmed by the envisaged value of works based on issued construction permits, which soared by 50.8% y-o-y in Q4, and 88.3% in 2019. The upswing in housing construction is further testified by the increase in the number of issued permits for the construction of apartments, which came at 27.4% y-o-y in Q4, or 27.9% in 2019. Positive tendencies are reflected also in a further rise in formal employment in the construction sector in Q4 (9.5% y-o-y), while the production of construction materials remained broadly unchanged from Q4 2018.

Favourable trends in the labour market, i.e. lower unemployment and higher employment and wages, translated into steady consumption growth, and hence, into a pick-up in services (5.1% y-o-y in Q4). The growth in service sectors is also suggested by available indicators. Real retail trade turnover increased in Q4 as well – by 11.4% y-o-y, while tourism indicators – the number of arrivals and overnight stays, and real catering turnover recorded two-digit growth rates at the y-o-y level.

Given that agricultural production was above-average for two years in a row, its contribution to economic growth in 2019 is judged to have stayed neutral.

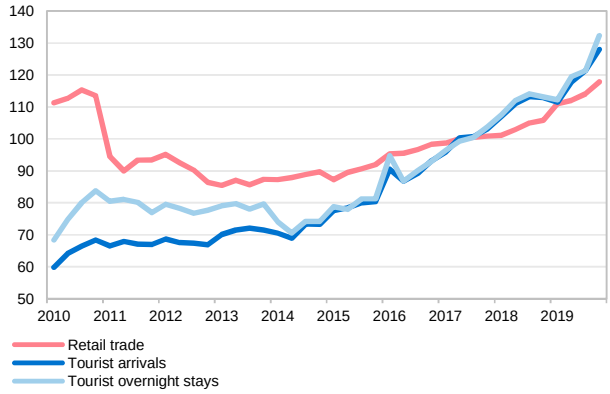
At the quarterly level, GDP growth in Q4 amounted to 1.4% s-a, which means that economic growth was recorded for 21 consecutive quarters. Positive contributions to growth came from services and construction, the latter estimated to have increased by 12.2% s-a in Q4. At the same time, industrial production stayed almost unchanged after rising by 2.0% s-a in Q3. Looking at the pre-crisis period, economic activity was higher by 19.9% s-a as measured by GDP and by 23.9% s-a as measured by NAVA. The strongest contribution to economic growth in Q4 originated from services and construction.

Table IV.4.1 **Contributions to y-o-y GDP growth**
(in pp)

	2018	2019			
	Q4	Q1	Q2	Q3	Q4*
GDP (in %, y-o-y)	**3.5**	**2.7**	**2.9**	**4.8**	**6.1**
Agriculture	1.0	0.0	0.0	0.0	0.0
Industry	-0.6	-0.3	-0.4	0.4	0.6
Construction	0.1	0.3	0.8	1.7	2.4
Services	2.3	2.0	1.9	2.2	2.6
Net taxes	0.5	0.5	0.5	0.5	0.5

Sources: SORS and NBS calculation.
* NBS estimate.

Chart IV.4.4 **Service sector indicators**
(s-a, 2017 = 100)



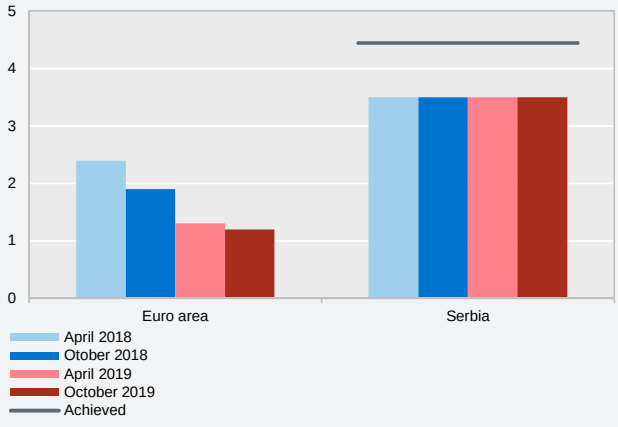
Sources: SORS and NBS calculation.

Text box 4: Assessment of macroeconomic trends in 2019

Economic growth in 2019 exceeded our projections, which were revised up in the course of the year (from 3.5% in August to 3.6% in November), and equalled 4.2% according to our estimate. Despite the slowdown in external demand, primarily from the euro area, economic activity grew vigorously for the second year in a row, owing to the positive synergetic effect of a larger number of domestic factors, which reflected primarily on investment. The key factor was the achieved and preserved macroeconomic stability, which impacted on a further rise in investors' trust and their greater readiness to make long-term investment in Serbia, as evidenced by the record FDI inflow for the second consecutive year, a falling country risk premium and the increase in Serbia's credit rating to one step below investment grade. Past investment raised production and export capacities, while the firm control of current expenditure, the maintained overall fiscal discipline and elevated tax revenue enabled the government to further increase capital expenditure and continue to implement infrastructure projects. In addition, reducing public debt to a sustainable level allowed for an increase in outlays for wages and pensions, without jeopardising fiscal sustainability. On the other hand, owing to the achieved price stability, the NBS supported economic growth through further monetary policy easing, which resulted in the almost two-digit lending growth, one of the highest in the region.

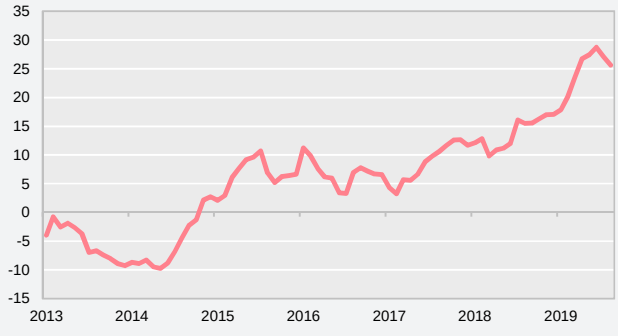
According to the SORS preliminary estimate, fixed investment growth in 2019 amounted to 14.2% (contributing over 3 pp to GDP growth) and was almost equally distributed in the private and government sectors. In the past two years, fixed investment has been recording two-digit growth rates, almost 35% in total. In addition to the achieved and preserved macroeconomic stability, investment growth was supported by the continued upgrade of the business environment, rising corporate profitability, and the implementation of policies to attract FDI – as a result, the share of fixed investment in real GDP increased by over 6 pp in the past six years – from 17.5% in 2014 to almost 24% in 2019. Private investment encouraged the growth of export-oriented production capacities, as well as a vibrant rise in the imports of equipment and intermediate goods. Along with own sources of funding, including a high FDI

Chart O.4.1 **IMF GDP growth projection for 2019**
(in %)



Sources: IMF and NBS estimate.

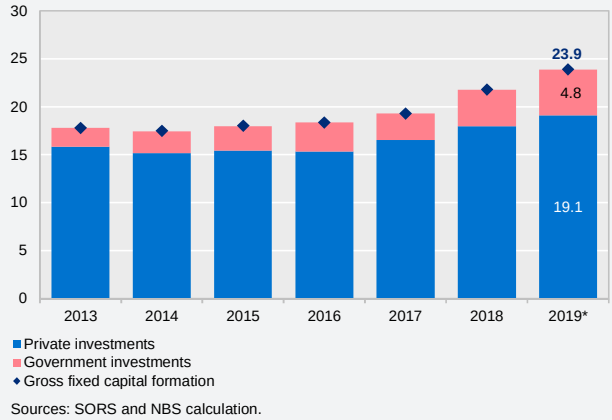
Chart O.4.2 **Investment loans***
(y-o-y rates, in %)



Source: NBS.

* Excluding the exchange rate effect.

Chart O.4.3 **Fixed investments**
(in % of GDP)



Sources: SORS and NBS calculation.

* NBS estimate.

inflow, investment is largely financed by bank loans, as attested by a RSD 115.9 bn rise in the stock of investment loans in 2019. Government investment reached close to 5% of GDP and was channelled mainly to the upgrade of transportation and energy infrastructure, as confirmed by elevated construction activity.

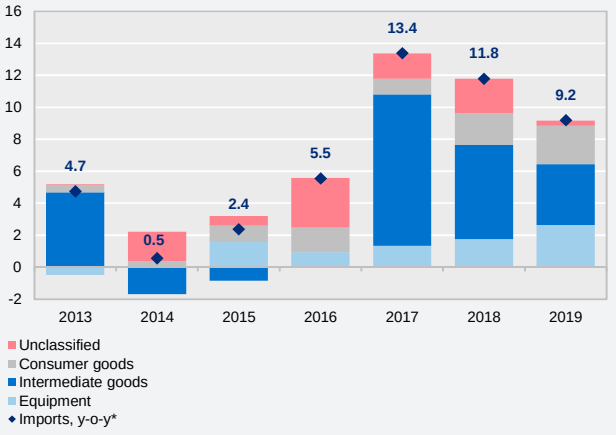
Owing to favourable labour market trends – evidenced also by the reduction in the unemployment rate to a single-digit level (9.5% in Q3), and favourable credit terms, the sustainable personal consumption growth continued, reaching, in our estimate, 3.3% in 2019 and contributing 2.2 pp to GDP growth. With austerity measures in the public sector gradually relaxed following successful fiscal consolidation, consumption growth was also propped by rising wages in the public sector, pensions and social transfers. However, it is noteworthy that personal consumption growth was slower than GDP growth in 2019, as well as in earlier years, which contributes to the preservation of price stability.

Consistent with rising private consumption, a half of the contribution to economic growth originated from service sectors, on the production side, which grew by 4.1% in aggregate terms. Construction growth, which came at 30.4% in 2019 according to the SORS estimate (contributing 1.3 pp to GDP growth) was supported, in addition to infrastructure projects, by elevated housing construction financed by the private sector. A small positive contribution to GDP growth also originated from industrial production (0.1 pp) because, with the overhauls in the oil and chemical industries in H1 and past investment, production recovered in these sectors in H2, even though the 100% taxes on products and services delivered to Kosovo and Metohija were in force throughout the year. Given the above-average agricultural production for the second year in a row, the contribution of agriculture to economic growth is estimated to have remained neutral in 2019.

Goods and services exports in 2019 accelerated compared to 2018, but due to hefty imports of equipment, intermediate goods, consumer goods and services, the contribution of net exports stayed negative (-1.5 pp in 2019 vs. -2.6 pp in 2018). Export growth was underpinned by new production lines and further diversification of exports, which annulled the effect of contracted external demand over the slowdown in the euro area, which is still our most important export market. On the other hand, import growth, though slower than in 2018, was led by the rising imports of equipment and intermediate goods, and, to a lesser extent, also by the imports of consumer goods that mirrored a rise in personal consumption.

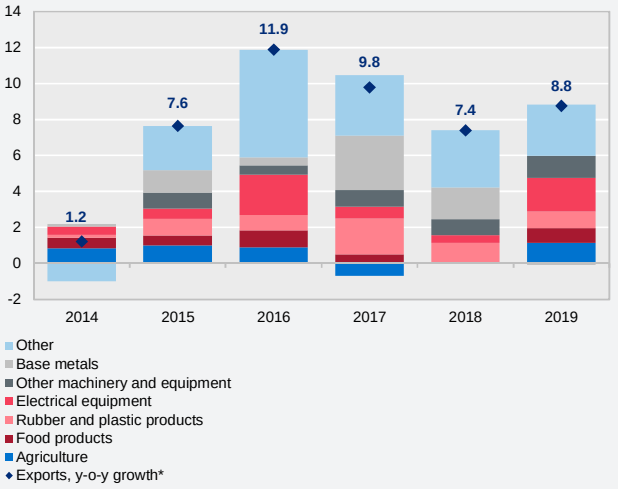
The current account deficit was EUR 3.2 bn (6.9% of GDP) in 2019, up by EUR 1.1 bn from 2018. The key reasons for the widening of the deficit in 2019 were the 100% taxes on the delivery of goods and services to Kosovo and Metohija, vibrant growth in equipment imports to accommodate investment needs, EU steel import quotas, higher non-resident profit in Serbia and the consequent rise in dividend payments. In terms of its main components, the current account deficit increased due to a higher

Chart O.4.4 **Movement of main goods import components**
(contributions to y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* Revised data for 2018 and 2019.

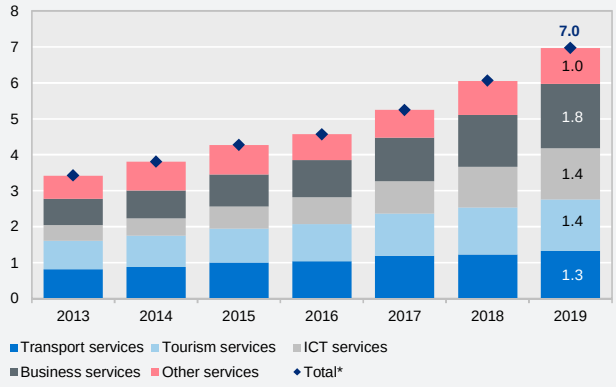
Chart O.4.5 **Movement of main goods export components**
(contributions to y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* Revised data for 2018 and 2019.

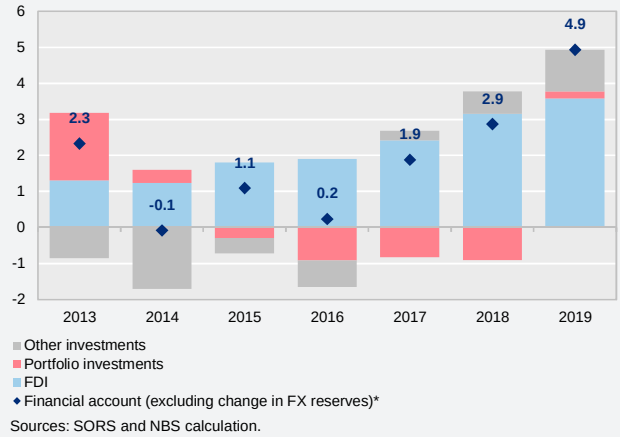
commodity deficit, a higher primary income account deficit and a smaller surplus in the secondary income account, while the surplus in external services trade continued to go up and work in the opposite direction. The commodity deficit rose by EUR 530.5 mn to EUR 5.6 bn, with goods exports and imports in euro terms rising by 8.8% and 9.2% y-o-y, respectively. Goods imports went up (to EUR 22.0 bn) on account of rising production and investment, as confirmed by the fact that 74% of the growth (EUR 1.4 bn)[1] pertained to intermediate goods and equipment, whose imports went up by 6.5% and 20.4% y-o-y, respectively (equipment imports reached EUR 3.3 bn in 2019). Particularly vigorous was the rise in the imports of steel pipes (EUR 230 mn) for the construction of the TurkStream pipeline, whose effect on the imports growth was one-off. At the same time, despite the slowdown in euro area demand, exports continued to perform well, going up to EUR 16.4 bn in 2019. Growth in goods exports was led by rising manufacturing exports (7.2% y-o-y), which, though a bit slower than in the past years, stayed broad-based. The growth was buoyed up by the exports of electrical equipment, machinery and rubber and plastic products, while contraction was noted for the exports of motor vehicles, but was offset by rising exports of other producers in the car industry. The overhauls in the Pančevo refinery and Petrohemija in H1 had a temporary dampening impact on the exports of petroleum and chemical products, while the adjustment to the application of EU steel import quotas led to a somewhat smaller exports of base metals, which was largely compensated for by higher copper exports and, partially, steel exports to other markets. Robust growth was also recorded for the exports of agricultural (21.7% y-o-y) and food products (8.3% y-o-y). Owing to the solid agricultural season in 2019, we expect positive trends to continue in the major part of 2020. Vibrant growth in services exports and imports, primarily ICT and business services, led to a further increase in the positive balance in foreign services trade (by 5.4% to RSD 1.0 bn). The deficit in the primary income account widened (by EUR 294.6 mn) on the back of higher expenditure for FDI-related dividend payments (by EUR 306.2 mn), consistent with the continued rise in the FDI stock, while the level of reinvested earnings was similar to last year's, indicating the readiness of foreign investors to step up investment in Serbia. The smaller surplus in the secondary income account (by EUR 312.3 mn) was affected by the smaller inflow of other transfers (by EUR 277.5 mn) – notably dampened inflow on account of the temporary payment operations with Kosovo and Metohija after taxes on goods from Serbia were introduced – and, to a significantly lesser extent, a somewhat weaker remittances inflow (by 1.3%).

Chart O.4.6 **Services exports**
(in EUR bn)



Source: NBS.
* Revised data for 2018 and 2019.

Chart O.4.7 **Financial account**
(in EUR bn)



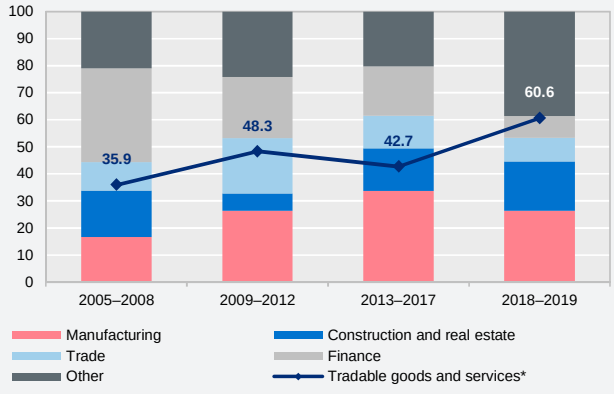
Sources: SORS and NBS calculation.
* Revised data for 2018 and 2019.

On the other hand, 2019 saw the continuation of positive trends in the financial account. For the fifth year in a row, the current account deficit was fully covered by the net FDI inflow, which equalled EUR 3.6 bn, the highest since comparable statistics are available. The gross FDI inflow amounted to EUR 3.8 bn. Based on preliminary data, EUR 2.2 bn was

[1] BEC classification.

invested in tradable sectors, of which EUR 1 bn in manufacturing alone. As before, investment was distributed to a large number of other sectors, with the highest amounts going to transportation, construction and real estate business, with investors coming primarily from European countries. Portfolio investment amounted to EUR 188.4 mn net in 2019, reflecting mainly stepped-up non-resident investment in long-term dinar government securities, though the government, facing smaller borrowing needs, organised a smaller number of auctions and achieved lower yield rates. In 2019, a new ten-year eurobond was issued, at the most favourable conditions so far (with the rate of 1.619% in June and 1.25% at the re-opening in November). The funds raised (EUR 1.55 bn) were used for the early repayment of a portion of bonds issued in dollars in 2011 and 2013 at much higher rates. In addition to the readiness to accept lower rates of return against the background of monetary policy easing by leading central banks, such developments reflect the fact that Serbia, owing to macroeconomic stability, is a favourable investment destination, as confirmed by the upgrade in Serbia's credit rating by Standard & Poor's and Fitch in H2. Residents, notably enterprises, as well banks and the government to a somewhat smaller extent, increased further their foreign credit liabilities, so that the net inflow from financial loans came at EUR 1.1 bn. Given that financial account inflows exceeded significantly the current account deficit, **FX reserves** expanded by EUR 1.9 bn in 2019, according to the balance of payments methodology[2]. In the last months of 2019, they were at historically highest levels. In December they equalled EUR 13.4 bn, ensuring the coverage of almost six-month worth of imports and 273%[3] of debt maturing in the following twelve months, which is yet another confirmation of further strengthening of the country's external sustainability.

Chart O.4.8 **FDI inflow structure by sector**
(in %)

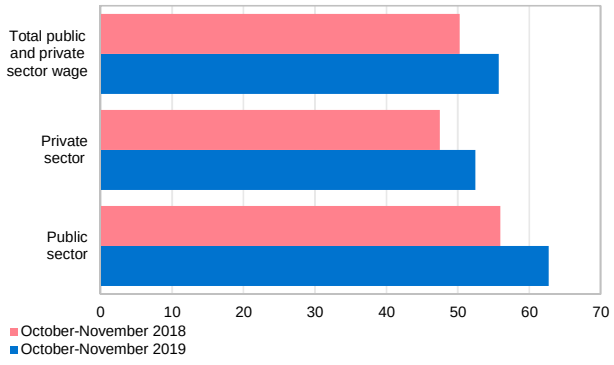


Source: NBS.
* Agriculture, industry, mining, transport, catering.

Looking at the year behind us, we can say that our economy recorded excellent results in 2019 as well, particularly in view of the slowing global growth and plummeting external demand, uncertainties in the international financial and commodity markets, and geopolitical tensions. The achieved macroeconomic and financial stability and the upgraded business and investment environment sustain a positive macroeconomic outlook going forward.

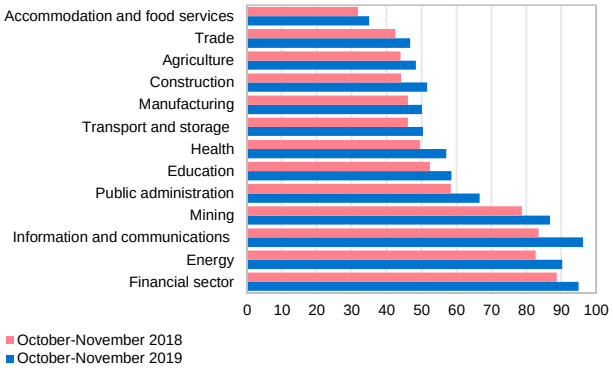
[2] Excluding currency changes, changes in market values of securities and gold prices.
[3] The external debt stock by remaining maturity in September 2019.

Chart IV.5.1 **Average nominal net wage**
(in RSD thousand)



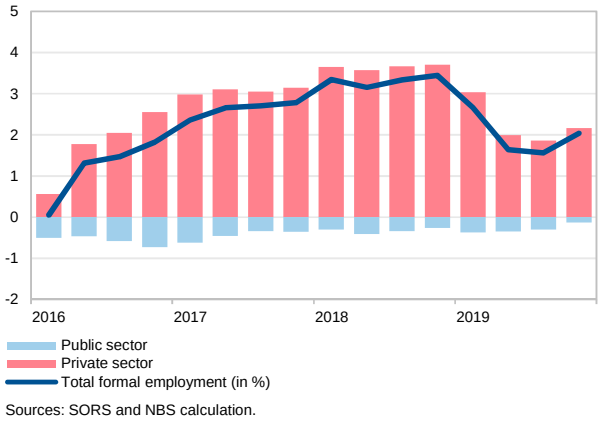
Source: SORS.

Chart IV.5.2 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

Chart IV.5.3 **Structure of y-o-y growth in total formal employment**
(in pp, period average)



Sources: SORS and NBS calculation.

5. Labour market developments

The labour market saw further growth in wages and employment in Q4. Since economic activity rose faster than employment, productivity of the overall economy continued to increase.

Wages and labour productivity

The nominal net wage in October and November increased by 10.9% y-o-y, to RSD 55,698 on average (EUR 474), rising 10.6% y-o-y in the private sector and 12.1% y-o-y in the public sector.

The y-o-y increase in the nominal net wage in October and November remained broad-based. This is indicated by the continuous growth in average wages in industry and services (information and communications, construction, trade, transport and catering), which are dominant contributors to faster economic growth. Apart from activities which primarily belong to the private sector, wages also increased in the public administration, health and education, where the public sector has the dominant role, thanks to the Government's November decision to raise public sector wages from 8% to 15% (average increase of 9.6%).

Along with the nominal wage growth, higher employment in the private sector also helped to increase the total nominal net wage bill, as the dominant source of consumer demand, which expanded by 14.1% y-o-y in October and November.

According to a preliminary estimate, **productivity of the overall economy** posted y-o-y growth of 4.0% in Q4, as a result of GDP rising faster than employment, while at the level of 2019, its growth measured 2.2%.

Employment

Rising at the rate of 1.6% for two consecutive quarters, **total formal employment sped up to 2.0% y-o-y in Q4**. According to SORS data, obtained from the Central Registry of Compulsory Social Insurance, the pace of formal employment accelerated thanks to more intensive employment in legal persons and entrepreneurs in Q4, on the one hand, and a less pronounced decrease in the number of individual agricultural workers and employees in agriculture compared to the previous periods.

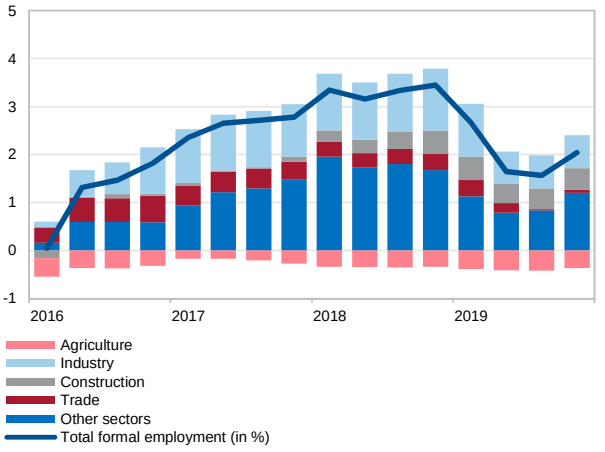
The private sector remained the key generator of new jobs in 2019, as **total employment in the sector exceeded 1.6**

mn persons since November. In y-o-y terms, in Q4 alone new employment in the private sector rose by around 47 thousand persons. Manufacturing and construction recorded the greatest employment gains, followed by information and communications, accommodation and food services, which recorded wage increases in parallel. On the other hand, the rightsizing process in activities dominated by the public sector is still underway, though employment reduction in Q4 (by 2.8 thousand y-o-y) more than halved relative to Q3.

According to the National Employment Service data, **the overall unemployment in December 2019 equalled 506,865**, which is by almost 46 thousand persons less than a year before. This is due to the y-o-y fall in unemployment in all occupation groups in Q4, primarily in manufacturing (by almost 15 thousand on average), followed by occupations related to trade, catering and tourism (by close to 5 thousand on average). Unemployment went down also in occupations in agriculture, construction and transport. Since the 2014 reform of the domestic labour market, registered unemployment was slashed by as much as one third concluding with 2019. This was also facilitated by the improved conditions for doing business and investing in Serbia, as well as the implementation of active employment measures and programmes.[20]

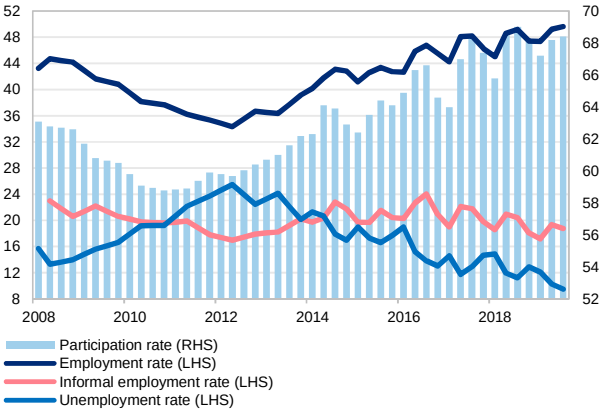
Apart from the formal segment of the labour market, the available results of the **Labour Force Survey** for Q3 2019 give insight into its informal segment as well. While slightly dropping y-o-y (by 0.6 pp), the participation rate of working-age population (15–64 years) of 68.4% in Q3 nevertheless exceeded the values from the previous quarters of 2019. This shows that the participation of working-age population is still relatively high, despite unfavourable demographic trends. In Q3, the rate of formal employment increased in y-o-y terms, by 0.4 pp to 49.6%, while, in parallel, the rate of informal employment edged down by 1.7 pp to 18.8%, signalling lower engagement of employees outside formal employment contracts. For the first time since comparable data are available, **the unemployment rate dropped to a single-digit level in Q3** (9.5%). The rate of long-term unemployment[21] was also at its lowest (5.2%).

Chart IV.5.4 **Contribution to y-o-y growth in total formal employment by economic sector**
(in pp, period average)



Sources: SORS and NBS calculation.

Chart IV.5.5 **Labour market indicators according to the Labour Force Survey**
(in %)



Source: SORS.

Table IV.5.1 **Formal employment and unemployment in 2019**
(y-o-y growth rates, period average)

	Q1	Q2	Q3	Q4
Total number of formally employed	2.7	1.6	1.6	2.0
Employed with legal persons	2.6	1.9	1.7	2.2
Entrepreneurs and their employees	5.3	2.8	3.0	3.4
Individual farmers	-8.3	-8.7	-8.6	-8.4
Unemployed	-9.1	-9.3	-9.5	-8.9
First-time job seekers	-1.6	21.1	26.1	32.9
Used to be employed	-12.7	-24.3	-27.2	-29.4

Sources: SORS and NES.

[20] Active employment measures and programmes among other include: job matching services, career guidance and counselling, support to self-employment, further education and training, special programmes for youth in transition from the education system to the labour market.

[21] The long-term unemployment rate is the percentage of persons who have been unemployed for one year and longer in the total active population.

6. International environment

Global economic growth slowed down in 2019 to the lowest level since the world economic crisis, which reflected primarily on dampened production and trade activity. Amid uncertain trade relations, geopolitical tensions and natural disasters, there emerged early hints at the recovery in global growth at the end of the year, dominantly propped by monetary and fiscal incentives.

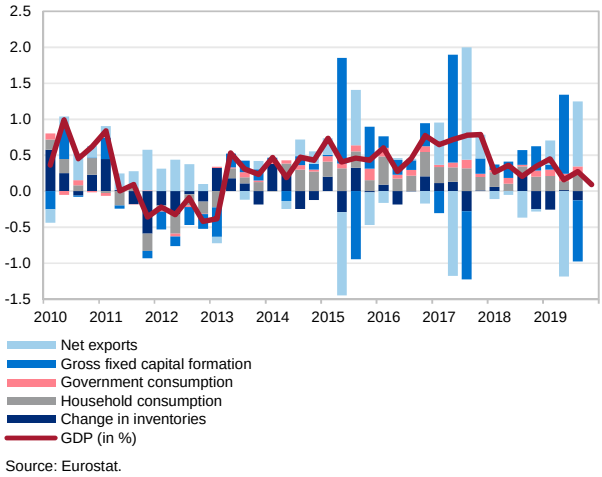
Though it posted a rise at end-Q4, inflation still remained relatively low in the majority of developed countries. On the other hand, in some countries in Central and Southeast Europe inflation trended above the target, but did not lead to any major changes in the monetary policy of central banks in those countries because target overshooting was assessed as temporary. Financial conditions in both developed and emerging countries remained extremely favourable due to the monetary policy easing by leading central banks.

Economic activity

Summing up the year behind us, the leading international financial institutions assessed that **during 2019, global growth slowed down more than previously anticipated**. In its January issue of the WEO, the IMF mildly revised down its October forecast of global growth for 2019 (from 3.0% to 2.9%), mostly because of the poorer than anticipated growth in India and several emerging countries, on account of factors specific for each country. However, **there are some hints at incipient recovery of global trade and production activity at end-2019**, supported by the effects of monetary and fiscal policy easing, occasional news about progress in the US-China trade talks and the diminishing likelihood of a no-deal Brexit. The Global Composite PMI and the Global Manufacturing PMI equalled 51.7 and 50.1 respectively in December, which suggests that the global economy managed to remain in the expansion zone. Despite early signs of stabilisation, risks to the projection are still skewed to the downside, though to a lesser extent than three months ago.

Unlike in Q2, when it decreased by 0.2% s-a, the **euro area economic growth** rose mildly in Q3 – by 0.3% s-a (1.2% y-o-y), dominantly under the influence of rising external demand, with an 0.9 pp contribution from net export. A positive contribution also came from household and government consumption (0.3 pp), while fixed

Chart IV.6.1 **Contributions to s-a GDP growth rate of the euro area**
(in pp)



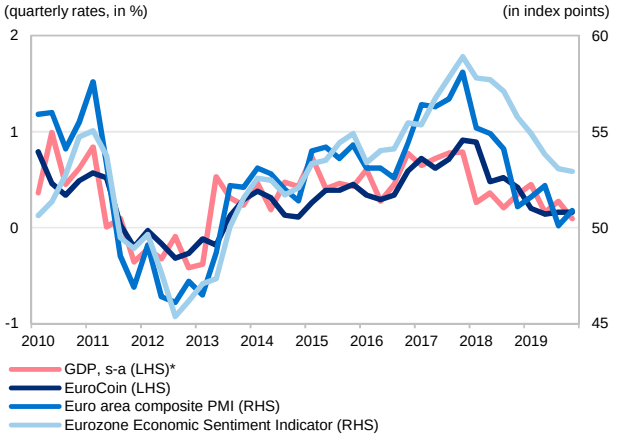
Source: Eurostat.

investments posted a decline in Q3 (contribution -0.8 pp). After an 0.2% s-a decrease in Q2 and a close call with recession, as a consequence of declining activity in export-oriented sectors, **Germany's GDP**[22] posted a rise of 0.1% s-a in Q3, propped by favourable developments in the labour market. At the same time, **Italy's GDP** rose 0.1% s-a for the fourth consecutive quarter, on the back of the rise in private consumption.

In December, the **ECB** estimated that growth in the euro area will rise at a slow pace in the short-term amid the persisting global tensions. This is supported by the value of the Economic Sentiment Indicator declining to 101.0[23] on average in Q4. By contrast, the Eurozone PMI Composite rose to 50.9[24] in December, which suggests a gradual stabilisation in manufacturing, as well as that consumer confidence has been maintained. Bearing in mind the stepped-up construction activity at end-2019 and positive labour market trends (7.4% unemployment rate in December), the ECB's growth forecast for 2019 was slightly revised up from September (by 0.1 pp to 1.2%). According to Eurostat's preliminary flash estimate, euro area GDP growth slowed down to 0.1% s-a in Q4, which corresponds to the 1.2% growth estimate for 2019. Expectations are that euro area growth will be supported in the medium-term as well, due to favourable financing conditions, recovery in external demand and fiscal stimuli, together with Brexit unfolding according to the deal.

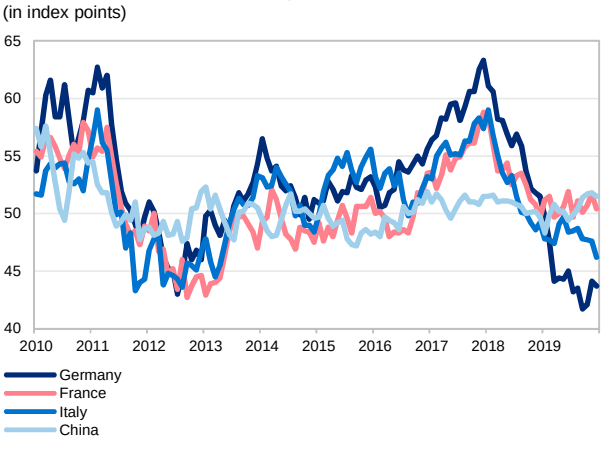
The **US economic growth** in Q3 maintained the same dynamics as in Q2, and measured 2.1% (0.5% s-a) at the annual level, mostly owing to increased personal consumption (contribution of 2.1 pp), and to a lesser extent to government consumption (0.3 pp). Contracted investments in fixed assets (contribution -0.2 pp) and lower net exports (-0.1 pp) acted in the opposite direction. According to the advance estimate of the Bureau of Economic Analysis, GDP growth in Q4 also equalled 2.1% annualised. The available indicators in the production sector do not suggest major recovery in Q4, given that the ISM Manufacturing PMI in the USA declined to 47.2 in Q4, its lowest level since mid-2009. Even so, conditions in the US labour market are assessed as stable, as confirmed by the relatively high participation and employment rates in December – 63.2% and 61.0% respectively, the same as three months

Chart IV.6.2 **Movements in GDP and economic activity indicators of the euro area**



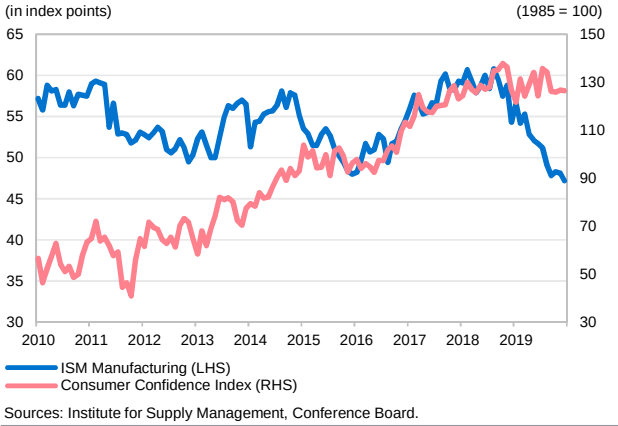
Sources: Eurostat, Markit Group, Banca d'Italia and European Commission.
* Eurostat's preliminary flash estimate for Q4 2019.
** ESI is standardised relative to PMI.

Chart IV.6.3 **PMI Manufacturing for selected countries**



Source: Markit Group.

Chart IV.6.4 **Leading economic indicators in the USA**



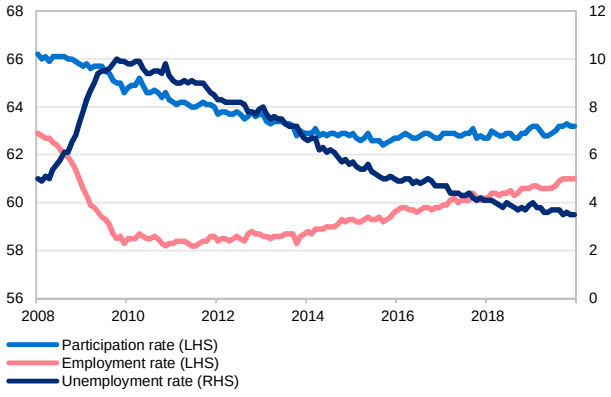
Sources: Institute for Supply Management, Conference Board.

[22] Germany and Italy are Serbia's key foreign trade partners in the euro area.

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

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

Chart IV.6.5 **US labour market**
(monthly rates, in %)



Source: Bureau of Labor Statistics.

earlier. In addition, the unemployment rate was kept at the historic minimum of 3.5% in December.

The **FED** kept the 2.2% growth estimate for the US economy in 2019, with a note that growth slowed down in H2 relative to H1 due to the still subdued private investments and a slower rise in government consumption. The medium-term growth forecasts remained almost unchanged if we consider the projected growth path of asset prices on the one hand, and the wearing off of positive effects of prior tax cuts on the other.

Growth in the region of **Central Europe** is still grounded in stable domestic demand amid expansive monetary policies. In this regard, GDP of leading economies in the region rose further in Q3 relative to Q2, in y-o-y terms, first in the Czech Republic (from 2.5% to 3.4%), then in Hungary (from 4.9% to 5.0%) and Poland (from 4.1% to 4.2%), which also recorded an increase in exports. Considering the solid macroeconomic fundamentals, it is estimated that the softening of growth in Central Europe will be slower in 2020 than previously anticipated.

Economies in the **Southeast European region** also maintained the upward trend in Q3, with Serbia posting the highest y-o-y GDP growth (4.8%), followed by Bulgaria (3.1%), Romania (3.0%) and Croatia (2.9%). In its January report,[25] the European Commission stated that Serbia recorded the most remarkable results in the Western Balkans and gave a key contribution to the acceleration of growth in the entire region owing to a robust increase in investments. According to the IMF's January report, economic growth of **emerging and developing European countries** was estimated at 1.8% in 2019, with the assessment that countries in the region will gain additional wind in the back in 2020, supported by low borrowing costs and favourable labour market situation.

As expected, **Russia's GDP** accelerated its y-o-y growth to 1.7% in Q3 (from 0.9% in Q2). The achieved growth is attributable to increased wholesale turnover, as well as to better-than-anticipated results in agriculture and manufacturing. This drove exports up in Q3 and resulted in a GDP growth forecast of more than 1.0% for the whole of 2019. Though investment activity is expected to increase in Q4, factors such as delays in the realisation of capital projects, subdued import of investment equipment

[25] EU Candidate Countries' & Potential Candidates' Economic Quarterly (CCEQ) – 4th Quarter 2019.

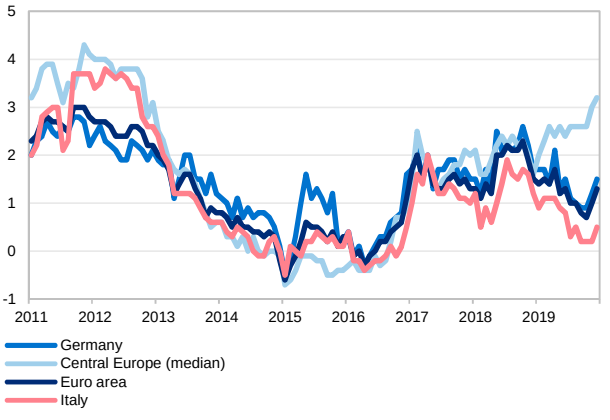
and the cap on oil production for OPEC members are acting as a drag on more intensive growth in the Russian economy in conditions of slower global growth.

According to the preliminary assessment, growth of the **Chinese economy** reached 6.1% in 2019, despite slowing down to 6.0% y-o-y in H2. The US-China Phase 1 trade deal marked the official withdrawal of protectionist measures in their trade and a temporary détente in the introduction of new tariffs, which is why the IMF came out in January with a brighter forecast for 2020 than three months ago, stating the estimate that growth will be the same as in 2019. However, the pace of economic activity in China is still affected by the unresolved economic disputes with the USA and the need to strengthen domestic financial regulations.

Inflation movements

After the fall in energy prices triggered a drop in y-o-y inflation in the euro area in October, driving it down to the lowest level in almost three years (0.7%), inflation started to increase in the remainder of the quarter. Faster y-o-y rise in the prices of services and food pushed inflation up to 1.0% in November, while the recovery in the prices of energy and their last year's low base, as well as the faster rise in unprocessed food prices, led it further up to 1.3% in December. This is also its highest level since June 2019, though it is still trending considerably below the ECB's inflation target of below, but close to 2%. Although core inflation rose in November and reached its highest level since April 2019 (1.3%, where it remained in December as well), it is still relatively low given that cost-push pressures from the labour market were mostly absorbed by lower profit margins. As for Serbia's main foreign trade partners, y-o-y inflation in December, measured by the Harmonised Index of Consumer Prices, stood at 1.5% in **Germany** and 0.5% in **Italy**.

Chart IV.6.6 **HICP across selected countries**
(y-o-y rates, in %)

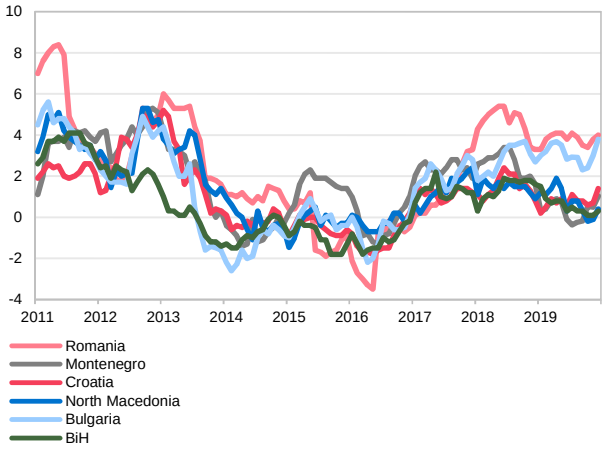


Source: Eurostat.

In almost all countries of **Central and Southeast Europe** inflation accelerated in Q4, and in some countries, such as Romania and the Czech Republic, it trended above the upper bound of the target tolerance band at year-end, whereas in Hungary it reached its seven-year maximum – precisely at the upper bound of the tolerance band. As in the euro area, the main factors behind y-o-y inflation growth are the energy prices and their last year's low base. In terms of food, the prices of meat (notably pork) maintained the upward trend. In addition to petroleum

products, this dictated the trend of y-o-y inflation in Bulgaria – in December it reached its maximum since January 2013. Y-o-y inflation in Poland also reached the highest level in several years, mainly owing to the minimum wage rise.

Chart IV.6.7 **Movement in CPI for selected countries**
(y-o-y rates, in %)



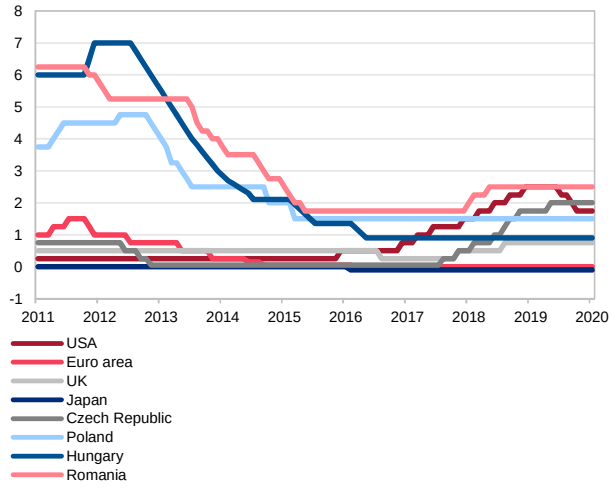
Sources: Statistical offices in several countries.

Similarly to Serbia, other **Western Balkan** countries also saw y-o-y inflation in Q4 remain at a relatively low level, with diverging movements by country. Inflation made a conspicuous recovery in Montenegro, where it entered positive territory once again, while in North Macedonia October and November saw a y-o-y fall in consumer prices and their subsequent recovery in December. In Bosnia and Herzegovina, y-o-y inflation at the end of the quarter was still the lowest in the region (0.3%), whereas in Albania it remained the highest (1.1%), despite a decrease in December.

After slowing down in October, partly due to the high base effect, y-o-y inflation in **Turkey** picked up in the remainder of the quarter (reaching 11.8% in December). Inflation growth is mainly attributable to accelerated rise in the prices of food, utility services and transport. Inflation in Russia continued down in Q4, falling more sharply than previously envisaged in the projection. This is attributable to the declining prices of food, the strengthening of the **Russian** rouble and the subdued domestic and external demand. At the end of the quarter, y-o-y inflation was 3.0%, which is its lowest level since July 2018.

Measured by the personal consumption expenditure price index, though trending mildly up, y-o-y headline inflation in the **USA** remained below 2% in Q4. Inflationary pressures at home remained relatively low, despite positive labour market developments, therefore inflation excluding food and energy prices – the Fed's preferred measure – remained below the target.

Chart IV.6.8 **Policy rates across selected countries**
(p.a., in %)



Sources: Central banks of selected countries.

Monetary policy

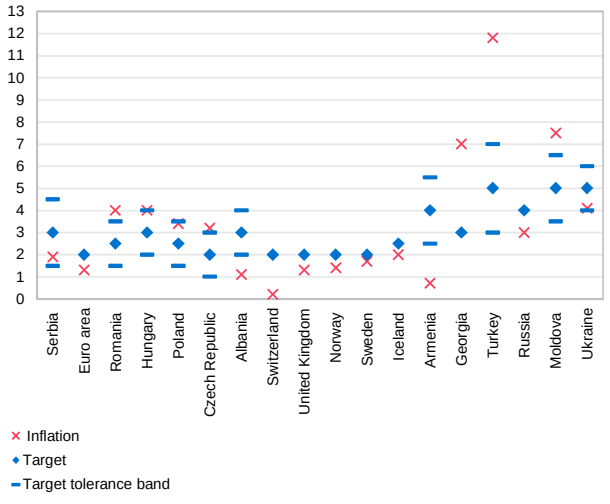
During Q4, as well as in January 2020, there were no changes to the **ECB's** monetary policy. Interest rates were kept at record-low levels (main rate at 0%, and deposit and credit facilities rates at -0.5% and 0.25% respectively), and will remain at their present or lower levels until the ECB has seen the inflation outlook converge to a level close to, but below 2%. As previously announced, early November saw the restart of net asset purchases of EUR 20 bn per month, which would end shortly before the ECB starts raising its key interest rates. The ECB will continue reinvesting the principal payments

from maturing securities for a longer period past the date when it starts raising its key interest rate, and in any case for as long as necessary to maintain favourable liquidity conditions and an ample degree of monetary accommodation. ECB President Christine Lagarde announced the launch of the monetary policy strategy review, last conducted in 2003, which should be completed by end-2020. The review will focus on the formulation of price stability, monetary policy toolkit, economic and monetary analyses, and the ECB's communication practices.

After trimming its federal funds target range by 25 bp to 1.50–1.75%, in its October meeting the **Fed** decided to keep it on hold until the end of the year. Left out of the October statement is the formulation indicating that monetary policy will aim to maintain economic expansion, which market participants interpreted as a signal that there would be no new rate cuts at upcoming meetings. Statements by Fed officials that the monetary policy stance is adequate, and that past monetary policy accommodation is yet to yield its full effect in the period ahead further solidified those expectations. As underlined in the minutes of the December meeting, interest rates could be trimmed only if the US economy's prospects deteriorate significantly. In the January meeting the federal funds target range was kept unchanged with a unanimous decision of FOMC members.

Monetary conditions in countries of the region pursuing the inflation targeting regime remained largely unchanged during Q4. Though inflation in the **Czech Republic** reached its seven-year maximum in December and overshot the upper bound of the target tolerance band, the key policy rate was kept at 2% in Q4. Still, two of the seven board members were in favour of rate hikes in previous meetings, in an environment of a strong labour market and rising wages, which fuelled expectations about the likelihood of monetary policy tightening in 2020. The central bank of **Poland** kept its key policy rate at the historic low of 1.5%, despite stronger inflationary pressures, i.e. inflation rising in December to the highest level in seven years. Considering the central bank's focus on economic growth, analysts estimate that it will be ready to tolerate possible further rise in inflation and its going over the upper bound of the tolerance band. At the end of the year, **Hungary** recorded a rise in headline but not in core inflation, which dampened market expectations that there would be an increase in the key policy rate, which currently equals 0.9%. The central bank of **Romania** maintained its key policy rate at 2.50%, noting that this is an adequate level that will enable

Chart IV.6.9 **Inflation and target by country in December 2019**
(p.a., in %)



Sources: Eurostat and websites of central banks.

Table IV.6.1 **Inflation, policy rates and inflation target by country**
(in %)

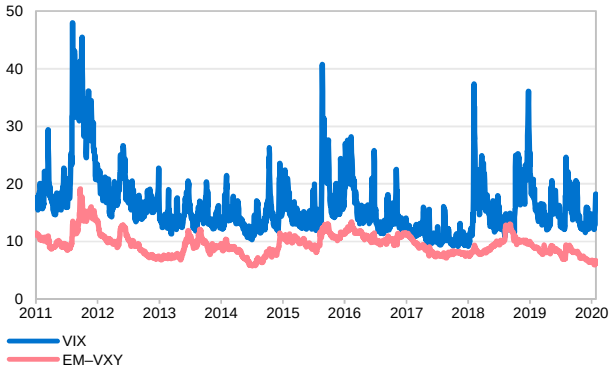
Central banks	Inflation*	Inflation target	Policy rate**
Serbia	1.9	3.0 ± 1.5	2.25
Poland	3.4	2.5 ± 1.0	1.5
Czech Republic	3.2	2.0 ± 1.0	2.0
Hungary	4.0	3.0 ± 1.0	0.9
Romania	4.0	2.5 ± 1.0	2.5
Turkey	11.8	5.0 ± 2.0	11.25

Source: Websites of central banks.
* CPI, y-o-y rates in December.
** End-January 2020.

inflation to return within the bounds of the tolerance band under favourable external monetary conditions.

The central bank of **Turkey** trimmed its key policy rate by a total of 450 bp during Q4, and by another 75 bp in January, to 11.25%, stressing that these moves are in accordance with the projected downward trajectory of inflation. After lowering its key policy rate by 50 bp in October, the central bank of **Russia** trimmed it by another 25 bp in December, to 6.25% – its lowest level since January 2014. Such decision was anticipated by analysts in an environment of further weakening of inflationary pressures. Despite the central bank's cautiousness and hints that it would not trim the key policy rate for some time, some analysts believe that this will nevertheless take place in upcoming meetings.

Chart IV.6.10 **Implied volatility of the global financial market***
(in %)



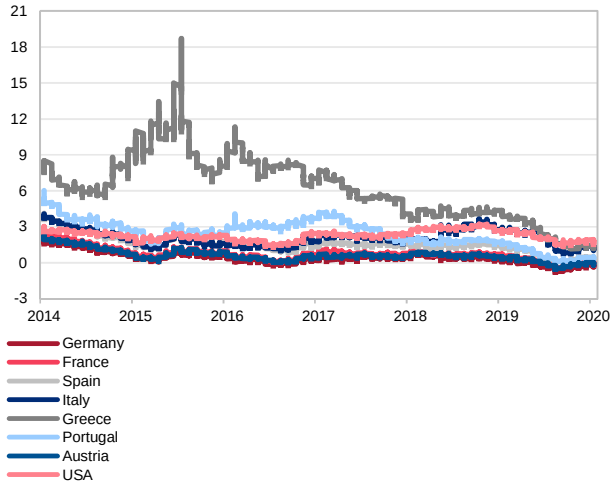
Source: Bloomberg.

* 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.

Financial and commodity markets

The decline of volatility in the global financial market in Q4 was facilitated not only by further monetary policy accommodation of leading central banks, but also by progress in Brexit talks and optimistic news regarding the US-China trade talks at end-Q4, as well as hints at the stabilisation of global production and trade. The implicit measure of **financial market volatility** (VIX) declined by 2.5 pp to 13.8% in Q4, and the volatility of emerging countries' currencies, measured by EM–VXY, by 1.6 pp to 6.6%. The prices of shares rose during Q4, with S&P 500 reaching a record-high value at the end of the year. The spread of the coronavirus in early 2020 triggered uncertainty in global financial markets amid fears of potential negative effects on global economic movements, hence VIX and EM–VXY rose to 18.8% and 6.8% respectively at end-January.

Chart IV.6.11 **Yields on ten-year bonds of selected countries**
(daily data, in %)

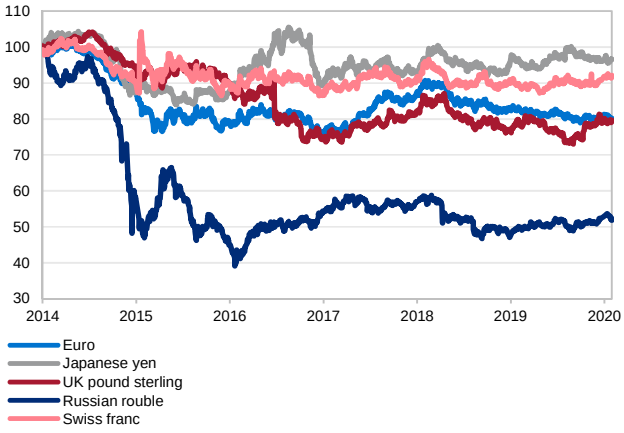


Source: Bloomberg.

Growing investor optimism was also reflected on the rise in the **yield on ten-year government bonds** of developed countries – at end-2019 they moved from -0.2% for German bonds to 1.9% for US Treasuries. Yields on French and Austrian ten-year bonds returned to the positive territory, while the entire yield curve for German government bonds – although at a higher level than at end-Q3 – nevertheless remained in the negative zone at end-Q4. Unlike in Q3, the rise in the yields on ten-year US Treasuries resulted in the spread between those and three-month US Treasuries becoming positive again, which indicates that prospects of recession in the USA in the coming period are greatly diminished. With rising uncertainty, yields on government bonds started to decline again in January.

Observed at end-period, the leading global currencies gained against the **dollar** in Q4, with the exception of the Japanese yen. With alleviated trade tensions and progress in talks between the UK and the EU, the strengthening of the **euro against the dollar** (2.8% in Q4) was also facilitated by the fact that economic indicators in the euro area were somewhat better than expected, Germany's announcement that it avoided technical recession and signs of a slowdown in the US production sector. Currencies gaining the most against the dollar in Q4 were the British pound – by 6.7%, as a result of progress in Brexit talks, followed by the Russian rouble (4.4%) and the Swiss franc (2.4%), while the Japanese yen weakened by 1.1%. In January, the euro lost to the dollar by 1.2%, owing to somewhat weaker data about consumer confidence in the euro area and better economic prospects in the USA.

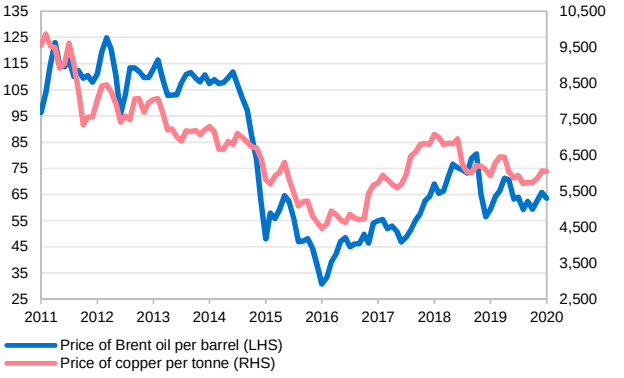
Chart IV.6.12 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)



Source: IMF.
* Growth indicates appreciation.

The **price of gold** was volatile in Q4, under the influence of announcements about the trade talks, Brexit, economic data from the USA, geopolitical tensions, rising yields on bonds, etc. At the end of the year, the price of gold was 2.0% higher than at end-Q3 due to, inter alia, the weaker dollar, however, it did not exceed the six-year maximum from early September. The increase in risk aversion was mirrored in the rising price of gold, which went up 4.6% in January and reached its maximum level since March 2013.

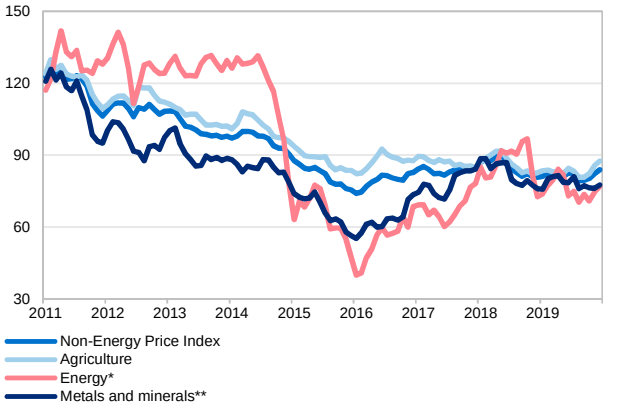
Chart IV.6.13 **Oil and copper price movements**
(average monthly prices, in USD)



Source: Bloomberg.

The price of oil in the global market in Q4 rose 11%, reaching USD 66.4 per barrel at end-2019. The increase in the oil price was dictated by geopolitical tensions in the Middle East, which gave rise to concerns over possible disruptions in oil supply, data about the shrinking oil inventories in the USA and the announced productions cuts by OPEC members and other oil exporters. Also conducive to the increase in oil price in Q4 was optimism regarding trade talks, which should result in higher global growth and, in turn, stepped-up oil demand. The dollar weakening in Q4 was another factor driving the oil price up. The start of 2020 was marked by oil price hikes due to escalated tensions between the USA and Iran, but in the remainder of the month it declined amid announcements about the rise in oil supplies and the spread of the coronavirus. Thus, at end-January, it dropped to its lowest level in more than a year (USD 56.3 per barrel).

Chart IV.6.14 **Primary Commodity Prices Index**
(2010 = 100)

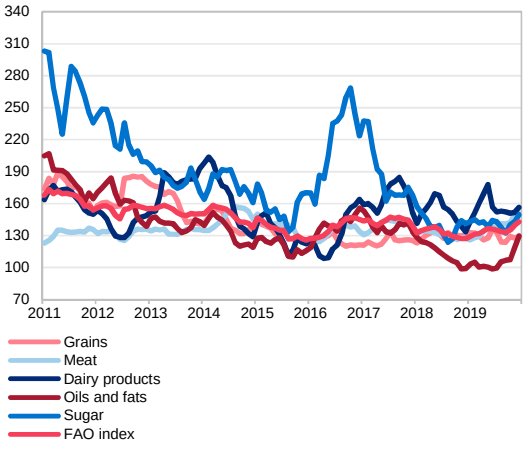


Source: World Bank.
* Crude oil, natural gas and coal.
** Copper, aluminium, iron ore, lead, nickel, zinc, copper and tin.

The **prices of metals and minerals** recorded growth in Q4, albeit modest, against the backdrop of anticipated positive outcome of trade talks and accelerated industrial output in China. According to the World Bank's index of

primary commodity prices, the prices rose 0.2%. Copper price increased the most (5.5%), supported additionally by contracted production in some exporting countries, such as Chile. After declining in Q3, the price of the iron ore was relatively stable during Q4 (-0.5%), while after robust growth in Q3 the prices of nickel and lead decreased in Q4 (by 21.7% and 8.3% respectively). The price of nickel decreased with the emergence of doubts as to the announced nickel ore export ban in Indonesia, the world's leading producer. This was also facilitated by the legal actions which the EU took against Indonesia before the World Trade Organisation.

Chart IV.6.15 **World Food Price Index**
(in real terms, 2002−2004 = 100)



Source: UN FAO.

The decline in world food prices in Q3 turned out to be short-lived as they rose again in Q4 – by 7.4%, measured by the **FAO index**. The rise was recorded in the prices of all categories of food included in this index. The sharpest increase was posted by the price of vegetable oil (21.3%), which in December touched its highest level in two years due to stepped-up demand for palm oil. The price of sugar rose 12.9% owing to subdued supply from Brazil, while the price of meat increased 6.7% amid the rise of domestic demand for pork in the EU and Brazil, and external demand from Asia, as well as the rising price of ovine meat. The prices of grains rose 4.4% on the back of increased demand in China amid concerns over local production in several regions, while the 2.8% increase in the price of dairy is attributable to a weaker supply from the EU and Oceania.

V Inflation projection

Under the February central projection, y-o-y inflation will move around the lower bound of the target tolerance band until mid-2020 and gradually approach the target midpoint thereafter. Such inflation profile will in the short run reflect the base effect of vegetable prices, while in the medium run it will reflect growth in aggregate demand, unit labour costs and gradual recovery in euro area inflation. Still, we expect inflation to stay below the target midpoint of 3% over the projection horizon, i.e. in the next two years. Uncertainties surrounding the inflation projection continue to be associated primarily with developments in the international commodity and financial markets and, to a smaller extent, also with administered prices at home, agricultural season and domestic demand. On the whole, risks to the projection are judged to be symmetric.

We estimate that GDP will grow by 4% in real terms this and the next year, guided by investment, exports and a sustainable rise in household consumption. Investment growth will be supported primarily by continued implementation of infrastructure projects, improvement in the business environment and favourable sources of private sector financing. The increase in household consumption has been led by positive labour market trends. Though external demand slackened, exports maintained favourable dynamics thanks to investment in tradable sectors and their geographical and sectoral distribution, with positive trends expected to continue in the period ahead on the back of an anticipated gradual rebound in external demand. Medium-term risks to the GDP projection are judged to be symmetric – those stemming from the international environment are judged to be tilted to the downside and those from the domestic environment to the upside.

Inflation projection assumptions

External assumptions

Following its poorest performance since the world economic crisis due to weaker trade and investment, **global economy** is poised for a gradual rebound from this year. After 18 months of trade tensions, the USA and China reached a deal in mid-December on a trade agreement which they signed in mid-January ("Phase 1"). Though most customs tariffs remained in place, trade tensions lessened as no new tariffs will be imposed, at least for the time being.

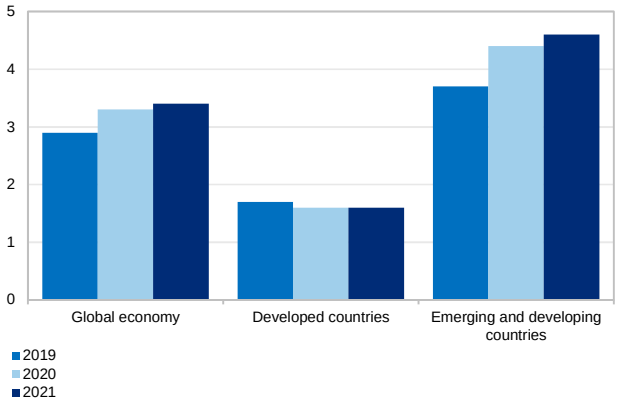
Increased monetary accommodation of leading central banks in 2019, smaller chance of a no-deal Brexit and gradual waning of the effect of temporary factors in the automobile industry and technological sectors, all helped ease uncertainties in the international commodity and financial markets. Still, trade and geopolitical tensions and financial market volatility which marked last year continue to pose the key risks to global economic growth in the period ahead. Another uncertainty is associated with the effects of the coronavirus on global economic activity.

Table V.0.1 **Key projection assumptions**

	2020		2021	
External assumptions	Nov.	Feb.	Nov.	Feb.
Euro area GDP growth	1.2%	1.1%	1.4%	1.4%
Euro area inflation (annual average)	1.0%	1.1%	1.5%	1.4%
ECB policy rate (average)*	0.0%	0.0%	0.0%	0.0%
EURIBOR 3M (December)	-0.5%	-0.5%	-0.4%	-0.4%
International prices of primary agricult. commodities (Q4 to Q4)**	7.3%	6.2%	5.6%	4.0%
Brent oil price per barrel (December, USD)	57	57	56	56
Internal assumptions				
Administered prices (Dec. to Dec.)	3.7%	3.8%	4.0%	3.8%
Trends				
Appreciation trend of the real exchange rate (average)	0.4%	0.8%	0.5%	0.9%
Real interest rate trend (average)	-0.1%	-0.1%	0.0%	-0.1%

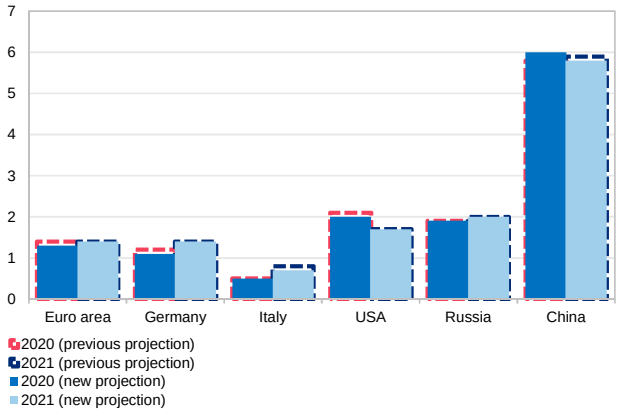
* ECB Survey of Professional Forecasters.
** Composite index of soybean, wheat and corn prices.
Sources: NBS, ECB, Euronext, CBOT and Bloomberg.

Chart V.0.1 **Real GDP growth projection for 2020 and 2021**
(in %)



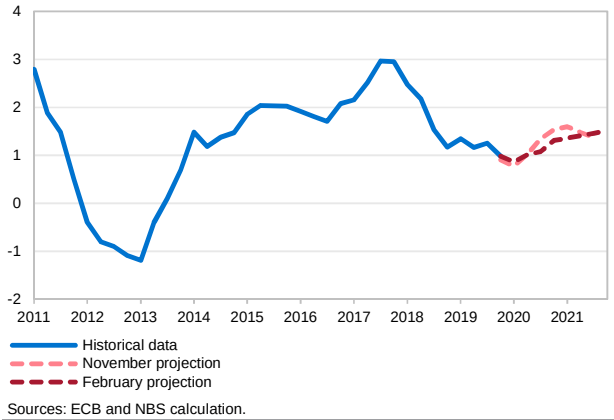
Source: IMF WEO Update, January 2020.

Chart V.0.2 **IMF's revised forecast for real GDP growth for 2020 and 2021**
(in %)



Sources: IMF WEO Update (January 2020) and IMF WEO (October 2019).

Chart V.0.3 **Assumption for euro area GDP growth**
(y-o-y growth, in %)



Sources: ECB and NBS calculation.

Placing 2019 global economic growth at 2.9% (instead of the 3.0% estimated in October), the IMF[26] expects global growth to pick up to 3.3% in 2020 and 3.4% in 2021. The IMF thus again revised down its projection of growth for this and the next year by 0.1 pp and 0.2 pp, respectively, relative to its October projection. The downward revision mostly reflects a weaker growth outlook in India, amid problems in the non-banking financial sector and lending activity contraction. The risks to the projection are mostly associated with geopolitical tensions, particularly between the USA and Iran, heightening of social tensions and a further worsening of relations between the USA and its key trade partners, but they are less skewed to the downside than in October.

According to the World Bank,[27] after measuring 2.4% last year, global growth should pick up gradually in this and the next two years, to 2.5%, 2.6% and 2.7%, respectively. Growth could be even higher if the recent easing of trade tensions led to a sustainable diminishing of uncertainties regarding trade policies in the period ahead.

As for **growth in the euro area**, our most important trade partner, our current projection has been adjusted in line with the December projection of the ECB. According to the ECB, real GDP growth of the euro area will decelerate slightly from 1.2% in 2019 to 1.1% in 2020, only to pick up to 1.4% in 2021 and 2022. Compared to the previous projection, this year's growth was again revised down by 0.1 pp, amid expectations that the impact of the substantial dip in external demand will only partly be offset by the effects of fiscal and monetary accommodation. The growth forecast for 2021 was not changed from the previous projection. Consensus Forecast expects euro area growth of 1.0% in 2020, up by 0.1 pp from three months ago. Euro area growth is expected to accelerate to 1.2% in 2021. The IMF continues to be somewhat more optimistic, though they reduced their euro area growth forecast for this year by 0.1 pp to 1.3%, while expecting growth of 1.4% in 2021 on the basis of a gradual rise in external demand.

When it comes to **our key trade partners in the euro area,** the drop in **Germany's** industrial production was sharper than expected due to structural problems in the automobile industry, the negative effects of which were aggravated by subdued external demand. After measuring 0.6% last year, Consensus Forecast expects German economic growth to be 0.9% this year. This is a

[26] *World Economic Outlook,* January 2020.

[27] *Global Economic Prospects – Slow Growth, Policy Challenges,* World Bank, January 2020.

slight upward revision (by 0.1 pp) relative to expectations three months ago, which were much more reduced (by 0.6 pp). As for 2021, Consensus Forecast expects Germany's growth to maintain a similar pace and pick up mildly to 1.0%. Though in January it again reduced Germany's growth outlook for 2020 by 0.1 pp relative to October, the IMF expects growth to accelerate gradually from 0.5% last year to 1.1% in 2020 and 1.4% in 2021. Consensus Forecast did not change the growth forecast for **Italy** from three months ago and expects it to gather speed gradually from 0.2% in 2019 to 0.4% and 0.6% in 2020 and 2021, respectively. The IMF also expects a gradual acceleration of economic activity in Italy to 0.5% and 0.7% in 2020 and 2021, respectively, which is a downward revision from three months ago.

As opposed to euro area economies, **most countries of the region** saw above-potential economic growth which mostly outstripped expectations in the past 12 months, thanks to domestic demand. In the period ahead, according to Consensus Forecast, these countries will maintain a relatively strong, though slower, growth momentum, while the expected GDP growth rates remained broadly unchanged relative to October. The ECB's and the Fed's monetary policy accommodation should reflect favourably on all countries in the region, mostly thanks to continued favourable external financing conditions. On the other hand, the key risks to the region's growth are associated with the possibility of weaker euro area growth and heightening of global uncertainties regarding trade policies of leading world economies as well as disruptions in production chains and cross-border trade and investment. After measuring 3.3% in 2019, Consensus Forecast expects growth in **Southeast Europe**[28] to be 2.8% in 2020, the same as expected three months ago, while 2021 growth is put at 2.6%. Growth in **Central Europe**[29] is expected to slow from 3.7% in 2019 to 3.0% in 2020, down by 0.1 pp from the October forecast. Some slackening of growth in this region to 2.9% in 2021 is expected. **Consensus Forecast expects Serbia's growth to be 3.7% in this and 3.5% in the next year, which is the highest expected economic growth among the observed countries of the two regions**.

Inflationary pressures remain weak in most advanced economies and projected inflation continues to move below the central bank targets throughout the projection horizon. Our projection operates under the assumption

Table V.0.2 **Economic growth estimate by country**
(real growth, in %)

	October 2019		January 2020	
	2020	2021	2020	2021
Poland	3.5	-	3.4	3.1
Czech Republic	2.2	-	2.2	2.4
Hungary	3.1	-	3.4	2.8
Albania	3.3	-	3.2	3.3
Bulgaria	2.9	-	3.0	2.9
Bosnia and Herzegovina	2.7	-	2.7	2.8
North Macedonia	3.1	-	3.2	3.1
Romania	3.0	-	3.0	2.6
Slovakia	2.6	-	2.5	2.6
Slovenia	2.7	-	2.6	2.7
Croatia	2.5	-	2.5	2.3

Source: Consensus Forecast.

[28] Albania, Bosnia and Herzegovina, Bulgaria, Croatia, North Macedonia, Romania and Serbia.

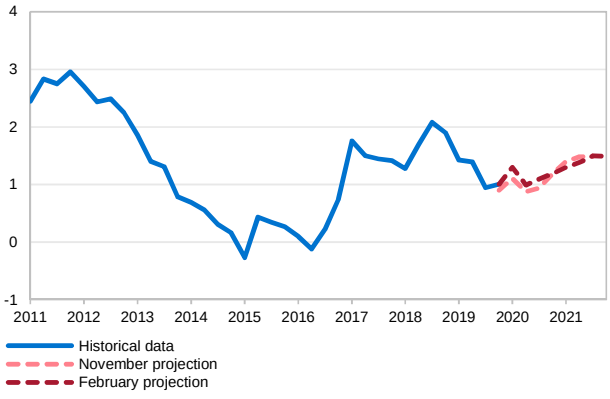
[29] The Czech Republic, Hungary, Poland, Slovakia and Slovenia.

Table V.0.3 **Inflation estimate by country**
(annual average, in %)

	October 2019		January 2020	
	2020	2021	2020	2021
Poland	2.9	-	3.1	2.6
Czech Republic	2.3	-	2.6	2.1
Hungary	3.2	-	3.4	3.2
Albania	2.1	-	1.9	2.2
Bulgaria	2.7	-	2.8	2.8
Bosnia and Herzegovina	1.6	-	1.3	1.8
North Macedonia	2.0	-	1.7	2.1
Romania	3.3	-	3.3	3.3
Slovakia	2.3	-	2.3	2.1
Slovenia	1.7	-	1.7	1.9
Croatia	1.4	-	1.3	1.6

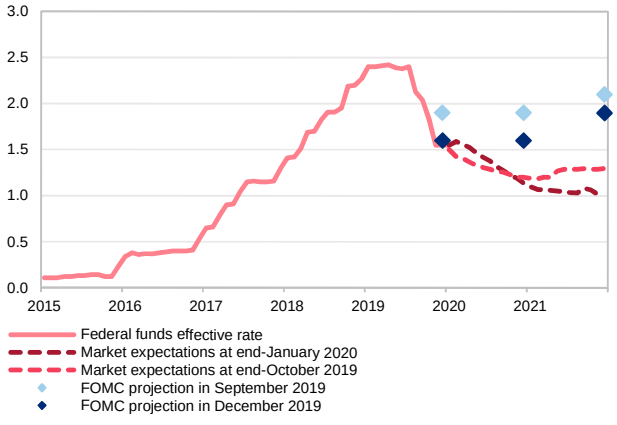
Source: Consensus Forecast.

Chart V.0.4 **Assumption for euro area inflation**
(y-o-y growth, in %)



Sources: ECB and NBS calculation.

Chart V.0.5 **Expected Fed funds rate***
(p.a, in %)



Sources: Fed and Bloomberg.

* Futures-based market expectations.

that **euro area inflation** will move in line with the ECB's December projection, according to which it will remain low this year (1.1%) and then accelerate to 1.4% in 2021. Compared to the previous projection, the ECB revised up its inflation projection for this year due to higher oil prices and revised down its projection for 2021 due to some easing of pressures coming from external prices, wages and profit. Professional forecasters[30] expectations of euro area inflation were almost unchanged in January from October, for the first time after being revised down in the preceding four consecutive surveys. Professional forecasters anticipate euro area inflation of 1.2%, 1.4% and 1.5% in 2020, 2021 and 2022, respectively, though their oil price expectations rose somewhat on account of geopolitical tensions in the Middle East. According to Consensus Forecast, expected euro area inflation is 1.3% in this and 1.4% in the next year, which is higher than three months ago when it was 1.2% for both years.

Though **inflation** overshot the target in **some countries of the region,** it is not expected to accelerate further in the period ahead, except in January due to the statistical base effect for oil prices. Most central banks of the region anticipate inflation to slow and gravitate towards the target in the period ahead. Slowdown is also anticipated by Consensus Forecast which did not change their inflation estimate for **Southeast Europe** in January relative to October – they still expect inflation to slow to 3.2% in 2020 after measuring 3.4% in 2019. Inflation in 2021 is expected to be unchanged from this year. In the **Central Europe region**, Consensus Forecast anticipates that inflation will speed up from 2.6% in 2019 to 2.9% in 2020, which is by 0.2 pp higher relative to October expectations. Still, inflation in the region is expected to slacken to 2.5% in 2021.

In view of the anticipated relatively feeble growth and subdued inflation, financial conditions are expected to remain very favourable in most advanced and emerging countries. **The monetary policies of most advanced economies** will probably continue to be accommodative in the period ahead. However, as the World Bank points out,[31] scope for additional monetary stimulus to the real sector is limited in most advanced economies by policy rates that are already at or close to zero. Moreover, other policy tools, such as quantitative easing and forward guidance, have limited ability for further accommodation, with long-term yields in some economies still below zero.

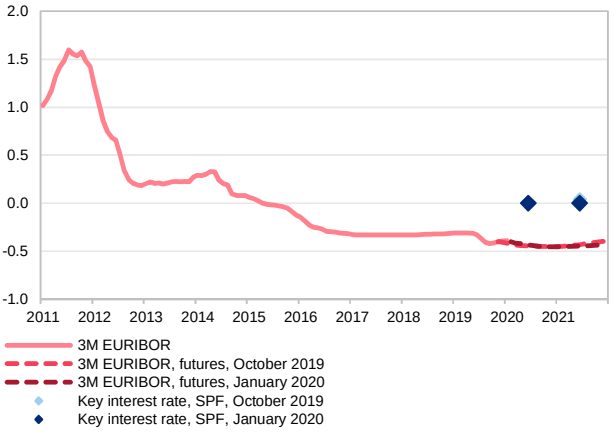
[30] *ECB Survey of Professional Forecasters (SPF).*

[31] *Global Economic Prospects – Slow Growth, Policy Challenges,* World Bank, January 2020.

Based on the expected policy rate trajectories of leading central banks in the next two years, **we anticipate conditions in the international financial market to stay favourable**. After the latest cut in its federal funds rate in October, the Fed is unlikely to change its policy stance for a while. The market still anticipates further policy rate cuts in the next two years, though its policy rate expectations have been revised slightly up for this and down for the next year relative to three months ago, probably under the sway of the Fed's unanimous decision in January to keep the target range of the federal funds rate unchanged. By contrast to the market, the Fed expects the federal funds rate to rise gradually, but its December projections are lower than three months ago.

When it comes to financial conditions in the euro area, which is Serbia's most important financial partner, the **ECB** has continued its quantitative easing programme, expecting its key rates to remain at their present or lower levels until it has seen the inflation outlook converge to the target level and such convergence has been consistently reflected in underlying inflation dynamics. Professional forecasters expect ECB's monetary accommodation to last longer than they did three months ago, estimating in January that the ECB's main rate will measure 0% in both 2020 and 2021. Though the rate is expected to start rising in 2022, aggregate expectations for 2022 are only 0.09%. The conclusion that the ECB's monetary policy accommodation will last longer than expected three months ago, the time of our previous projection, is also consistent with EURIBOR futures which signal a mildly negative EURIBOR even in 2025.

Chart V.0.6 **Expected ECB interest rate* and 3M EURIBOR futures**
(p.a., in %)



Sources: ECB and Bloomberg.
* ECB Survey of Professional Forecasters (SPF).

Our projection also rests on the assumption that the EUR/USD exchange rate will remain unchanged throughout the projection horizon, lingering at the average level in the last two weeks before the projection was finalized (EUR/USD 1.11). Continued monetary policy accommodation by leading central banks should positively affect the conditions in the international financial market, capital flows to emerging economies and the stability of their FX markets.

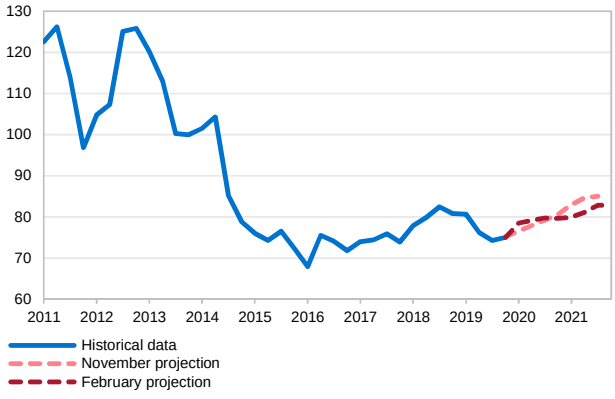
Uncertainty in terms of future trends in the international environment relates to movements in **global primary commodity prices**. The major uncertainty stems from the global **oil** price, which swelled to close to USD 70 per barrel in December and early this year, only to subside to USD 56 per barrel by end-January. Oil price could remain relatively low in the coming period reflecting

Chart V.0.7 **Assumption for Brent oil prices**
(USD/barrel)

Source: Bloomberg.

excess supply, especially in view of huge inventories. However, though there was some de-escalation in geopolitical tensions between the USA and Iran, they are still present and likely to exert their effect on the market. According to EIA assessment,[32] crude oil production in the USA will reach new record highs in 2020 and 2021; together with production growth in Norway, Brazil and Canada, this will more than compensate for continued production caps imposed by the OPEC. The EIA however expects inventories to subside in 2021 as growth in crude oil production of non-OPEC countries slackens. Consistent with early February oil futures (taking into account the average of the last two weeks), the new projection assumes the same oil prices as in our previous projection: USD 57 per barrel in December 2020 and USD 56 per barrel in December 2021.

Chart V.0.8 **Assumption for international prices of primary agricultural commodities**
(Q4 2013 = 100)



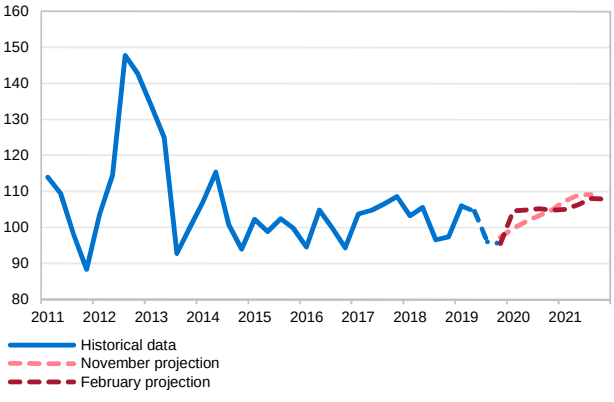
Sources: CBOT, Euronext and NBS calculation.

There is also uncertainty over movement in prices of other primary commodities in the global market, notably **metals** and **primary agricultural commodities**. Their volatility reflects the growing influence of supply-side factors, as opposed to subdued global demand. When it comes to prices of primary agricultural commodities, which are of special importance for Serbia, our projection operates on futures data from Euronext Paris and the Chicago Board of Trade. Based on these data, we assumed a somewhat smaller rise in primary agricultural commodity prices in both 2020 and 2021 (6.2% and 4.0%, respectively) compared to the previous projection.

Internal assumptions

The rise in **primary agricultural commodity prices in the domestic**[33] and in the global market, which began in November, continued into January, pushing food production costs slightly above the neutral level. Though global production of grains in 2019/2020 is expected to be the second largest ever, as increased crops of wheat and barley will more than offset a smaller corn outturn, grains demand is also expected to climb to a new peak and global stocks to contract for the third consecutive year, to a four-season low.[34] Based on futures on the Paris and Chicago stock markets, we expect domestic prices of agricultural products, which mirror movements in global prices, to be somewhat higher in 2020 than in the year before. Consistent with futures movements, their growth is expected to slacken in 2021.

Chart V.0.9 **Assumption for domestic prices of primary agricultural commodities***
(base index, 2013 = 100)



Sources: Commodity Exchange Novi Sad, CBOT, Euronext and NBS calculation.
* Measured by the composite index of the prices of wheat, corn and soybean.

[32] U.S. Energy Information Administration.

[33] Measured by the composite index of the prices of wheat, corn and soybean.

[34] *International Grains Council, Grain Market Report*, January 2020.

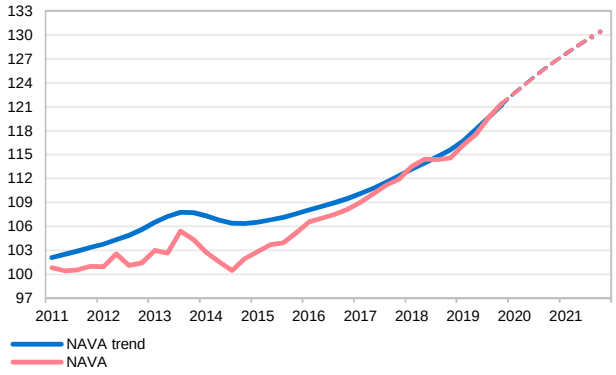
Our assumption is that **administered prices** will increase by 3.8% in 2020, slightly more than in 2019 (3.4%). We assumed a further adjustment of cigarette prices due to the February and July increase in excise duties and a hike in price of electricity. Administered price growth in 2021 is assumed to be similar to this year's.

The projection operates on the assumption of a further rise in **aggregate demand**. As in Q3, in Q4 NAVA rose faster than its potential, hence the output gap was around neutral. In the coming period, domestic demand is expected to expand further, supported by the rise in private sector wages and employment, increase in public sector wages and pensions, and past monetary easing by the NBS. Demand growth could also be propped up by an extended period of relatively low interest rates in the euro area. Still, the estimated rise in consumption will be slower than real GDP growth and will not fuel internal and external imbalances.

Despite increased capital expenditure and outlays for wages and pensions in Q4, the fiscal result in 2019 was better than planned (consolidated deficit of 0.2% of GDP, instead of the planned deficit of 0.5% of GDP). More favourable fiscal movements were supported by stronger economic activity and the consequently higher profitability of the economy, positive labour market trends and lower costs of government borrowing, resulting from the NBS's monetary easing, improved country risk premium and credit rating. Thanks to the narrowing of fiscal imbalances, the share of central government public debt in projected GDP declined to 52.0% at end-2019 and is expected to trend down further in the period ahead. According to the estimate of the Ministry of Finance, the fiscal policy stance is likely to be slightly expansionary in the coming period, without major pressures on inflation growth. This year's general government deficit is projected at 0.5% of GDP, i.e. the medium-term deficit target, which will ensure that the downward trajectory of public debt is maintained.

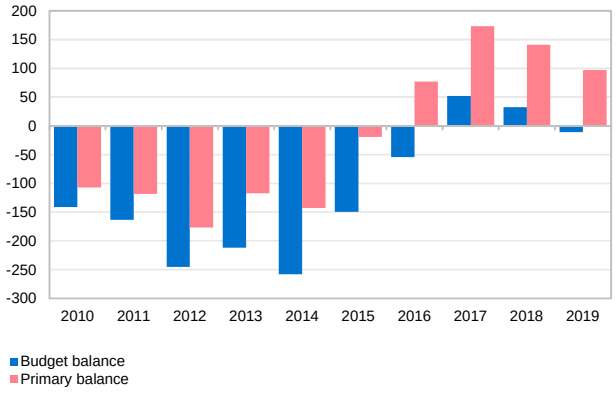
Balanced public finances and the firm downward trajectory of public debt, along with sustainable economic growth and low inflation, all reflect on the **lower country risk premium and the improved credit rating** now only a step away from investment grade, which contributes to the **relative stability in the FX market and Serbia's increased resilience to the risks from the international environment.**

Chart V.0.10 **Output gap projection**
(Q3 2008 = 100)



Sources: SORS and NBS calculation.

Chart V.0.11 **General government fiscal and primary budget balance**
(in RSD bn)



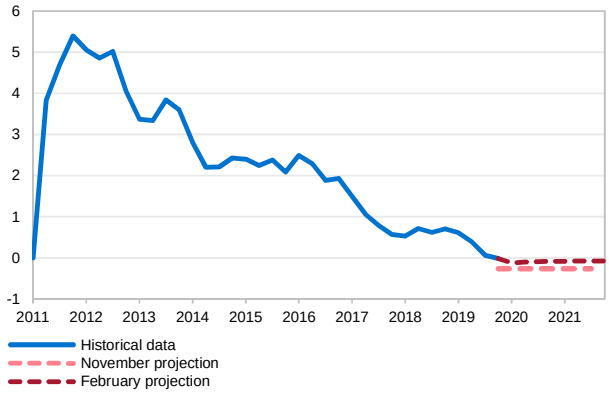
Source: Ministry of Finance.

Table V.0.4. **Projection of fiscal trends in 2020–2022**
(in % of GDP)

	2020	2021	2022
Public revenue	40.2	39.4	38.7
Tax revenue	35.8	35.4	34.9
Non-tax revenue	4.1	3.7	3.5
Public expenditure	40.7	39.9	39.2
Expenditure for employees	9.5	9.5	9.5
Pensions	10.2	10.0	9.8
Interests	1.9	1.7	1.6
Capital expenditure	4.5	4.6	4.7
Total balance	-0.5	-0.5	-0.5
Primary balance	1.5	1.3	1.2

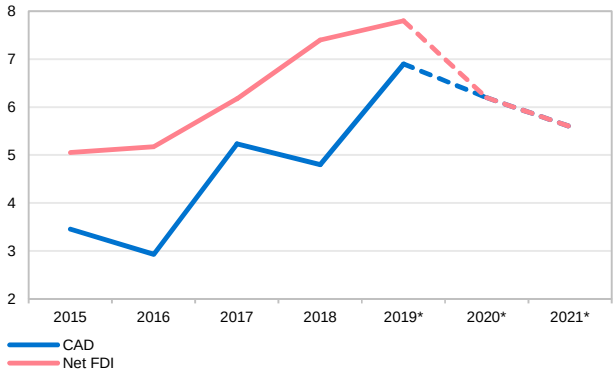
Source: Ministry of Finance.

Chart V.0.12 **Real interest rate trend**
(in %)



Sources: CBOT, Euronext and NBS calculation.

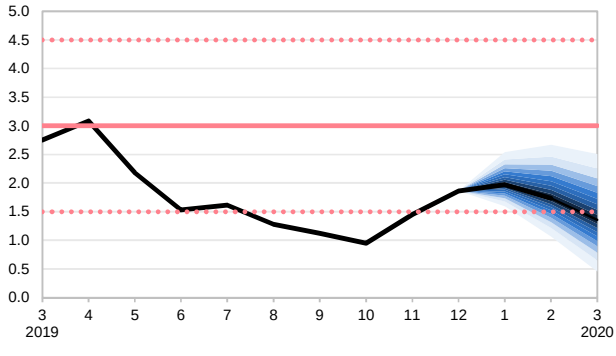
Chart V.0.13 **Current account deficit and net FDI inflow**
(in % of GDP)



Source: NBS.

* NBS projection.

Chart V.0.14 **Short-term inflation projection**
(y-o-y rates, in %)



Source: NBS.

In the conditions of low and stable inflation for seven years in a row, anticipated low inflationary pressures and enhanced credibility of the NBS, we expect **inflation expectations** to remain stable until the end of the projection horizon.

Goods and services exports should speed up in the coming period, on the back of high FDI inflow in tradable sectors and the expected recovery of external demand. The import of equipment and intermediate goods is expected to go up as the investment cycle continues, while the higher standard of living of citizens and consumer demand will push up the import of consumer goods. However, as last year's imports were also influenced by one-off factors (such as higher import of energy products during oil industry overhaul, construction of the TurkStream), in the period ahead import growth is expected to slacken relative to prior years and to be slower than growth in exports, but its pace will depend on the dynamics of the investment cycle. Consequently, we estimate that the share of the current account deficit in GDP will decrease gradually from 2020 onwards. The FDI inflow is expected to stay relatively high and, in net terms, fully cover the current account deficit, which is conducive to external sustainability.

Inflation projection

Short-term inflation projection

Short-term movements in y-o-y inflation will mostly reflect prices of unprocessed food. Under the central projection for Q1, inflation is expected to hover around its December level in January and slow thereafter under the impact of the high base for vegetable prices, moving to around the lower bound of the target at end-Q1.

The key risks to the projection in the short run stem mostly from unprocessed food prices and global oil prices, given their high volatility under the impact of both supply- and demand-side factors.

Medium-term inflation projection

Based on projection assumptions, we expect y-o-y inflation to move around the lower bound of the target until mid-2020, whereafter it will gradually approach the target midpoint, but remain below it until the end of the projection horizon.

As in the previous projection, **aggregate demand** is expected to continue its growth, almost uninterrupted since end-2014. As NAVA rose faster than its potential in H2, the output gap was around neutral. The closing of the negative output gap resulted from the growth in domestic demand, supported by higher private sector employment and wages and the increase in public sector wages and pensions, which positively impacted disposable household income. Disposable income also benefited from lower interest rates and, hence, lower costs of loan repayment, brought about by the past monetary policy easing by the NBS. A positive effect also stems from subdued rates on euro-indexed loans, which should remain low longer than initially expected, and will be supported by the low country risk premium. On the other hand, gradual recovery is expected in external demand, notably of our main foreign trade partners, Germany and Italy, but also of other important export markets of Serbia.

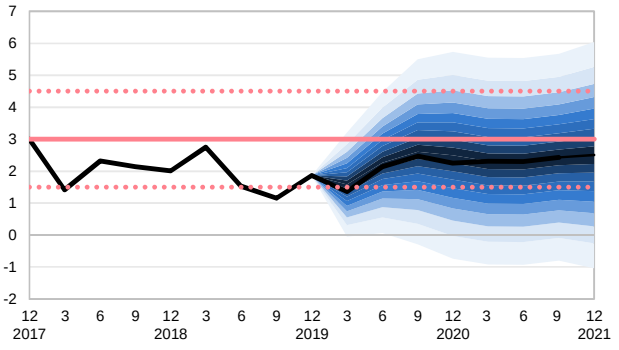
In making the projection, we had in mind that wage growth, in addition to its impact on aggregate demand, can also potentially affect prices through higher **unit labour costs** and, by extension, production costs. Though past wage growth did not significantly reflect on consumer price growth, in our new projection we expect it could have some impact on consumer prices during the next year. We still judge that wage growth is sustainable and that it will not threaten the achievement of low and stable inflation in the period ahead.

Assuming **administered price** growth of 3.8% this year, their contribution to inflation would be higher by 0.1 pp than last year. In 2021, administered price growth is expected to be similar as this year.

After being extremely volatile over the past months, oil price slumped to USD 56 per barrel in late January and is expected to move around that level in the next two years, which could lead to a reduction in **petroleum product** prices in the months ahead. Their y-o-y growth rate would thus hover around zero in the remaining part of the year, after a temporary leap in Q1 due to the low base.

This year's y-o-y inflation profile will be mainly determined by the base effect for **fresh vegetable prices**. They are still below their neutral level. The contribution of fresh vegetable prices to y-o-y inflation will be minimal in April this year, due to the high base from the same period a year earlier. After that, their contribution to headline inflation is expected to increase with the onset of a new agricultural season. Vegetable prices will be the

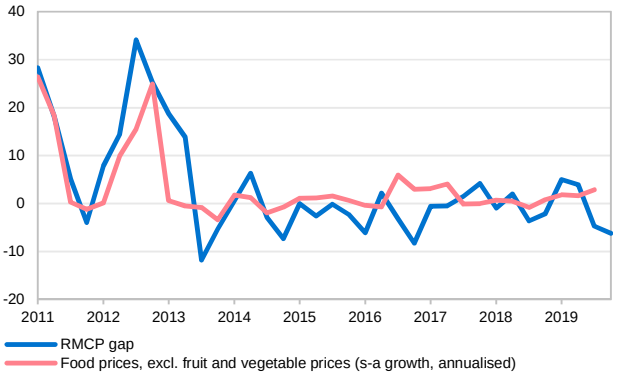
Chart V.0.15 **Inflation projection**
(y-o-y, in %)



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%.

Chart V.0.16 **RMCP and food prices**
(in %)



Sources: Commodity Exchange Novi Sad, SORS and NBS calculation.

key factor behind a gradual rise in the contribution of the fruit and vegetables group to y-o-y inflation, from -0.13 pp in December to around 0.4 pp in late 2020.

Since in the next two years we expect moderate growth in prices of primary agricultural commodities, which are important raw materials in processed food production (wheat, corn, soybean), we expect no major upward pressures on **food inflation** (excluding fruit and vegetables) on these grounds. In H2 last year, this inflation component was on the increase and came at 2.8% y-o-y in December, mostly due to disturbances in the global market triggered by a rise in pork meat prices. As this rise drops out of the y-o-y inflation calculation, this inflation component is expected to slow in H2 2020. In the medium run, we expect food inflation growth to be modest and driven primarily by a gradual rise in aggregate demand.

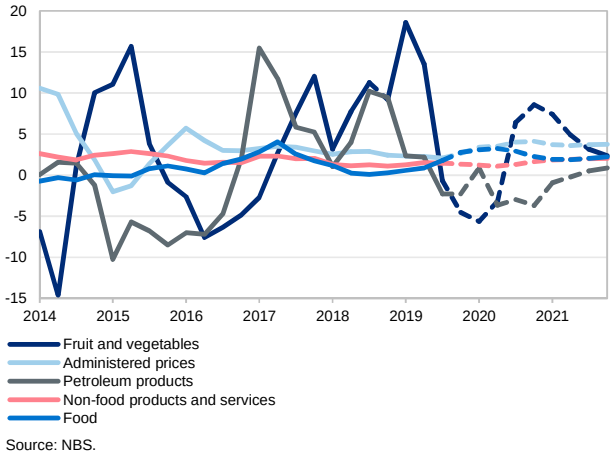
A mild increase is also expected for **non-food inflation**, which stabilised at 1.4% y-o-y late last year. We expect that low import costs will keep non-food inflation at a similar level this year as well, and that it will accelerate moderately in 2021 driven by growth in aggregate demand and unit labour costs.

We also do not expect any major pressures from rising dinar-denominated **import prices** until the end of the projection horizon, as only modest recovery of inflation is expected in the international environment, primarily in the euro area, our most important trade partner.

Uncertainties surrounding the inflation projection are still mostly associated with movements in international commodity and financial markets and, to a smaller extent, with administered prices at home, agricultural season and domestic demand.

The prices of primary commodities in the **international commodity market** in the coming period could differ from the assumed, owing both to demand- and supply-side factors. In terms of demand-side factors, there are risks that global economic growth could be weaker than estimated, dampening demand for primary commodities and, by extension, their prices. Trade tensions between leading world economies have not been fully resolved, and their re-escalation, against a backdrop of geopolitical uncertainties, could undermine business confidence and reflect negatively on investment, productivity and economic growth. In addition, the effects of the coronavirus on China's economic activity and global economic growth are yet to be seen. Although China responded with monetary stimuli among other things, economic activity could still fall short of expectations.

Chart V.0.17 **Projection of inflation components**
(average y-o-y rate, in %)



Source: NBS.

Supply-side factors are specific for each primary commodity. Although market participants, according to futures, expect relatively low **global oil prices**, shifts are possible in either direction given the presence of uncertainties on several grounds. Namely, geopolitical tensions are still present and there is uncertainty over whether OPEC countries would cap the production more and to what extent the members would adhere to the agreement. On the other hand, oil production in the USA is dynamic and its growth could keep oil price at a relatively low level, despite the announced major cuts in OPEC members' production growth. Global oil prices will also reflect on the prices of **primary agricultural commodities**, notably grains, not only through the costs of fuel in agricultural production and fertiliser prices, but also though the impact on biofuel production. However, in the past several years global primary agricultural commodity prices have increased slightly, or even declined, although futures envisaged growth. Given the uncertainty surrounding movement in global prices of oil and primary agricultural commodities, the risks to the projection based on global primary commodity prices are assessed to be symmetric.

The risks to the projection are also associated with developments in the **international financial market,** notably the monetary policy stance of the Fed and the ECB, and consequently the global financial conditions and the EUR/USD exchange rate. The Fed's projections and market expectations still differ – though the Fed signalled there should be no further cuts in the federal funds rate, the markets, based on futures, continue to expect the rate to go down further. When it comes to financial conditions in the euro area, the **ECB** continues to implement a highly accommodative monetary policy in order to ensure inflation's convergence to target level. It is uncertain whether the countries would opt for fiscal stimuli, at least those that are in the position to do so. Many countries, however, have insufficient fiscal space, given their high public debt-to-GDP ratios which are well above the recommended 60% of GDP and often even higher than 100% of GDP. The uncertainty regarding future conditions in the international financial market could trigger instability of global capital flows. Also, the instability of global capital flows could be enhanced by the re-escalation of trade tensions and further spread of protectionism in international trade.

As over the past few years administered prices in the domestic market mostly rose slower than expected, we estimate there is a risk they could increase less than anticipated in the period ahead, so the risks to the projection on this account are tilted to the downside.

In 2019 **domestic demand** rose faster than expected and the output gap was around neutral. Since, in our estimate, domestic demand is more likely to grow faster than expected in the coming period as well, we judge risks on this account to be mildly skewed to the upside.

Another risk to the projection is the character of this year's **agricultural season** which we assumed to be average, after a better than average season in 2019. Shifts on this account are possible, notably with regard to vegetable prices. At this point, we judge the risks on this account to be symmetric.

Overall, **the risks to the inflation projection are judged to be symmetric until the end of the projection horizon**.

Monetary policy decisions in the coming period will continue to depend on the assessment of the impact of past monetary policy easing and other domestic and external factors on inflation in Serbia. As so far, monetary policy will be predictable and consistent in delivering low and stable inflation in the medium run, while at the same time maintaining financial stability and contributing to sustainable economic growth and preservation of macroeconomic stability.

Text box 5: Impact of the base effect on the y-o-y inflation profile in 2020

As most central banks, the NBS uses y-o-y inflation as a measure of inflation whereby it defines its target and monitors target achievement. For seven years in a row, the NBS has ensured low and stable inflation, by implementing carefully calibrated monetary policy measures and assessing the impact of numerous domestic and external factors, taking at the same time due account of the impact of the so-called base effect.

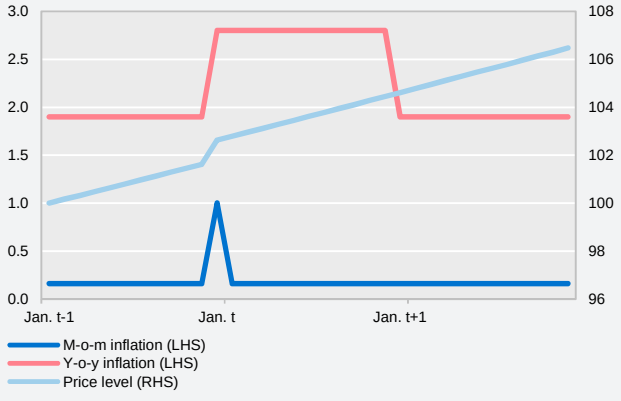
Definition and economic interpretation of the base effect

The advantage of using y-o-y inflation is that it generally enables central banks to avoid the effects of seasonal fluctuations on inflation measurement, because y-o-y inflation is obtained by comparing the CPI value in the observed month with its value in the same month a year earlier. This way, y-o-y inflation shows how much the CPI changed during 12 months, and this change is expressed as a percentage. Given that y-o-y inflation is mainly under the influence of CPI from a year ago, the key issue when monitoring its change is to what extent do these changes reflect the recent movements in prices, and to what extent they reflect the effect of the price changes from a year ago.

From an economic point of view, we can say that the base effect stems from the deviation of the m-o-m inflation rate in the past year from its usual pattern for that month. The base effect can be explained via a graphic illustration (Chart O.5.1) which assumes a constant monthly rate of 0.16%, except in January of year *t*, when it recorded a one-off hike to 1.0%. This increase drove y-o-y inflation in January up to 2.8% (from 1.9% in the prior month), where it would remain for one year, until January of year *t + 1*, when it would again decline to 1.9%. Such fall in y-o-y inflation is explained by the (negative) base effect on account of the unusual price hike from a year ago dropping out of the calculation.

Hence, the base effect can be defined as the contribution to the change in the y-o-y inflation rate in a specific month, arising from the fact that the m-o-m inflation rate in the same month of the prior year (base month) deviated from its usual pattern, which includes seasonal fluctuations.

Chart O.5.1 **Illustration of base effect**
(percentage changes and index: January t-1 = 100)



Sources: ECB, Monthly Bulletin, January 2010.

The base effect component is always there because of the way y-o-y inflation is calculated, but it is particularly important when y-o-y inflation in the observed month changes more significantly due to the uncommonly high or low inflation rate in the same month of the prior year, i.e. in case of unusual m-o-m changes in prices which occurred 12 months ago. In Serbia, as in other countries, this effect generally refers to changes in the prices of unprocessed food (notably fruit and vegetables) and energy, i.e. changes in the prices of those inflation components which may post atypical movements in certain periods (e.g. due to unfavourable weather conditions, a sharp rise/fall in the global price of oil, etc.).

Quantification of the base effect

The question of base effect quantification does not have a single solution in practice – there is no universal method to calculate atypical monthly changes in prices from a year ago; instead, what is needed is assessment of whether the price change was unusual for that month or not. In our base effect assessment, we adhered to the ECB's methodology,[1] where the contribution of the base effect to monthly changes in y-o-y inflation is calculated as the deviation of the monthly (non-seasonally adjusted) inflation rate 12 months ago from the estimated typical monthly change, which is calculated by adding the estimated seasonal factor for each month to the average m-o-m inflation rate in the last five years. Accordingly, the

[1] ECB, "Base effects from the volatile components of the HICP and their impact on HICP inflation in 2014", Monthly Bulletin, February 2014. Also see Text box "Impact of base effects from food and energy prices on y-o-y inflation in the period ahead" in the NBS I*nflation Report*, May 2016.

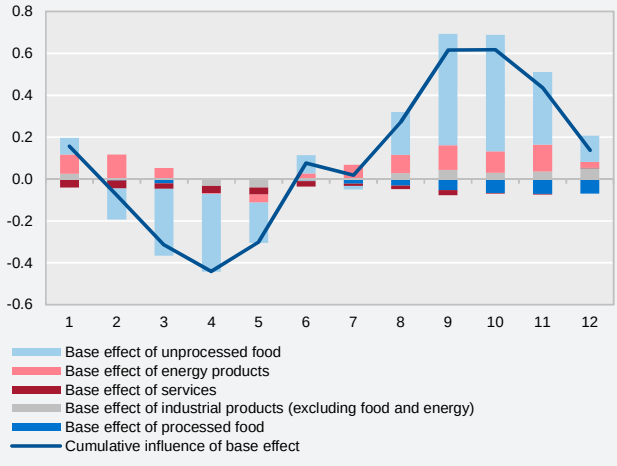
base effect in the observed month will be positive if one year ago prices changed less than usual for that month, and vice versa – it will be negative if one year ago these prices changed more than they normally do. A positive base effect will work towards increasing, and the negative base effect towards decreasing y-o-y inflation.

Impact of base effect on y-o-y inflation in 2020

According to our central projection, in the initial months of 2020 y-o-y inflation will trend down towards the lower bound of the target tolerance band, and then gradually approach the target midpoint, though it will remain below it. Such inflation movements will be under a significant impact of the base effect of unprocessed food prices, notably vegetables. The base effect of energy prices will also exert a certain impact, while the prices of other inflation components will not have a major base effect given that in the past year they did not deviate significantly from the usual pattern. We can see that the negative cumulative base effect of all inflation components on y-o-y inflation will be the highest in April (around 0.4 pp). However, in June the cumulative base effect will become positive and reach a maximum of around 0.6 pp in September and October.

We estimate that the greatest impact will come from the base effect of unprocessed food prices, notably vegetables, which make up around 33% of this inflation component. As in other countries, in the first months of 2019, the prices of vegetables posted a sharp rise due to poor yields in the prior year. The growth was much higher than usual for this period of the year, hence y-o-y inflation until April 2020 will be under the impact of the negative base effect. Thereafter, and in particular during the autumn months, the base effect will be positive considering that the decline in vegetable prices in those months last year was sharper than typical. The base effect of energy prices during the year will be less pronounced. Its cumulative contribution is estimated as negative in the first three months of the year, before it turns positive and remains such for most of the remaining months.

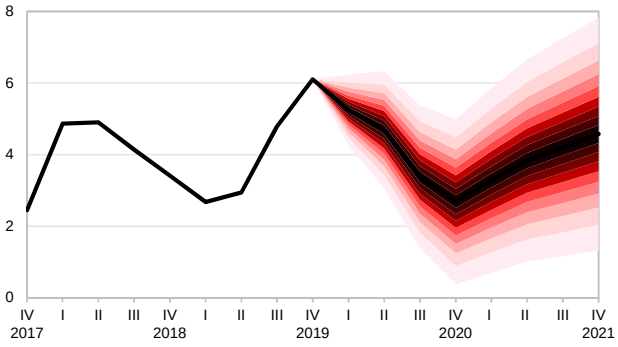
Chart O.5.2 **Cumulative influence of base effect on y-o-y inflation in 2020**
(in pp)



Sources: SORS and NBS calculation.

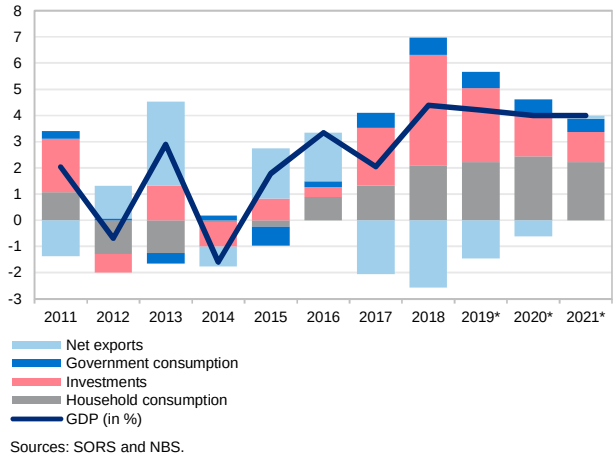
It should be stressed that the impact of the base effect on y-o-y inflation is short-term, while its medium-term profile is determined by other factors, such as aggregate demand and operating costs. In our current inflation projection, these two factors are dominant in dictating inflation movements over the medium run. A gradual rise in aggregate demand, notably at home, will continue to be propped by growth in economic activity, employment and wages. Also, we still estimate that the wage rise is sustainable and poses no threat to the achievement of low and stable inflation going forward. As before, the NBS will keep a close eye on developments at home and abroad, predict their impact, estimate the base effect and provide timely response whenever needed, in order to maintain a firm hold on inflation.

Chart V.0.18 **GDP growth projection**
(y-o-y rates, in %)



Source: NBS.

Chart V.0.19 **Contributions to real GDP growth**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

GDP projection

According to our estimate, GDP will grow by 4% this year and maintain such dynamics in the medium run as well. Growth will be led by domestic demand, while the negative contribution of net exports will continue to contract. The largest positive contribution to GDP growth (of around 2.4 pp in 2020) is expected to come from household consumption, given its dominant share in the composition of GDP, thanks to continued positive developments in the labour market, growing consumer confidence and lower costs of borrowing. In our estimate, consumption will grow on a sustainable basis, i.e. without triggering internal and external imbalances. The preservation of macroeconomic stability and an improved business climate, favourable financial conditions, continued implementation of structural reforms, implementation of infrastructural projects and advances made in the European integration process ought to prop up growth in fixed investment and in its share of GDP (GDP contribution of around 1.6 pp in 2020). Private investment, supported by favourable terms of lending and continued high FDI inflows, mainly to tradable sectors, is also expected to give a positive contribution. Government investment will also prop up growth, due to a further increase in the share of capital expenditure. The continuation of the investment cycle and increasing inclusion of local companies in global production chains will also push up imports of equipment and intermediate goods, while a further improvement in households' standard of living will lead to stronger imports of consumer goods. On the other hand, the activation of investment in tradable sectors will enable growth in the production potential and maintaining of relatively strong goods and services export growth dynamics, which will also be supported by the expected gradual recovery of external demand. In these circumstances, we expect the negative contribution of net exports to GDP to contract further (to around -0.6 pp in 2020) and to wear off entirely in the medium term.

On the production side, growth in manufacturing will accelerate relative to 2019, resulting from the activation of new and expansion of the existing capacities on the supply side, and from expected gradual growth acceleration in our main foreign trade partners on the demand side. Acceleration is also expected in service sectors on account of continued positive trends in the labour market and elevated domestic demand. Construction is also likely to provide a strong impetus to GDP growth, in view of the ongoing and planned projects in the area of transport infrastructure (according to the "Serbia 2025" programme, over EUR 5 bn will be

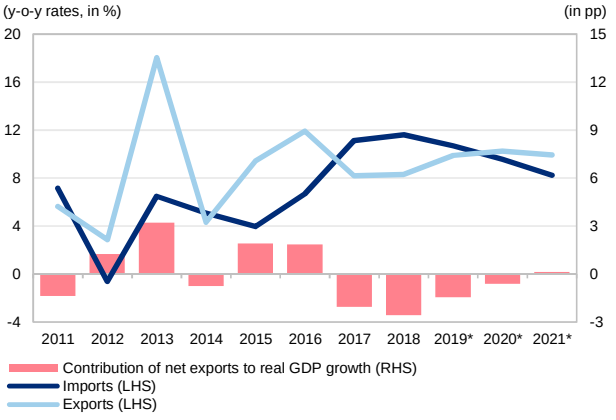
invested in road infrastructure in the next five years) as well as favourable trends in the real estate market. The yields in agriculture production are assumed to hover around the multiannual average, which is expected to provide a mildly negative contribution to GDP growth in 2020.

The risks to the GDP projection for the coming period are assessed as symmetric, with risks associated with the international environment still skewed to the downside and risks emanating from the domestic environment tilted to the upside.

Although the fact that Serbia's exports are broad-based diminishes its exposure to disturbances in individual segments of external demand, the key risk emanating from the international environment still concerns **the pace of growth in the euro area**, because it at the same time affects the **pace of growth in the countries of Central and Southeast Europe**, with which Serbia is increasingly fostering strong economic links. While the majority of relevant international financial institutions expect a gradual acceleration of the euro area economy in the coming two years, expectations for 2020 and 2021 growth have been mildly revised downwards from three months ago. Still, the risks to the projection are now tilted to the downside less than expected three months ago, mostly on account of eased trade tensions among leading global economies after the deal reached in mid-December 2019, and a smaller risk of a no-deal Brexit. A possible renewed heightening of trade tensions could slow global growth further, dampening the rise in Serbia's exports and, by extension, output in manufacturing. On the other hand, the lifting of the 100% tax on products delivered to Kosovo and Metohija could push up output in manufacturing, primarily the production of food products. Another risk that could slow global growth is associated with the spread of the coronavirus early this year.

As a small and open economy, Serbia is also under the influence of **capital flows and major currency pairs in the international financial market**. And though weakening of trade tensions lessened uncertainties in the international financial market, geopolitical tensions, primarily between the USA and Iran, heightened in the meanwhile. Together with slower than expected global economic growth, a further tightening of geopolitical tensions could reflect negatively on business confidence and investment decisions, which would likely lead to lighter capital flow to emerging countries, including Serbia. According to announcements made by leading central banks, no further monetary easing is expected in

Chart V.0.20 **Real export and import growth**



Sources: SORS and NBS.
* NBS estimate.

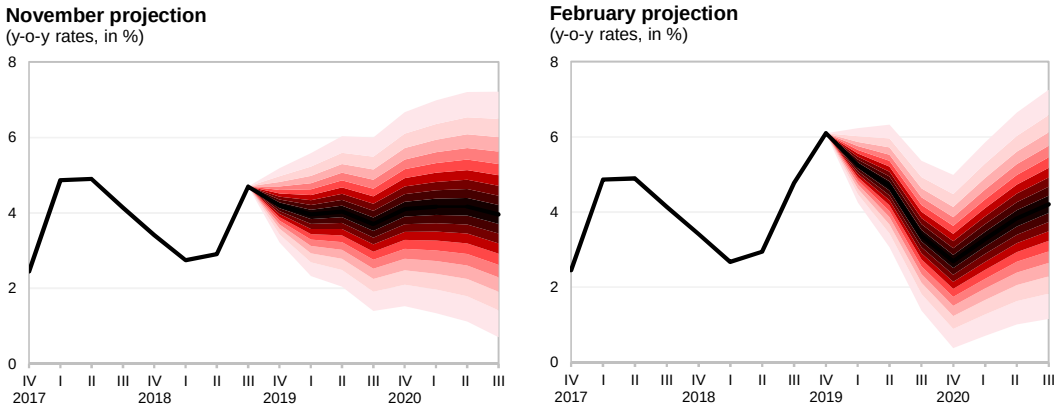
2020, but financial conditions in the international financial market are likely to stay favourable. As central banks highlight, any response they make will depend on trends in the real sector, including primarily the pace of economic recovery and inflation. However, it is important to stress that, owing to its preserved macroeconomic stability, narrowed internal and external imbalances, increased domestic savings and decreased need for external borrowing, Serbia has reduced its exposure to possible adverse developments in the international financial market, while at the same time becoming a more attractive destination for long-term investment.

To a degree, the risks to the GDP projection are also associated with **movements in the prices of primary commodities, notably oil, base metals and grains in the world market**. As Serbia is a net importer of oil, the rise in oil prices would translate into lower disposable income and higher operating expenses, while a price decrease would have the opposite effect. For the time being, geopolitical tensions between the USA and Iran did not have a major effect on oil price growth, triggering only a temporary rise in oil prices as data on high crude oil inventories were published. When it comes to prices of base metals (steel and copper in particular) and grains, Serbia as a net exporter would benefit if their global prices grew faster than projected.

Considering international factors, the risks to the projection on account of growth in the euro area and our other important foreign trade partners are judged to be skewed to the downside, while risks on account of developments in the international commodity and financial markets are assessed as symmetric.

When it comes to domestic factors of GDP growth, their effect could in our judgement be tilted to the upside, primarily in the short term, as the carry over effect from

Chart V.0.21 **Current vs. previous GDP growth projection**



Source: NBS.

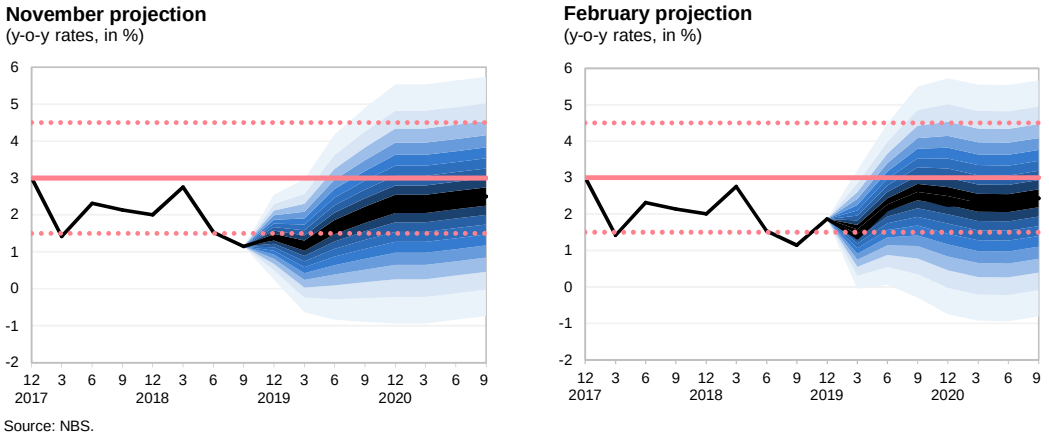
2019 was stronger than previously assumed, with economic activity in Q4 2019 exceeding expectations. Growth in **private investments** could also be more robust than assumed, as was the case in the preceding two years. Coupled with the continuation of structural reforms and plans to further and systematically improve the business climate, this should also contribute to faster growth in total factor productivity, and, by extension, in the production potential. At the same time, better than planned execution of capital government expenditure in 2018 and 2019 indicates that **government investments** in the coming period could increase faster than expected. Since investments are mostly channelled to tradable sectors, their increased activation should help accelerate export growth, observed on the expenditure side, and manufacturing growth, observed on the production side. Another risk to the GDP projection pertains to developments in **agricultural production**, which we assumed to be average in 2020, as in the coming years. Since this projection may deviate either way, mostly due to agrometeorogical conditions, the risks on this account are judged to be symmetric.

Comparison and outcome of inflation projections

Compared to the projection in the November *Inflation Report*, the new medium-term inflation projection is somewhat higher in 2020 and then almost unchanged in 2021. At the same time, the projected central inflation value is still below the NBS inflation target of 3%.

The main reason for somewhat higher projected inflation in this year is stronger growth in prices of food than assumed in the November projection. Food inflation (excluding fruit and vegetables) climbed to 2.8% y-o-y in December 2019 as fresh meat and processed food prices

Chart V.0.22 **Current vs. previous inflation projection**

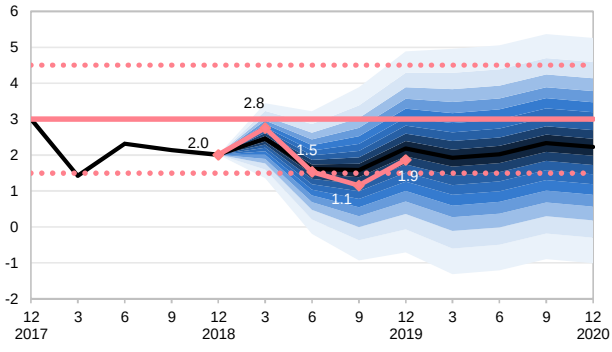


Source: NBS.

increased more than expected in November. Hence our short-term inflation projection for Q1 2020 and the inflation projection until the end of this year are somewhat higher than in the previous projection.

Another factor with some impact on higher projected food inflation is the output gap which is narrowing in the new projection faster than in the previous one.

Chart V.0.23 **Achievement of February 2019 inflation projection**
(y-o-y rates, in %)



Source: NBS.

Outcome of the February 2019 inflation projection

In the past year, inflation was almost entirely aligned with the central values projected and published in the February 2019 *Inflation Report*. Slight departures of inflation from the central projection from a year ago referred to fruit and vegetable prices which in H1 had a more inflationary and in H2 a more disinflationary effect than we expected in February 2019. **In December, inflation was at an almost identical level to what we projected a year ago**, which helps strengthen confidence in the NBS and anchor inflation expectations.

Table A
Indicators of Serbia's external position

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
EXTERNAL LIQUIDITY INDICATORS (in %)										
FX reserves/imports of goods and services (in months)	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7
FX reserves/short-term debt	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	238.5	270.9[5]
FX reserves /GDP	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1
Debt repayment/GDP	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.3[5]
Debt repayment/exports of goods and services	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	20.0[5]
EXTERNAL SOLVENCY INDICATORS (in %)										
External debt/GDP	74.5	68.1	76.1	70.4	72.4	73.5	72.1	65.1	62.5	63.8[5]
Short-term debt/GDP	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	11.0	10.9[5]
External debt/exports of goods and services	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.5	125.3[5]
FINANCIAL RISK EXPOSURE INDICATORS (in %)										
FX reserves/M1	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1
FX reserves/reserve money	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.0
OPENNESS OF ECONOMY (EXPORTS +IMPORTS)/GDP	75.3	78.0	84.5	87.1	91.8	96.2	100.7	106.3	108.3	111.7
MEMORANDUM: (in EUR million)										
GDP[1]	31,546	35,432	33,679	36,427	35,467	35,716	36,723	39,183	42,855	45,959[4]
External debt	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,766	28,576[5]
External debt servicing	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	1,219[5]
Central bank foreign exchange reserves	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378
Short-term debt[2]	1,758	612	455	196	99	303	672	844	1,429	1,605[5]
Current account balance[3]	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,160

CREDIT RATING (change of rating and outlook)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
	Nov	March	Aug	July	Jan	Dec	Jan/March/ June/Dec	March/Dec	Dec	Sept/Dec
S&P		BB /stable	BB-/negative				BB- /positive	BB /stable	BB /positive	BB+ /positive
Fitch	BB- /stable		BB-/negative		B+ /stable	B+ /positive	BB-/stable	BB /stable		BB+ /stable
Moody's				B1 /stable			B1 /positive	Ba3 /stable		Ba3 /positive

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of end-of-period foreign exchange reserves to average monthly imports
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 – 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] At original maturity.
[3] Data for 2018 and 2019 are revised.
[4] NBS estimate
[5] Data for Q3.

Notes:

1. The Statistical Office revised GDP data for the period 2005-2017, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with the official data sources.
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.
4. 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 the 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.
5. In September 2010, the methodology of external debt statistics was changed – public sector external debt now includes liabilities under SDR allocation (EUR 475.1 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 1,004.2 million, of which EUR 437.4 million relating to domestic banks and EUR 566.8 million to domestic enterprises).
6. Foreign debt repayment for 2019 includes early debt repayment under eurobonds.

Table B
Key macroeconomic indicators

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real GDP growth (in %)[1]	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.0	4.4	4.2[9]
Consumer prices (in %, relative to the same month a year earlier)[2]	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9
NBS foreign exchange reserves (in EUR million)	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378
Exports (in EUR million)[3]	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,398
- growth rate in % compared to a year earlier	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.5
Imports (in EUR million)[3]	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,966
- growth rate in % compared to a year earlier	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7
Current account balance[3]										
(in EUR million)	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,160
as % of GDP	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9
Unemployment according to the Survey (in %)[6]	19.2	23.0	23.9	22.1	19.2	17.7	15.3	13.5	12.7	9.5[10]
Wages (average for the period, in EUR)[7]	331.8	372.5	366.1	388.5	379.8	367.9	374.5	383.9	419.7	462.0
RS budget deficit / surplus (in % of GDP)[4]	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2
Consolidated fiscal result (in % of GDP)[4]	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2
RS public debt, (central government, in % of GDP)[8]	39.5	42.8	52.9	56.0	66.2	70.0	67.8	57.9	53.7	52.0
RSD/USD exchange rate (period average)	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28
RSD/USD exchange rate (end of period)	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92
RSD/EUR exchange rate (period average)	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85
RSD/EUR exchange rate (end of period)	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59
MEMORANDUM:										
GDP (in EUR million)[5]	31,546	35,432	33,679	36,427	35,467	35,716	36,723	39,183	42,855	45,959[9]

[1] At constant prices of previous year.

[2] Retail prices until 2006.

[3] Starting from 2007 data on balance of payments (current account, 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. Data for 2018 and 2019 are revised.

[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] New methodology of Labour Force Survey since 2014.

[7] By 2017, wages according to the old methodology. Since 2017, wages are disclosed according to the new methodology and data are based on Tax Administration evidence. For conversion of wages from RSD to EUR, we used the average of the period RSD/EUR exchange rate. Wages for 2019 are average of eleven months.

[8] Data on the share of public debt in GDP were downloaded from the website of the Public Debt Administration.

[9] NBS estimate

[10] Data for Q3.

Notes:

1. The Statistical Office revised GDP data for the period 2005-2017, which led to a change in the share of macroeconomic indicators in GDP.
2. Data are subject to corrections in line with official data sources.
3. Source for the data on unemployment: Labour Force Survey, Statistical Office.
4. Source for public debt: MoF.

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Executive Board meetings and changes in the key policy rate

2019

Date	Key policy rate (p.a, in %)	Change (in basis points)
10 January	3.00	0
7 February	3.00	0
7 March	3.00	0
9 April	3.00	0
9 May	3.00	0
6 June	3.00	0
11 July	2.75	-25
8 August	2.50	-25
12 September	2.50	0
10 October	2.50	0
7 November	2.25	-25
12 December	2.25	0

2020

Date	Key policy rate (p.a, in %)	Change (in basis points)
9 January	2.25	0
13 February	2.25	0
12 March		
9 April		
7 May		
11 June		
9 July		
13 August		
10 September		
8 October		
12 November		
10 December		

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 12 December 2019

At its meeting today, the NBS Executive Board voted to keep the key policy rate at 2.25%.

In making the decision, the Executive Board was guided by the outlook for inflation and other macroeconomic indicators from the domestic and international environment, and past monetary policy easing. Y-o-y inflation is low and stable. According to the November central projection, it is likely to move around the lower bound of the target tolerance band until mid-2020. Thereafter, under the impact of rising aggregate demand, inflation is expected to gradually approach the midpoint, reaching it in the medium run.

Caution in monetary policy conduct is still mandated, mainly due to developments in the international environment. As assessed by the NBS, the international financial and commodity markets are largely influenced by uncertain trade policies of leading world economies and the global slowdown. The monetary policies of leading central banks – the ECB and Fed, are also supporting the global economy, which should give an additional positive contribution to global financial conditions. However, it remains uncertain to what extent the monetary policies of leading central banks in the coming period will diverge from market expectations, which could impact capital flows to emerging economies. Movements in the prices of oil and primary agricultural commodities are also uncertain, given the intricate impact of numerous factors on the demand and supply side.

The Executive Board underlines that the resilience of our economy to potential negative effects from the international environment has increased owing to the full coordination of economic policy measures, which resulted in lower internal and external imbalances, favourable macroeconomic prospects and an adequate level of FX reserves. As in the previous two years, public finances are in a surplus, and the current account deficit is fully covered by the net FDI inflow for the fifth year in a row. GDP growth stepped in Q3, reaching 4.8% y-o-y, according to the preliminary estimate of the Statistical Office. Growth was supported by domestic factors which in the year to date successfully compensated for the weaker external demand. The factors that stand out in particular include investment growth, powered mainly by the continued implementation of infrastructure projects, and the improved business environment. Furthermore, the economy picked up on the back of favourable financing conditions, which reflect also past monetary policy easing by the NBS. Household consumption continues to increase, driven mainly by further positive labour market trends and lower costs of financing. Positive labour market trends are also evidenced by the fact that the unemployment rate fell to 9.5% in Q3, touching a single-digit level for the first time.

At today's meeting, the Executive Board adopted the Memorandum on Inflation Targets until 2022, keeping the target at 3.0±1.5% until end-2022.

The next rate-setting meeting will take place on 9 January.

Press release from Executive Board meeting held on 9 January 2020

At its meeting today, the NBS Executive Board voted to keep the key policy rate unchanged at 2.25%.

In making the decision, the Executive Board was guided by the outlook for inflation and other macroeconomic indicators from the domestic and international environment, and past monetary policy easing. Inflation is low and stable for the sixth year in a row. According to the Statistical Office's estimate, it measured 1.9% y-o-y in December. Inflationary pressures are expected to remain subdued in the coming period as well. The Executive Board expects that y-o-y inflation will move around the lower bound of the target tolerance band until mid-2020 and that it will gradually approach the target midpoint thereafter under the impact of rising aggregate demand. Low inflationary pressures are also indicated by the inflation expectations of financial and corporate sectors for both one and two years ahead which are anchored within the NBS target band.

Caution in monetary policy conduct is still mandated, mainly due to developments in the international financial and commodity markets. The ECB launched a new monetary stimulus package in November, while the Fed, after the October rate cut, will most likely keep its monetary policy unchanged for some time yet. Movements in the global prices of oil and primary agricultural commodities are also uncertain, given the intricate impact of numerous factors on the demand and supply side.

The Executive Board underlined that the resilience of our economy to potential adverse effects from the international environment increased owing to the full coordination of economic policy measures, resulting in sustainable, robust growth of economic activity and favourable macroeconomic outlook, as confirmed by the country's credit rating upgrade. GDP growth in 2019 exceeded the initial projections and, according to the Statistical Office's preliminary estimate, measured 4.0%. The Executive Board emphasized the significance of the 14.2% investment growth in 2019 which is attributable to further implementation of infrastructure projects, improved business environment, as well as favourable sources of funding arising from the NBS's past monetary policy easing. Household consumption also increased, mostly owing to positive labour market developments, higher living standard of citizens and lower costs of borrowing. Positive labour market trends are best illustrated by data about the real wage growth of 8.5% in 2019, with the unemployment rate dropping to single digits. As in the past two years, public finances were in surplus in 2019, while a record-high net FDI inflow for the fifth consecutive year fully covered the current account deficit. A high level of the country's FX reserves is another guarantee of resilience to potential shocks from the international environment.

The next rate-setting meeting will be held on 13 February.

Press release from Executive Board meeting held on 13 February 2020

At its meeting today, the NBS Executive Board voted to keep the key policy rate at 2.25%.

In making such decision, the Executive Board was guided primarily by the expected movement in inflation and other macroeconomic indicators from the domestic and international environment going forward, and past monetary policy easing. Inflation has been firmly under NBS control for the seventh year in a row. In December 2019, it equalled 1.9% y-o-y. Low inflationary pressures are expected in the period ahead as well. The Executive Board expects y-o-y inflation to move around the lower bound of the target tolerance band until mid-2020 and gradually approach the target midpoint thereafter, on account of the low base effect for vegetable prices in the short run and rising aggregate demand in the medium run. That inflationary pressures are low is also indicated by inflation expectations, which have been within the NBS target tolerance band both for one and two years ahead.

Caution is still mandated in the conduct of monetary policy, mainly because of international developments. Future conditions in the international financial market will be largely determined by the degree of the Fed and ECB's monetary policy accommodation, and its deviation from market expectations. There is also persisting uncertainty as to the movement of prices of oil and primary agricultural commodities in the global market. The global oil price was extremely volatile in recent months, reflecting the impact of numerous factors on both the supply and demand side.

The NBS Executive Board underlines that the resilience of our economy to potential negative effects from the international environment has increased, thanks to the full coordination of economic policy measures, resulting in strong and sustainable growth of economic activity and a favourable macroeconomic outlook. GDP growth in 2019 exceeded the initial forecasts, owing to the acceleration in the second half of the year, sparked by the positive impact of domestic factors which compensated for the lower external demand. Particularly important was the growth in investment, supported by further implementation of infrastructure projects, improvement in the business environment, and favourable sources of financing resulting also from the NBS's past monetary policy easing. Household consumption also picked up, primarily owing to positive labour market developments, higher living standards and lower costs of borrowing. The fiscal result in 2019 was better than planned, which, in addition to providing strong support to economic growth, also contributes to the further reduction in the share of public debt in GDP. The highest net FDI inflow on record fully covered the current account deficit of the balance of payments. Another warranty of the Serbian economy's resilience to potential shocks from the international environment is the high and adequate level of FX reserves.

At today's meeting, the Executive Board adopted the February Inflation Report. The Report and a detailed account of monetary policy decisions and underlying macroeconomic trends will be presented to the public on 19 February.

The next rate-setting meeting will take place on 12 March.

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