National Bank of Serbia

2021

February

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 11 February 2021.

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.

Macroeconomic projections presented in the Report were concluded on 4 February.

Contents

I Overview

The global recovery which began in mid-2020 was slowed by the renewed spread of the coronavirus as of October, which prompted many countries to reinstate tight containment measures. However, the dynamics of leading indicators in Q4 suggests that the economic fallout from the second wave of the pandemic was much weaker than from the first wave, partly owing to the fact that many companies adjusted their operations to altered business conditions, as well as owing to robust monetary and fiscal stimuli in a large number of countries. The news about progress in vaccine development and rollout in late 2020 boosted investor optimism and led to upward revisions of global growth for this year. Still, uncertainty as to the course of the pandemic remains, partly due to the appearance of new coronavirus strains. Many countries, notably in Europe, extended restrictive containment measures into the first months of 2021, which could slow the expected economic recovery, particularly in Q1. Bearing in mind this and a higher than expected base effect from 2020, international financial institutions revised down, relative to October, their 2021 growth projections for the euro area, our key trade partner.

The second wave of the pandemic slowed global economic recovery as of October, but its negative effects were much weaker than in the first wave, owing to robust monetary and fiscal stimuli in a large number of countries and the fact that many companies adjusted their operations to altered business conditions.

Leading central banks – the Fed and ECB, continued to support economic activity with conventional and unconventional instruments. Just as it signalled in October, in December the ECB expanded and extended its asset purchase programme. In the US, an agreement was reached on the new fiscal assistance package. Along with news on progress in vaccine development, the said monetary and fiscal stimuli in leading economies propped up investor appetite for riskier assets and led to a rise in global prices of primary commodities, notably oil. This brought about a further decline in risk premia of emerging economies in Q4, including Serbia.

The progress made in vaccine development boosted investor optimism and readiness to invest in emerging economies. This spurred growth in the global prices of primary commodities, notably oil.

The NBS Executive Board decided to continue with monetary accommodation in December as it assessed that low inflationary pressures allowed for the provision of further support to the domestic economy, amid a deteriorating epidemiological situation as of October and a slowdown in global recovery, notably in the euro area. At its meetings in January and February, the Board kept the key policy rate on hold, assessing that the robust

In the period from the previous Inflation Report, the key policy rate was trimmed further in December, by 0.25 pp to 1.0%, its new lowest level in the inflation targeting regime.

monetary and fiscal stimuli will continue to positively influence corporate and household financing conditions and disposable income, and that optimism concerning global economic recovery is rising, owing to news about the initiated mass vaccination.

Monetary policy easing resulted in a further decline in money and capital market rates, and contributed to favourable conditions of corporate and household financing and a rise in disposable income.

Monetary policy easing influenced a further decline in rates in the interbank money market and a favourable price of dinar loans, i.e. smooth functioning of interest rate and credit channels. Lending continued up in Q4 owing to the effects of measures stimulating sustainable household lending, approval of loans to micro, small and medium-sized enterprises and entrepreneurs under the Guarantee Scheme, and maintained low interest rates in the euro area money market. Annual lending growth of almost 10% for the third year in a row is consistent with our projection. The y-o-y slowdown in late 2020 was expected and reflects the high base from the previous year and the fact that more loans matured as of October after the second moratorium expired.

Owing to macroeconomic and fiscal stability achieved in the earlier period, room was created for a vigorous response of fiscal policy. This room was efficiently used, i.e. production capacities and jobs were preserved in most sectors of the economy.

The adoption of a large and timely economic assistance package and higher healthcare spending resulted in a rise in the consolidated fiscal deficit to 8.0% of GDP in 2020. Still, owing primarily to higher than expected revenue, a better result was achieved than forecast by the Ministry of Finance in the Fiscal Strategy for 2021 with Projections for 2022 and 2023. Particularly important is the continued rise in government capital expenditure, which speeds up the implementation of infrastructure projects and boosts potential output. Although it temporarily went up – to 57.7% at end-2020 (56.8% at central government level), the share of general government public debt in GDP remained below the Maastricht criterion of 60%. At the same time, as borrowing costs were lower and the economy contracted less than in other countries, the share of public debt in GDP recorded moderate growth in 2020.

As expected, the current account deficit narrowed from April and equalled 4.2% of GDP at year level. The imports of goods and services posted a sharper fall (5.8%) than exports (4.9%).

In 2020, the current account deficit was smaller than projected – it stood at 4.2% of GDP and was by 37.3% lower compared to previous year. Its narrowing reflects smaller expenditure on FDI receipts, a lower deficit on trade in goods, and a rise in surplus in services trade, led by the improved balance in trade in information-communication and tourism services. Working in the opposite direction was a smaller inflow of remittances amid the global crisis and reduced labour force mobility, which was also the case in other countries which in prior years recorded significant remittances inflows. The deficit on trade in goods declined on the back of rising investment in export sectors in the past period, which is why the drop in external demand had a lesser impact on the reduction in domestic exports, which continued to recover in Q4 and exceeded pre-crisis levels. According to our estimates, the recovery of domestic demand, primarily of investment from the pandemic will spur the imports of equipment and intermediate goods, which will most probably be growing faster than exports. Gradual narrowing in external imbalances is expected in the medium run, with the pace of the reduction depending on the dynamics of the investment cycle in the coming period.

Capital flows to Serbia remained relatively high despite the pandemic.

The FDI inflow to Serbia in 2020 reached EUR 3.0 bn or EUR 2.9 bn net and, comparatively, was the highest in the region and sufficient to fully cover the current account deficit for the sixth year in a row. A significant capital inflow also came from eurobond issues in the international financial market, with proceeds collected from the second issue in 2020 (USD 1.2 bn) used chiefly for the early repayment of a part of debt under bonds issued in 2011 and maturing in September this year. High demand for these securities and the lowest price of borrowing achieved so far, FDI inflows and affirmed credit rating confirm investors' readiness to invest in Serbia, despite the globally higher risk aversion amid the pandemic. It should be noted that J.P. Morgan, one of the leading financial institutions in the world, announced on 11 February the decision to include Serbia's dinar-denominated bonds in its renowned GBI-EM family of indices as of 30 June 2021. This event, announced by Governor Tabaković a year ago, is of paramount importance, given the volumes of trading in securities included in the index and the fact that this is one of the most frequently watched indices by international investors, i.e. one of the benchmark indices of bonds issued in local currencies of emerging economies. As a result, Serbia will become an even more attractive investment destination, as foreign investors are given a powerful signal that Serbia is a safe and desirable investment destination and that it will remain so in the coming period as well.

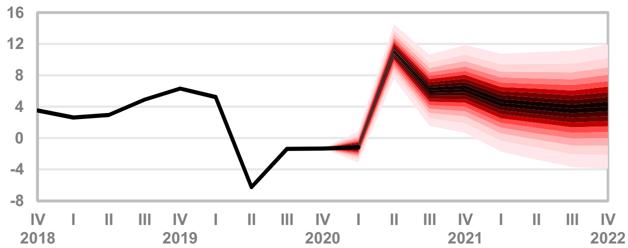
The recovery which began in Q3 continued into Q4, though at a slower pace as the epidemiological situation deteriorated since October globally and at home and containment measures were tightened.

According to our estimate, economic activity rose by 1.3% s-a in Q4 2020, which implies slower recovery compared to Q3. In y-o-y terms, based on the SORS estimate, real GDP fell by 1.3% in Q4 and by 1.1% at year level. This is slightly below our projection from the previous Report and better than we expected at the start of the pandemic, thanks primarily to the adoption of the timely and comprehensive package of monetary and fiscal stimuli for the private sector. Consistent with expectations, a negative impulse to GDP came from the service sector (transport, tourism, catering, recreation and culture), i.e. activities most severely hit by the pandemic.

Construction also gave a negative contribution, though to a lesser extent, due chiefly to the high base from last year. In contrast, annual growth was recorded in agriculture, but also in industry which proved resilient amid a global economic downturn owing to past investment and higher diversification of production and exports. On the expenditure side, a decline at year level was registered primarily in household consumption and, to a lesser extent, in fixed investment as well. Nonetheless, owing to the resilience of the labour market and the economic assistance package, their decline was smaller than we previously estimated.

According to our estimate, GDP will reach the pre-crisis level in Q2 2021, and will grow by 5–6% at year level.

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



We expect economic activity to more than fully recover from the crisis this year and rise by 5–6%. The growth will be led by domestic demand and exports, which hinge on the recovery of external demand and mass vaccination, expected at home and globally this year. It will also be supported by the timely and adequate response of economic policy makers in Serbia and, as a result, ensured favourable financing conditions and preserved production capacities and jobs. The same factors are estimated to ensure a return to a stable medium-term growth trajectory of around 4% p.a. in the years to come. On the whole, the risks to the projection are judged to be symmetric and, as stated in the previous Report, mainly associated with the course of the pandemic and the efficiency in winding it down. The risks from the international environment are titled to the downside due to the renewed spread of the coronavirus as of October and the tightening of containment measures in many European countries, which were extended into the initial months of 2021. This dampens the growth outlook for our important trade partners, particularly in H1. On the other hand, the risks from the domestic environment are tilted to the upside as the implementation of the announced new economic assistance package and a fast pace of vaccination in our country should contribute to faster than expected recovery of domestic demand.

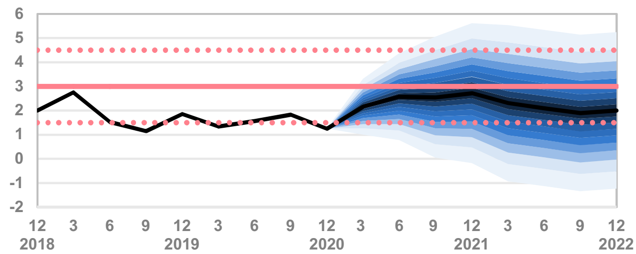
As in the past seven years, in an environment of ensured relative stability of the exchange rate and anchored inflation expectations, inflation remained low and stable in 2020, averaging 1.6%.

In the period from the previous *Report*, inflationary pressures remained low. The slowdown in y-o-y inflation from 1.8% in September to 1.3% in December reflects primarily lower prices of unprocessed food – vegetables and fresh meat, and the dropout from the y-o-y calculation of the electricity price increase from December 2019. Food and energy prices had the strongest impact on inflation dynamics during the year. In 2020 inflation measured 1.6% on average. Core inflation also averaged 1.6% – it slightly accelerated in late 2020 (to 2.1% y-o-y), mirroring elevated demand for work-from-home devices (computers, mobile phones) and medical products. That inflationary pressures are low is also indicated by one- and two-year ahead inflation expectations of financial and corporate sectors, which continue to move below the midpoint.

Under the central February projection, y-o-y inflation will move within the lower half of the target tolerance band until the end of the projection horizon. Its moderate rise in the short run will result primarily from the expected increase in energy prices.

Under the central February projection, we expect y-o-y inflation to move within the lower half of the target tolerance band this and the next year. It will be somewhat higher this year compared to 2020 mainly under the impact of the announced hike in electricity prices and the expected increase in petroleum product prices, spurred by the rising global oil price. At the same time, these are the key reasons why the new inflation projection is somewhat higher than the previous one. Despite the expected recovery, consumption is estimated to rise more slowly than GDP, which is why demand-side inflationary pressures will remain low over the projection horizon. As a result, and given the base effect for food and energy prices, inflation will be lower in 2022 than in 2021. Uncertainties surrounding the inflation projection in the short run relate mostly to movements in the global oil price and fruit and vegetable prices. In the medium run, the key risks to the projection remain associated with the international environment, and relate primarily to the speed of recovery of the euro area, global prices of primary commodities and capital flows to emerging markets. The risks to the projection also relate to the speed of recovery of domestic demand and movement in administered prices at home. On the whole, the risks to the inflation projection are judged to be symmetric.

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



Full coordination of monetary and fiscal policy measures will continue for the sake of preserving price and financial stability and ensuring sustainable economic recovery from the pandemic-induced crisis.

The NBS will continue to watch closely the movement and impact of key factors from the domestic and international environment on inflation, financial stability and the speed of economic recovery. It will therefore monitor the implementation of the measures taken so far, and analyse whether they are optimally combined and appropriate in scope, in order to provide necessary support to economic recovery, without threatening price and financial stability. In coordination with the Government, the NBS stands ready to respond as the situation with the pandemic evolves at home and abroad.

II Monetary policy since the November *Report*

In December 2020, the NBS Executive Board trimmed the key policy rate by 0.25 pp, to 1.0%, its new lowest level in the inflation targeting regime and by 1.25 pp lower than at the onset of the global pandemic-induced crisis. The rate cut was motivated primarily by the assessment that low inflationary pressures allowed for additional support to the domestic economy amid a deteriorating epidemiological situation since October and slackening economic recovery at the global level, particularly in the euro area, our most important economic partner.

In January and February, the key policy rate was kept unchanged, chiefly in view of the past robust monetary and fiscal policy measures and their positive effect on economic activity going forward, as well as rising optimism over the initiated mass vaccination programmes, which should enable return to normal functioning of the economy at home and worldwide.

Since the previous *Report*, the **key policy rate was trimmed in December by 0.25 pp, to 1.0%**, its new lowest level in the inflation targeting regime, while the **main interest rate corridor was narrowed** from ±1.0 pp to ±0.9 pp relative to the key policy rate. The deposit facility rate was thus reduced by 15 bp, to 0.1%, and the lending facility rate by 35 bp, to 1.9%. In its December meeting, the NBS Executive Board also adopted a decision on loan repayment facilities for borrowers unable to settle their liabilities due to the circumstances caused by the pandemic.[1]

The main factor behind the Board's decision to cut the key policy rate in December was the scale of the pandemic-induced crisis worldwide, i.e. renewed worsening of the epidemiological situation and the consequent slowing of the incipient economic recovery globally, and especially in the euro area, as our key trade and financial partner.

Together with the previous ones, this cut brought the key policy rate to a level 1.25 pp lower than before the onset of the pandemic-induced crisis, which resulted in a favourable price of dinar borrowing. The rate cut, along with the effects of the moratorium, the measures supporting viable lending to households, and the approval of loans under the Guarantee Scheme to micro, small and medium-sized enterprises and entrepreneurs, enabled the continuation of the double-digit y-o-y growth in lending activity and the recovery of our economy from the consequences of the coronavirus crisis.

The NBS had ensured better financial conditions for corporates and households also using different monetary policy tools to supply additional dinar and foreign exchange liquidity to banks under favourable terms. It also supported smooth functioning of the government securities market and helped maintain favourable financing conditions in that market. Dinar corporate bonds were included in the list of securities that banks may use in monetary operations with the NBS, in order to support the domestic economy in overcoming the consequences of the crisis and bolster the development of this segment of the capital market. The NBS also adopted an array of other measures to minimise the pandemic's toll on economic activity and employment and to ensure as fast a recovery as possible.[2]

[1] The facilities include loan rescheduling and refinancing, with the approval of a six-month grace period and an appropriate extension of the repayment term, so that the borrower's monthly liabilities are not higher than those envisaged by the initial repayment schedule.

[2] An overview of NBS measures is given in Table II.1, p. 14.

Strong NBS support to businesses and households during the pandemic is owed to the responsible conduct of economic policy in the prior period, which improved the capacity of the Serbian monetary and fiscal authorities to fight the ongoing crisis without jeopardising the achieved low and stable inflation, as well as other indicators of macroeconomic stability. The NBS implemented an accommodative monetary policy in an environment of maintained price and financial stability, underpinned primarily by the relative stability of the exchange rate and fully supplied markets even in times of crisis, as well as by the anchored inflation expectations which illustrate the credibility of monetary policy. As in the past seven years, inflation was firmly under control, averaging 1.6% y-o-y in Q4, but also in 2020 as a whole. Average core inflation in 2020 was at the same level, which suggests that demand-side pressures remain relatively low despite the continuing rise in wages and employment in the majority of sectors. The Executive Board expects that this and the next year inflation will move in the lower part of the target tolerance band, and that the mild rise in the short term will be driven by the expected adjustment in some administered prices and the low base effect for petroleum product and food prices. Despite the expected recovery in demand, inflation is forecast to stay low and stable over the projection horizon.

The measures taken by the NBS and the Government are largely to be credited for the better economic outcome in 2020 than hoped for at the start of the pandemic. According to the SORS flash estimate, the GDP growth rate in 2020 came at -1.1%, this being one of the best outcomes in Europe and better than the -1.5% forecast by the NBS at the onset of the pandemic. A better outturn reflects primarily the preserved production capacities and employment during the pandemic, but also a fast recovery of investment, most notably the accelerated implementation of infrastructure projects, more favourable financing conditions and FDI inflow that remained relatively high and project-diversified. Labour market data on the rising employment rate and the maintained single-digit unemployment rate attest to the significance of the package of economic measures, which helped sustain favourable trends despite the challenges imposed by the pandemic. The Executive Board expects that the country's maintained favourable medium-term prospects and the measures taken by the Government and the NBS will contribute to the recovery of domestic demand. This, along with the gradual normalisation of external demand, will result in a more than complete recovery of our economy this year.

The Executive Board's decision to provide additional support to the domestic economy by lowering the key policy rate in December was made primarily in view of the fact that the euro area was in the midst of the second wave of the epidemic and that it therefore tightened health protection measures. In the short run this was expected to negatively affect its economic recovery, which could dampen external demand for our exports. In fact, the Board's decision to further ease its monetary policy aimed to ease the potential spill-over of the negative impact of the said developments in the euro area. The Board also took into account that no major inflationary pressures from inflation abroad were anticipated due to the relatively sluggish recovery at the global level. On the other hand, positive vaccine-related news gave the reason for optimism, though there was still large uncertainty over the pace of vaccine production and roll-out, as well as the course of vaccination globally.

The beginning of the year saw the tightening of health protection measures in the euro area and hence somewhat weaker economic outlook, but optimism over gradual calming of the pandemic increased as the mass vaccination programmes started. This should sustain the recovery of external demand and exports, which, together with the further rise in domestic demand, will provide for a more than complete recovery of our economy this year and its robust growth going forward. Domestic demand will remain supported by the past monetary and fiscal policy measures that will continue to exert a positive effect on the financial conditions for corporates and households and on their disposable income. This is what the Executive Board had in mind in policy-making at its meetings **in January and February, when it decided to keep the key policy rate on hold**. The Executive Board also had in mind that caution was required because of the possibly higher volatility of global prices of primary commodities and food against the backdrop of uncertainty, albeit diminished, over the course of the pandemic. The Board emphasised the strong resilience of our economy to external shocks, as a result of responsible running of economic policy in the past years and an adequate response to the current global crisis. During 2020, FX reserves were maintained at an adequate and stable level (EUR 13.5 bn at year-end), which reinforced the resilience of the domestic financial system to shocks emanating from the international environment. Such FX reserves cover more than six months' worth of the import of goods and services, which is double the standard on the adequate coverage of FX reserves by the import of goods and services.

The Government and NBS's success in preserving macroeconomic and financial stability of the country and a favourable economic outlook is illustrated by the fact that Serbia managed to maintain its credit rating even during these extraordinary circumstances, when rating downgrades were more widespread than during the 2008/2009 crisis. This success found its way into figures in November 2020, when Serbia achieved in the international financial market the lowest price of financing thus far. A month later the IMF Executive Board made a decision on successful completion on the fifth, last review of Serbia's economic programme.[3] They assessed that the programme was successfully implemented throughout its duration and that the measures taken during the pandemic were well-designed and appropriately aimed at providing lifelines to households, preserving jobs, boosting healthcare spending, and providing sufficient liquidity to the banking system and relief to borrowers.

Looking ahead, full coordination of monetary and fiscal policy measures will be maintained, easing potential further negative effects from the international environment and ensuring vibrant growth of the Serbian economy. The Executive Board stresses the importance of fiscal policy support to the economy that will continue in the period ahead, including through expected higher capital investment. The NBS will continue to carefully monitor developments at home and abroad, continuously assessing all the measures taken so far in order to support further economic recovery, without prejudice to price and financial stability. As so far, in coordination with the Government, the NBS will implement all the measures necessary to ease the position of citizens and businesses in these extreme circumstances.

[3] Programme supported by the Policy Coordination Instrument (PCI), approved to Serbia in July 2018 for a period od 30 months. The PCI was advisory in nature and did not involve any disbursement of funds.

Table II.1 **NBS response to COVID-19**

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</table>

Source: NBS.

III Inflation movements

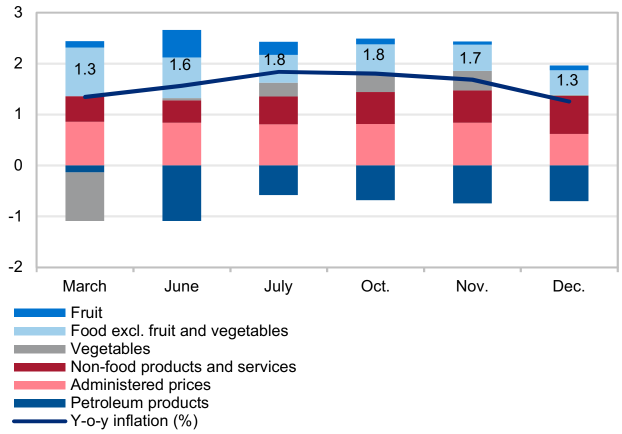
In the period since the November Report, inflationary pressures remained low, and the slowdown in y-o-y inflation to 1.3% in December mostly reflects lower prices of unprocessed food – vegetables and fresh meat. The prices of food, along with those of energy, were also the ones that largely determined the annual inflation dynamics. Inflation averaged 1.6% in 2020, the same as core inflation, which picked up slightly at year-end to 2.1% y-o-y owing to the rising demand for medical supplies and equipment for work at home (computers, mobile phones). Low inflationary pressures are also indicated by the inflation expectations of the financial and corporate sectors, which continue to move below the target midpoint for both one and two years ahead.

Inflation movements in Q4

Y-o-y inflation in December (1.3%) slowed down relative to earlier quarters, mostly due to the lower positive contribution of the base effect and the absence of the seasonal increase in vegetable prices in December, followed by the slower than expected rise in the prices of fruit, and the seasonally unusual cheapening of fresh meat. Other CPI components maintained relatively stable movement in Q4, with a similar contribution to the December and September y-o-y inflation outturns. It was unprocessed food prices, together with those of petroleum products, that predominantly determined the dynamics of y-o-y inflation in the past year, which, according to SORS estimate, averaged 1.6%,[4] consistent with our expectations stated in the November *Report*. Core inflation (measured by CPI excluding the prices of food, energy, alcohol and cigarettes) stood at 2.1% y-o- y in December, providing a somewhat higher contribution to y-o-y inflation in December (1.0 pp) than in September (0.8 pp), primarily owing to the rise in demand for equipment for work at home (computers, mobile phones) and medical supplies. In 2020, core inflation averaged 1.6%, which was also the average for headline inflation.

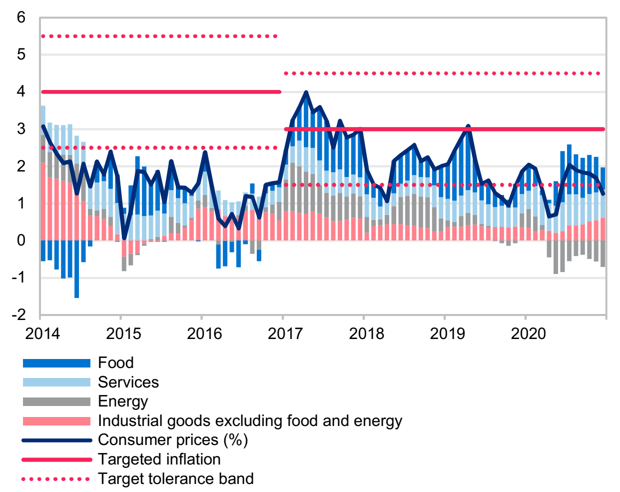
At quarterly level, **consumer prices increased by 0.2% in Q4.** The **prices of food and non-alcoholic beverages** gave a -0.1 pp cumulative contribution to inflation in Q4, as the growth in vegetable and processed food prices

Chart III.0.1 **Contribution of CPI components to y-o-y inflation in 2020**
(in pp)



Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

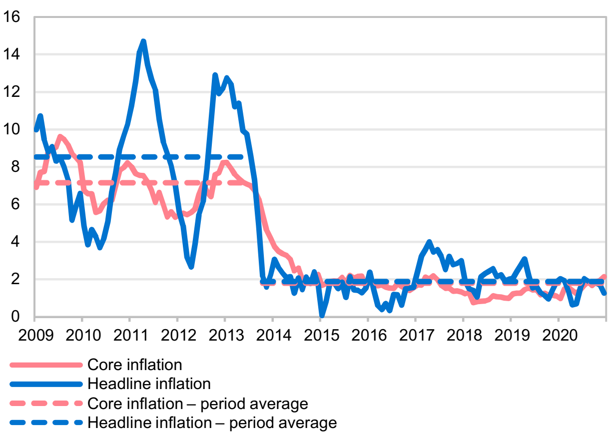
[4] Average CPI is derived as the simple arithmetic mean of 12 published monthly CPIs (month on last year average). Hence the average annual rate reflects not only the change in prices, but also the effect of the change in weights.

Table III.0.1 **Growth and contribution of components to consumer price growth in Q4 2020**
(quarterly rates)

	Growth rates (%)	Contribution (pp)
Consumer prices (CPI)	**0.2**	**0.2**
Unprocessed food	-2.4	-0.2
Processed food	0.8	0.2
Industrial products excluding food and energy	1.0	0.3
Energy	-0.6	-0.1
Services	0.4	0.1
CPI excluding energy, food, alcohol and cigarettes	0.8	0.4
Administered prices	0.2	0.0

Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

(5.7% and 0.8%, respectively) was neutralised by the decline in the prices of fruit (13.4%) and fresh meat (2.1%), which mirrored the dynamics of their global counterparts.

Energy prices also fell in Q4 (0.6%, contribution: -0.1 pp), reflecting a decrease in petroleum product prices in the domestic market (1.7%). The entire Q4 decrease in petroleum product prices was recorded in October and November, while December saw an increase (0.7%), driven by the rise in the global oil price.

The prices of industrial products (excluding food and energy) went up by 1.0% in Q4 (0.3 pp contribution to inflation), reflecting almost entirely a seasonal rise in the prices of clothes and footwear (2.6%) and higher prices of mobile phones and devices (0.2 pp cumulative contribution to inflation). Working in the same direction was the quarterly increase in the prices of medical and pharmaceutical supplies, furniture and apartment maintenance and repair materials.

The 0.4% rise in the **prices of services** in Q4 (with a 0.1 pp contribution to inflation) is mostly attributable to the increase in the prices of utility (1.1%) and medical services (1.9%). The majority of other services also recorded a slight increase in Q4.

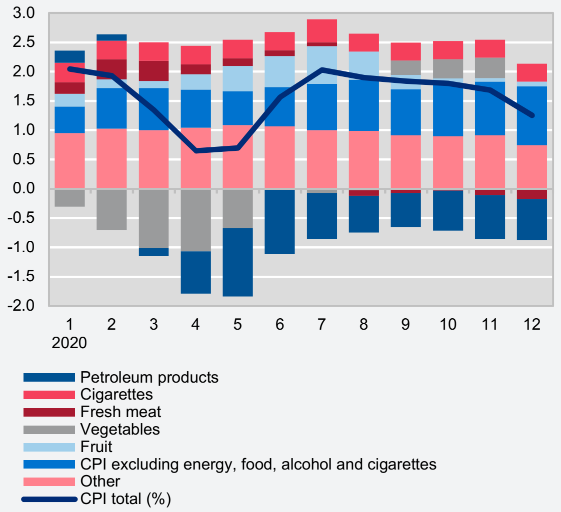
The administered price growth of 0.2% in Q4, which was almost entirely a result of the utility services price hike, did not reflect significantly on quarterly inflation. In y-o-y terms, these prices slowed down additionally to 3.3% in December (from 4.3% in September), mainly due to the drop-out of the December 2019 electricity price hike from the calculation of y-o-y inflation.

The prices within core inflation edged up by 0.8% (0.4 pp contribution), led by the increase in the prices of clothes and footwear, mobile phones, as well as utility and medical services.

Text box 1: Core inflation in Serbia – determinants, indicators and outlook

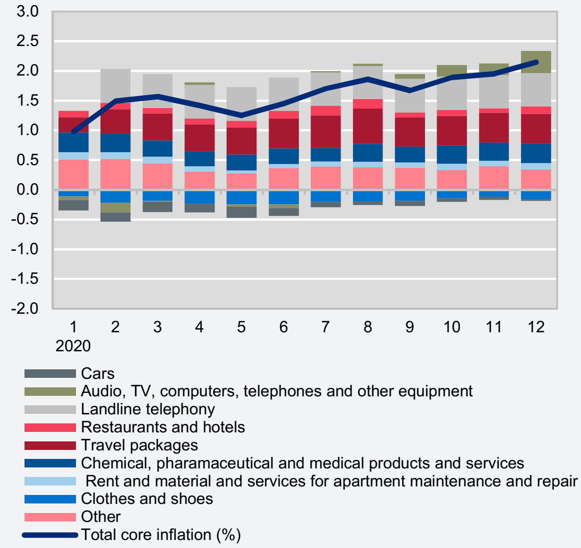
As headline inflation includes volatile components such as food and energy prices which are not under the impact of monetary policy measures, it is highly important for central banks to monitor movements of inflation indicators that exclude those components, i.e. the so-called core inflation. For instance, the Fed's preferred measure of inflation is inflation excluding food and energy prices, measured by the personal consumption expenditures price index. The ECB also pays particular attention to core inflation indicators, primarily the movement of inflation excluding the prices of energy, food, alcohol and cigarettes.

Chart O.1.1 **Contributions of individual groups of products and services to headline y-o-y inflation**
(in pp)



Sources: SORS and NBS calculation.

Chart O.1.2 **Contributions of individual groups of products and services to y-o-y core inflation**
(in pp)



Sources: SORS and NBS calculation.

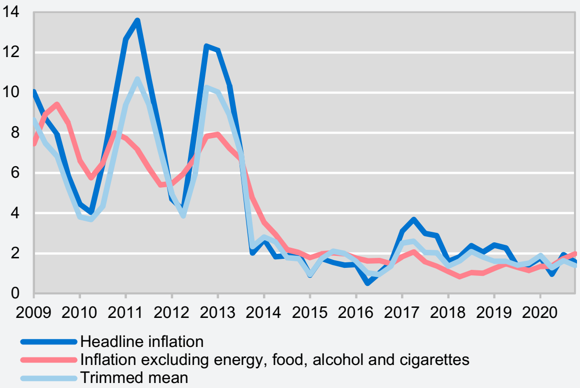
As there is no single definition of core inflation, when making monetary policy decisions, in accordance with international practice, the NBS monitors several core inflation indicators – inflation measured by the change in CPI excluding energy; energy and unprocessed food; energy, food (unprocessed and processed), alcohol and cigarettes. The criterion for exclusion of individual categories is the volatility of their prices, as well as the direct or indirect government impact on their changes.

The strongest volatility of headline inflation originates from food and energy prices, which also have a relatively high share in the consumer basket, while the volatility of core inflation components is much smaller (Charts O.1.1 and O.1.2). The contribution of core inflation to headline inflation moved between 0.5 pp and 1.0 pp in 2020, with a trough recorded in January and a peak in December. Petroleum products were a positive contributor to y-o-y inflation only in the first two months. Thereafter, consistent with the movement of global oil prices, petroleum products were a negative contributor to headline inflation until the end of the year, most notably in May (-1.2 pp). Until mid-2020, vegetable prices also provided a negative contribution to headline y-o-y inflation, while the contribution of fruit prices remained positive throughout the year.

Within core inflation (measured by CPI change excluding energy, food, alcohol and cigarettes) – which moved between 1.0% in January and 2.1% y-o-y in December – a negative contribution during the year stemmed from the prices of shoes, clothes and cars. A positive contribution came from chemical, pharmaceutical and medical products and services, landline telephony services, and travel packages.

Core inflation rose moderately as of September, on the back of a y-o-y rise in prices of audio devices, TV sets, computers, telephones and other equipment, which can be associated with work from home and online school programmes as measures to combat the pandemic.

Chart O.1.3 **Headline inflation and indicators of core inflation**
(y-o-y rates, in %)



Sources: SORS and NBS projection.

The NBS also regularly estimates and monitors core inflation based on the trimmed mean calculation – the price index components are first grouped in descending order, by the criterion of price growth during the month, and a defined percentage of the highest and lowest change values is excluded from calculation. Contrary to the first method which determines the inflation components to be excluded from calculation, in the trimmed mean method one decides on the percentage of extreme values to be excluded from calculation, with the excluded product categories varying depending on the calculation period. The NBS trims 15%, i.e. excludes 7.5% of products with both the highest and lowest price growth during the month, regardless of the type of products. The movement of this indicator also suggests low and stable inflationary pressures, but exhibits somewhat higher volatility than the movement of y-o-y inflation excluding energy, food, alcohol and cigarettes, which is particularly visible in the first part of the observed period – from 2009 to 2013 (Chart O.1.3). On the other hand, in late 2020 y-o-y inflation excluding energy, food, alcohol and cigarettes measured 2.1%, while core inflation estimated based on the trimmed mean method was 1.3%.

To examine the impact of individual factors on the movement of core inflation (CPI excluding the prices of energy, food, alcohol and cigarettes), the following two links were econometrically estimated:

$$\pi_t^c = \beta_1 \pi_{t-1}^c + \beta_2 \pi_t^{exp} + \beta_3 ER_t + \beta_4 GDP_{gap_t} + \beta_5 \pi_t^{EA} + \varepsilon_t \qquad (1)$$

$$\pi_t^c = const + \beta_1 \pi_{t-1}^c + \beta_2 \pi_t^{exp} + \beta_3 ER_t + \beta_4 w_t + \beta_5 \pi_t^{EA} + \varepsilon_t \qquad (2)$$

where π_t^c means core inflation, π_t^{exp} inflation expectations, ER_t dinar exchange rate against the euro – the indirect exchange rate notation is applied where growth indicates the dinar's appreciation against the euro, GDP_{gap_t} is the output gap for the previous four quarters, w_t net nominal wages, and π_t^{EA} euro area inflation.

All variables are expressed as y-o-y changes, in percentage, except for the output gap which represents a percentage deviation from trend. The analysis was carried out on quarterly data for the period Q1 2009 – Q3 2020. Using the output gap-based model, we also forecast core inflation movement in the next two years.

Table O.1.1 **Estimated model coefficients for core inflation**

	Model 1	Model 2
Constant		-0.81***
Core inflation lag (β1)	0.65***	0.59***
Inflation expectations (β2)	0.25***	0.32***
Exchange rate, EUR/RSD (β3)	-0.10***	-0.09***
Output gap (β4)	0.05***	/
Wages (β4)	/	0.05**
Euro area inflation (β5)	0.22***	0.17*
R2	0.98	0.98

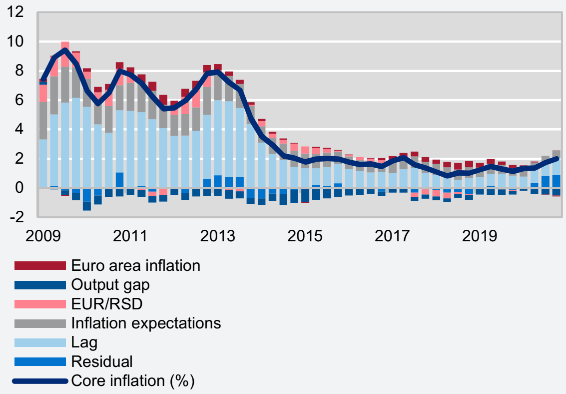
*** Highest statistical significance, i.e. p-value < 0.01; ** p-value < 0.05; a * p-value < 0.1.

In both models, all estimated coefficients have an expected sign and are statistically significant. The presented models explain 98% of core inflation variations (Table O.1.1). The model suggests that a decline in inflation expectations, dinar's appreciation against the euro, a lower output gap and falling euro area inflation lead to a decline in core inflation, which is also affected by a lag, i.e. core inflation from the previous quarter, and vice versa, which is in line with theoretical assumptions. For instance, according to the first equation, a 1 pp decline in inflation expectations leads to a 0.3 pp decline in y-o-y core inflation in the same quarter, dinar's appreciation against the euro by 1 pp leads to a 0.1 pp decline in core inflation, while a 1 pp decline in euro area inflation brings about a 0.2 pp fall in domestic core inflation. The second link also suggests a statistically significant connection between wages and core inflation, with y-o-y wage growth of 1 pp leading to a rise in y-o-y core inflation of 0.05 pp.

Core inflation estimated based on the model tracks actual inflation at a close range in the observed period (Chart O.1.5), but there is a certain deviation in the period from the outbreak of the pandemic, due primarily to the fact that 2020 saw an increase in the prices of those products for which demand was on the rise (primarily equipment to facilitate work from home), while the prices of products and services for which demand contracted significantly were more rigid. In addition, in the calculation of inflation for 2020, the growth rates of prices of some products and services were imputed by the growth rates of these prices from the same period last year (e.g. prices of travel packages) since it was not possible to ensure their full coverage due to the pandemic.

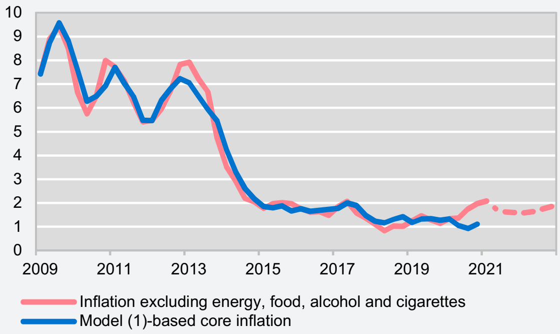
The projection of core inflation based on the coefficients obtained from this model and the inflation factor assumptions underlying the medium-term inflation projection model (a relatively stable exchange rate, anchored inflation expectations, moderate wage growth / negative output gap and low euro area inflation) suggests that core inflation will remain low and stable in the coming period (Chart O.1.5).

Chart O.1.4 **Model-based determinants of core inflation**
(in pp)



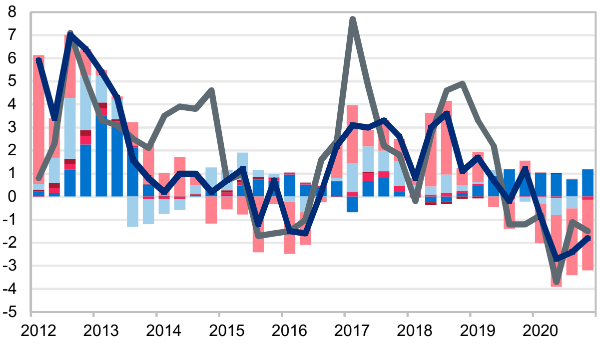
Sources: SORS and NBS calculation.

Chart O.1.5 **Core inflation and its model-based estimate and projection**
(y-o-y rates, in %)



Sources: SORS and NBS projection.

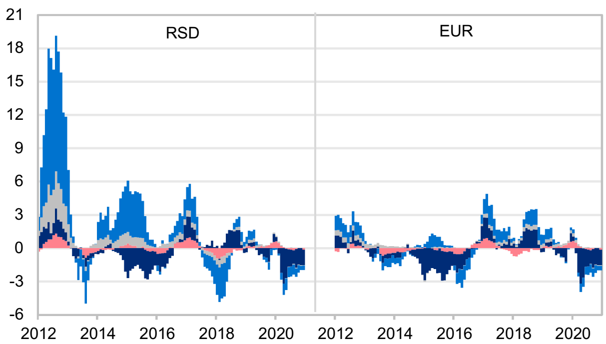
Chart III.0.4 **Contribution to y-o-y producer price growth***
(in pp)



Sources: SORS and NBS calculation.

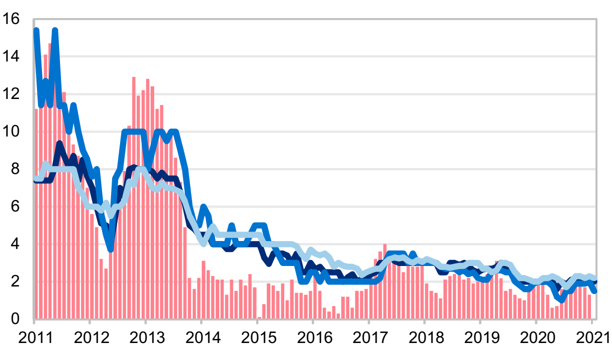
* Industrial producer prices for the domestic market.

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.

Producer and import prices

In 2020, **industrial producer prices for the domestic market** declined, indicating persistently low cost-push inflationary pressures. The y-o-y drop in industrial producer prices moderated in December, to -1.8% (from -2.4% in September and -2.7% in June), driven mostly by the renewed y-o-y **increase** in the producer prices of **non-durable consumer goods** in Q4. In addition, the prices of intermediate goods (especially base metals) recorded a mild y-o-y rise in Q4, as well as the **prices of durable consumer goods**. In contrast, the **energy production prices** continued down in Q4 (primarily domestic crude oil), as well as the **prices of capital goods** (notably construction materials). After falling by 1.1% y-o-y in September, the **prices of elements and materials incorporated in construction** fell further by 1.5% y-o-y in December, confirming low cost-push pressures in construction as well.

Similar to producer prices, **dinar-denominated import prices**[5] have been on the y-o-y decline amid the pandemic, which is mainly attributable to subdued demand. This y-o-y decline moderated in December to -2.0% (from -2.6% in the three previous quarters), primarily as a result of lower negative contribution of the global oil price and export prices of Germany (which are used to approximate the prices of imported equipment and intermediate goods), which measured -1.4 pp and -0.4 pp, respectively (from -2.4 pp cumulative contribution in September). At the same time, cumulative contribution of global food and euro area consumer prices (which are used to approximate the prices of imported services) stayed almost unchanged (-0.2 pp). Dinar-denominated import prices also declined owing to the dinar's strengthening against the dollar, caused by the euro's appreciation vis-à-vis the dollar.

Inflation expectations

Inflation expectations of the financial and corporate sectors for both one and two years ahead stayed low and stable throughout 2020, consistent with the NBS medium-term inflation projection released in November.

According to the results of the Ipsos survey, **one-year ahead inflation expectations of the financial sector** averaged around 2% in Q4 2020 and January 2021.

[5] Preliminary data. 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. The base year is 2010.

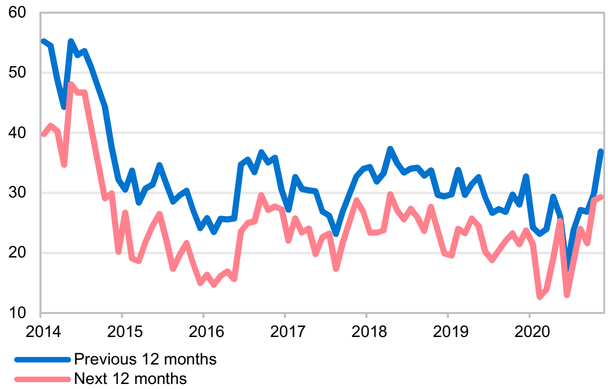
According to the results of the Bloomberg survey, short-term inflation expectations of the financial sector stood at a somewhat higher level in Q4 2020 and January 2021, moving in the 2.2–2.3% range. Looking at a longer horizon, the financial sector has expected inflation to be within the NBS target tolerance band for more than seven years now (since October 2013), which points to the credibility of the NBS monetary policy.

One-year ahead inflation expectations of corporates were anchored in the lower part of the target band in Q4 2020 and in early 2021. They were stable in October and November at 1.9%, while in December they increased slightly to 2.0%, only to slip to the lower bound of the target band (1.5%) in January. Stable inflation expectations of the corporate sector are observed in the survey results on the expected production input prices, as more than 60% 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** moved in the 5–9% range in Q4 and January. Somewhat higher short-term inflation expectations of households are probably due to the announced increase in the prices of energy and utility services, and persistent uncertainties regarding the duration of the new wave of the coronavirus contagion. However, speaking in favour of the expected preservation of price stability are also the results of the qualitative survey[6], which show that in the period under review the index of perceived inflation continued to record higher values than the index of expected inflation. Such movements indicate that households expect inflation to be lower over the next twelve months than in the past year.

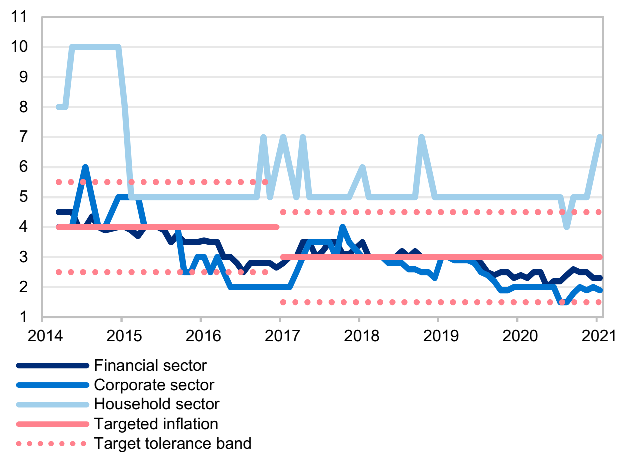
Medium-term inflation expectations of the financial sector, i.e. two-year ahead expectations are anchored within the NBS target tolerance band since their monitoring began (March 2014). They stood at 2.5% in October and November, and declined to 2.3% in December, where they stayed in January. **Two-year ahead inflation expectations of the corporate sector** moved in the range of 1.9–2.0% in Q4 and January, while those of **households** ranged between 5.0% and 7.0%.

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.

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

IV Inflation determinants

1 Financial market trends

The key policy rate cut drove down the interest rates in the interbank money market in December. Investors' rising interest in dinar government securities brought about a fall in interest rates, and their confidence in Serbia was reaffirmed in the international market, with a successful eurobond issue, under the most favourable conditions thus far.

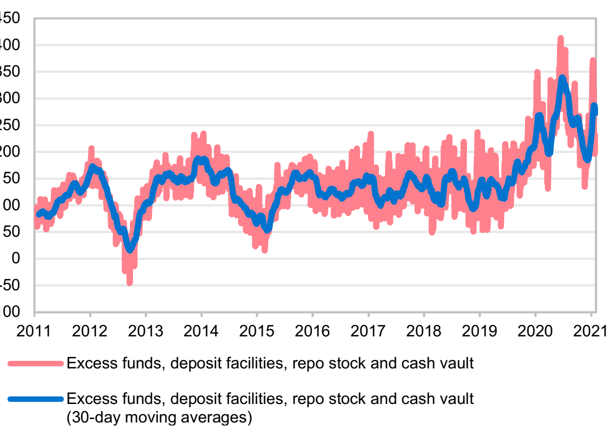
The dinar remained stable against the euro in Q4.

Interest rates

In December, the NBS trimmed its key policy rate by 0.25 pp, to 1.0%, and narrowed the main interest rates corridor from 1 pp to 0.9 pp. As a result, the deposit facility rate was cut to 0.1% and the lending facility rate to 1.9%. The average rate in the auctions of repo sale of securities in Q4 was almost equal to the deposit facility rate, meaning it fell by 16 bp at the quarterly level, to 0.1%, while the stock of sold repo securities at year-end stayed unchanged relative to end-September (RSD 30 bn).

In the **overnight interbank money market**, there was a mild increase in BEONIA (from 0.26% to 0.3%) in November due to a somewhat stronger demand for short-term loans. Amid deteriorating epidemiological situation, the NBS decided to open up as of mid-November two regular lines for supplying cheap dinar liquidity to banks and, by extension, to the corporate sector – auctions of repo purchase of dinar securities and additional swap auctions of FX purchase with a three-month transaction maturity. This should make the financing conditions even more favourable and provide impetus to lending growth. Until the end of January the NBS supplied to banks via these auctions RSD 43.1 bn, which contributed to the decline in BEONIA, which was broadly equal to the deposit facility rate during December, only to slide below it by year-end, settling at 0.08%.

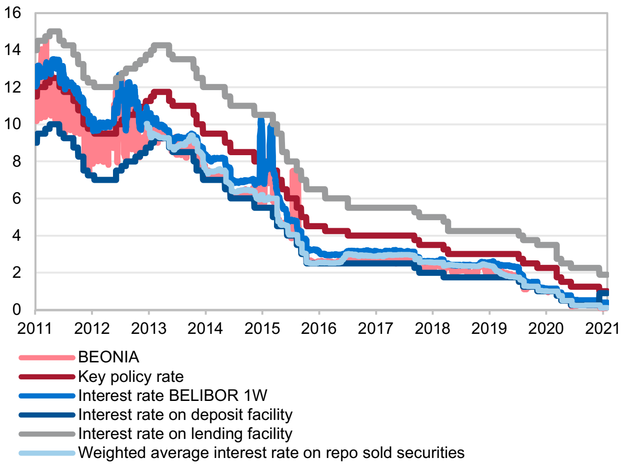
Chart IV.1.1 **Dinar liquidity**
(in RSD bn)



Source: NBS.

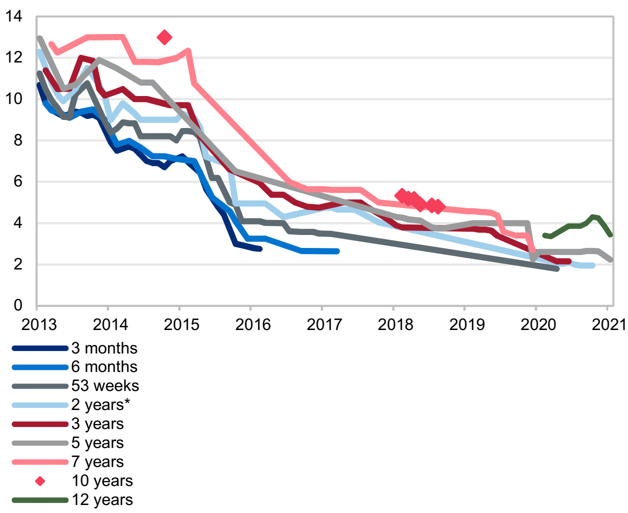
BELIBOR rates for up to one-week maturities stayed flat in October and November, while those for longer

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



Sources: Thomson Reuters and NBS.

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.

maturities oscillated negligibly (up to 1 bp) in the same period. After the NBS key policy rate cut in December, BELIBOR rates also declined – by up to 12 bp, which roughly corresponds to the decrease in the average repo rate. At year-end, they ranged between 0.3% and 1.1%.

As interbank money market rates remained stable in January, at the end of the month BELIBOR rates of all maturities were unchanged relative to end-2020.

In the **primary market**, seven auctions were held for the sale of **dinar government securities** in Q4. In the sale auction held in October, effective rate on two-year dinar securities stayed unchanged (1.95%), while that on five-year dinar securities decreased by 6 bp, to 2.59%, in the sale auction held by the end of November. After increasing by 0.3 pp in October, the effective rate on twelve-year benchmark bonds declined significantly in the two following auctions (by a total of 0.45 pp), settling at 3.85% in the auction held in early December. It should be noted that Q4 saw a much stronger demand for twelve-year securities (in three auctions, with the planned sales volume worth RSD 5 bn each, the total value of the submitted bids was RSD 97 bn). After the first auction in October, when the government accepted all bids, in November it accepted almost a half of them, while in December, in the conditions of secured financing in the international financial market, slightly less than a fifth of the submitted bids was accepted in the domestic market, leading to a significant drop in interest rates.

Stronger demand in the auctions of dinar government securities was primarily driven by greater interest of non-residents in twelve-year dinar securities, as evidenced by their over 82% share in the total purchase of these securities.[7] In Q4, the stock of dinar securities owned by non-residents increased by RSD 26.3 bn, to RSD 232.4 bn, or 24.4% of the entire stock of sold dinar securities, which almost completely offset non-residents' exit from dinar securities after the outbreak of the pandemic.

Rising investor confidence, reflected in the greater interest in Serbian government securities, was also confirmed in the **international financial market**. In November (settlement carried out in December), Serbia successfully realised an issue of dollar eurobonds worth USD 1.2 bn, with a yield of 2.35% and a coupon rate of 2.125%. At the same time, to protect public debt from exchange rate risk, the Republic of Serbia carried out a

[7] In the three auctions held, twelve-year dinar securities were sold in the nominal amount of RSD 43.8 bn, of which RSD 36.0 bn (82.2%) to non-residents.

hedging transaction, achieving a coupon rate for financing in euros of 1.066%, this being **the lowest rate on euro financing ever recorded by our country**. The funds raised were used for the early repayment of a part of the debt under bonds issued in 2011 (USD 900 mn), which means that in September this year a smaller amount of bonds will mature (USD 700 mn).

Investors were more active in the **secondary market**, as testified by higher turnover, which rose from RSD 55.9 bn in Q3 to RSD 124.8 bn in Q4. Yield rates largely mirrored the movement of rates in the primary market. In December, they ranged from 1.25% for the remaining four-month maturity to 3.7% for the remaining twelve-year maturity, on average. At end-December, yield rates dropped further to 3.5% for the remaining twelve-year maturity.

During January the government organised two more sale auctions for five- and twelve-year securities, where effective rates declined by 0.4 pp to 2.2% and 3.4%, respectively. Yield rates in the secondary market mirrored their movement and ranged on average from 1.0% for three-month maturity to 3.4% for twelve-year maturity.

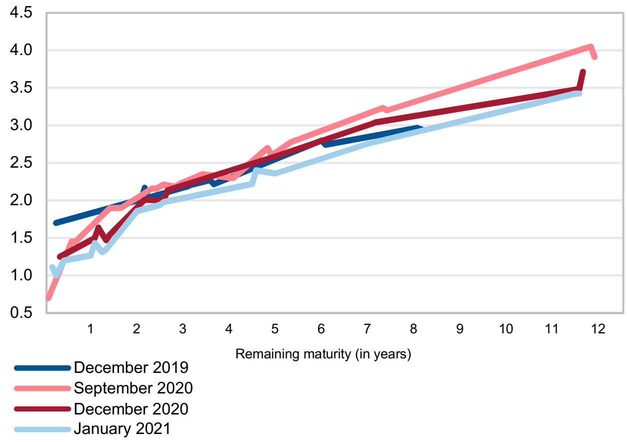
The average interest rate on **dinar loans to corporates** declined by 0.1 pp from September, to 3.2% in December. This is entirely attributable to the decline in interest rates on investment loans (1.1 pp, to 2.9%), while those on working capital loans and other non-categorised loans almost flatlined in Q4, standing in December at 3.4% and 3.0%, respectively.

The average interest rate on **dinar** cash **loans to households**, which are the dominant category of new dinar household loans, equalled 9.2% in December, as in September. Interest rates on other dinar household loans declined in Q4, ranging between 2.1% for consumer loans to 5.3% for other non-categorised loans, so the weighted average rate on total dinar household loans equalled 8.5% in December.

The weighted average **rate on euro-indexed and euro corporate loans** edged up from September by 0.3 pp, to 3% in December, due to the rise in rates on investment loans (0.5 pp, to 3.6%) and those on working capital loans, which rose by 0.1 pp, to 2.7%.

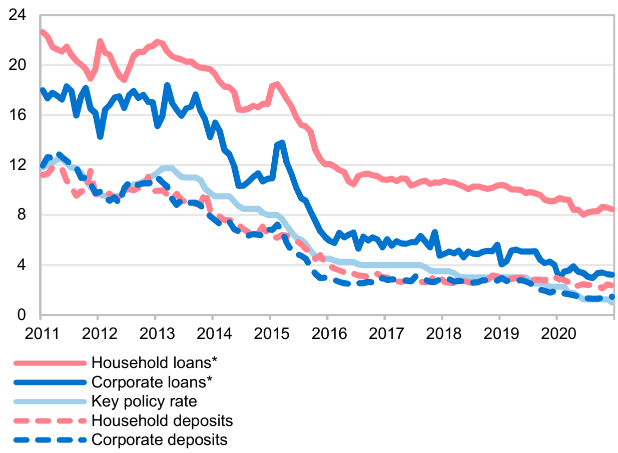
Consistent with the movement of EURIBOR, the average interest rate on housing loans dropped by 0.1 pp, to 2.6%, its lowest level since the comparable statistics were first

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



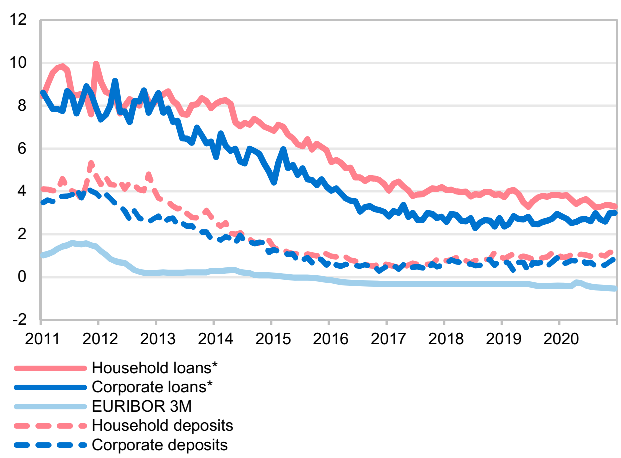
Source: Central Securities Depository and Clearing House.

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.

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

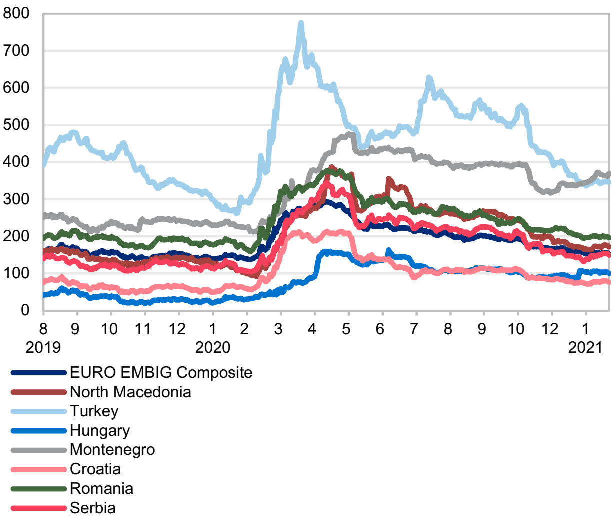


Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

produced. On the other hand, interest rates on other euro-indexed household loans edged up slightly, so the weighted average rate on euro-indexed household loans stayed unchanged from September, at 3.3%.

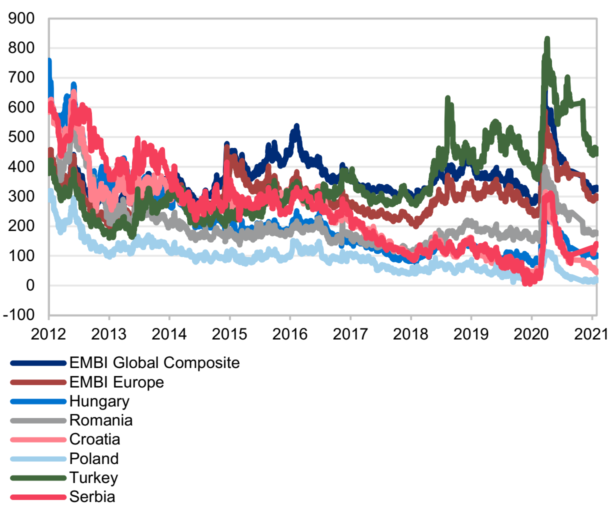
Interest rates on **time deposits** edged up slightly in Q4. Thus, rates on dinar household savings were slightly revised up, to 2.35%, while those on euro savings edged up by 0.1 pp, to 1.2% in December. The average interest rate on time dinar deposits of corporates recorded similar growth (to 1.4%), while the rate on corporate time euro deposits recorded a somewhat greater increase (0.3 pp, to 0.9% in December).

Chart IV.1.7 **Risk premium indicator for euro-denominated debt – EURO EMBIG**
(daily data, in bp)



Source: J.P. Morgan.

Chart IV.1.8 **Risk premium indicator for dollar-denominated debt – EMBI**
(daily data, in bp)



Source: J.P. Morgan.

Risk premium

EURO EMBIG for Serbia (risk premium for euro-denominated debt) fell significantly in Q4. In addition to global factors, such as optimism regarding the coronavirus vaccines despite the growing number of infected persons and newly introduced restrictive health measures, this was also underpinned by Serbia's economic policy measures in response to the crisis, the recovery of economic activity at home, as well as the expected more than full recovery from the crisis in 2021. Under the impact of these factors, EURO EMBIG for Serbia dropped by 82 bp in Q4, to 143 bp, again below EURO EMBIG Composite, which fell by 43 bp, to 158 bp. However, the risk premia for euro-denominated debt of all the observed countries in the region, as well as the composite measure, remained higher than at end-2019, i.e. before the outbreak of the pandemic. In January, EURO EMBIG for Serbia edged up slightly, to 149 bp, still staying below EURO EMBIG Composite that fell mildly, to 151 bp.

Since the new eurobond in dollars (SRB 30) was included in the calculation of EMBI for Serbia by J.P. Morgan, on 31 December 2020, after eurobond SRB 2021 had been excluded from the calculation for a couple of months, the data on the US-dollar EMBI for Serbia is published again. On that day, it measured 128 bp, and was significantly below EMBI Global Composite (323 bp). Both indicators were stable during January and were only slightly higher at the month's end compared to end-Q4 (the composite measure equalling 324 bp and EMBI for Serbia 136 bp).

A December report by Standard & Poor's stated that Serbia's affirmed BB+ rating and a stable outlook are supported by the fact that Serbia entered the pandemic-caused crisis with significantly better overall macroeconomic indicators as a result of the preservation of price, financial and fiscal stability, as well as relative stability of the EUR/RSD exchange rate, by the NBS and the Government of the Republic of Serbia in the previous period. The Agency also emphasised that orderly public finances and increased FX reserves created ample room for Serbian authorities to support the economy by adequate measures during the pandemic.

Foreign capital inflow

The balance of payments financial account recorded a net capital inflow in the amount of EUR 736.7 bn in Q4, as a result of higher FDI and portfolio investment. On the other hand, an outflow was registered under trade and financial loans and banks' increased balances in accounts abroad.

Net inflow of **FDI** to Serbia was relatively high in Q4 – EUR 1.2 bn, a third of which related to the sale of the state-owned stake in Komercijalna banka, whose privatisation was a part of the arrangement with the IMF. In 2020 as a whole, net FDI inflow amounted to EUR 2.9 bn, providing for the full coverage of the current account deficit (146.5%). Compared to 2019, net FDI inflow in 2020 was lower by almost one fifth, which is less than the average decline recorded in the EU countries and in Southeast Europe.[8] Moreover, one should bear in mind that Serbia had a record high FDI inflow in 2019 (EUR 3.6 bn net), and that lower FDI in 2020 reflects mainly a reduction in reinvested earnings, which was expected given the fall in corporate profitability amid the pandemic. Sector-wise, slightly more than one fourth of investments was channelled into manufacturing (26%), followed by the financial sector (18%), transport and warehousing, as well as construction. The bulk of FDI came from European (71%)[9] and Asian countries (20%).

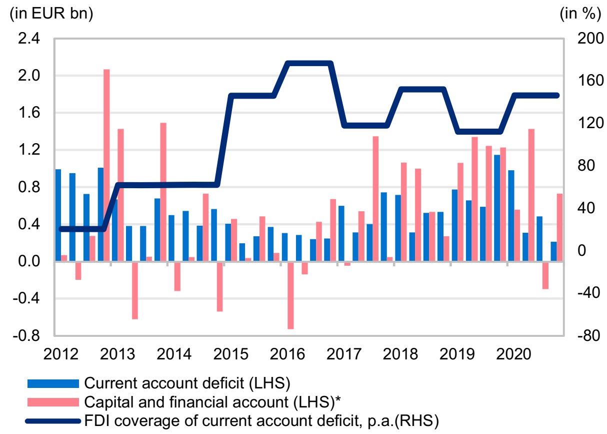
In Q4, Serbia issued in the international financial market ten-year bonds worth USD 1.2 bn, under the most favourable conditions thus far. Most of the funds raised were used for the early repayment of a part of the debt under ten-year dollar bonds issued in 2011 at a significantly higher coupon rate (7.25%). In Q4, non-residents increased their investment in government securities in the domestic market, while residents stepped up their investment in foreign securities. Hence, **portfolio investment** generated a net inflow of EUR 296.4 mn in Q4. Overall in 2020, Serbia recorded an inflow of portfolio investment worth EUR 1.6 bn, testifying to investors' confidence in the preservation of the country's

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

	2017	2018	2019	2020
S&P	BB /stable[4)]	BB /positive[4)]	BB+ /positive[4)]	BB+ /stable[2)]
Fitch	BB /stable[4)]		BB+ /stable[3)]	
Moody's	Ba3 /stable[1)]		Ba3 /positive[3)]	

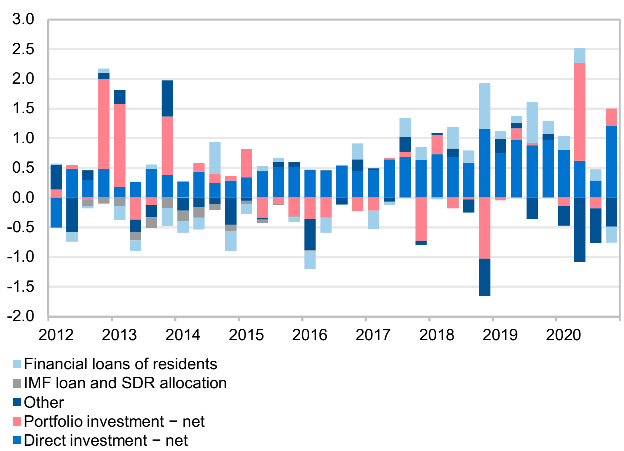
Source: NBS.
[1)] March, [2)] May, [3)] September, [4)] December.

Chart IV.1.9 **Current account deficit and net capital inflow**



Source: NBS.
Note: Preliminary data for Q4 2020.
* Excluding changes in NBS FX reserves.

Chart IV.1.10 **Structure of the financial account**
(in EUR bn)



Source: NBS.
Note: Preliminary data for Q4 2020.

[8] Based on data from the January issue of UNCTAD Investment Trends Monitor. See Text box 2, p. 28.
[9] Mostly EU investments.

macroeconomic stability even in the conditions of heightened uncertainty and rising risk aversion.

Foreign **financial loans** generated a net outflow of EUR 271.2 mn in Q4. Of this amount, the government net repaid its debt by EUR 196.2 mn, banks by EUR 65.4 mn and companies by EUR 9.6 mn. Outflows were also recorded under trade loans (EUR 260.2 mn) and currency and deposits (EUR 183.0 mn), the latter reflecting the increase in banks' balances abroad and the decline in non-residents' balances in Serbia.

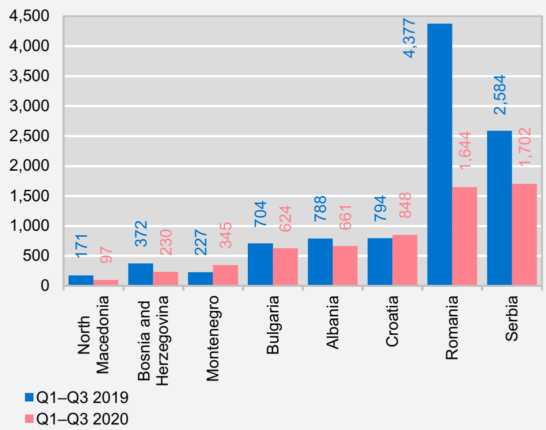
Text box 2: Capital flows to Serbia and its regional peers during the pandemic

The coronavirus crisis had a strong impact on global capital flows in 2020. Immediately upon the outbreak of the pandemic, we saw economic lockdowns, containment measures and dented investor and consumer confidence as a consequence of extreme uncertainty over the fallout on economic and financial flows. In other words, we saw a simultaneous interaction of supply- and demand-side shocks. All of this triggered in March and April a rise in investment in safe assets and a contraction in capital flows to emerging markets amid reduced risk appetite. With the gradual opening of economies and easing of containment measures, as well as with the support of large economic assistance packages adopted by many governments worldwide, a global recovery began from May onwards, leading to a decline in emerging markets' risk premia and a rise in their capital inflows. However, these inflows remained lower than pre-crisis.

According to an UNCTAD Investment Trends Monitor released in January this year, global FDI fell in 2020 by 42% from USD 1.5 tn in 2019 to an estimated USD 859 bn, this being a much sharper drop than the one recorded in the two years following the global financial crisis of 2008. It is estimated that FDI to EU countries collapsed by 71% in 2020, while the FDI drop in Southeast Europe, where Serbia belongs, measured 28%. In its World Investment Report published in June 2020, UNCTAD projected global FDI to decrease by a further 5 to 10 per cent in 2021 and to initiate a gradual recovery only in 2022. Though economic lockdowns at the outbreak of the pandemic had an immediate effect as a supply-side shock, the drop in FDI in 2020 and 2021 is seen primarily as a consequence of the demand-side shock, i.e. investment restraint amid heightened uncertainty.

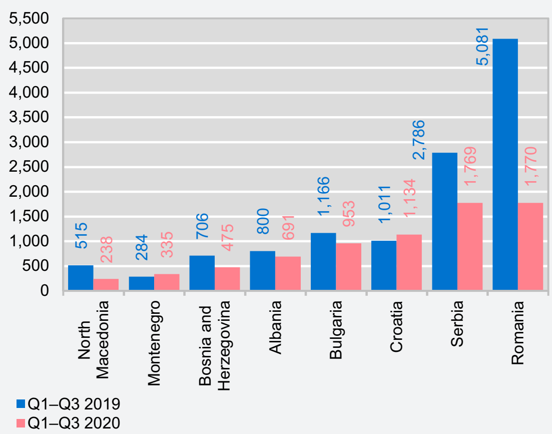
When it comes to capital flows to Serbia, we can say that, in spite of the crisis, our country recorded a relatively high **FDI** inflow of EUR 2.9 bn net (EUR 3.0 bn gross). Such – by 18.3% lower net inflow than in 2019 is attributable primarily to lower reinvested earnings (by EUR 0.8 bn), though it should be taken into account that 2019 was the year of record high FDI inflow (EUR 3.8 bn gross or EUR 3.6 bn net). Besides, FDI inflow in 2020, which was 13% higher than the five-year average and 41% higher than the ten-year average, remained widely dispersed and, as before, mostly channelled to export-oriented sectors, providing for the full coverage of the current account deficit. As regards **portfolio investment**, Serbia recorded a net inflow of EUR 1.6 bn, which for its major part stemmed from the issue of seven-year eurobonds worth EUR 2 bn in the international financial market in May in order to ensure adequate fiscal support to the economy in fighting the pandemic, as the funds raised through the second eurobond issue in 2020 were mostly used for the early repayment of a part of debt under bonds issued back in 2011. In early 2020, non-residents scaled down their investment in government securities, especially from February through April, leading to a net outflow of close to EUR 223 mn in this period, and the same happened in July when the epidemiological situation deteriorated. The share of non-

Chart O.2.1 **FDI, net inflow**
(in EUR mn)



Sources: Websites of central banks.

Chart O.2.2 **FDI, liabilities**
(in EUR mn)



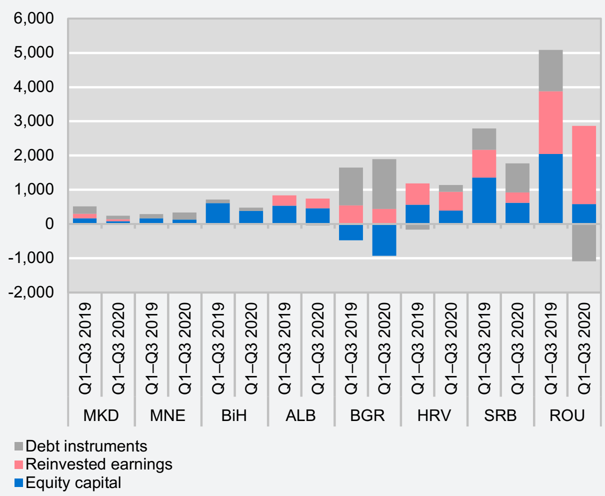
Sources: Websites of central banks.

residents in the local primary market of dinar government securities increased only late in the year on the back of growing optimism over global economic recovery spurred by the news on likely mass vaccination. In addition, at the close of the year Serbia issued in the international financial market ten-year eurobonds worth USD 1.2 bn at the most favourable conditions thus far (1.066%[1] in euros), and the funds raised were mostly used for the early repayment of a portion of debt under expensive dollar eurobonds issued back in 2011.

Both eurobond auctions in the international financial markets were by several times oversubscribed, which, along with affirmed credit rating, with positive (Moody's in September) and stable outlook (Fitch in September and Standard & Poor's in December), is a proof of the confidence investors have in the sustainability of Serbia's macroeconomic stability even in these trying times.

It should be noted that J.P. Morgan, one of the leading financial institutions in the world, announced on 11 February the decision to include Serbia's dinar-denominated bonds in its renowned GBI-EM family of indices as of 30 June 2021. This event, announced by Governor Tabaković a year ago, is of paramount importance, given the volumes of trading in securities included in the index and the fact that this is one of the most frequently watched indices by international investors, i.e. one of the benchmark indices of bonds issued in local currencies of emerging economies. As a result, Serbia will become an even more attractive investment destination, as foreign investors are given a powerful signal that Serbia is a safe and desirable investment destination and that it will remain so in the coming period as well.

Chart O.2.3 **FDI liabilities, by instrument**
(in EUR mn)



Sources: Websites of central banks.
* Data on reinvested earnings are shown together with equity investments.

In an environment of low interest rates in the international money market and accommodative monetary policy of the ECB, residents' borrowing under **financial loans** increased by EUR 405.9 mn net. This increase was driven primarily by banks, whose net liabilities to foreign creditors climbed by EUR 455.5 mn, as well as by enterprises, which borrowed EUR 267.2 mn. Still, relative to 2019, the inflow from financial loans was by two thirds lower, thanks also to the Government which net repaid its debt by EUR 308.5 mn, while in 2019 its debt increased by a similar amount.

The deficit on the **primary income account** narrowed down significantly, reflecting chiefly lower expenditure in respect of FDI receipts (down by EUR 1.1 bn, to EUR 1.3 bn). FDI expenditure declined mainly on account of lower estimated reinvested earnings that can be linked to reduced profitability of foreign-owned companies due to the pandemic. Owing to more favourable conditions of borrowing in the prior period, portfolio investment expenditure also went down (by EUR 61.1 mn, to EUR 250.6 mn), which, together with a smaller deficit on trade in goods and a higher surplus on trade in services, led to a decrease in the current account deficit by 37.3%, to 4.2% of GDP. On the other hand, what worked toward increasing the current account deficit was the lower surplus on the **secondary income account** (by EUR 357.3 mn), due to a smaller inflow of remittances. Namely, remittances contracted amid the global crisis and reduced labour force mobility by 12.9%, to EUR 2.9 bn, which corresponds to movements in other countries with traditionally high inflows on this account.

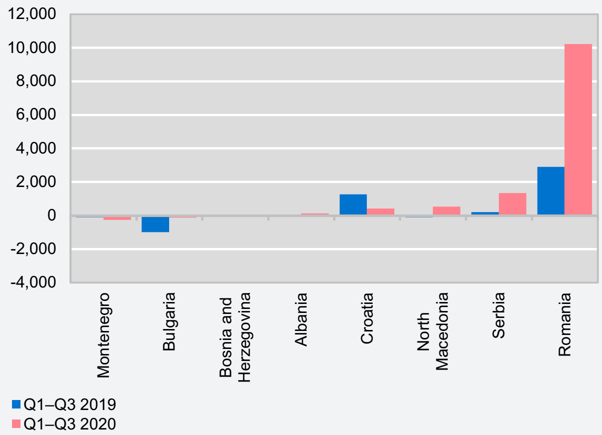
A comparison of selected items of the balance of payments (FDI and portfolio investment, primary and secondary income) of **Serbia and its regional peers** (Bulgaria, Romania, Croatia, North Macedonia, Montenegro, Bosnia and Herzegovina, and Albania) in 2020 reveals similar trends in capital flows. The comparison was made based on data for

[1] Dollar bonds issued at the coupon rate of 2.125%, after which by a swap transaction liabilities under these bonds were converted from dollars into euros, achieving a de facto coupon rate for euro financing of 1.066%.

the nine months of 2020, given that for some of the countries analysed, data are available concluding with Q3.

With a **net FDI inflow** of EUR 1.7 bn in the nine months of 2020, Serbia was a regional leader, and was followed by Romania with a net FDI inflow of EUR 1.6 bn. In the conditions of the pandemic and globally increased risk aversion, the majority of countries (Romania, Bulgaria, Albania, North Macedonia, Bosnia and Herzegovina, and Serbia) recorded a y-o-y decrease in net FDI inflow, while a y-o-y increase was recorded by Montenegro and Croatia, the former on account of lower residents' investment abroad and the latter on account of lower repayment of inter-company loans than in the same period of 2019. The sharpest y-o-y decrease in net FDI inflow was suffered by Romania (as much as 62.4%), followed by North Macedonia (43.4%), Bosnia and Herzegovina (38.3%) and Serbia (34.2%). Looking at FDI inflow alone, we can see that relative to the same period a year earlier it was mostly equity investment and reinvested earnings that went down, while inflows from inter-company loans in some countries even increased (Bulgaria, Serbia, Montenegro).

Chart O.2.4 **Portfolio investment, net inflow**
(in EUR mn)



Sources: Websites of central banks.

Table O.2.1. **Bond issues in the international market in 2020**

	January	April	May	June	July	September	November	December
Bulgaria						EUR 2.5 bn		
Montenegro								EUR 750 mn
Albania				EUR 650 mn				
North Macedonia			EUR 700 mn					
Serbia			EUR 2 bn				USD 1.2 bn	
Croatia				EUR 2 bn				
Romania	EUR 3 bn		EUR 3.3 bn		USD 3.3 bn		EUR 2.5 bn	

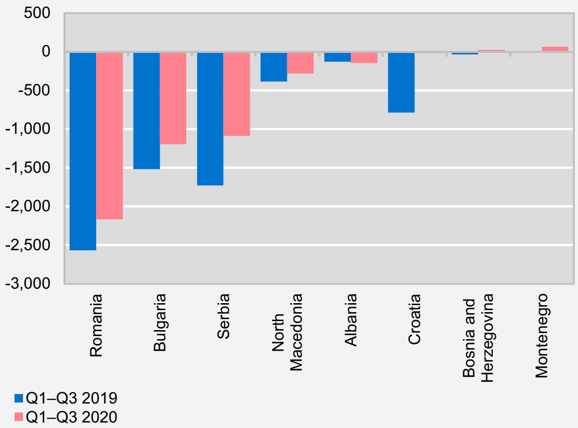
Sources: Websites of ministries of finance.

Net inflow from portfolio investment in the nine months of 2020 was recorded by Romania, Serbia, North Macedonia, Croatia and Albania, as a result of eurobond issues in the international financial market. The largest net inflow was seen in Romania, which issued eurobonds worth over EUR 9 bn during the nine months of 2020, only to issue additional EUR 2.5 bn in eurobonds again in November.

The improvement in the **primary income balance** in nearly all of the countries observed – switching from a deficit to a surplus in Montenegro and Bosnia and Herzegovina, as well as a deficit decrease in other countries observed except Albania – is a result of lower expenditure on FDI receipts. By more than 30% lower FDI expenditure was registered for Serbia, but also Montenegro, North Macedonia, Croatia and Bulgaria.

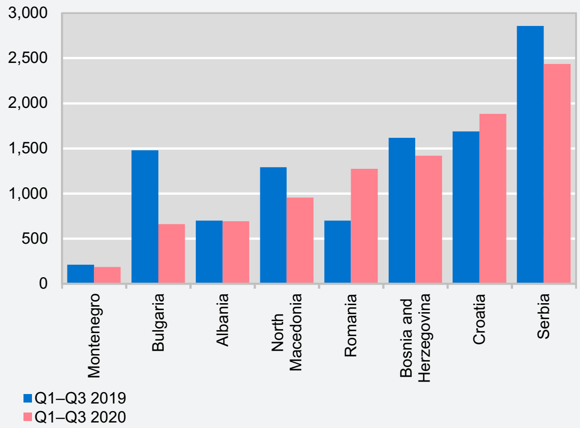
By contrast to the primary income balance, the majority of countries in the region recorded a lower **surplus on the secondary income account** in the nine months of 2020 compared to the same period a year earlier. The only exceptions in this respect are Romania and Croatia, where higher inflows stemmed from increased transfers from the EU. Notwithstanding a 14.8% y-o-y fall, to EUR 2.4 bn in the nine months of 2020, Serbia continues to record the highest secondary income inflows in the region. As in the case of Serbia, the fall in secondary income inflows in other countries is due to the lower inflows from personal and other transfers. Though detailed statistics is not available yet for all the countries observed, we assume that lower personal transfers reflect lower remittances from workers abroad. The impact of the pandemic on remittance flows unfolds mainly via two channels. First, the GDP fall in the countries from which remittances originate affects the disposable income that migrant workers can set aside and send to their home countries, and second, containment measures make it difficult to transfer a part of remittances that go outside official channels (a part of remittances brought by the diaspora in cash).

Chart O.2.5 **Primary income, balance**
(in EUR mn)



Sources: Websites of central banks.

Chart O.2.6 **Secondary income, balance**
(in EUR mn)



Sources: Websites of central banks.

Trends in the FX market and exchange rate

As the dinar remained stable against the euro in Q4, its value was almost unchanged both in quarterly terms and at the level of 2020. On the other hand, since the dollar weakened against the euro, the dinar gained 4.7% against the dollar in Q4 and 9.7% in the year as a whole.

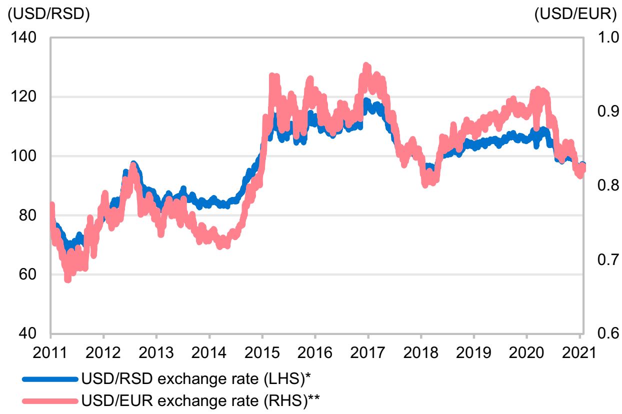
The depreciation pressures, present since February 2020 as a consequence of the pandemic, waned gradually over the past months, while November and December even saw the prevalence of appreciation pressures. Contributing to these trends were residents who were selling foreign currency to banks in December rather than buying it as usual and non-residents who were the majority buyers of twelve-year dinar government securities at the November and December auctions. The supply of foreign currency increased also on account of the net purchase of foreign cash from citizens and exchange dealers, as well as of the lengthening of the FX position of banks on account of the use of payment cards by non-residents. Even though the decrease in FX-indexed bank assets[10] worked in the opposite direction, in quarterly terms, in Q4 the supply of foreign currency exceeded the demand.

In Q4, the NBS was a net buyer of foreign currency in the IFEM (EUR 185.0 mn in total). At the level of the year, the NBS net sold EUR 1,450.0 mn, contributing thereby to the preservation of the relative stability of the dinar exchange rate against the euro amid significantly heightened global uncertainty due to the pandemic.

The volume of trading in the IFEM[11] was rising in Q4, month after month, reaching on average EUR 30.2 mn a day in December. Such trends drove up the average daily trading volume in the IFEM to EUR 26.8 mn in Q4, up by EUR 5.8 mn q-o-q.

The volume of turnover at FX swap auctions also went up in Q4, owing to the introduction of additional auctions. Namely, as of 16 November, additional three-month swap auctions of purchase of foreign exchange at fixed swap points are held each Monday. A total of EUR 262.0 mn was bought (of which EUR 207.0 mn at fixed swap points) and EUR 55.0 mn sold at three-month swap auctions in Q4. At regular two-week swap auctions, the NBS bought from and sold to banks EUR 67.0 mn each.

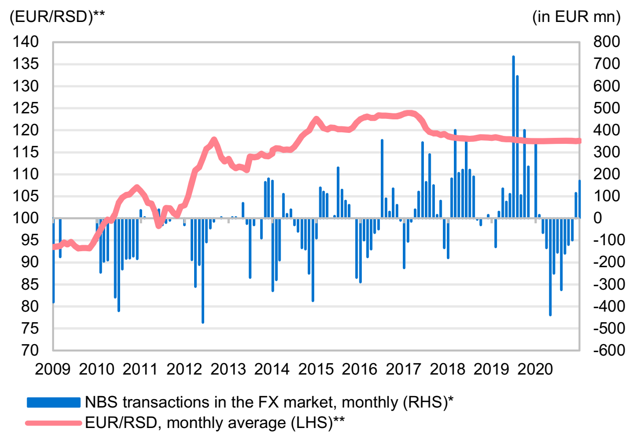
Chart IV.1.11 **Movements in USD/RSD and USD/EUR exchange rates**



Source: NBS.

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

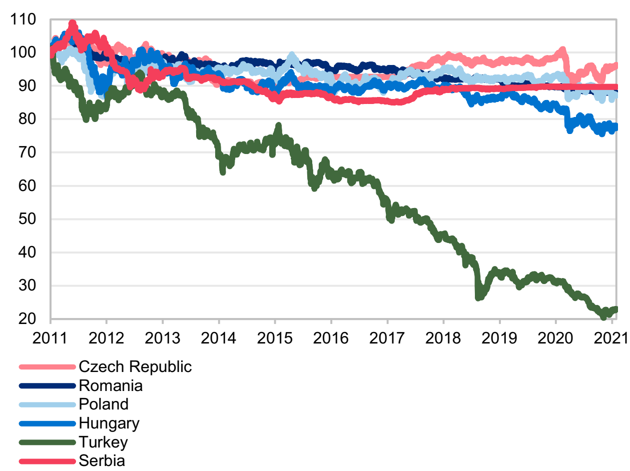
Chart IV.1.12 **Dinar exchange rate and NBS transactions in the FX market**



Source: NBS.

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

Chart IV.1.13 **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 long open FX positions, and reduce the exposure to FX risk, banks buy foreign currency, which results in the weakening of the dinar.

[11] Excluding the NBS.

Among the currencies of inflation targeting countries in the region, in Q4 the Czech koruna and the Turkish lira gained against the euro 3.7% and 1.3%, respectively. The Romanian leu remained unchanged, while the Hungarian forint lost 0.1% and the Polish zloty 1.9%. At the level of the year, unlike the dinar, which remained unchanged in 2020, all the said currencies weakened – the Romanian leu the least (1.9%) and the Turkish lira the most (26.2%).

2 Money and loans

Consistent with our expectations, growth in monetary aggregates has gradually slowed down y-o-y, due to, among other things, the lifting of the moratorium and the reduction of direct government assistance. Domestic lending, supported by accommodative monetary policy and Guarantee Scheme loans, posted an almost double-digit growth for the third year in a row.

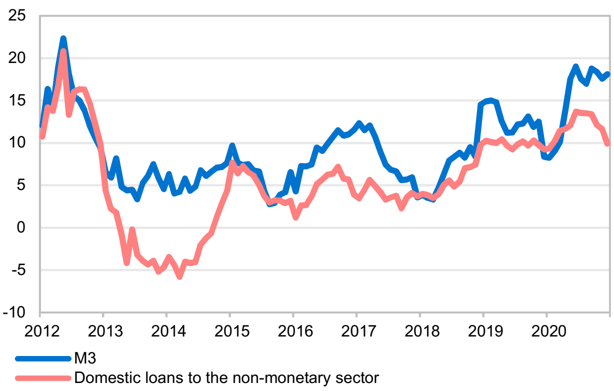
Monetary aggregates

The rise in money supply continued into Q4 and, typically for the season, accelerated relative to Q3, largely due to higher government spending in December. Apart from that, same as in the previous part of the year, money supply growth also received a positive impetus from lending. The broadest monetary aggregate, M3, increased in Q4[12] by 4.0%, with 70% of this growth stemming from the rising dinar component.

Observed by individual category, **sight deposits** recorded the strongest growth in Q4, gaining RSD 76.7 bn. Almost a half of that growth referred to corporate transaction deposits (RSD 38.1 bn), followed by household deposits, which added RSD 29.8 bn. Balances in other sectors' accounts also increased in Q4, but to a much lesser extent.

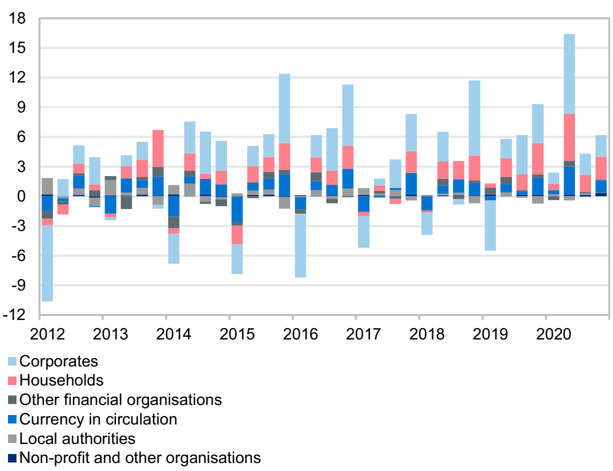
Time dinar deposits of non-monetary sectors decreased by RSD 4.9 bn in Q4, reflecting lower balances in the accounts of corporates (by RSD 7.7 bn) and local authorities (by RSD 2.6 bn). On the other hand, time dinar deposits of other sectors recorded an increase. The sharpest rise was recorded for dinar savings of households (residents), which in Q4 gained RSD 3.7 bn, reaching record high RSD 92.5 bn at end-December. Looking since the start of the year, households increased their dinar savings by RSD 13.5 bn or 17.1%, contributing to their dynamic growth for the third consecutive year. This

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.

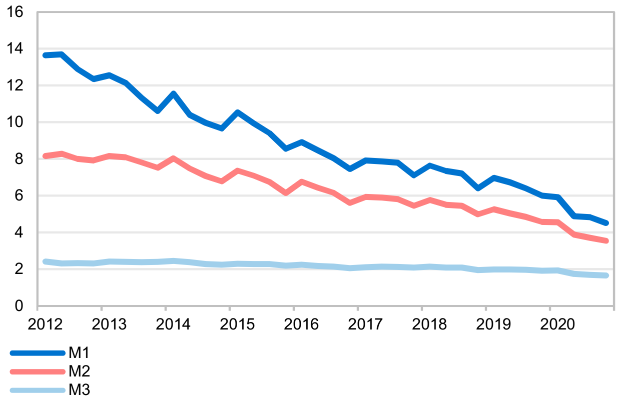
[12] In Q3 by 3.3%.

reflects citizens' confidence in financial and price stability, given that savings growth was realised in conditions of pandemic-induced crisis and increased risk aversion. What also contributes to the attractiveness of dinar relative to FX savings are the higher interest rates and a more favourable tax treatment.

In Q4, **FX deposits** went up by EUR 322.1 mn and 80% of this growth originated from household (resident) deposits. At the annual level, FX savings of households increased by EUR 601.1 mn, reaching record EUR 11.1 bn at end-2020.[13] Deposits of other financial organisations gained EUR 42.0 mn in Q4, and those of non-profit organisations EUR 24.9 mn. On the other hand, corporate FX deposits fell by EUR 16.6 mn in Q4.

In y-o-y terms, growth in monetary aggregates gradually slowed down since mid-2020[14] – money supply M3 decelerated y-o-y to 18.1% in December (from 18.8% at end-Q3). Similar tendencies may be expected in the period ahead, given that the pronounced growth in money supply in 2020 was connected with liquidity injections to the domestic economy and a rise in disposable household income, supported by the NBS's measures (monetary policy accommodation and moratorium effects), as well as a significant direct government assistance. Money supply was also boosted by households' refraining from spending in pandemic conditions and postponement of investment, which will tend to loosen up as the vaccination progresses and the epidemiological situation improves.

Chart IV.2.3 **Velocity of money**
(nominal y-o-y rates, in %)



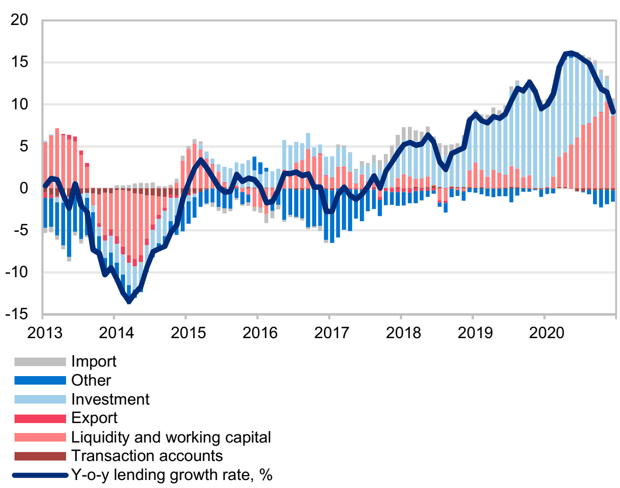
Source: NBS.

Loans

NBS monetary policy easing, along with the effects of measures stimulating sustainable household lending, approval of Guarantee Scheme loans to micro, small and medium-sized enterprises and entrepreneurs, as well as the maintained low interest rates in the euro area money market, enabled the continuation of lending growth in Q4. Lending growth of almost 10% for the third year in a row is in line with our projections, while a y-o-y deceleration late in the year is an expected consequence of the high base from the previous year and the maturing of larger amounts since October, after the lifting of the second moratorium.

At the level of Q4, **corporate loans**, excluding the effect of exchange rate changes, declined by RSD 6.7 bn, partly

Chart IV.2.4 **Contributions to y-o-y corporate lending growth**
(in pp, excluding the exchange rate effect)

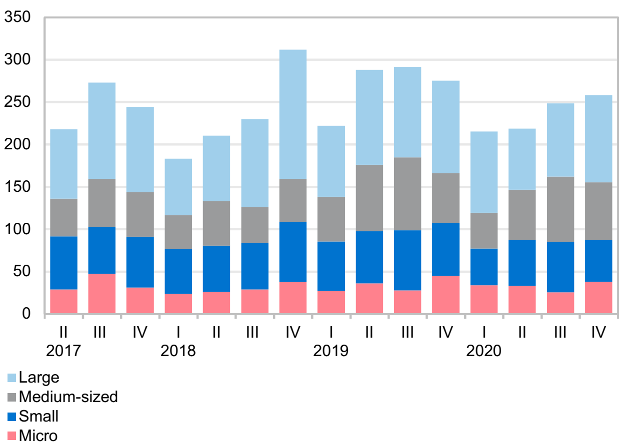


Source: NBS.

[13] Money supply M3 includes only resident funds. With non-resident funds included, at end-December dinar savings equalled RSD 93.0 bn and FX savings EUR 11.4 bn.

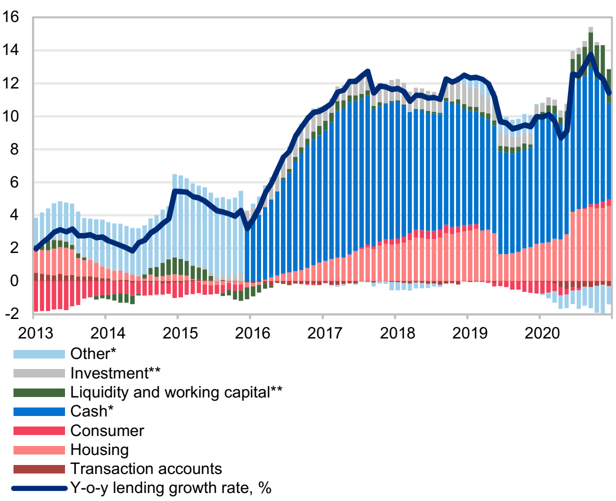
[14] Consistent with our expectations presented in the August 2020 *Inflation Report*.

Chart IV.2.5 **Structure of new corporate loans, by enterprise size**
(in RSD bn)



Source: NBS.

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.

due to larger amounts falling due upon the lifting of the moratorium. Together with the last year's high base effect, this dragged down the y-o-y growth in corporate loans from 13.3% in September to 9.1% in December. At the annual level, corporate loan balance went up by RSD 114.4 bn, driven by the growth in liquidity and working capital loans. Amid growing corporate liquidity needs and approval of Guarantee Scheme loans, liquidity and working capital loans have become the dominant category of corporate loans, making up 43.7% in December. Next come investment loans, with a 43.0% share. Sector-wise, in Q4 loan stock increased for companies in electricity supply, real estate and construction, while edging down for other sectors.[15] In terms of company size, the market segment of micro, small and medium-sized enterprises accounted for 69% of corporate loans in December, while their y-o-y growth in the same month equalled 9.4%.

The volume of new corporate loans in Q4 amounted to RSD 258.2 bn, up by 4.0% q-o-q or down by 6.1% y-o-y. More than 50% of the corporate loans approved in Q4 were liquidity and working capital loans, and almost two thirds of these loans were used by micro, small and medium-sized enterprises which were offered more favourable terms of financing under the Guarantee Scheme. Investment loans made up 33% of new corporate loans in Q4, with two thirds of approved loans being absorbed by micro, small and medium-sized enterprises.

Excluding the exchange rate effect, **household loans** went up by RSD 7.8 bn in Q4. In terms of purpose, Q4 growth was driven by housing loans (RSD 13.5 bn), and to a lesser extent also by cash loans, while the stock of non-categorised loans declined. At the annual level, household loans went up by RSD 127.0 bn and their y-o-y growth decelerated from 13.8% in September to 11.4% in December. In the structure of household loans in December, the dominant categories were cash loans (44.4%) and housing loans (36.8%).

The volume of new household loans in Q4 amounted to RSD 131.5 bn, up by 9.5% from Q3, and down by 6.4% from the same period last year. Dominant loan categories were cash loans (60% of new household loans in Q4) and housing loans (23%), where the amount of housing loans approved in Q4 increased 22% y-o-y. Loan demand was boosted by favourable terms of borrowing and the rise in disposable income in conditions of a relatively solid

[15] At the annual level, the loan stock increased across all sectors, most notably in real estate, transport and construction companies.

supply, as indicated by the continued growth in the number of apartments completed since 2016.

The results of the **January Bank Lending Survey of the NBS**[16] show that in conditions of persisting risk aversion banks tightened corporate credit standards in Q4, but to a much lesser extent compared to the previous two quarters. On the other hand, in line with the expectations reported in the October survey, household credit standards were relaxed in Q4, as a result of the positive outlook in the real estate market and competition in the banking sector. In banks' view, both corporate and household loan demand expanded in Q4, driven by liquidity and debt restructuring needs, as well as real estate purchases by households. The expectations for Q1 2021 show that standards for the approval of corporate loans will remain largely unchanged, while a mild tightening is possible in the household sector, due to higher risk perception. At the same time, banks expect a further rise in corporate and household loan demand under the impact of almost the same factors as in Q4.

Dinarisation of corporate and household receivables, measured by the share of dinar in total receivables, reached its new maximum of 37.3% in December, rising by 0.7 pp from end-Q3. The share of dinar corporate receivables increased by 1.8 pp in Q4, to 21.0% in December, supported by the approval of dinar loans under the Guarantee Scheme and purchase of dinar corporate bonds. On the other hand, the degree of dinarisation of household receivables dropped by 0.6 pp to 55.9% in Q4, partly as a result of the higher growth of housing loans (which are largely approved in foreign currency) compared to that of cash loans.

Gross **NPL ratio** increased by 0.3 pp in Q4 to 3.7% in December, partly as a consequence of larger loan amounts falling due after the lifting of the second moratorium. At the same time, the corporate NPL ratio[17] rose to 3.1%, while household NPL ratio[18] remained at 3.6%. NPL coverage remained high – allowances for impairment of total loans amounted to 93.2% of NPLs in December, while allowances for impairment of NPLs stood at 58.5% of NPLs.

Capital adequacy ratio[19] at end-Q3 2020 stood at 22.4%, which suggests high capitalisation and resilience of the banking sector (regulatory minimum – 8.0%).

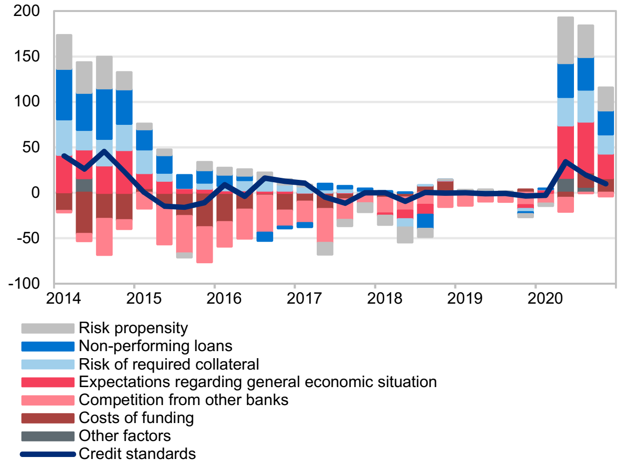
[16] The NBS conducts the survey since the beginning of 2014.

[17] It includes companies and public enterprises. Looking at companies alone, NPL share in total loans in December also equalled 3.1%.

[18] With entrepreneurs and private households included, the share of NPLs is also at the level of 3.6%.

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

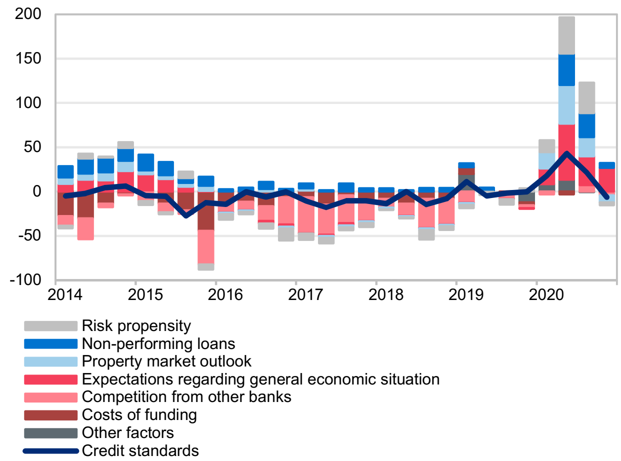
Chart IV.2.7 **Change in corporate credit standards and contributing factors**
(in net %)



Source: NBS.

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

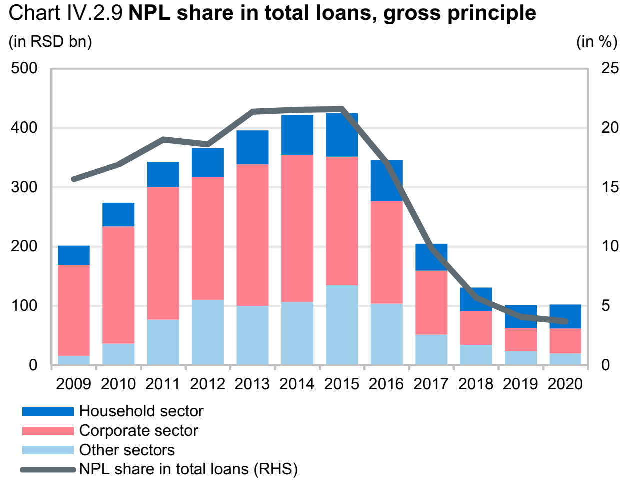
Chart IV.2.8 **Change in household credit standards and contributing factors**
(in net %)



Source: NBS.

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

Chart IV.2.9 **NPL share in total loans, gross principle**



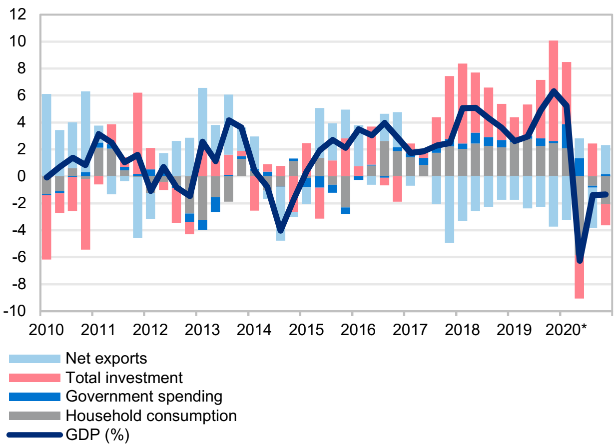
Source: NBS.

3 Aggregate demand

Following a strong recovery of economic activity in Q3 (6.3% s-a), a new wave of the coronavirus brought more restrictive epidemiological measures, dampening domestic consumption and slowing down GDP growth in quarterly terms, to 1.3% s-a in Q4. The faster rebound in exports compared to imports of goods and services worked in the opposite direction.

Domestic demand

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 2020.

Y-o-y, GDP lost 1.3% in real terms in Q4, primarily due to the lower **private consumption**, which according to our estimate, shrunk by 3% y-o-y (negative contribution to GDP of 2.1 pp), because the spreading of the new wave of the coronavirus and the consequent tightening of health measures limited working hours in the majority of services. The sharpest fall in activity was recorded in tourism and catering, as suggested by the reduced number of overnight stays of domestic tourists by 28% y-o-y, and the fall in the real catering turnover of over 30% y-o-y in October. Amid renewed spread of the epidemic, the consumption channelled to household recreation, cultural and sports events almost halted, while lower population mobility negatively affected the transport sector. On the other hand, Q4 saw a continued rise in retail trade turnover (2.5% y-o-y), which, however, also lost steam relative to Q3 (5.6% y-o-y).

Thanks to government and NBS measures, the sources of private consumption did not contract during the pandemic, which suggests that the reduction in private consumption is temporary in nature. Namely, positive labour market dynamics was maintained in Q4, so the main source of financing of private consumption – the wage bill – recorded double-digit growth (13.6 % y-o-y in the period October–November). In addition, Q4 also saw an increase in loans intended for consumption and a rise in remittances by 2.4% y-o-y.

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

	2020			
	Q1	Q2	Q3	Q4
Household consumption	**3.0**	**-8.1**	**-1.0**	**-3.0** *
Indicators				
Retail trade	10.0	0.0	5.6	2.5
Catering turnover	3.9	-44.6	-25.6	-28.4 **
Number of domestic tourists	-3.5	-65.4	11.3	-36.0
Number of overnight stays of domestic tourists	1.5	-60.8	13.0	-28.9
Consumer goods imports (BEC classification), nominal	9.5	-3.2	13.6	13.2
Sources				
Total wage bill, nominal	13.9	12.1	14.1	13.6 ***
Net remittances inflow, nominal	-11.2	-31.3	-10.3	2.4
Stock of loans intended for consumption, nominal	12.8	12.3	15.4	14.2

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

According to our estimate, a mild rise in **government consumption** in Q4 somewhat moderated the fall in private consumption, so the overall consumption dragged GDP down by 1.9 pp.

Growing investors' risk aversion amid the global pandemic weighed down on investment. Still, it should be noted that the fall in fixed investment, estimated at around 2.0% y-o-y, slowed down significantly in Q4.

Lower investment activity of the private sector (-4.2% y-o-y) was particularly pronounced in terms of the purchase of new equipment by companies, as indicated by the fall in machinery production by 8.5% y-o-y and in equipment imports by 12.7% y-o-y. On the other hand, movement of construction indicators is encouraging. Namely, the rise in production and imports of construction material of 8.7% y-o-y and 12% y-o-y, respectively, in Q4 was also accompanied by the higher number of construction permits issued, by 22.3% y-o-y in October and November.

Speaking of the sources of financing of private investment in Q4, in the pandemic conditions, the availability of own sources of financing decreased relative to the same period last year, which was partly offset by the moratorium on loan repayment and direct government support. Investment lending also contracted. On the other hand, high FDI inflow continued, with the realisation of investments into export-oriented sectors which were announced before the outbreak of the crisis. Compared to the pre-crisis period, FDI inflow (excluding receipts from the privatisation of Komercijalna banka) in Q4 was almost identical to the inflow realised in Q1, while edging down by 14.1% y-o-y, which can be explained by the record high FDI inflow in 2019.

Continued implementation of infrastructure projects financed by the government resulted in the growth of **government investment** of 9.0% y-o-y in Q4, which positively contributed to GDP growth with 0.4 pp. It should be noted that in 2020 as a whole government investment increased by 7.4%, despite the contraction in revenues due to the global pandemic.

According to our estimate, the rise in **inventories** in Q4 was lower than in the same quarter of the previous year, most probably due to higher exports of agricultural products, which gave a negative contribution to GDP growth.

In quarterly terms, economic activity rose entirely on the back of net exports. Domestic demand, after excluding seasonal factors, dropped relative to Q3 due to lower consumption and partly also due to spending of inventories, while fixed investment, according to our estimate, gained 3.5% s-a in Q4.

Net external demand

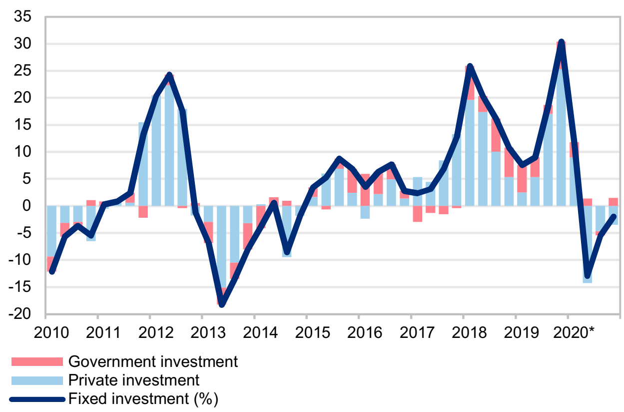
Foreign trade movements in 2020 were V-shaped. Y-o-y, after the fall in real exports and imports of goods and services in Q2 (20.5% and 19.6%, respectively), Q3 first saw a considerable deceleration of that fall, while Q4 recorded a real growth in exports of 2.6% and a fall in imports of 1.1%. A more notable recovery in exports

Table IV.3.2 **Investment indicators**

	2020			
	Q1	Q2	Q3	Q4
Real y-o-y growth rates (in %)				
Fixed investment (national accounts)	11.8	-12.9	-5.5	-2.0
Construction (national accounts)	20.9	-3.7	-18.0	-4.0
Government investment	15.0	10.0	-5.3	9.0
Number of construction permits issued	22.3	-21.0	-0.7	22.3 *
Production of construction material	-3.1	-11.5	1.2	8.7
Value of works performed	26.2	-2.1	-17.2	-8.9
Imports of equipment, nominal	27.4	-14.5	12.4	-12.7
Production of domestic machinery and equipment	-0.5	-15.0	0.3	-8.5
Finished product inventories in industry	-5.1	-0.6	2.2	1.9

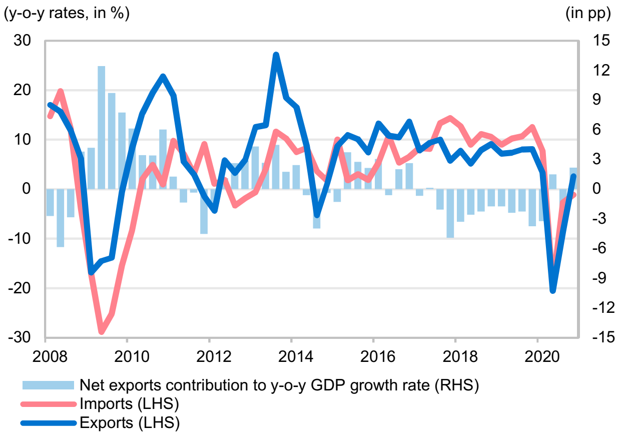
Sources: SORS and NBS calculation.
* October–November.

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



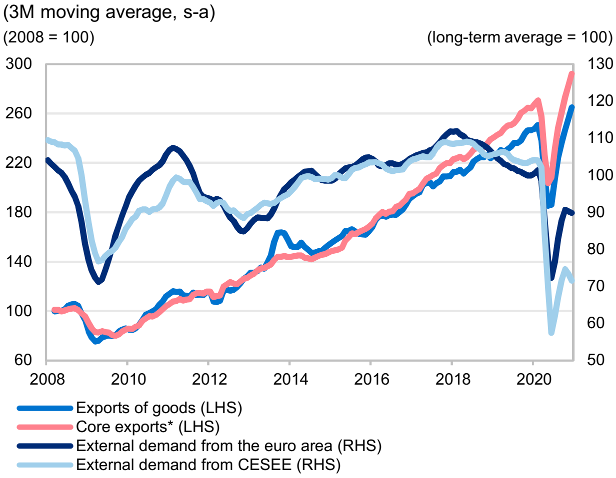
Sources: SORS and NBS calculation.
* NBS estimate for Q4 2020.

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



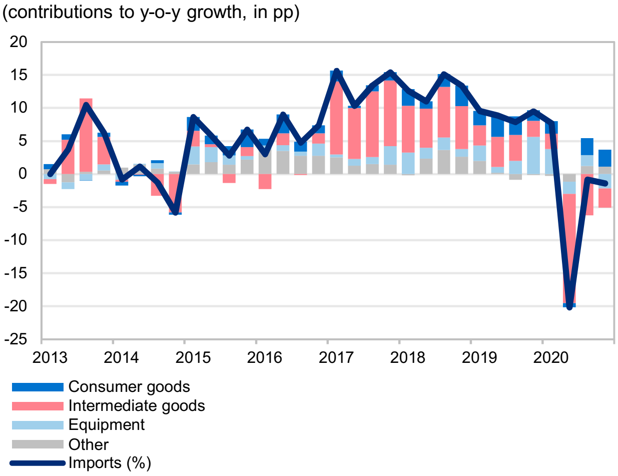
Sources: SORS and NBS calculation.
Note: NBS estimate for Q4 2020.

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.

compared to imports in Q4 resulted in a positive net exports contribution to GDP of 2.2 pp.

Despite the deceleration of external demand, commodity exports in euro terms continued to recover in Q4, standing in December, in s-a terms, 7.1% above the pre-crisis level (average values in the period January-February). Y-o-y, commodity exports accelerated to 7.5% in Q4.[20] Thanks to the rebounding exports in the majority of key sectors, manufacturing exports in Q4 were 2.0% higher than in the same period of 2019. The largest contributors were higher exports of electrical equipment and automobiles, and, to a somewhat lesser extent, also the exports of food, chemical and metal products, as well as rubber and plastic products. After another excellent season, the exports of agricultural products in Q4 accelerated to 42.0% y-o-y, mostly owing to rising exports of cereals, the positive impact of which can be expected to persist by the next agricultural season. More than before, exports growth in Q4 was also supported by the exports of metal ores, primarily copper.

Commodity imports also continued to recover, but still falling short of the pre-crisis level in Q4. In spite of that, the y-o-y fall in euro-denominated commodity imports in Q4 (-1.5%) was somewhat sharper than in Q3 (-0.7%),[21] reflecting in part the high base from Q4 2019. In terms of the BEC classification (Classification by Broad Economic Categories), this fall was determined by the lower imports of intermediate goods (-5.5% y-o-y) and equipment (-12.7% y-o-y), while the imports of consumer goods mildly decelerated to 13.2% y-o-y. Classification of imports by end-use according to EU methodology shows that contraction in Q4 was mainly under the impact of lower energy imports and, to a lesser extent, imports of capital goods. The imports of consumer and intermediate goods worked in the opposite direction.

Services trade was recovering more slowly than trade in goods, as evidenced by the s-a values of services exports and imports, which were on average lower in Q4 by around 11% and 13%, respectively, than in the period before the pandemic.[22] The surplus in trade in services in Q4 went up by 5.4% y-o-y, as a result of the services imports falling more sharply than exports y-o-y (-7.4% vs. -5.1%), which was the most pronounced in tourism and ICT services.

Commodity export/import coverage ratio increased in 2020 to 75.5%, or 84.3% with services included.

[20] According to balance of payments data.
[21] According to balance of payments data.
[22] Reference period average January–February 2020, s-a.

4 Economic activity

According to our estimate, Serbia's economic activity was 1.3% s-a higher in Q4 than in Q3, while it was lower by the same amount in y-o-y terms, which is a sign that the economic recovery has continued, though at a slower pace due to the worsening of the epidemiological situation since October globally and at home and the consequent tightening of health-related measures.

In 2020 as a whole, the Serbian economy contracted by 1.1% amid the global pandemic (preliminary SORS estimate), posting one of the best results in Europe.

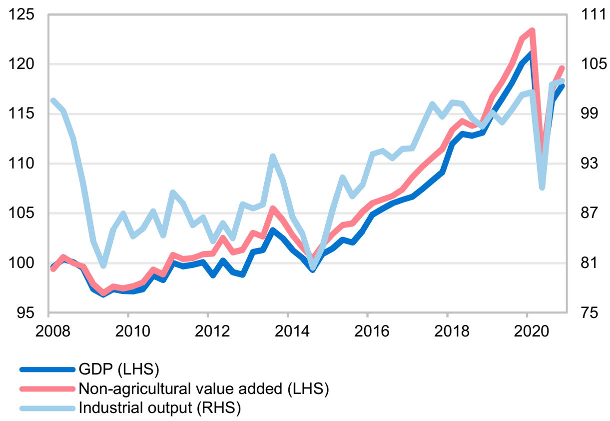
The recovery which started in Q3, when the quarterly GDP growth measured 6.3% s-a, continued into Q4, though at a slower pace, due to the aggravation of the epidemiological situation since October globally and at home and the consequent tightening of health-related measures. In Q4, growth was driven by intensified activity in the construction and industry sectors. On the other hand, according to our estimate, the level of activity in services (cumulatively) was unchanged in Q4 from Q3 due to the new wave of the coronavirus spread, even though services were the main driver of economic recovery in Q3.

According to the SORS estimate, in y-o-y terms, the GDP decline decelerated slightly in Q4, to 1.3% y-o-y, from 1.4% in Q3. The lower level of economic activity compared to Q4 2019 resulted from the slump in services, and to a lesser extent in construction too, largely on account of the high base from the previous year, while agriculture and industry contributed to economic growth.

According to our estimate, **industry** posted a 1.5% y-o-y growth in Q4. The physical volume of industrial production also recorded the same increase in Q4, driven by the higher volume of production in the sectors of energy (8% y-o-y) and mining (2% y-o-y), while the volume of production in manufacturing grew somewhat more modestly (0.2% y-o-y). It should be taken into account that the new wave of the coronavirus spread in Europe instigated the adoption of more stringent health-related measures which weighed down on external demand for our exports. The repercussions were particularly visible in the production of base metals, which headed down by 24.9% y-o-y reducing the total volume of production in manufacturing by 1.2 pp. However, considering overall manufacturing, the volume of production increased in 12 out of 24 sectors in Q4, with the largest positive contribution stemming from food products, electrical equipment and rubber and plastic products.

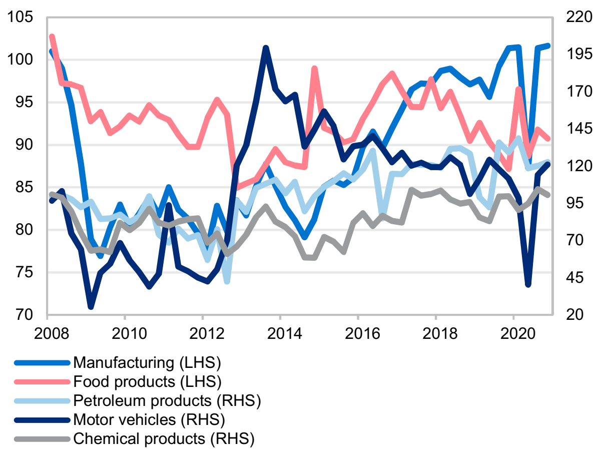
Construction indicators suggest acceleration in Q4 from Q3, as the production and import of construction materials

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.

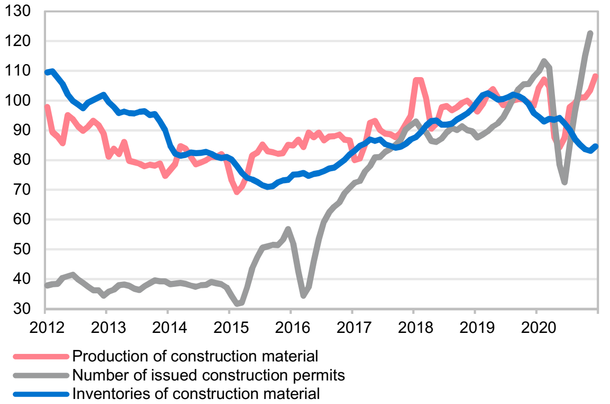
Table IV.4.1 **Contributions to y-o-y GDP growth**
(in pp)

	2019	2020			
	Q4	Q1	Q2	Q3	Q4*
GDP (in %, y-o-y)	**6.3**	**5.2**	**-6.3**	**-1.4**	**-1.3**
Agriculture	-0.1	0.2	0.3	0.3	0.3
Industry	0.6	0.9	-1.5	0.6	0.3
Construction	2.5	0.8	-0.2	-1.1	-0.2
Services	2.6	2.5	-3.8	-0.9	-1.9
Net taxes	0.6	0.7	-1.2	-0.2	0.1

Sources: SORS and NBS calculation.

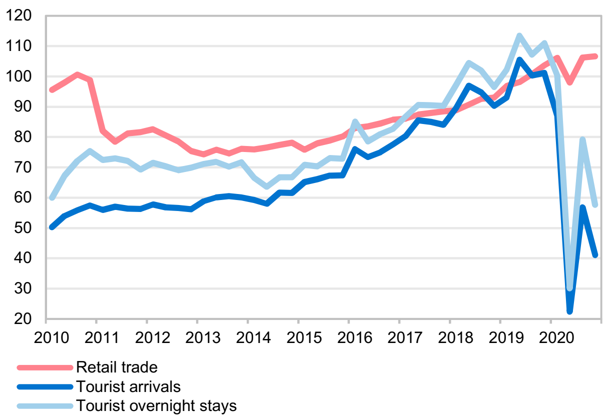
* NBS estimate.

Chart IV.4.3 **Construction activity indicators**
(quarterly averages s-a, 2019 = 100)



Sources: SORS and NBS calculation.

Chart IV.4.4 **Service sector indicators**
(s-a, 2019 = 100)



Sources: SORS and NBS calculation.

went up, and the number of issued construction permits also increased. Furthermore, the implementation of capital projects by the government indicates that there was no slowdown in construction activity. Nevertheless, due to the high base from the previous year, when the rise in construction was particularly pronounced at the year-end, we estimate that in y-o-y terms construction recorded a drop in Q4 (up to 4% y-o-y), with a negative contribution to GDP of 0.2 pp, while its quarterly growth was robust (16.6% s-a).

The tightening of health-related measures in Q4, *inter alia*, caused a reduction in working hours for most services in November and the first half of December. Additionally, the renewed spread of the coronavirus also reduced the mobility of the population, which reflected on the decline in **services** by 3.8% y-o-y (cumulatively) in Q4, contributing to GDP decline with around 1.9 pp. Tourism and catering belong to the sectors which were hit most badly by the crisis, as suggested by the lower number of tourist arrivals and overnight stays in Q4 by 58.5% and 47.2% y-o-y, respectively. Transport also suffered a significant slack due to the pandemic as did entertainment, recreation and culture. On the other hand, activity in trade continued up, but the data about the real turnover indicate that the growth slowed down from the previous quarter (from 5.6% y-o-y in Q3 to 2.5% y-o-y in Q4).

According to the SORS estimate, **agriculture** rose by 4.5% in 2020, and we estimate that a rise of the same order took place in Q4. Thus, for the third year in a row, an above-average agricultural season was recorded, with wheat, corn and soybean as the main contributors.

Economic recovery in Q4 is also reflected in the rising income from collected excise tax and VAT on products. As a result, after two quarters of decline on account of the ample package of economic assistance, in Q4 **net taxes** went up by 0.5% y-o-y, providing a positive contribution to GDP of 0.1 pp.

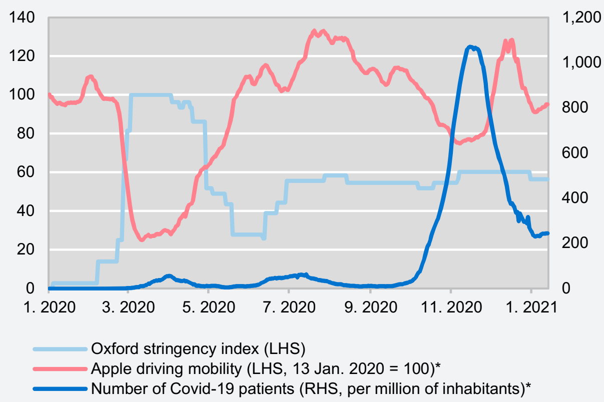
In 2020 as a whole, economic activity declined by 1.1% amid the global pandemic, which is broadly in line with our projections published in previous reports and better than expected at the start of the pandemic. Negative contributions to GDP expectedly originated from services (transport, tourism, catering, recreation and culture), i.e. activities which were hit the hardest by the pandemic, and to a lesser extent from construction too, largely due to the high base from the previous year. On the other hand, growth was recorded in agriculture, but also in industry, which demonstrated resilience in the face of the global economic slack owing to past investments and greater diversification of production and exports.

Text box 3: Impact of human mobility on economic activity

Due to the COVID-19 pandemic, the past year saw a significant contraction of economic activity worldwide, through various supply- and demand-side channels. This can be primarily associated with reduced human mobility which, in turn, reflects physical distancing measures, applied by governments across the world to restrict movement and contain the virus, and voluntary physical distancing exercised by people to reduce mutual contacts.

In Serbia, the restrictive health measures introduced in mid-March brought about a sharp drop in human mobility, as shown by the Oxford stringency index and the Apple driving mobility index (Chart O.3.1). According to these indices, as the containment measures were eased, mobility increased, but began to gradually decline as of August, led primarily by the news about a deteriorating epidemiological situation globally and at home.

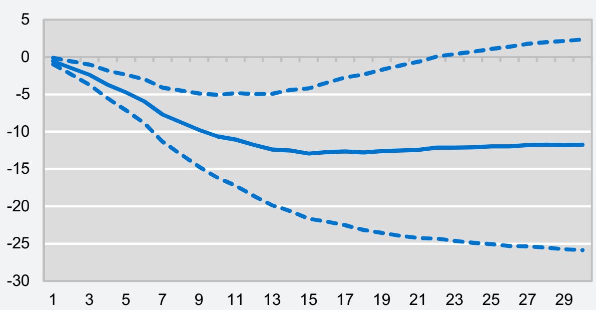
Chart O.3.1 **Human mobility in Serbia depending on government measures and evolution of the pandemic**



Sources: OxCGRT, Apple mobility trends, ourworldindata.org/coronavirus.
* Seven-day moving average.

We used the VAR model to quantify the lockdown's impact on reduced mobility. The model shows that a rise in the stringency index by 10 points (reinforced movement restriction measures) leads to a 13% decline in population mobility in Serbia in the period of around two weeks (Chart O.3.2).

Chart O.3.2 **Estimated response of driving mobility to a 10 point rise in the stringency index**



Note: The dotted lines signify boundaries of the 95% confidence interval.

Source: NBS calculation.

The stringency index, calculated by the University of Oxford, quantifies anti-epidemiological measures applied by more than 180 countries. It is constructed as an average of nine sub-indices rescaled to a value from 0 (no measure) to 100 (strictest measures). These sub-indices measure school closures, workplace closures, cancellations of public events, gathering restrictions, public transportation closures, stay-at-home requirements, public information (epidemic-related) campaigns, restrictions on internal movement, and controls on international travelling.

Before the epidemic, the stringency index for Serbia was, logically, zero. After the restriction of international travelling in January, launch of the public information campaign in February and introduction of the state of emergency in mid-March, the stringency index increased to its maximum value of 100, where it stayed one month. Measures were then gradually eased until June, only to be re-tightened from July as the epidemiological situation deteriorated.

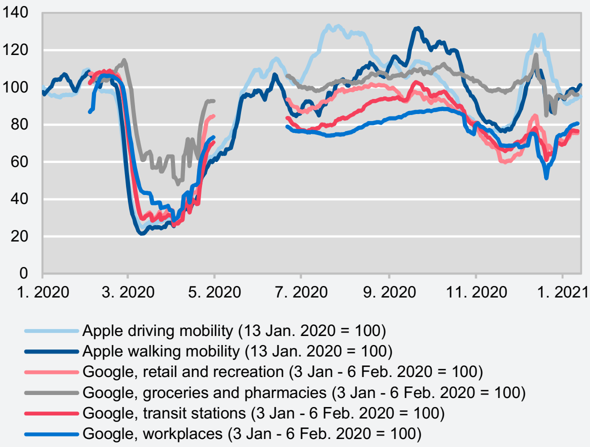
Even though it illustrates well enough the tendencies concerning the governments' implementation of health measures, which is why it is most frequently used in research papers, the stringency index does not fully capture the degree of tightening. For instance, the sub-index measuring workplace closures only records whether some sectors are closed or not, but not to what extent. When it comes to Serbia, for instance, this sub-index does not cover the effects of shortened working hours of pubs and restaurants, and retail facilities during the business week and their full closures on weekends in November, and the extension of their working hours in December. As the creators of the index highlight, it cannot be used to estimate the efficacy of measures[1], but indicates the direction of governments' responses to the course of the pandemic.

[1] https://www.bsg.ox.ac.uk/sites/default/files/2020-12/BSG-WP-2020-032-v10.pdf.

In regard to mobility measures, the indices available for Serbia are the Apple driving mobility index, the Apple walking mobility and several Google's mobility indicators which measure the presence of people in workplaces, groceries, pharmacies, retail stores, recreational facilities (including, among other things, catering facilities), transit stations, parks and apartments.

All these mobility indicators signal a significant decline in human mobility in spring months, when the lockdown measures were the strictest, an upward tendency during summer, and finally, with the new wave of the epidemic, a new drop in late 2020, but much softer than in March and April.

Chart O.3.3 **Indicators of human mobility**
(7-day moving average)



Sources: Apple mobility trends, Google mobility trends.

Not incidentally, different economic activity indicators displayed a very similar tendency as the health measures and oscillations in human mobility in the past year obviously had a dominant impact on economic activity.

As the series of mobility indicators are available only since early 2020, the examination of the link between them and economic activity indicators (manufacturing, retail trade and number of tourist overnight stays) is for the time being in the initial phase and making solid conclusions about the strength of this link will be possible in the coming period. The Apple's indicators for Serbia are available from 13 January, and Google's indicators from 15 February. However, the latter are not available for the period from 19 May until 2 July, which further complicates the analysis. In terms of monthly average, we have practically 12 data, with, the missing data for June for Google's indicators interpolated based on the movements of Apple's indicators. This is certainly insufficient for a reliable econometric analysis, but given the high oscillation of the series and the indisputably strong link between mobility indicators and economic activity last year, some conclusions can be made.

Table O.3.1 shows that economic activity indicators suggest an exceptionally high degree of correlation with mobility indicators for Serbia in all observed combinations.

Table O.3.1 **Coefficients of correlation between growth rates of indicators of economic activity and growth rates of mobility indicators**

Economic activity	Google indicators				Apple indicators	
	Retail and recreation	Groceries and pharmacies	Transit stations	Workpl aces	Driving mobility	Walking mobility
Manufacturing	0.92	0.94	0.91	0.92	0.92	0.89
Retail trade	0.95	0.94	0.92	0.95	0.86	0.91
Domestic tourism	0.98	0.98	0.97	0.96	0.96	0.96

However, given the insufficient length of the time series for a reliable econometric estimate, we carried out a panel analysis for the same period for Serbia and six neighbouring countries where mobility indicators are available (Hungary, Romania, Croatia, Bulgaria, Bosnia and Herzegovina, and North Macedonia), thus increasing the number of observations for estimate. We estimated 18 models, combining six mobility indicators with three economic activity indicators.

We regressed the differences (logarithm) of economic activity $\Delta e_{i,t}$ to constant α, difference (logarithm) of mobility indicators $\Delta m_{i,t}$, and dummy variable for countries, i.e. the fixed effect f_I:

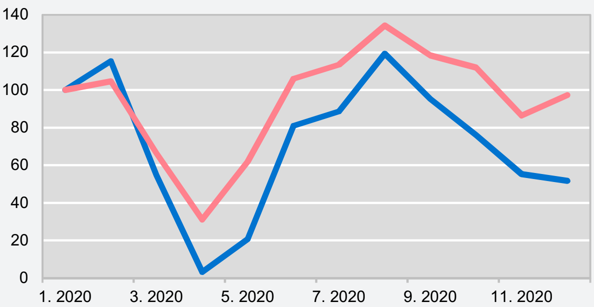
$$\Delta e_{i,t} = \alpha + \beta \Delta_{mi,t} + f_I + \varepsilon_{i,t} ,$$

where i means the country, t period (month), and $\varepsilon_{i,t}$ regression residuals.

As data for Bosnia and Herzegovina and North Macedonia are not available in case of Apple's indicators, we worked with the sample of five countries in regressions containing this variable. Table O.3.2 shows the estimate of coefficient β and the coefficient of determination R^2 for all 18 combinations of economic activity and mobility indicators.

It was shown in all 18 combinations that human mobility explains economic activity very well, as indicated by the high statistical significance of the estimated coefficient β. It can also be seen that Google's indicators explain the movements in manufacturing and retail trade in our region better than Apple's indicators (they show a higher coefficient of determination and higher estimated elasticity). Apple's driving and walking mobility indicators proved to be statistically more significant than Google's in the case of domestic tourism.

Chart O.3.4 **Link between driving mobility and domestic tourism**

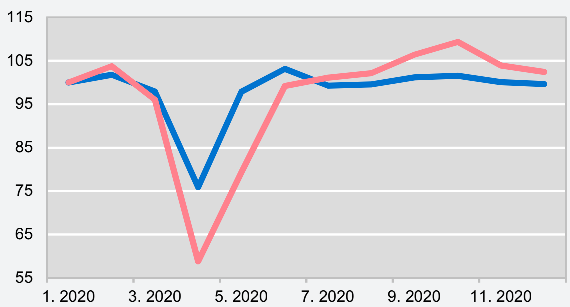


Sources: SORS, Apple mobility trends.

In all three economic activity indicators, the estimated coefficient β has the highest value in case of groceries and pharmacies, which can probably be explained by its weaker oscillations during the pandemic.

As shown by economic activity indicators, mobility oscillations hit tourism the most. The estimated elasticity coefficients show that mobility reduced by 1% lowers the number of tourist overnight stays in our region by between 1.8% and 5.4%, depending on the mobility indicator.

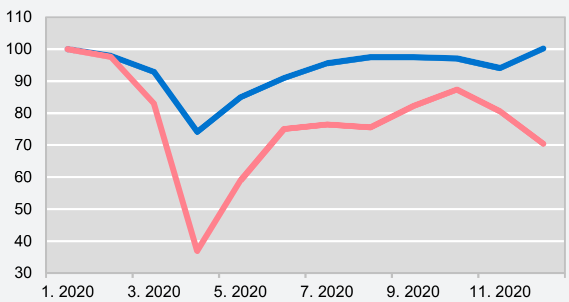
Chart O.3.5 **Link between retail trade and visits to groceries and pharmacies**



Sources: SORS, Google mobility trends.

* Data for the period from 19 May to 2 July are missing.

Chart O.3.6 **Link between manufacturing and workplace visits**



Sources: SORS, Google mobility trends.

* Data for the period from 19 May to 2 July are missing.

It should be added that the fixed effects (by country) did not prove to be statistically significant and that their exclusion from the regression makes almost no difference in the presented estimates.

Table O.3.2 **Estimated coefficients of link between economic activity and mobility (β) from panel model**[1]

Economic activity	Google indicators				Apple indicators	
	Retail trade and recreation	Groceries and pharmacies	Transit stations	Work-places	Driving mobility	Walking mobility
Manufacturing	0.27 *** (0.60)	0.59 *** (0.62)	0.30 *** (0.63)	0.40 *** (0.63)	0.16 *** (0.40)	0.17 *** (0.55)
Retail trade	0.24 *** (0.70)	0.52 *** (0.68)	0.25 *** (0.64)	0.35 *** (0.70)	0.13 *** (0.39)	0.12 *** (0.41)
Domestic tourism	2.58 *** (0.61)	5.41 *** (0.58)	2.85 *** (0.63)	3.35 *** (0.50)	1.93 *** (0.68)	1.76 *** (0.70)

[1] Coefficients of determination R^2 from estimated equations are shown in brackets.

* p-value < 0.1; ** p-value < 0.05; *** highest statistical significance, i.e. p-value < 0.01.

We estimated the same panel model with the stringency index as the explanatory variable in order to estimate the direct impact of lockdown measures on economic activity in the observed countries (Table O.3.3). The elasticity coefficient is expectedly negative and, similarly to mobility, it is the highest in tourism (-3.6), and significantly lower in manufacturing and retail trade (-0.35). Such estimates are expected as government measures included mainly restricted movement outside working hours and the closure of catering facilities and trade facilities which do not sell staples, while the production sector was subject to much less severe restrictions.

Table O.3.3 **Estimate of link between economic activity and stringency index (β) from panel model**[1]

Economic activity	Results of estimate
Manufacturing	-0.36 *** (0.49)
Retail trade	-0.35 *** (0.52)
Domestic tourism	-3.62 *** (0.48)

[1] Coefficients of determination R2 from estimated equations are shown in brackets.

* p-value < 0.1; ** p-value < 0.05; *** highest statistical significance, i.e. p-value < 0.01.

Judging by the results obtained, the speed of economic recovery will largely depend on how the epidemiological situation evolves. Our GDP projection is based on the assumption of gradual weakening of the epidemic, as a result of mass immunisation, which should lead to the easing of lockdown measures by the government and rising human mobility, and hence, the acceleration of economic activity to its pre-crisis level. Serbia is currently among the leading countries in the world in terms of the number of distributed vaccine doses – 7.3 per 100 inhabitants (as at 2 February).

5 Labour market developments

The increase in wages and employment was preserved both in the private and public sector and was coupled with a further decrease in unemployment, indicating the resilience of the domestic labour market even in the face of the renewed spread of the coronavirus since October.

Wages and labour productivity

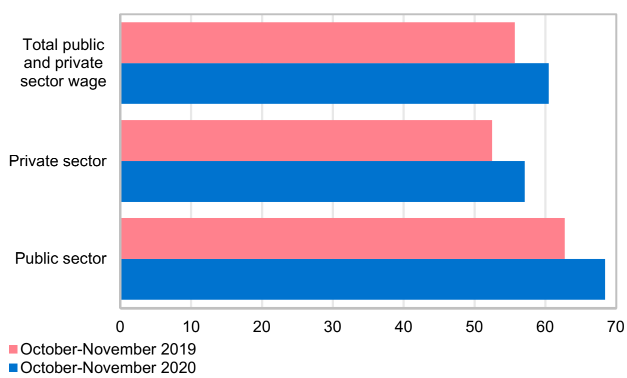
The average nominal net wage equalled RSD 60,518 (i.e. EUR 515) **in October and November**, up by 8.7% y-o-y, on account of higher private and public sector average wages. Supported by the Programme of Economic Measures, **private sector wages** went up by 8.8% y-o-y in October and November (same as in Q3). Due to the base effect[23], **public sector wage** growth decelerated to 9.0% y-o-y in the same period (from 11.4% in Q3), which brought about a somewhat slower y-o-y rise in the average nominal net wage in all sectors (8.7% on average) in October and November (after 9.4% in Q3). According to the SORS, the average nominal net wage in 2020 grew by 9.4%.

Though at a slower pace than in the months before the outbreak of the pandemic, the y-o-y increase in the average nominal net wage continued in October and November in all **economic sectors**. The highest y-o-y wage growth was recorded in the ICT sector (27.1%) and in health and social protection (18.3%), followed by agriculture (8.8%), industry (7.0% cumulatively) and trade (6.6%). Higher wages in October and November compared to the same period the year before were also recorded in catering and tourism (6.0%) and transport and storage (5.4%). In addition, based on the Government decision, another minimum wage was paid to catering and tourist organisations (the sixth in a row) in December, as these sectors are the most affected by the pandemic.

The increase in nominal wages and formal employment drove the y-o-y rise in the **overall nominal net wage bill** (13.6%) in October and November, as the dominant source of personal consumption and domestic demand.

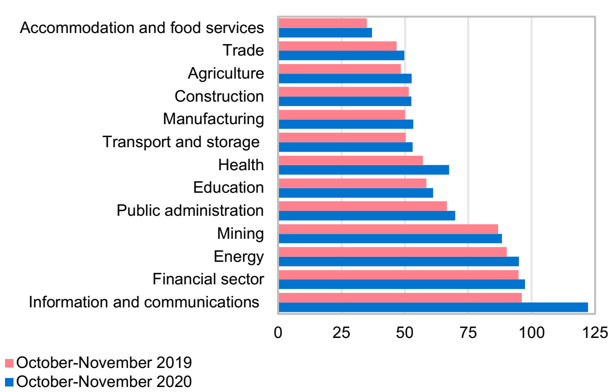
According to the preliminary data, **overall economic productivity** dropped by 3.6% y-o-y in Q4 (after -3.4% in Q3) due to the spread of the new wave of the pandemic since October and more stringent health-related measures.

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



Source: SORS.

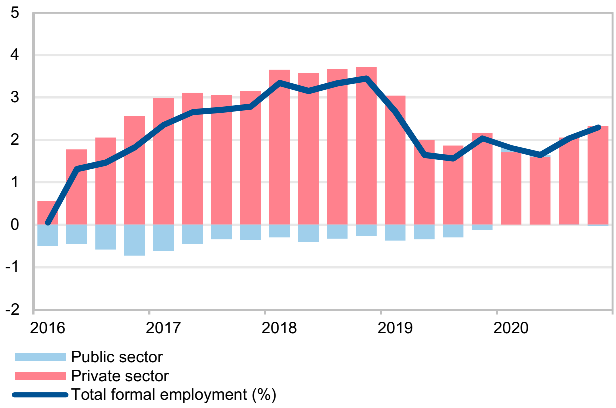
Chart IV.5.2 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

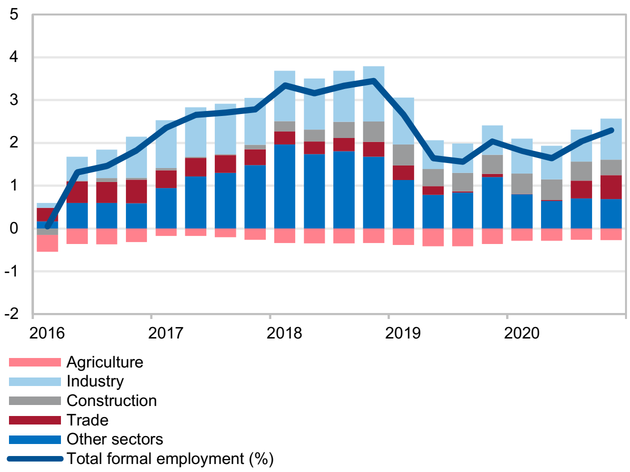
[23] Public sector wages increased from 8% to 15% in November 2019 based on the Government decision.

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



Sources: SORS and NBS calculation.

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.

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

	2020			
	Q1	Q2	Q3	Q4
Total number of formally employed	1.8	1.6	2.0	2.3
Employed with legal persons	2.4	2.2	2.3	2.5
Entrepreneurs and their employees	1.0	1.1	2.7	3.2
Individual farmers	-7.4	-7.8	-7.6	-7.8
Unemployed	-9.1	-3.3	-0.4	-1.9
First-time job seekers	26.3	11.3	12.3	8.9
Used to be employed	-28.5	-14.8	-11.4	-12.0

Sources: SORS and NES.

Employment

According to Statistical Office data obtained from the Central Registry of Mandatory Social Insurance, **the total formal employment** in Q4 went up by around 28 thousand q-o-q and by around 51 thousand y-o-y. This indicates that despite the renewed spread of the pandemic, total formal employment growth **accelerated to 2.3% y-o-y in Q4** (from 2.0% in Q3) largely on account of comprehensive and timely economic support of the government directed primarily towards preservation of business activity and jobs. In this regard, Q4 saw a further y-o-y rise in employment with legal entities and entrepreneurs – by almost 56 thousand on average, while the number of individual agricultural producers fell by around 5 thousand on average (similar as in Q3).

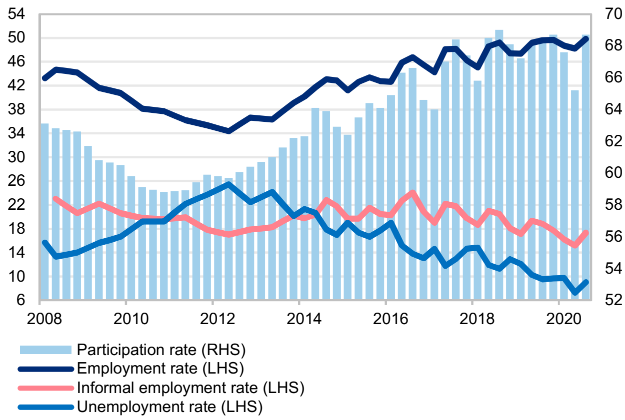
Total y-o-y increase in formal employment in Q4 was recorded in branches dominated by the **private sector**, primarily manufacturing (around 19 thousand) and wholesale and retail trade (around 12 thousand), followed by construction (around 8 thousand) and ICT sector (around 7 thousand). The relaxation of health-related measures since May and state aid drove up employment in catering and tourism, as well as in transport and storage (by close to 9 thousand cumulatively, compared to the same period the year before), but employment in these sectors went slightly down since November. Furthermore, Q4 also saw a negligible y-o-y drop in **public sector** employment and there was an announcement that in early 2021 the ban on employment in public fund beneficiaries would be relaxed. The law stipulates that public institutions, authorities and enterprises may fill up to 70% of vacancies created by people leaving in the previous year without any special permissions and consents.[24]

According to the National Employment Service, **total unemployment** has been under 500 thousand since September, reaching **491,347 in December**, which is lower by around 15.5 thousand than the year before. Even though the y-o-y drop in registered unemployment accelerated in Q4, from -0.8% in September to -3.1% in December, it is still slower than before the pandemic. The y-o-y unemployment reduction in Q4 was recorded in almost all occupation groups. Industry sectors felt it the most (by around 6 thousand), as well as trade, catering and tourism (by around 1 thousand on average, each). Lower unemployment in Q4 was also recorded in occupations related to agriculture, construction, and transport (by almost 2 thousand cumulatively).

[24] In accordance with the Law Amending the Law on the Budget System.

The available **Labour Force Survey** also speaks in favour of the resilience of the domestic labour market as the unemployment rate was preserved at a single-digit level in Q3 (9.0%). At the same time, the activity rate of the working age population (15–64) reached its pre-crisis level of 68.7%, while the employment rate of 49.9% exceeded its pre-crisis level from Q4 2019. Similar conclusions can also be drawn from additional indicators from the Labour Force Survey, which provide a more detailed insight into the labour market situation amid the pandemic[25].

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



Source: SORS.

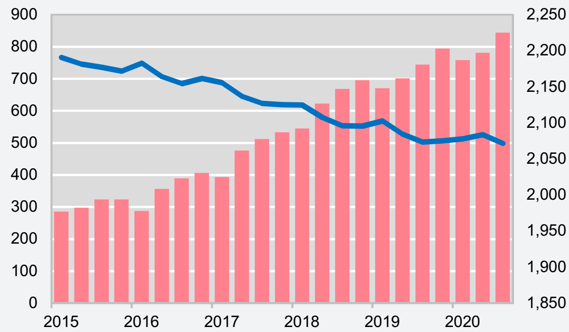
[25] For more information see Text box 4, p. 46.

Text box 4: Serbia's labour market amid the coronavirus pandemic

In the face of the health and economic crisis caused by the coronavirus pandemic, which broke out in almost every country in early 2020, the economic policy makers in Serbia focused on providing the necessary liquidity to companies and preserving production capacity and jobs. In a timely and coordinated manner, the NBS and the Government adopted and implemented numerous economic measures to support the economy and households. Owing to these measures the domestic labour market was not severely affected by the global crisis and continued recording favourable trends from the previous years. This is evidenced by the data about the formal labour market, as well as by the main and additional Labour Force Survey indicators which depict a broader picture of the situation in the labour market during the pandemic.

As for the **formal labour market**, in the period from February (a month before the pandemic was declared) until December, the total number of formally employed people increased by around 59 thousand, to around 2.3 mn people on average in Q4, which is the highest level in the past six years (Chart O.4.1). At the same time, almost the entire rise in employment was recorded in the private sector which counts over 1.65 mn employed people and has accounted for more than 70% of total formal employment in Serbia in the past three years. **The highest number of new recruits in the observed period was recorded in manufacturing** (around 19 thousand), wholesale and retail trade (almost 16 thousand), information and communications (around 9 thousand) and construction (close to 6 thousand). In parallel with formal employment increase, **registered unemployment continued dropping in 2020, having lowered to below 500 thousand people in September 2020** for the first time. In December it stood at 491,347, which is the lowest level on record. At the same time, in the period from February until December, unemployment was cut in all occupation groups, primarily in those related to industry and construction (by around 9 thousand), followed by occupations in services – trade, catering, tourism and transport (by around 3 thousand). Such trends confirm that existing jobs were preserved, and new ones were created in most economic branches, largely on account of the comprehensive economic support to the domestic economy from the start of the pandemic.

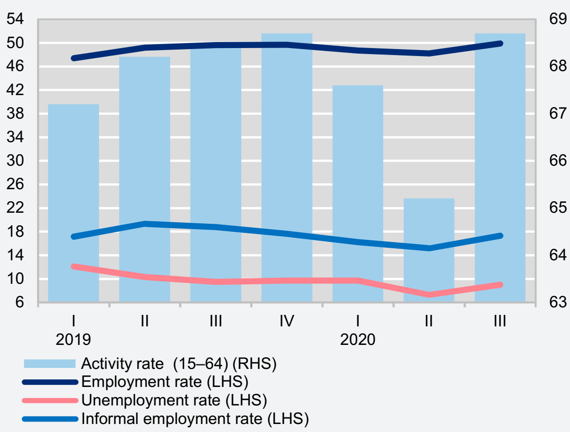
Chart O.4.1 **Formal employment and unemployment in the 2015–2020 period**
(in thousand, quarterly average)



Sources: SORS and NES.

The resilience of the domestic labour market is also confirmed by the **Labour Force Survey** (Chart O.4.2). Hence, the employment rate measured 49.9% in Q3, and was above its pre-crisis level from Q4 2019, while at the same time the **activity rate of the working age population (15–64)** of 68.7% in Q3 returned to its pre-crisis level. In this way, the drop in these indicators in Q2, largely caused by more difficult job seeking during the emergency state and lower informal employment, was offset. More specifically, the activity rate of the 15+ population increased by 2.8 pp from Q2 (161.5 thousand people), with the majority of them (92.4 thousand) shifting to employment. After a decline to 7.3% in Q2 (due to lower activity rate), the **unemployment rate was kept at a single-digit level in Q3**, measuring 9.0%, down by 0.5 pp y-o-y.

Chart O.4.2 **Main labour market indicators according to LFS**
(in %)



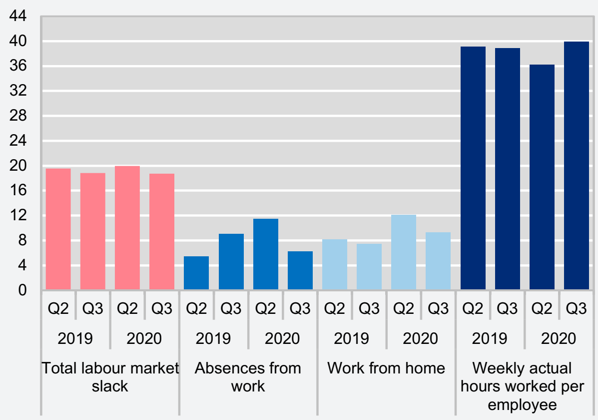
Source: SORS.

The impact of the pandemic was most deeply felt in the informal labour market, as the number of people employed without a formal work contract dropped by 16.7% in Q2 compared to Q4 2019, while in Q3 the drop softened significantly (a 1.8% decline compared to the end of the last year.) This contributed to the recovery of informal employment to 17.3% in Q3, which brought this rate closer to the pre-crisis level.

To cover the labour market trends more comprehensively in accordance with the recommendation of the Eurostat, additional indicators in the Labour Force Survey[1] are being reported (Chart O.4.3) relating to: 1) labour market slack, 2) absences from work, 3) work from home, and 4) actual hours worked. The calculation of total labour market slack starts from new categories – **extended labour force** which includes, in addition to the total number of people employed plus unemployed, also the so-called **potential labour force** which comprises a) people available to work but not seeking and b) those seeking work but not immediately available.

When potential labour force, together with the category of part-time workers and all unemployed, is put into ratio with the extended labour force, **labour market slack** expressed as a percentage can be calculated, which signifies the unmet employment needs. According to the available Labour Force Survey data, **the total labour market slack reached 19.9% in Q2**, up by 0.4 pp from a year ago, primarily on account of increased number of persons available to work (by around 153 thousand) but prevented by the new situation caused by the pandemic. However, already in Q3 the number of temporarily inactive persons significantly shrank, reflecting the gradual relaxation of restrictive health-related measures. Owing to this particular fact, the activity rate went up, while the **total labour market slack went down by 1.2 pp, to 18.7% in Q3** (Chart O.4.3) **whereby the unmet need for employment was restored to the pre-crisis level**.

Chart O.4.3 **Additional labour market indicators according to LFS**
(in %)



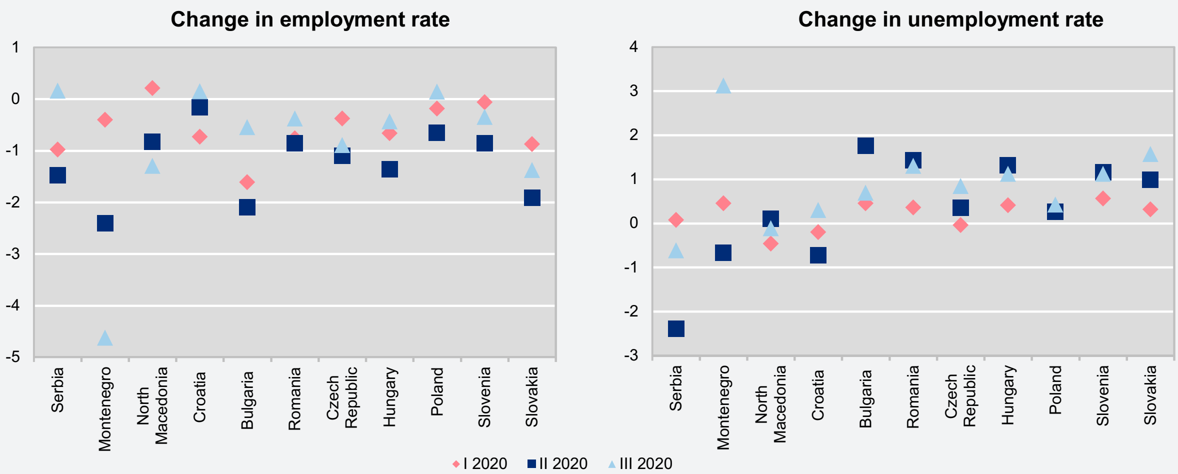
Source: SORS.

Since the emergency state was in force since mid-March until early May, the **indicator of absences from work** (measured as the share of employed people absent from the main job in total employment) **reached the maximum 11.4% in Q2**, with around 204 thousand people being absent on account of reduced work load due to technical or economic reasons. Other employed people were absent from their main or additional job due to temporary inability, injury or sickness (around 33 thousand), annual leave (around 26 thousand) and other reasons. During the summer, business activity in our country renewed and accelerated and **the absences from work indicator declined significantly – to 6.2% in Q3**. At the same time, the number of those absent from work due to technical or economic reasons fell to around 22 thousand. Even though the dominant reason for absences in Q3 was the seasonally usual annual leave, around 90 thousand less employees were on an annual leave than in the same period last year. Similar conclusions can also be drawn from **the work from home indicator**, which suggests that the share of those working from home in total employment **first went up to 12.1% in Q2, after which it dropped to 9.3% in Q3**, owing to the relaxation of the previously introduced containment measures. Despite this, in Q3 the work from home indicator was 1.9 pp higher than a year ago, which indicates the more and more present business practice of companies to enable their employees to work remotely.

An additional indicator of scaled-down business activity under the impact of the pandemic is the decline in the **average weekly actual hours worked per employee** from around 39 hours per week in Q2 2019 to around 36 hours per week in Q2 2020 at the level of the overall economy. Due to the nature of their business, companies operating in catering and tourism expectedly recorded the sharpest y-o-y fall in actual hours worked per employee in Q2 (by 26.0%), as well as

[1] Data from the Labour Force Survey are publicly available for Q2 and Q3 2020 and for the same periods of 2019.

Chart O.4.4. **Change in employment and unemployment rates in Serbia and CESEE countries compared to pre-crisis levels (Q4 2019)**
(in pp)



Sources: Eurostat and NBS calculation.

companies in art, entertainment and recreation (by 21.4%). In Q3, business revived and there were less absences from work due to technical and economic reasons, so the **average actual hours worked per employee went up, to around 40 hours per week in Q3**, which is higher by 10.2% q-o-q and by 2.6% y-o-y.

The said indicators used for monitoring the impact of the pandemic on the labour market through the four interconnected perspectives all lead to the conclusion that Q2 saw a short-term exogenous shock, while Q3 already witnessed a significant recovery from the consequences of the temporary labour market slack and the return of activities to pre-crisis levels. Crucial in this context was the proactive economic support of the government aimed at preserving the results achieved in the past six years in terms of rising activity and employment, coupled with unemployment reduction.

Comparatively observed too, **the labour market in Serbia remained relatively resilient to the crisis**. This is suggested by the comparison of the dynamics of the key labour market indicators for Serbia and other CESEE countries in the period from Q4 2019 until Q3 2020. One can see that the unemployment and employment rates in Serbia were maintained at pre-crisis levels (Chart O.4.4), despite the negative effects of the coronavirus pandemic.

6 International environment

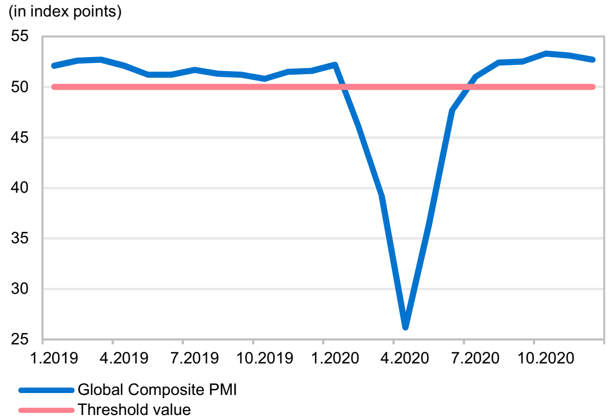
The nascent global economic recovery from mid-2020 was slowed down by the renewed spread of the virus as of October, leading to the reinstatement of containment measures in many countries. However, the achieved economic growth in the euro area and the USA in Q3, coupled with further growth of the Chinese economy and the favourable dynamics of leading economic activity indicators during Q4, suggest that the economic consequences of the second wave of the pandemic were much milder than during the first wave, partly owing to the fact that many companies adjusted their operations to altered business conditions, but also owing to strong monetary and fiscal stimuli in a large number of countries.

News about the progress and availability of vaccines against the coronavirus at the end of the year bolstered the prospects for a global economic recovery and reflected on decreased uncertainty in the international financial market and increased readiness of investors to take up riskier assets, as well as on the rise in the prices of primary commodities in the global market based on the expected stronger demand.

Economic activity

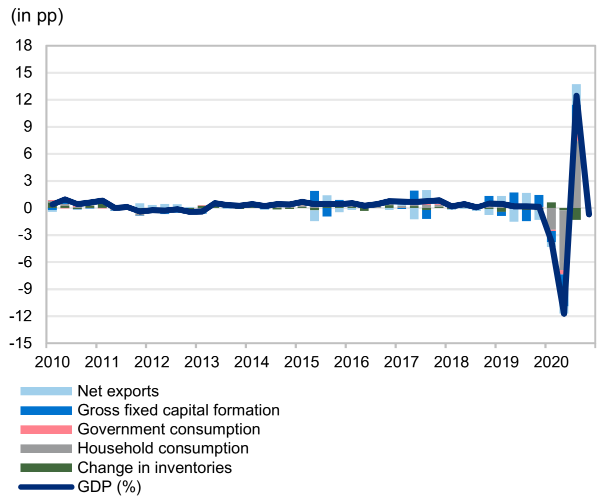
The nascent economic recovery from Q3 slowed down due to the spread of the virus as of October and the introduction of restrictive containment measures in many countries. This resulted in contracted activity in the services sector, while activity in the production sector continued up. At the end of the year, news about vaccine development and availability helped boost the optimism regarding prospects of global economic growth. According to the IMF's January WEO, **the global economy recorded a 3.5% fall in 2020** (0.9 pp above the October projection) as the results of advanced economies in Q2 were better than anticipated and also due to the robust recovery of the Chinese economy. The IMF's forecast for 2021 was slightly revised up – by 0.3 pp to 5.5% on account of the anticipated broader application of the vaccine and additional support to economic growth in large economies. Even so, uncertainty as to how the pandemic will unfold is still present. Another concern is the emergence of new virus strains and in many countries, notably in Europe, extension of restrictive containment measures at the start of 2021, which might slow down the expected economic recovery, primarily in Q1. According to the January projection of the World Bank, **a 4.3% fall was recorded at the level of 2020, which is a better result than initially expected** (0.9 pp above the June

Chart IV.6.1 **Global Composite PMI in 2019 and 2020**



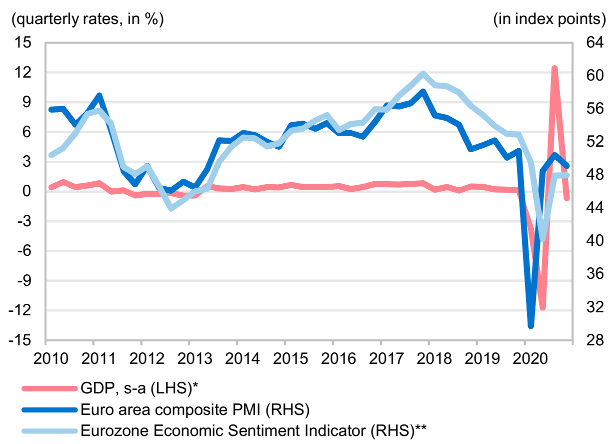
Sources: J.P. Morgan and Markit Group.

Chart IV.6.2 **Contributions to s-a GDP growth rate of the euro area**



Source: Eurostat.

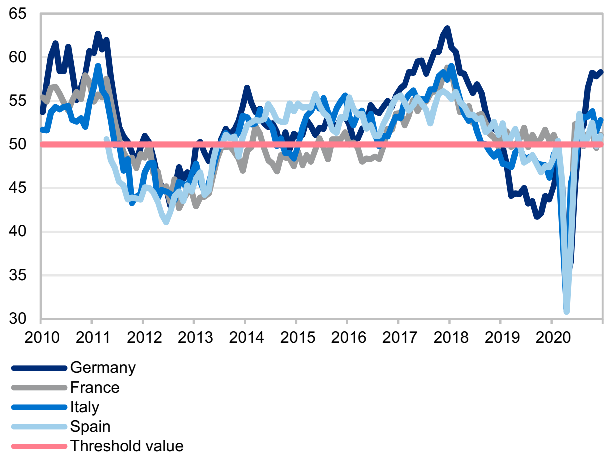
Chart IV.6.3 **Movements in GDP and economic activity indicators of the euro area**



Sources: Eurostat, Markit Group, Banca d'Italia and European Commission.

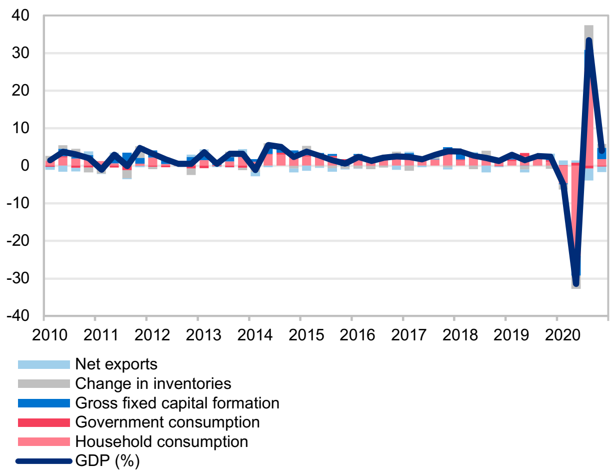
* Eurostat's preliminary flash estimate for Q3 2020.
** ESI is standardised relative to PMI.

Chart IV.6.4 **PMI Manufacturing for selected countries**
(in index points)



Source: Markit Group.

Chart IV.6.5 **Contributions to the annual US GDP growth rate**
(quarterly, in pp)



Source: Bureau of Economic Analysis.

projection), considering that developed economies managed to avoid a more lasting contraction, while emerging and developing countries are expected to see a somewhat bigger GDP fall than earlier (-2.6% in 2020). For this year, the World Bank projected a 4.0% global growth rate, with the risks to the projection still skewed to the downside.

After a strong contraction in Q2 (-11.7% s-a), the **euro area economy** recorded growth of 12.4% s-a in Q3, primarily owing to stepped-up household consumption and fixed investments (with an aggregate contribution to GDP growth of 10.3 pp), as well as to the recovery of net export (with a 2.3 pp contribution). The s-a GDP growth in Q3 was dominantly driven by the recovery of the production sector, and to a lesser degree of the services sector, and was broadly dispersed across geographies – growth in France reached as high as 18.5%, in Spain it came at 16.4%, in Italy 16.0%, while Germany's[26] growth equalled 8.5% (though Germany also recorded a smaller fall in Q2 than these other countries).

Though the second wave of the pandemic brought about a reinforcement of containment measures as of mid-October 2020, the **ECB estimated in December that economic activity in the euro area would decline in Q4, but much less than in Q2**. According to the Eurostat's preliminary data, the euro area's GDP growth rate in Q4 came at -0.7% s-a. This is also indicated by the dynamics of the leading Economic Sentiment Indicator[27] for the euro area, which continued to come closer to the exit from the contraction stage during Q4 and equalled 92.4 points in December, far above the level recorded in Q2. Similar conclusions can be drawn from movements in the Eurozone PMI Composite,[28] which averaged 48.1 points in Q4, meaning it was higher than the Q2 average (31.3 points). This is mainly the result of the growing activity of the industrial sector (PMI Manufacturing equalled 55.2 points in December), while activity in the services sector was still under a strong impact of physical distancing measures (PMI Services equalled 46.4 points in December). Relative to September, the ECB revised up its euro area 2020 GDP growth projection in December (by 0.7 pp to -7.3%), while the Eurostat estimated the growth rate at -6.8%. The growth forecast for 2021 was revised down (from 5.0% in September to 3.9% in December) due to the higher base effect, with assumptions that euro area economic growth will be driven by progress in the

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

[27] Index value above 100 points indicates improvement, and below 100 worsening of economic expectations.

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

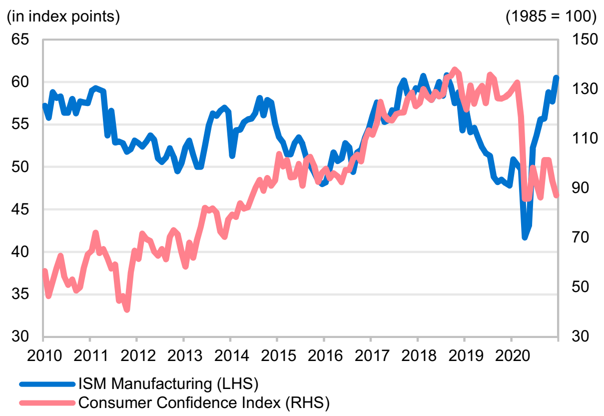
vaccination process, as well as by the effects of the undertaken monetary and fiscal policy measures.

Situation in the euro area labour market has improved somewhat owing to the rising activity and employment rates, as well as the increase in the total number of actual hours worked per employee by 14.6% in Q3 (after a fall of 13.6% in Q2). Another indicator that recovery has begun is the fall in the euro area unemployment rate to 8.3% in December (from 8.6% in September), as well as the declining number of people using short-time working schemes which, together with comprehensive fiscal measures, gave a significant contribution to the preservation of jobs in the economy. The labour market recovery is hampered by the second wave of the pandemic, as attested by the leading Employment Expectations Indicator[29] in the euro area, which equalled 90.4 points in December, significantly above the June level (84.5 points), though still below the September level (92.7 points).

After a sharp fall in Q2 (-9.0% s-a), the **US economy** rose 7.5% s-a in Q3, or 33.4% annualised, dominantly as a result of significantly higher household consumption and private sector investments, while lower government consumption and net exports exerted a negative impact. Despite the enforced physical distancing measures and the still weak consumer confidence, the ISM Manufacturing PMI returned to the expansion zone as early as June and reached 60.5 points in December, indicating several months of growth of the physical volume of production and new export orders. Considering the faster than expected economic recovery, **the Fed projected in December that the economic recovery would continue in Q4**. According to a preliminary estimate of the Bureau of Economic Analysis, the US GDP growth rate in Q4 came at 1.0% s-a. The Fed's latest projections indicate that a GDP fall of -2.4% is expected for the whole of 2020 (1.3 pp above the September projection), while growth of 4.2% is forecast for 2021.

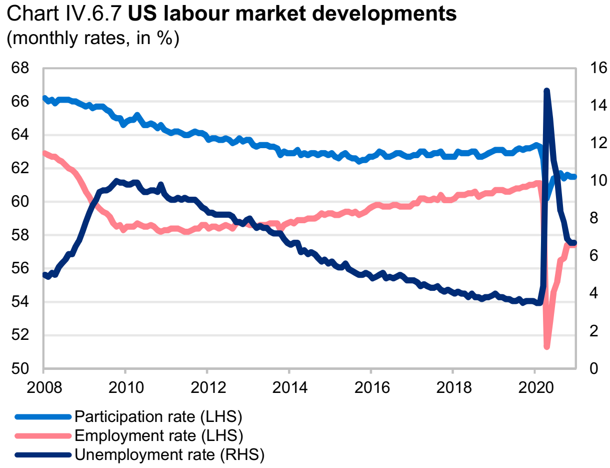
The US labour market continued to recover, propped by fiscal stimuli and unemployment benefits. The number of unemployed persons decreased by 1.8 million in Q4, whereby the unemployment rate fell to 6.7% in December (from 7.8% in September). Although the total number of non-farm payrolls in December declined by around 140,000 persons on a monthly level (preliminary), their number increased by around 850,000 persons on a quarterly basis, hence the employment rate climbed to

Chart IV.6.6 **Leading economic indicators in the USA**



Sources: Institute for Supply Management, Conference Board.

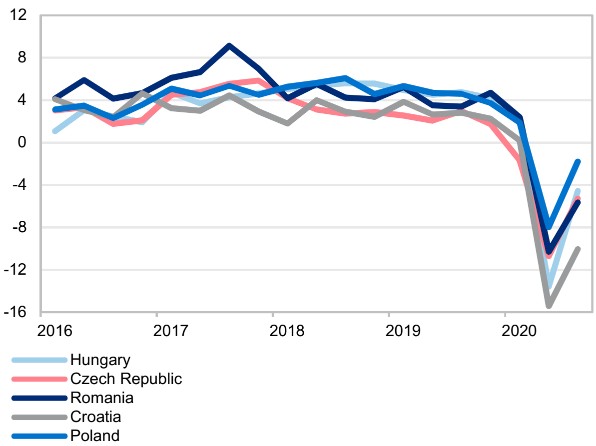
Chart IV.6.7 **US labour market developments**



Source: Bureau of Labor Statistics.

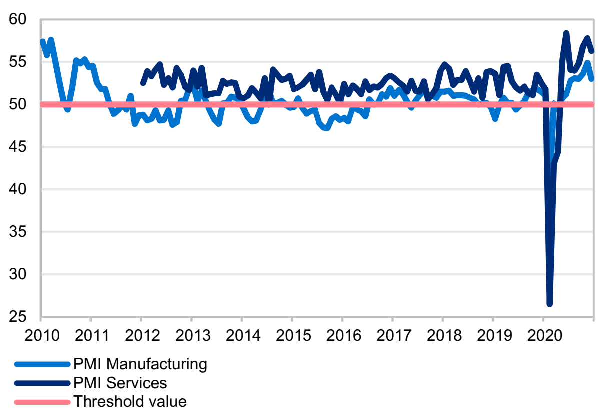
[29] Index value above 100 points indicates managers' high employment expectations, while the opposite holds true for values below 100.

Chart IV.6.8 **Y-o-y GDP growth rates in CESEE countries**
(quarterly, in %)



Source: Eurostat.

Chart IV.6.9 **Leading activity indicators in China's production and services sectors**
(in index points)



Source: Markit Group.

57.4% in December (from 56.6% in September). Taking all of this into account, in December the Fed lowered its projected unemployment rate for 2020 to 6.7% (after 7.6% in September).

The y-o-y fall in economic activity in **Central and Southeast European countries** was mitigated significantly – from -10.2% in Q2 to -3.8% in Q3, mostly in response to the lower negative contribution from household consumption and fixed investments, with a mild recovery in government consumption and net exports. **As in Q2, the smallest y-o-y fall in GDP in Q3 was recorded by Serbia (-1.3%) and Poland (-1.8%)**, and the biggest by Croatia (-10.0%). The renewed spread of the virus during Q4 slowed down the nascent economic recovery of the region, as seen by the movements of leading economic activity indicators. According to assessments by leading analysts, the pace of the recovery of the observed group of countries will largely depend on the resilience of domestic demand, as well as on the economic recovery of the euro area as the region's key foreign trade partner. In parallel with vaccine procurement, countries in the region are expected to continue supporting their economies in 2021, thus contributing to more favourable prospects in terms of drawing in investments and increasing exports.

After posting y-o-y growth of 4.9% in Q3, the **Chinese economy** accelerated to 6.5% in Q4, notably as a result of robust recovery in the services sector, where the Services PMI rose additionally – from 54.8 points in September to 56.3 points in December. At the same time, activity rose the most in the ICT sector owing to the development of modern software and e-commerce, as well as in transport and storage, owing to significant investments in infrastructure projects. Concurrently, the Manufacturing PMI remained in the expansion zone and equalled 53.0 points in December. Taking into account the stable economic recovery, endorsed by coordinated measures of monetary and fiscal policies and development of the local vaccine, the China's National Bureau of Statistics estimates that Chinese GDP growth in 2020 will measure 2.3%.

In **Russia**, Q3 saw a milder y-o-y fall in GDP (-3.6% after -8.0% in Q2), due to a slower decline in industrial and construction activities and the recovery of agriculture and trade. Based on this, the Bank of Russia estimates that the Russian economy ended 2020 with a growth rate of around -4%, and expects it to return to the positive territory in 2021, which will be greatly facilitated by the distribution of the local COVID-19 vaccine.

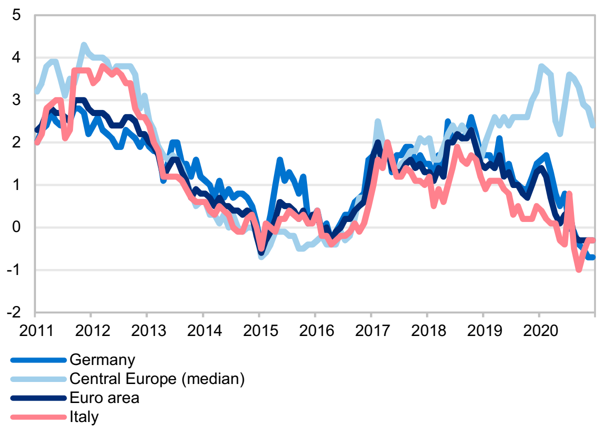
Inflation movements

As of end-Q3, **euro area inflation** stood at -0.3% y-o-y. The negative contribution to inflation during Q4 stemmed primarily from the prices of energy, and a y-o-y fall was also recorded by the prices of industrial products excluding energy. On the other hand, a positive contribution came from food inflation, which slowed down to 1.4% in December, driven by the lower prices of unprocessed food; however, this was offset by a slower y-o-y fall in energy prices (to -6.9% y-o-y), as a result of the rising oil price in the global market, hence headline y-o-y inflation remained unchanged. As of September, **core inflation** trended at 0.2% y-o-y, its lowest value on the Eurostat's record. Specific factors, including temporary changes in indirect taxes, continued to play an important role in the recent movements in headline inflation in the euro area and its short-term outlook. As for Serbia's main foreign trade partners, y-o-y inflation in **Germany**, measured by the Harmonised Index of Consumer Prices, was negative since August and it declined from -0.4% y-o-y in September to -0.7% in December, with the main negative contribution to inflation coming from the cuts in the VAT rate from July to December 2020, as part of fiscal measures due to the pandemic. In **Italy**, the y-o-y fall in prices slowed down from -1.0% in September to -0.3% in December, primarily owing to the lower negative contribution of energy prices.

Inflation in the **USA** also remained low due to the still relatively low aggregate demand and the negative contribution of energy prices, and it even went further down in Q4. Headline y-o-y inflation in the USA, measured by the personal consumption expenditures index, edged down from 1.4% in September to 1.3% in December, while inflation excluding the prices of food and energy – as the Fed's preferred measure – was also below the target (1.5%).

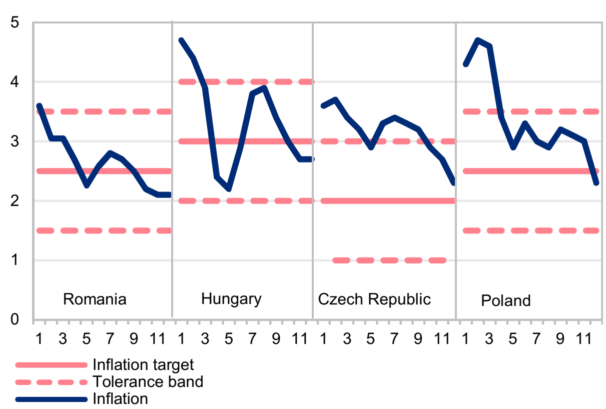
Inflation in observed **Central and Southeast European countries** decreased during Q4, and a disinflationary effect in all observed countries was recorded on account of lower prices of food, while the y-o-y fall in the prices of petroleum products decelerated in December, in accordance with the global oil price movements. Y-o-y inflation rates declined the most in the Czech Republic and Poland – by 3.2% in September to 2.3% y-o-y in December in both countries. Inflation in Hungary declined in Q4 by 0.7 pp to 2.7% in December, while in Romania it dropped by 0.4 pp to 2.1%. With the exception of the Czech Republic, at end-Q4 inflation in other observed countries trended below the target midpoint.

Chart IV.6.10 **HICP for selected countries**
(y-o-y rates, in %)



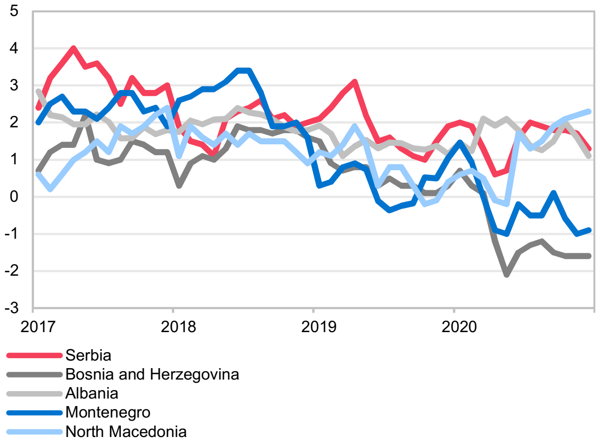
Source: Eurostat.

Chart IV.6.11 **Movement in CPI for selected CESEE countries in 2020**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

Chart IV.6.12 **Movement in CPI for Western Balkans**
(y-o-y rates, in %)



Sources: Statistical offices of selected countries.

Core inflation in all observed countries was still significantly above headline inflation, and in December it ranged from 3.3% in Romania to 4.0% in Hungary.

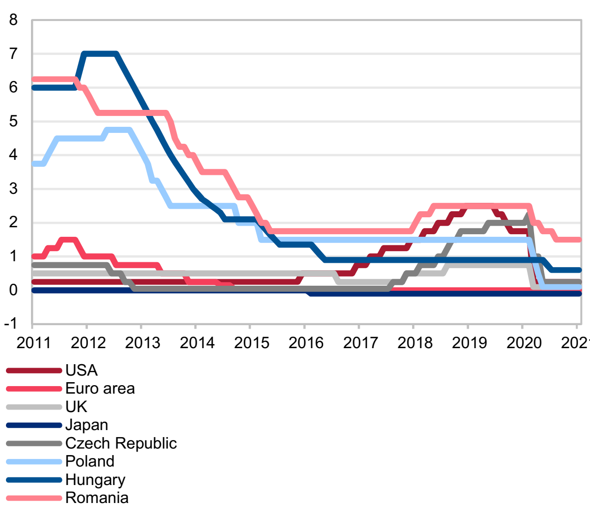
Inflation in the majority of **Western Balkan** countries declined during Q4. After edging up to 2.0% in October, y-o-y inflation in **Albania** was on a decline for the following two months, coming down to 1.1% in December. Inflation in **Montenegro** again went into the negative zone in Q4, and the y-o-y fall in prices equalled 0.9% in December. Y-o-y inflation in **Bosnia and Herzegovina** dropped further into the negative territory, measuring -1.6% in December. Inflation rose only in **North Macedonia** in Q4 – from 1.9% in September to 2.3% in December, its highest level in three years, attributable to the increasing food inflation and the rise in the prices of housing and utility services.

After exhibiting a stable trend during Q3 (11.8%) and in October (11.9%), y-o-y inflation in **Turkey** rose during the following two months under the pressure of the past weakening of the lira. In December, inflation measured 14.6%, which is its highest level in more than one year.

Monetary policy

During Q4, the ECB kept its key interest rates unchanged – the main refinancing operations rate at 0%, lending facility rate at 0.25% and deposit facility rate at -0.50%, and it expects them to remain at the current or lower levels until its projections anticipate inflation at slightly below 2%. Still, in accordance with expectations, in the December meeting it adjusted other monetary policy instruments. A decision was made to increase net asset purchases within the Pandemic Emergency Purchase Programme (PEPP) by EUR 500 bn, hence the total volume of the programme will amount to EUR 1,850 bn. This amount for asset purchases need not be used in full if the financial situation improves, but, if otherwise, it may even be increased. The purchases will continue at least until end-March 2022 (previously June 2021), i.e. until the ECB estimates that the crisis caused by the coronavirus has ended. Also, the ECB extended the period for reinvestments of the principal amounts of maturing securities until at least end-2023 (previously end-2022). Net purchases under the Asset Purchase Programme (APP) will continue at a monthly pace of EUR 20 bn for as long as necessary, i.e. they will end slightly before the ECB starts raising its rates again, with reinvestments of the principal amounts of maturing instruments for an extended period thereafter. More favourable conditions for long-term lending to banks under the TLTRO III programme will remain in force until June 2022

Chart IV.6.13 **Policy rates across selected countries**
(p.a., in %)



Sources: Central banks of selected countries.

(previously June 2021), and it was also decided that financing through the long-term refinancing programme PELTRO, introduced to support liquidity during the pandemic, should continue during 2021 as well. Temporary repo operations with other central banks from countries outside of the euro area have been extended until March 2022. The adopted monetary policy measures aim to enable favourable financing conditions during the pandemic, as well as to support economic growth and price stability over the medium-term.

With a unanimous vote of FOMC members, the **Fed** also kept its federal funds target range unchanged during Q4 (0–0.25%), where it will remain until the Fed estimates that full employment has been achieved, with inflation at 2% and a tendency to slightly overshoot that level for a while, which the Fed will most likely tolerate, in accordance with its changed monetary strategy. Also, it kept the current dynamics of asset purchases within the quantitative easing programme – monthly purchase of Treasury bonds in the amount of USD 80 bn and agency mortgage-backed securities of USD 40 bn, though at the December meeting it altered the manner of communicating about quantitative easing. Hence, instead of the phrase “in the coming months”, it noted that bond purchases will continue until substantial further progress has been made toward the Committee’s maximum employment and inflation goal, whereby it signalled readiness to increase bond purchases should the need arise.

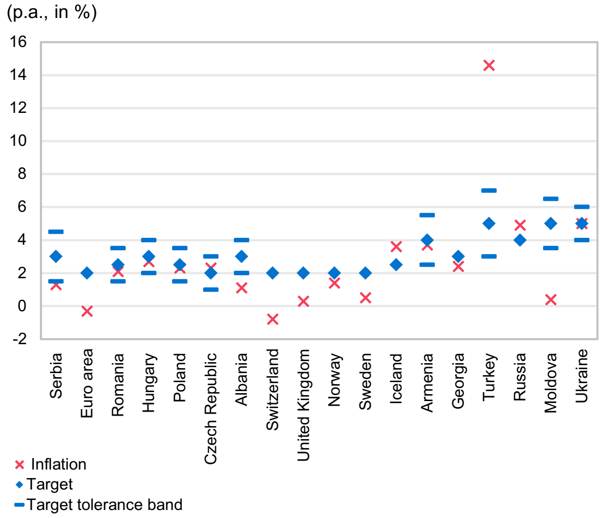
Central banks of Central and Southeast European countries kept their policy rates unchanged throughout Q4, though some of them did adjust other monetary policy tools. The central bank of **Hungary** kept the policy rate at 0.6%, but revised its government bond purchase programme in the local currency by increasing the volume of bonds that may be bought under the programme. Also, a decision was made to boost the support programme to the sector of micro, small and medium-sized enterprises, which was introduced to mitigate the adverse effects of the coronavirus pandemic by ensuring cheap sources of bank financing. The central bank of **Romania** also kept its policy rate on hold in Q4 (1.5%), though it trimmed the reserve requirement rate in foreign currency, with analysts estimating that this measure will release around EUR 350 mn in the market. In the January meeting, it cut the policy rate to 1.25%, its new lowest level, while market participants had expected it to be maintained at 1.5%. The central bank of **Poland** kept its policy rate at 0.1% in Q4; however, for the first time since April 2010, it intervened by purchasing foreign currency in the FX market to prevent the appreciation of the Polish zloty. The central bank of the **Czech Republic**

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

Central bank	Inflation*	Inflation target	Policy rate**
Serbia	1.3	3.0 ± 1.5	1.00
Poland	2.3	2.5 ± 1.0	0.10
Czech Republic	2.3	2.0 ± 1.0	0.25
Hungary	2.7	3.0 ± 1.0	0.60
Romania	2.1	2.5 ± 1.0	1.25
Turkey	14.6	5.0 ± 2.0	17.00

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

Chart IV.6.14 **Inflation and target by country in December 2020**
(p.a., in %)



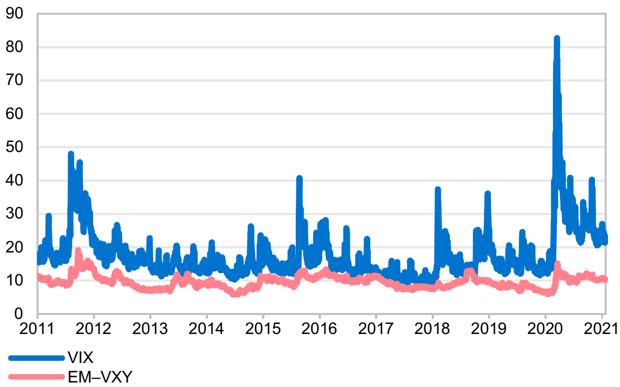
Sources: Eurostat and websites of central banks.

also kept its policy rate on hold (0.25%), as well as its other monetary policy instruments.

The central bank of **Turkey** did not change its policy rate at the October meeting, contrary to analysts' expectations, but it increased its lending facility rate (Late Liquidity Window) to 14.75%, whereby it effectively expanded its interest rates corridor. Then, in November, it raised the policy rate by 475 bp to 15% and in December to 17%, aiming to stabilise inflation and inflation expectations, which bore the brunt of the lira's plunge against the dollar in the prior period. Also, a decision was made to provide liquidity to banks solely at the policy rate (at regular repo auctions) in the coming period.

Financial and commodity markets

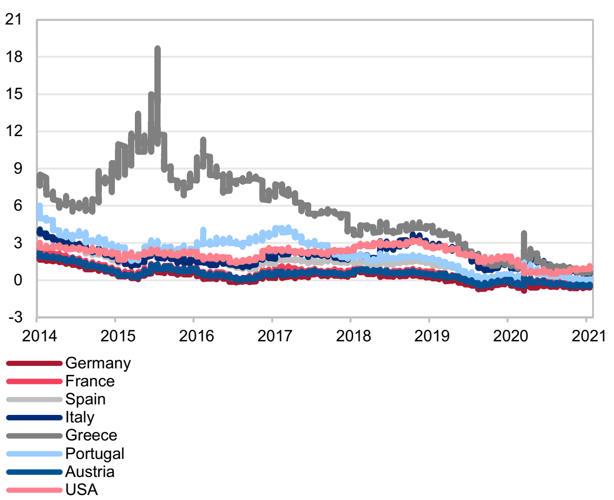
Chart IV.6.15 **Implied volatility of the global financial market***



Source: Bloomberg.

* VIX (Chicago Board Options Exchange Market Volatility Index) measures implied volatility of the S&P 500 index; EM–VXY (J.P. Morgan emerging markets implied volatility index) measures aggregate volatility of emerging market currencies based on three-month forward options.

Chart IV.6.16 **Yields on ten-year bonds of selected countries**
(daily data, in %)



Source: Bloomberg.

At end-October, uncertainty in the global financial market rose in response to the deteriorating epidemiological situation across the world, leading some countries to enforce new restrictions. Also, in some periods, uncertainty was further increased by the developments surrounding US presidential elections, as well as talks over the new package of fiscal aid in the USA. Overall, global optimism rose on the back of positive news about coronavirus vaccine development, as well as expectations of a solid global economic recovery. However, investors' concern resurged during December amid the increasing number of infections in the USA and Europe, and the emergence of a new coronavirus strain in the United Kingdom. Still, thanks to the agreement about the package of fiscal aid in the USA, which was reached after several months of negotiations, and the deal between the United Kingdom and the EU about their relations going forward, optimism in the market began to rise anew at the end of the year, and so did investors' risk propensity. Thus, the implicit measure of **financial market volatility** (VIX) dropped by 3.6 pp to 22.8% during Q4, while the volatility of the currencies of emerging economies, measured by EM–VXY, dipped by 1.1 pp to 10.7%. During January, VIX rose 10.3 pp (to 33.1%) as a consequence of speculative trade in certain shares in the US stock market at the close of the month, while EM–VXY declined further by 0.4 pp, reaching 10.4%.

Yields on **ten-year government securities** of the majority of developed European countries declined during Q4 amid increased demand for safe assets, though the fall was largely mitigated by the rising optimism in the market at end-2020. During Q4, yields on Greek ten-year government bonds decreased the most (by 0.4 pp to 0.6%), though they were still positive, as were the yields on Italian bonds (0.5%), whereas yields on benchmark

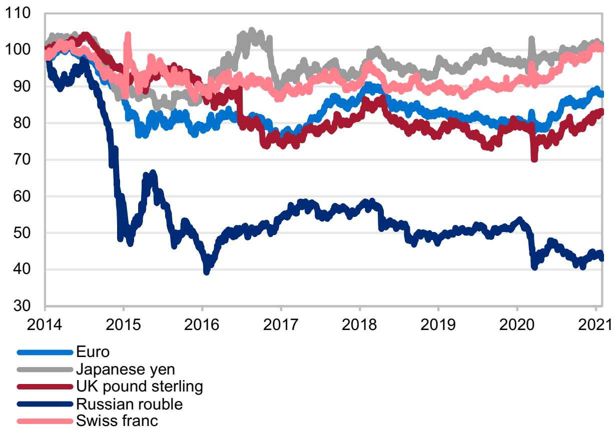
Spanish and Portuguese government bonds almost dropped to zero. Yields on German ten-year government securities remained largely unchanged at -0.6%, while yields on benchmark Austrian and French government bonds fell deeper into the negative zone (to -0.4% and -0.3%, respectively). On the other hand, yields on ten-year US Treasuries rose mildly in Q4 (by 0.2 pp to 0.9%), which was additionally facilitated by the rising optimism over the adoption of the new package of fiscal aid. In the majority of observed countries, yields rose slightly during January (by 0.1 pp on average) owing to the optimism arising from large-scale vaccination deployment.

The strengthening of the **euro against the dollar** continued in Q4. After a relatively stable EUR/USD exchange rate during October, the prevailing optimism resulted in the dollar, as a safe-haven currency, depreciating in November. In conditions of increased risk propensity, the euro continued to gain on the dollar in December as well, when it touched its maximum level since April 2018 (USD/EUR 1.23); also, at end-Q4 the euro was 4.7% stronger than the dollar relative to end-Q3. In Q4, the dollar weakened relative to other leading currencies as well. It regained some of its value against the euro in January (by 1.6%), due to the rising yield on US Treasuries amid expectations of strong fiscal consumption.

The **price of gold** was relatively stable during October, at around USD 1,900 per ounce, only to drop to USD 1,763 per ounce in November, in response to the positive news about vaccine development and expectations that economic recovery would pick up on this account, which drove investors to invest in riskier classes of assets. However, the price of gold went back up in December, owing to both the deteriorating epidemiological situation in the world and the depreciation of the dollar. Although it oscillated a lot during Q4, it ended the quarter at USD 1,888 per ounce, which is almost the same value as at the end of Q3. During January, the price of gold dipped slightly, by 1.3% to USD 1,864 per ounce, in conditions of the appreciation of the dollar.

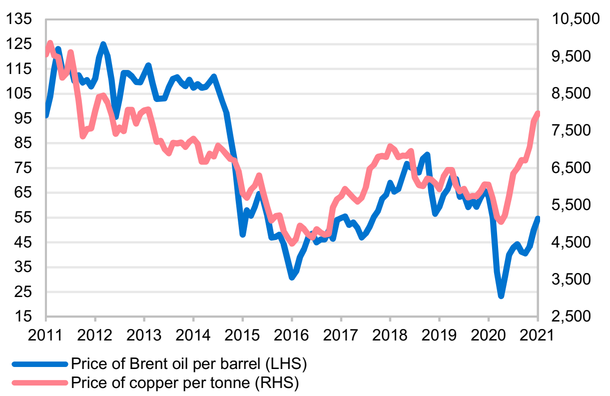
The **global price of oil** initially decreased in October, by almost 10%, to USD 36.9 per barrel, due to the worsening health situation in the USA and announcements of new containment measures in Europe, the stepped-up production in Libya and Iraq, and data about the rising US inventories. Afterwards, it started to rise on the back of the positive market sentiment in November, the weakening of the dollar, data about the depleting inventories of crude oil in the USA, expanded sanctions to Iran and US sanctions to Venezuela. In early December,

Chart IV.6.17 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)



Source: IMF.
* Growth indicates appreciation.

Chart IV.6.18 **Oil and copper price movements**
(average monthly prices, in USD)



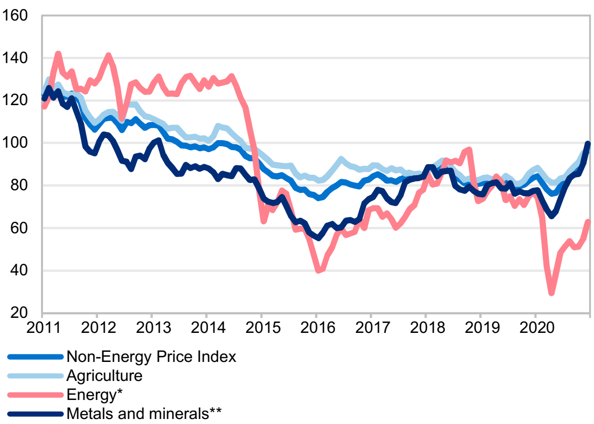
Source: Bloomberg.

OPEC countries and Russia agreed to increase daily output by 500,000 barrels a day as of 1 January 2021, which is less than initially agreed on (2 mn barrels a day), therefore the oil price rose further. Investor optimism in terms of oil demand also grew, and so did the price of oil – at end-Q4 it equalled USD 51.2 per barrel, up by 25% from end-Q3. During January, the price of oil continued up (by 7.2% to USD 54.9 per barrel), which was facilitated by Saudi Arabia's decision to voluntarily cut its production by 1 mn barrels a day in February and March.

Owing to the recovery in global industrial output, notably in China, and occasional production downtime in South America due to the spread of the virus, the **prices of metals and minerals** continued to increase, and at end-Q4 stood 17.1% higher than a quarter earlier, with all components of this World Bank's subindex also rising. The price of the iron ore rose 25.6% and in December reached its maximum since October 2011. The price of copper also touched its multi-year ceiling, rising 15.9% in Q4, while the price of aluminium was 15.5% higher than at end-Q3. Q4 also saw an increase in the prices of nickel, zinc, lead and tin. In addition to the gradual recovery of global production, the rising prices of metals were also underpinned by the improved sentiment in global financial markets and the weakening of the dollar.

Global food prices, measured by the **FAO index**, also continued up – by 9.8% during Q4, with all components of the index recording growth and many of them reaching their multi-year maximums. As in Q3, the price of vegetable oil recorded the highest rise in Q4 (22.0%), and in December reached its highest level in more than eight years. This was mainly the result of the increase in the price of palm oil amid depleting inventories of chief producers and a sudden rise in export tariffs in Indonesia, the world's leading palm oil producer. The rise in the prices of cereals, which began in Q3, continued into Q4: the prices went up 11.2%, and in December reached their highest since July 2013. The price of wheat increased due to the diminished inventories of main exporters, poorer prospects of production in the USA and Russia, and the introduction of export restrictions by Russia. The price of corn went up due to the bleak harvest prospects in South America, as well as the rise in the price of soybean, which spilled over onto increased demand for corn. The price of sugar rose 10.2% in Q4, mainly due to the robust import of China, the world's second largest sugar importer, as well as due to the rising import demand in Indonesia. The prices of dairy rose 6.5% in Q4, while meat prices rose 3.1% relative to end-Q3, though they were still significantly lower than the levels recorded in H2 2019 and early 2020.

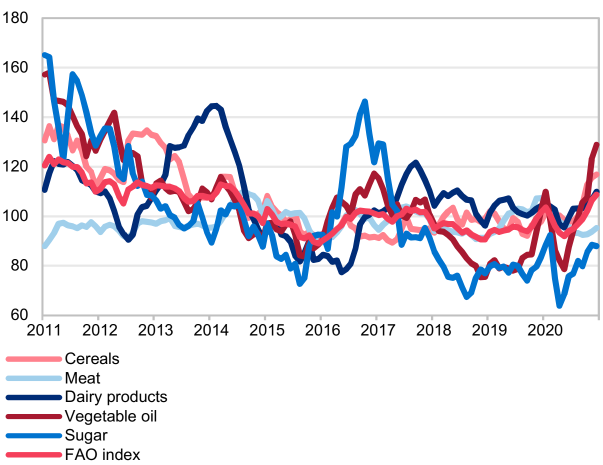
Chart IV.6.19 **Primary Commodity Price Index**
(2010 = 100)



Source: World Bank.

* Crude oil, natural gas and coal.
** Copper, aluminium, iron ore, lead, nickel, zinc and tin.

Chart IV.6.20 **World Food Price Index**
(in real terms, 2014−2016 = 100)



Source: UN FAO.

Text box 5: Impact of the pandemic on public debt and decomposition of the change in Serbia's public debt

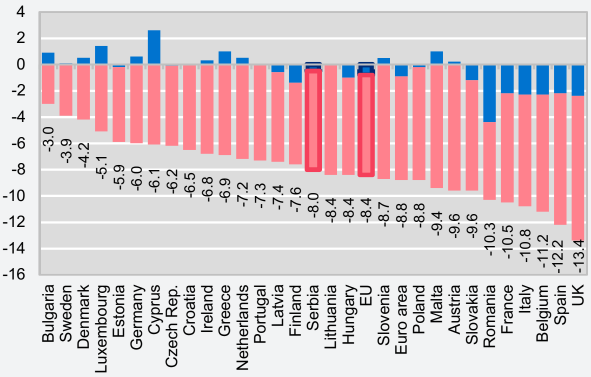
The pandemic caused a strong reaction of the fiscal policy of countries across the world in an effort to support the health care system and limit the negative impact on consumption and economic growth. Such support to the economy, together with lower fiscal revenues due to the contracted economic activity, resulted in an increase in the fiscal deficit and public debt in almost all countries of the world. The professional public is unanimous in thinking that a fiscal intervention is entirely justified, considering the extraordinary circumstances in which a temporary deterioration of fiscal indicators was unavoidable in order to protect people's health and rein in the negative impact on the economy.

The fiscal measures undertaken so far at the global level have been estimated by the IMF at close to USD 14,000 bn (around 12% of the global GDP), which led to the rise in global public debt to almost 98% of GDP at end-2020 (pre-pandemic estimates projected growth at 84% of GDP).[1] About one half of these measures implies additional government spending or forgone revenues (including temporary tax cuts), and the other half – support to the liquidity of the economy, including loans, guarantees and injections of equity capital. The IMF estimates that the measures resulted in an increase in fiscal deficit and public debt in GDP during 2020 to 13.3% and 123%, respectively, in advanced countries, 10.3% and 63% in developing and medium-income countries (Serbia included), and 5.7% and 49% in low-income countries.

Observed by country, the undertaken fiscal measures differed depending on the fiscal space which governments of those countries had at their disposal and the options for favourable financing, as well as the level of the impact of the pandemic. All EU countries, without exception, exceeded their planned fiscal results and public debt levels projected before the pandemic. Anticipating such movements in these extraordinary circumstances, in March 2020 the European Commission proposed, and EU member countries' finance ministers approved, the activation of a clause to temporarily suspend EU fiscal rules (deficit and public debt of maximum 3% and 60% of GDP, respectively, as well as adjustment rules). While the clause suspends rules, it does not pertain to the procedures, hence the European Commission will continue to take the necessary coordination measures, though deviating from fiscal requirements that would normally apply.

EU fiscal rules have been subject to criticism for several years now, and the European Commission is generally on the same page. Right before the pandemic

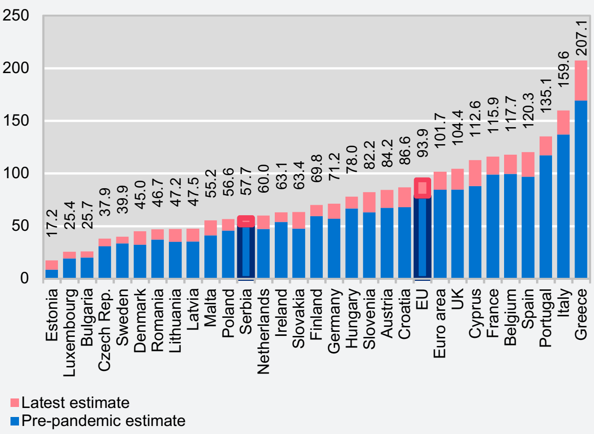
Chart O.5.1 **Projected fiscal result in EU countries and Serbia in 2020**
(in % of GDP)



Sources: European Commission projections, November 2019 and November 2020, for Serbia - projections from the Fiscal Strategy for 2020 and 2021.

Note: the figures indicate projections from end-2019, before the pandemic, and the latest available projections.

Chart O.5.2 **Projected public debt of the general government in EU countries and Serbia in 2020**
(in % of GDP)



Sources: European Commission projections, November 2019 and November 2020, for Serbia - projections from the Fiscal Strategy for 2020 and 2021.

Note: the figures indicate projections from end-2019, before the pandemic, and the

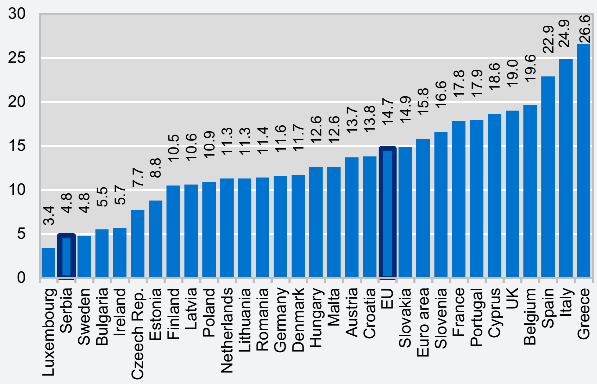
[1] Fiscal Monitor Update, IMF, January 2021.

broke out, in January 2020 the European Commission initiated a public debate concerning the revision of fiscal rules in order to reach more efficient solutions that would ensure long-term sustainability of public debt and support the countercyclical fiscal policy. The pandemic postponed this plan, but it also stepped-up the discussion about fiscal policy and public debt because countries that had a significantly higher public debt than 60% even before the pandemic, increased their debt further during 2020, by 20–25 pp of GDP (Italy to almost 160%, and Greece to more than 200% of GDP). The pandemic has not ended yet, which further increases the uncertainty over public finances going forward.

Still, the IMF estimates that leading developed countries still have the fiscal space to support demand if needed. The debate on the role of fiscal policy was encouraged by Olivier Blanchard[2] even before the pandemic. He stressed that projections indicated that interest rates in developed countries would be lower than GDP growth rates over the next 20 years, which, if it does unfold in that manner, will have extremely important implications for fiscal policy, because the costs of public debt and fiscal risks would be much lower in that case. At the same time, there is an increase in the optimal level of public investments and the role of the fiscal policy is gaining importance in the stabilisation of economic activity (due to limitations which low interest rates impose on the monetary policy). Numerous analyses suggest that fiscal multipliers are higher in a recession stage than during expansion, and that they are particularly high for infrastructure projects which improve the long-term growth outlook. Also, the majority of public investments has a greater impact on demand than other categories of public expenditures.[3]

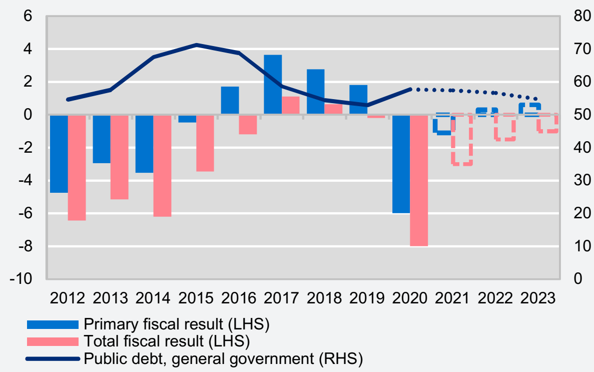
As for emerging countries, though having smaller fiscal space than developed countries, since autumn last year a number of them, including Serbia, managed to get much better borrowing terms in the global debt market than before, which was acknowledged at the presentation of the IMF's January Fiscal Monitor Update.

Chart O.5.3 **Estimated increase in public debt of the general government in 2020 relative to 2019 in EU countries and Serbia**
(in pp of GDP)



Sources: Data for 2019 and projections for 2020 of the European Commission, November 2020, for Serbia - data of the Ministry of Finance.

Chart O.5.4 **Serbia's total and primary fiscal result and public debt**
(in % of GDP)



Source: Serbian Ministry of Finance.

Favourable financing conditions, coupled with robust economic recovery and gradual fiscal adjustment, will be the key factors of stabilisation and later of lowering the share of Serbia's public debt in GDP. Its temporary increase in 2020, by 4.8 pp to 57.7% of GDP at the general government level (to 56.8% of GDP at the central government level) was among the smallest in Europe and was driven by a strong response of the fiscal policy (with a general government deficit of around 8.0% of GDP), to minimise the adverse effects of the pandemic. **Significant fiscal space for intervention was secured over the previous years** by responsible fiscal policy and consolidation measures, favourable financing conditions and economic growth, as well as low inflation and a stable exchange rate, whereby the upward path of public

[2] Olivier Blanchard (2019), Public debt and low interest rate, *American Economic Review*, Vol. 109, No. 4, April.

[3] European Fiscal Board (2019), Assessment of EU fiscal rules.

debt in GDP was reversed in 2016. The downward path was sustained until the pandemic broke out and resulted in the decrease in general government public debt of as much as 18.3 pp relative to end-2015, to 52.9% at end-2019.

Based on the decomposition of factors affecting the public debt dynamics in GDP, we could see that in 2020 the debt ratio rose temporarily, which will be followed by its stabilisation, and then a decline:

1) the differential between the real interest rate on public debt and real GDP growth rate and

2) the primary fiscal balance as a ratio to GDP (overall fiscal balance less interest payments).

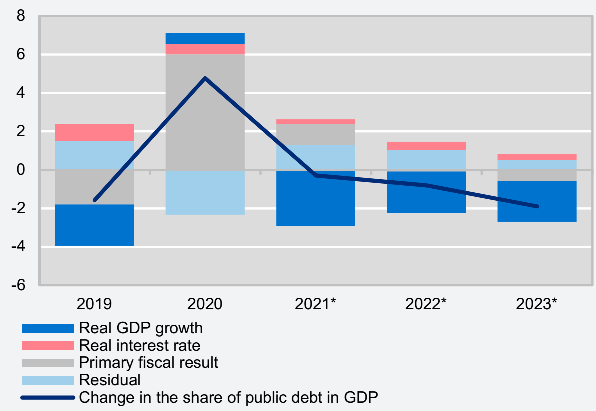
If we start from the equation to decompose the factors of change in the debt-to-GDP ratio over time period t relative to the previous period *t-1*:[4]

$$d_t - d_{t-1} = \frac{r_t}{1+g_t} d_{t-1} - \frac{g_t}{1+g_t} d_{t-1} - pb_t + sf_t$$

we can track the contribution of the key factors: the real interest rate (*r*), real economic growth rate (*g*) and primary balance ratio (*pb*). The expression *sf* was added to the equation, which in practical calculation is a residual, and pertains to the adjustment of the stock of public debt, i.e. includes transactions and/or other factors affecting the stock of public debt, which are not disclosed in the primary fiscal balance (stock-flow adjustments).

This equation clearly underlines the fact that the interest rate-growth differential is the key concept in assessing fiscal sustainability, because the position of public finance is much more favourable when it is negative (i.e. when the interest rate is lower than the growth rate). In such case, the government has an option, even with a certain primary budget deficit, to stabilise and even reduce the debt-to-GDP ratio. The government will additionally strengthen the reduction of this ratio if it makes a surplus, instead of the primary deficit, which, based on the decomposition of Serbia's public debt dynamics, we can see was the case in 2019 (Chart O.5.5). And not only in 2019. **Several years before the pandemic Serbia managed to achieve a negative differential of the interest rate and GDP growth rate**, owing to full coordination of monetary and fiscal policy measures, which secured favourable conditions for government and corporate financing and relatively high real GDP growth rates. Another positive thing is that the share of debt with a fixed interest rate exceeded 86%, which is insurance in case of sudden changes in financing conditions in the international financial market.

Chart O.5.5 **Contributions to the change in Serbia's public debt**
(in % of GDP)



Source: NBS.
* Projection.

When the pandemic broke out, the **interest rate-growth differential in 2020 was positive for a while,** due to extraordinary circumstances, which is indeed common in crisis periods, when there is a contraction in economic activity. **Still, even in crisis conditions, its positive value was relatively small, and thus its impact on the increase of public debt in GDP**. This was achieved by adequate economic policy measures, with an economic structure implying a lower share of sectors "susceptible" to the pandemic, which limited the contraction of economic activity to 1.1% (SORS preliminary estimate), one of the lowest in Europe. Thanks to this, **the increase of public debt in GDP in 2020 came about primarily due to the contribution of the primary fiscal deficit** (of around 6.0% of GDP). Contrary to this, **in the majority of other countries, besides a large contribution of primary deficit to debt growth, there was also a large contribution of the interest rate-growth**

[4] See: Escolano, J. (2010), A practical guide to public debt dynamics, fiscal sustainability, and cyclical adjustment of budgetary aggregates, *IMF Technical Notes and Manuals*.

differential due to a significantly bigger drop in the economic activity. Thus, for instance, in the euro area these two factors had an almost equal impact on the growth of debt in GDP. **This explains why Serbia's public debt in GDP rose less than in other countries which had a similar form of the package of economic aid amid the pandemic and fiscal deficit growth**.

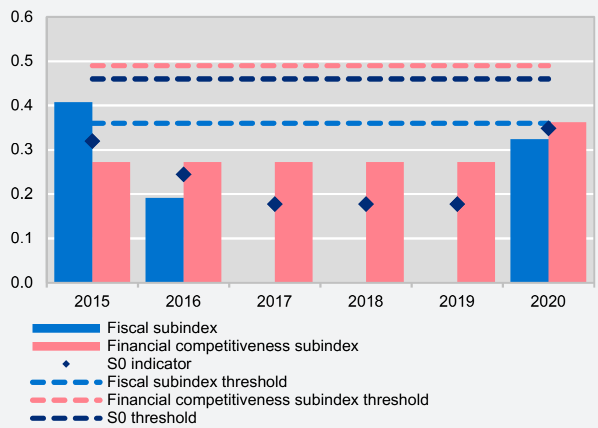
With assumptions about the movements in key macroeconomic fundamentals, we decomposed the factors that will impact the change of public debt in GDP in the period 2021–2023. We assumed the movement of fiscal indicators, GDP and inflation growth rates, and the impact of interest rates on Serbia's public debt in accordance with the current Fiscal Strategy, as well as the NBS's projections and the IMF's estimates.[5] Please note that public debt in GDP in the period 2021–2023 was projected at a lower level relative to the Fiscal Strategy, because the Strategy envisaged a higher increase in public debt in GDP in 2020 than the achieved.

Chart O.5.5 shows that the stabilisation of the share of public debt in GDP in 2021, and then its reduction in the coming years will be facilitated by the significantly lower planned primary deficit in 2021 (1.1% of GDP), as well as the shift into the surplus thereafter. However, the **expected negative differential between the interest rate and GDP growth** will give a key contribution to the reduction in the public debt ratio, which is facilitated by more than a full recovery of economic activity this year, with a GDP growth rate in the range of 5% to 6%, followed by a stable GDP growth trajectory of around 4% annualised in the following years, as well as the favourable financing conditions in the domestic and international market.

We may conclude that Serbia's public debt is sustainable and far from the level that could lead to a crisis, and that its growth in 2020 does not pose a risk to its sustainability. At the same time, compared to the majority of other EU countries, it posted moderate growth, not exceeding the Maastricht criterion of 60% even in 2020, or the critical values of the S0 indicator, which the European Commission monitors for EU members (Chart O.5.6).

S0 is a composite indicator of short-term fiscal sustainability. Essentially, it includes all relevant fiscal and macroeconomic indicators in order to identify the potential existence of fiscal and macroeconomic vulnerability of public finances that might be a fiscal stress trigger in the coming year, leaving consequences on both medium and long-term fiscal sustainability. Though the values of both subindices of this indicator (the fiscal subindex and the financial competitiveness subindex) rose in 2020 as expected, notably as a consequence of expansive fiscal policy and the fall in real GDP because of the pandemic, they did not exceed critical values, hence the S0 indicator does not anticipate fiscal stress in 2021 either.

Chart O.5.6 **S0 indicator, fiscal subindex and financial competitiveness subindex for Serbia from 2015 to 2020**



Source: NBS.

During the pandemic, finding an optimum measure between short-term support to people's health and the economy on the one hand, and ensuring medium-term sustainability of public finances on the other, is certainly one of the biggest fiscal policy challenges for all countries. Though vaccination gives rise to optimism, especially given that Serbia is among the leading countries in the world in terms of the number of vaccinated people relative to the number of residents, the pandemic is not over yet. It is therefore important to carefully assess fiscal space and, if it is there, to avoid tightening the fiscal policy too early (at least a year or two after the GDP fall), in order to additionally support sustainable recovery from the crisis, particularly bearing in mind that interest rates are at historically low levels. **In light of this, we will take a look at another recently announced government economic aid package to corporates and households, worth around EUR 2.0 bn** and aimed at further encouraging growth in domestic demand and ensuring the fastest possible recovery of the Serbian

[5] IMF Country Report No. 20/270, Republic of Serbia, August 2020.

economy. We believe that there is fiscal space for additional measures, because they do not threaten the sustainability of public finances or macroeconomic stability. Bearing in mind the previous analysis of the decomposition of factors affecting the movements in the share of public debt in GDP, we estimate that the key role in the debt dynamic is that of the negative interest rate-growth differential which will be present this year as well, and will ensure that the public debt ratio moves at around 60% even in case of a somewhat higher primary fiscal deficit.

V Projection

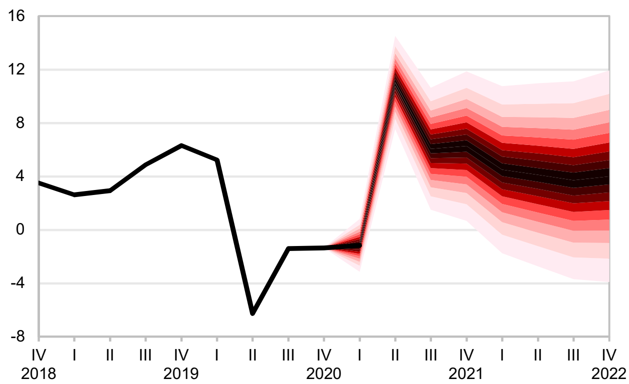
This year we expect a more than complete economic recovery from the crisis, with a GDP growth rate between 5% and 6%. Growth will be led by domestic demand and exports, to which mass vaccination expected this year both at home and globally should make the key contribution, and supported by the timely and adequate response of economic policy makers in Serbia and the resulting favourable terms of financing, preserved production capacities and jobs, as well as the anticipated rebound in external demand. In our estimate, the same factors will enable a return to a stable medium-term growth path of around 4% p.a. in the coming years. The risks to the 2021 projection remain pronounced, primarily in H1, but are, overall, judged to be symmetric and mostly associated with the speed of vaccination and its efficiency in winding down the pandemic. The risks relating to international factors are skewed to the downside, due to the renewed spread of the coronavirus since October and tighter containment measures in many European countries which continued into early 2021 as well. The risks associated with domestic factors are tilted to the upside, mostly on account of the announced economic assistance package and the swift pace of vaccination in our country. The implementation of the new economic assistance package would contribute to faster than expected growth in domestic demand, while the continuation of intensive vaccination could give a further boost to service sector recovery.

Under the central February projection, y-o-y inflation is expected to move within the lower bound of the target tolerance band this and the next year. Inflation will be higher in 2021 than in 2020, due primarily to the announced electricity price hike and the expected rise in petroleum product prices on the back of a higher global price of oil. These are also the key reasons why the new inflation projection is somewhat higher than the previous one. As, despite the anticipated recovery, GDP is estimated to grow faster than consumption, demand-side inflationary pressures will remain low over the projection horizon which, coupled with the base effect for food and energy prices, will lead to lower inflation in 2022 than in 2021. Uncertainties surrounding the short-term inflation projection refer primarily to movement in the global oil price and fruit and vegetable prices. In the medium term, the key risks continue to stem from the international environment, and relate primarily to the speed of recovery of the euro area, global prices of primary commodities and capital flows to emerging economies. In part, the risks to the projection are also associated with the pace of recovery of domestic demand and movement in administered prices at home. On the whole, the risks to the inflation projection are judged to be symmetric.

GDP projection

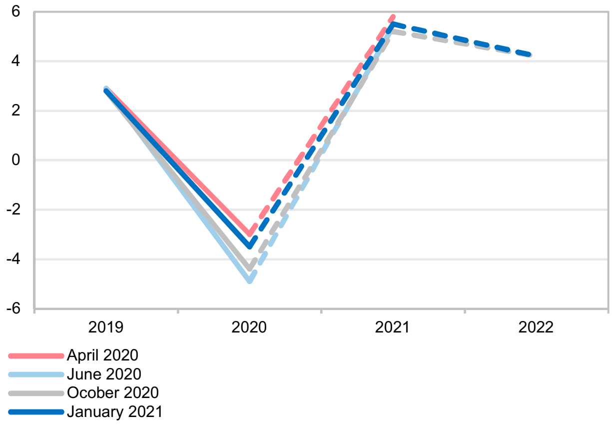
The recovery begun in Q3, when quarterly GDP growth measured 6.3% s-a, continued into Q4, but at a slower pace due to a deteriorating epidemiological situation globally and at home from October onwards and the tightening of containment measures. Y-o-y, economic activity declined by 1.3% in Q4 (compared to -1.4% y-o-y in Q3). The annual GDP growth rate thus measured -1.1%, which is slightly below our expectations from October. As anticipated, the service sector (transport, tourism, catering, recreation and culture), i.e. the activities hit particularly hard by the pandemic, provided a negative contribution to GDP in 2020. The contribution of construction was also negative, though to a smaller degree, mostly due to the high base from last year. Agriculture, by contrast, recorded growth in annual terms,

Chart V.0.1 **GDP growth projection**
(y-o-y rates, in %)



Source: NBS.

Chart V.0.2 **IMF projections of real global economic growth for 2021 and 2022**
(in %)



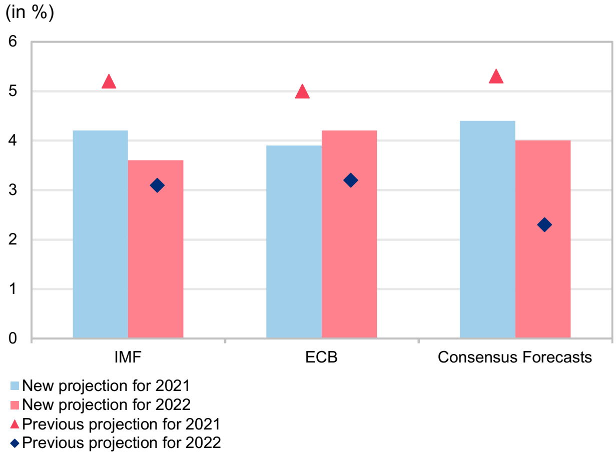
Sources: IMF WEO and WEO Updates.

Table V.0.1 **Revision of IMF forecast of real GDP growth for 2021 and 2022**
(in %)

	2021		2022	
	Previous projection	New projection	Previous projection	New projection
World	5.2	5.5	4.2	4.2
Euro area	5.2	4.2	3.1	3.6
Germany	4.2	3.5	3.1	3.1
Italy	5.2	3.0	2.6	3.6
USA	3.1	5.1	2.9	2.5
Russia	2.8	3.0	2.3	3.9
China	8.2	8.1	5.8	5.6

Sources: IMF WEO (October 2020) and IMF WEO Update (January 2021).

Chart V.0.3 **Revisions of euro area GDP growth projections for 2021 and 2022**
(in %)



Sources: IMF, ECB and Consensus Forecasts.

as did industry, supported by earlier investments and increased product and export diversification. On the expenditure side, household consumption and fixed investment subsided, but their decline was smaller than anticipated thanks to labour market resilience and a large-scale economic assistance package.

This year, we expect the GDP growth rate to range between 5% and 6%. This will place us among the few European economies to reach the pre-crisis level of economic activity already this year (in Q2, according to our estimate). Growth will be led by domestic demand and exports, to which mass vaccination expected this year both at home and globally should make the key contribution. It will also be supported by the timely and adequate response of economic policy makers in Serbia and the resulting favourable terms of financing, preserved production capacities and jobs, as well as the anticipated rebound in external demand. According to our estimate, the same factors will enable a return to a stable medium-term growth path of around 4% p.a. in the coming years.

The IMF estimates that the global economic growth outlook for this year is more favourable than expected in October. This is mostly due to higher optimism following news of progress in vaccine development and the start of their distribution, as well as the fiscal support packages adopted in the USA and Japan. **Global growth** is now projected at 5.5% or 0.3 pp up from the October projection, primarily reflecting a more favourable outlook for the USA, while 2022 growth is estimated at 4.2%. However, the renewed spread of infections from October onwards and the appearance of new, more contagious coronavirus strains called for tighter containment measures, raising concerns over the pace of global economic recovery in 2021. The IMF's January projections also diverge notably with regard to the assumed speed of recovery of the most advanced economies – the USA and Japan are expected to recover faster than projected, while growth rates of the euro area and the UK have been revised down.

In its January edition of Global Economic Prospects, the World Bank projects a lower global growth rate for this year, expecting it to measure 4% in 2021, assuming wide vaccine distribution during the year, and 3.8% in 2022. Such recovery is assessed as sluggish, unless economic policy makers take decisive action to counter the pandemic and implement reforms to boost investment.

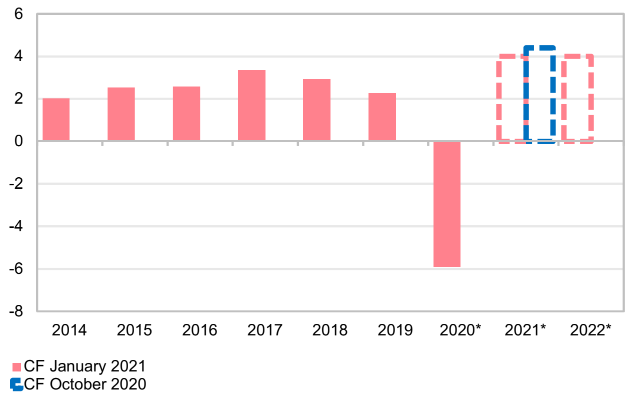
Most **euro area** countries reinstated restrictive containment measures from mid-October 2020 in response to the second wave of the pandemic. The majority of leading economic activity indicators for Q4 remained in the expansion phase for the production sector, mostly thanks to the ECB's measures, fiscal stimulus packages in most euro area economies and the recovery of external demand from China. By contrast, activity in the service sector contracted amid physical distancing measures. The above movements, however, show that the second wave of the pandemic produced smaller effects than the first one. On the other hand, continuation of tight containment measures into the initial months of 2021, primarily in Germany which is the largest euro area economy and our most important individual trade partner, and the effect of a higher base from 2020 due to faster-than-expected recovery in the May-September period have led to a downward revision of the euro area economic growth outlook for 2021. Thus, in December the ECB revised up its projection of euro area GDP growth in 2020 (by 0.7 pp relative to September to -7.3%), while revising down the forecast of growth in 2021 (from 5.0% in September to 3.9% in December). The IMF's expectations are similar. In the January WEO, the IMF revised down its euro area growth projection for 2021 to 4.2% (from 5.2% in October). Consensus Forecasts had somewhat higher expectations of 2021 GDP growth (4.4%), but this projection too is lower than in October. Euro area economic growth will be led by advances in the vaccination process and the effects of the implemented monetary and fiscal policy measures. Domestic demand is expected to rally on both accounts and, together with higher external demand, result in euro area growth between 3.6% (IMF) and 4.2% (ECB) next year.

Consistent with the Consensus Forecasts' projection, in our new projection we assume euro area growth to measure around 4.4% this year, guided by domestic demand, i.e. the anticipated rebound in investment and consumption, and to slow moderately to around 4% next year, due to the base effect.

Relative to the previous report, Consensus Forecasts revised down the 2021 GDP growth rates for the majority of **Serbia's other important trade partners** as well, estimating that pre-crisis GDP levels will not be reached in most of these countries. Going forward, the speed of recovery of the Central and South East European region will depend primarily on the availability of vaccines and their efficiency in suppressing the coronavirus, the pace of recovery of the euro area, which is the most important trade partner of this group of countries, and the available scope for further fiscal and monetary stimuli.

The projected euro area growth will reflect on growth in our GDP, mostly through the trade and financial channels. Specifically, the expected rise in external demand,

Chart V.0.4 **External demand indicator**
(in %)



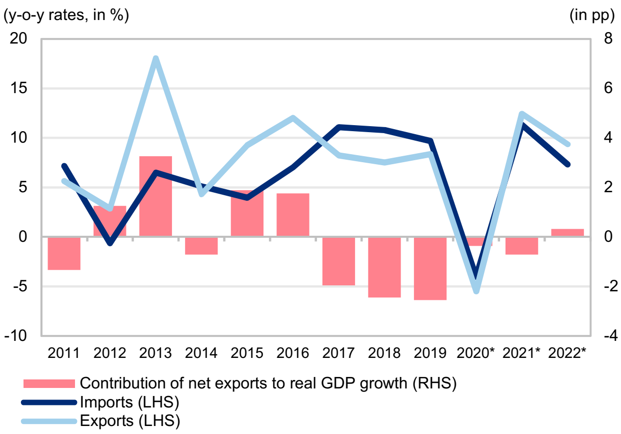
Source: Consensus Forecasts.
* Weighted GDP average of 20 countries to which Serbia exports most.

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

	October 2020	January 2021	
	2021	2021	2022
Poland	4.2	4.1	4.6
Czech Republic	4.6	3.6	4.9
Hungary	4.8	4.4	4.6
Romania	4.4	4.0	4.9
Slovakia	6.0	4.7	4.4
Slovenia	4.8	4.7	4.0
Croatia	5.1	4.7	5.0
Bulgaria	3.9	3.0	4.0
Albania	5.5	5.4	4.8
Bosnia and Herzegovina	3.9	3.8	4.2
North Macedonia	4.7	4.2	3.7

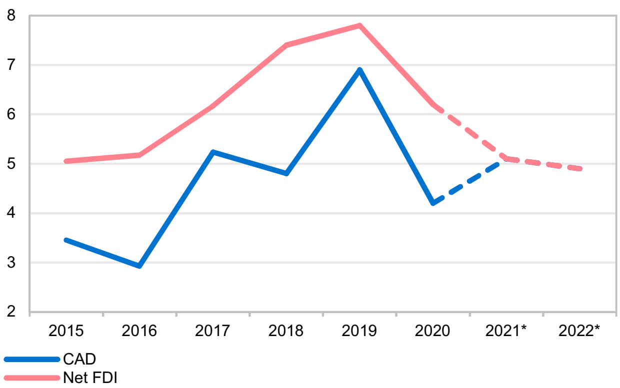
Source: Consensus Forcasts.

Chart V.0.5 **Real export and import growth**



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.6 **Current account deficit and net FDI inflow**
(in % of GDP)



Source: NBS.
* NBS projection.

coupled with the effects of higher supply on account of earlier investment in export sectors, ought to support two-digit growth in exports of goods and services this year. However, the anticipated higher imports of equipment and intermediate goods for industrial purposes with the continuation of the investment cycle and the expected rebound in consumption will most likely result in somewhat faster import than export growth, i.e. the negative contribution of **net exports** to GDP (around -0.7 pp). Going forward, as export capacities go up and external demand rallies further, the contribution of net exports is expected to turn positive. Consistent with such estimate of net exports and the recovery in domestic demand, and given somewhat less favourable terms of trade due to the anticipated oil price rise, we expect the share of the current account deficit to measure around 5.1% of GDP this year. In the medium run, it is expected to dip moderately (to below 5%) as export capacities go up and the global economy rallies, while remaining fully covered by net FDI inflow as in the past six years.

When it comes to **domestic demand**, we expect it to rally quickly during the year, helped by:

– weakening of the pandemic and normalisation of economic flows thanks to the initiated vaccination process,

– continuation of the investment cycle after its slowdown during the pandemic,

– higher disposable income of businesses and households, and

– preserved labour market due to the robust economic assistance package (including NBS's measures).

Moreover, with 7.3 administered vaccine doses per 100 people (as at 2 February), Serbia is currently among the world's leading countries.

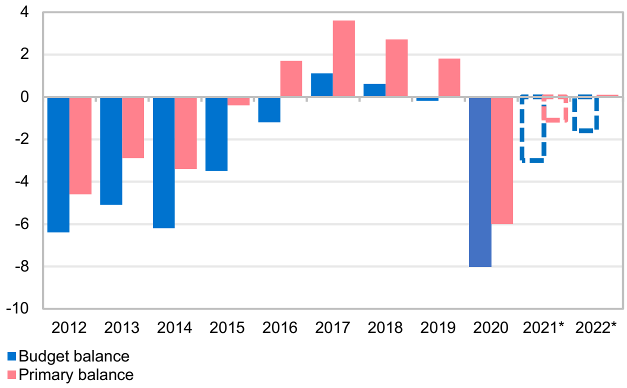
Though the large-scale economic assistance package in 2020 temporarily pushed up general government public debt, it measured 57.7% at year end, remaining below the Maastricht criterion of 60% of GDP. **Fiscal policy** is expected to continue to support the economy in countering the effects of the pandemic, but on a smaller scale than last year. According to the Fiscal Strategy for 2021 with Projections for 2022 and 2023, the share of public debt is expected to resume a downward path from 2022, amid the planned general government deficit of around 3% of GDP and much faster projected nominal GDP growth. We also used planned capital expenditures and outlays for public sector wages, pensions and purchase of goods and services from the above Fiscal Strategy as assumptions in our current GDP growth projection. It should also be noted that an additional government economic assistance package worth around EUR 2.0 bn has been announced this year which, in our view, would provide further support to the recovery in domestic demand. Though the adoption of this package would most likely result in public debt measuring around 60% of GDP in 2021, this would not threaten the sustainability of public finances, as the costs of public debt servicing remain low (thanks to favourable terms of financing in both the domestic and the international market). Moreover, after the temporary and justified rise in public debt, its share in GDP is expected to subside in the coming years.

Private consumption is expected to rally this year (contributing around 3 pp to GDP growth), supported by preserved wages and employment in most sectors, higher disposable income of households as a result of the moratorium on loan repayment and favourable terms of taking new and repaying outstanding loans, as well as increased consumer confidence as advances are made in vaccination and ending the epidemic. Consumption growth is expected to continue in the coming years as well, buttressed by the expected end of the pandemic and reduced propensity for precautionary savings. Though slower than last year, government consumption is expected to provide a positive contribution to GDP this year as well (0.5 pp), due primarily to higher outlays for healthcare (vaccines, medical workers' wages and purchases of medical supplies).

Fixed investment is expected to provide a positive contribution to GDP growth over the projection horizon (2.8 pp this year). This will be supported by the rebound in **private investment** amid preserved macroeconomic stability, reduced risk aversion due to anticipated advances in vaccination and winding down the pandemic, maintained favourable terms of financing and global economic recovery. This should lead to higher FDI inflows, which have remained solid even during the pandemic. A positive contribution is also expected from planned government investment projects, particularly in transport infrastructure. This is signalled by the planned growth in government capital expenditure which, according to the Fiscal Strategy, ought to reach 5.5% of GDP this year, and rise still further next year.

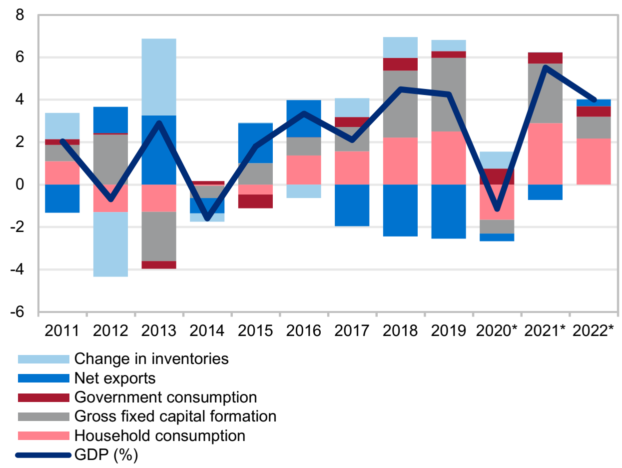
The anticipated increase in investment, preserved production capacities and jobs in the majority of sectors, and the continuation of structural reforms and planned further systemic upgrades of the business environment will contribute to **potential output** growth in the coming period.

Chart V.0.7 **General government fiscal and primary budget balance**
(in % of GDP)



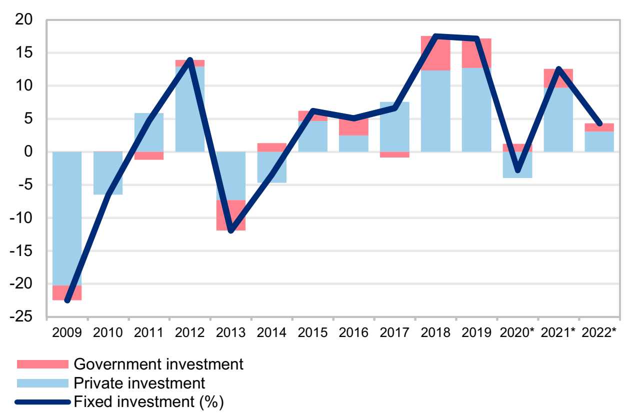
Source: Ministry of Finance.
* Projection from the Fiscal Strategy for 2021 with Projections for 2022 and 2023.

Chart V.0.8 **Contributions to real GDP growth**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

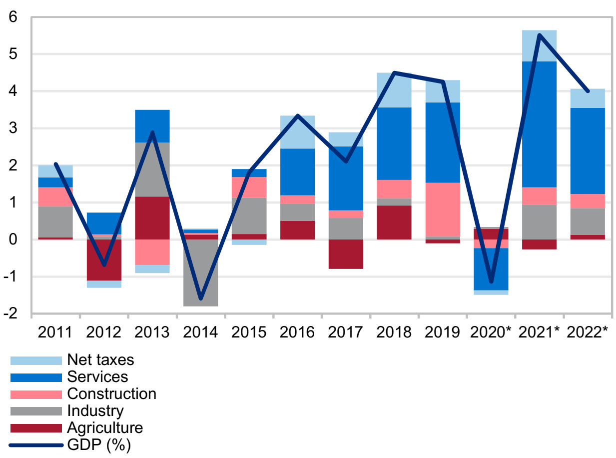
Chart V.0.9 **Fixed investment**
(y-o-y growth, in pp)



Sources: SORS and NBS calculation.
* NBS estimate.

On the **production side,** we expect activity in both service and production sectors to expand and recover more than fully this year. The only exception is agriculture where we assumed an average season. Manufacturing industry growth will be propped up by the activation of new and expansion of existing capacities on the supply side, and by the gradual acceleration of economic growth of our main foreign trade partners on the demand side. Stepped-up growth in activity is expected in service sectors as well, on account of continued positive trends in the labour market thanks to the undertaken economic policy measures and the expected rise in domestic demand. A positive contribution to GDP growth should also come from construction, given the planned further increase in government capital expenditure, most notably the current and planned projects in the area of transport infrastructure, and favourable trends in the real estate market. Assuming an average agricultural season after last year's excellent one, agriculture is expected to provide a mildly negative contribution to GDP growth.

Chart V.0.10 **Contributions to real GDP growth, production side**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

On the whole, the risks to the GDP projection are judged to be pronounced, particularly in H1, and symmetric. They continue to stem mostly from **uncertainty regarding** the global **course of the pandemic** and the efficiency in winding it down. The pace of global recovery will also hinge on the implementation of new accommodative fiscal policy measures and their scope, as the room for countercyclical effect of fiscal policy has been narrowed in many countries. Consistent with the IMF's assumption presented in the January WEO, in our baseline scenario we assumed a weakening of coronavirus transmission during 2021 amid increased use of the vaccine. According to the IMF, increased vaccine manufacture and distribution ought to bring the pandemic to acceptable levels and spur faster than expected recovery in consumer and investor confidence. Global growth could, therefore, be stronger than in the baseline scenario. Further fiscal policy support would also lift consumption, investment and employment. On the other hand, problems in vaccine manufacture and rollout, already experienced by some advanced economies, and the appearance of new, more contagious strains could prolong restrictive containment measures and slow recovery.

Particularly relevant for Serbia is the epidemiological situation **in the euro area and countries of Central and South East Europe**. The tightening of containment measures in many European countries, which continued into the initial months of 2021, dampens the growth outlook of our important foreign trade partners, particularly in the first quarter of this year. **For this reason, we judge that downside risks to the 2021 GDP projection are more pronounced.** Any sharper fall in economic activity in the euro area and the countries with which we have important trade ties would reflect on lower growth in Serbia's exports and weaker FDI, and, by extension, subdued output in manufacturing. Still, it is important to note that total exports were less affected by weaker external demand from the euro area, thanks to investment from prior period, mostly in the tradable sectors. Another relatively favourable circumstance is that the industrial sector in the euro area, to which our exports are also linked through global production chains, remained relatively resilient in the new wave of the pandemic.

The speed of global economic recovery also greatly influences movements in the international financial and commodity markets. Slower than expected global growth would add to the uncertainty in the **international financial market** and reflect negatively on business confidence and investment decisions, which would probably dent the inflow of capital into emerging economies, including Serbia. On the other hand, faster than expected global recovery would boost investor sentiment and their readiness to invest in emerging economies. Global financial conditions will largely hinge on the **monetary policies of leading central banks** which were eased further in the conditions of the pandemic. At the same time, central banks have expressed their readiness to take additional measures as needed. In that case, liquidity in the international financial market would remain high over a longer time period, which would reflect positively on capital flows to emerging economies, including Serbia.

The risks to the GDP projection are also associated with **movements in prices of primary commodities**. **Oil prices** were on the rise in the prior months, propped up mostly by increased optimism amid news of vaccine availability. Consistent with futures, we estimate that oil prices will rise moderately this year and remain at a similar level next year as well. As Serbia is a net importer of oil, any fresh decline in the oil price would spill over to higher disposable income and lower operating expenses, while its growth would have the opposite effect. Prices of other primary commodities – **base metals and agricultural commodities** were also on the rise in the prior months, some of them reaching their several years' highs. Moderate growth in prices of primary agricultural commodities is expected going forward as well, and expectations are similar for prices of base metals as a result of the expected global recovery and

Table V.0.3. **Key risks to the GDP projection**

Risk	Possible channels of influence on GDP in Serbia	Estimate of the risk effect relative to the baseline scenario
International environment		
Uncertainty regarding the course of the pandemic and the effect on global economic growth	Slower global recovery would lead to a slackening of external demand, lower Serbian exports and slower growth in manufacturing, and vice versa.	↕
Pace of euro area's recovery from the pandemic	Slower euro area growth would lead to lower Serbian exports and reduced investment which, on the production side, would lead to slower growth in manufacturing. Conversely, if the euro area recovers faster, exports and investment in Serbia would go up.	↓
Capital flows, relations of main currencies in the international financial market, monetary policies of leading central banks	Heightened/diminished uncertainty in the international financial market and the rise/fall in risk aversion would decrease/increase the inflow of investment and raise/lower the costs of borrowing. Accommodative monetary and fiscal policy measures of leading economies help diminish risk aversion and enhance investor sentiment.	↕
Prices of primary commodities: – crude oil (Serbia is net importer) – grains (Serbia is net exporter) – base metals (Serbia is net exporter)	A rise/fall in the price of oil would decrease/increase the disposable income and increase/decrease operating costs. A rise/fall in prices of base metals and grains would increase/decrease exports.	↕
Domestic environment		
Uncertainty regarding the course of the pandemic	Worsening of the epidemiological situation could lead to extended refrainment from consumption and postpone its recovery, while faster progress in vaccination would have the opposite effect.	↕
Implementation of the announced new government economic assistance package worth around EUR 2.0 bn	The economic assistance package would lead to higher disposable income, i.e. an increase in funds available for investment and spending, and, by extension, to faster than expected recovery in domestic demand.	↑
Agricultural season	Higher/lower than expected growth in agricultural production contributes to a rise/fall in exports and manufacturing.	↕

Note: ↑ means a more favourable GDP outcome relative to the baseline scenario, ↓ means a less favourable outcome, and ↕ means that risks to the projection are symmetric relative to the baseline scenario.

demand growth. At the same time, it is important to note that Serbia, as a net exporter of base metals (iron and copper in particular) and grains, would benefit from their higher than projected growth, while their decline would have the opposite effect.

When it comes to **risks from the domestic environment, we judge them to be tilted to the upside**. In our baseline scenario, we assumed the impact of the pandemic to weaken thanks to the initiated vaccination process. **Any worsening of the epidemiological situation at home and globally** could, however, trigger **refrainment from consumption and investment** for some time yet and defer their recovery in the expected scope, while faster vaccination would have the opposite effect.

The implementation of the announced new package of government economic assistance measures worth around EUR 2.0 bn, along with preserved production capacities, wages and employment in the major part of the economy and the rise in disposable income thanks to the previously taken measures of the Government and the NBS, would result in a faster than expected recovery in domestic demand. Also, if **growth in government**

capital expenditure is higher than planned, as in the past three years, this would spur investment growth on the expenditure side and construction growth on the production side, as the bulk of these investments are directed into transport infrastructure. As private investments are mostly directed into tradable sectors, their stronger activation should also lead to faster export growth on the expenditure side and a rise in manufacturing on the production side.

To a smaller extent, the risk to the GDP projection is also associated with movements in **agricultural production**, which we assumed to be average this year and provide a negative contribution to GDP, given last year's excellent season. Shifts are possible in either direction here as well, as a better agricultural season would lead to stronger exports of primary and processed food products, especially since global food demand is not elastic and has not shrunk even during the lockdown of economies.

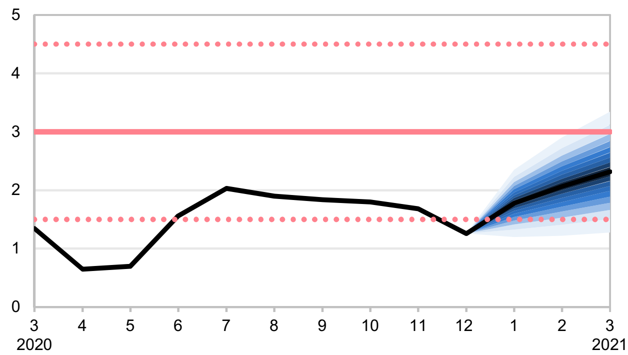
Inflation projection

In the initial months of 2021, we expect somewhat higher y-o-y inflation than in 2020, though, under the central projection, it will not go past the target midpoint. The main reason for such higher inflation are energy prices, as their contribution will return to the positive zone after a year. A somewhat higher contribution should also come from fruit and vegetable prices.

End-Q1 core inflation is expected to be somewhat lower than at the start of the year, as the increase in prices of landline telephone services drops out of the y-o-y calculation (in February).

In the short term, the risks to the projection are mostly associated with movement in fruit and vegetable prices in the coming period, as well as with global prices of oil and primary agricultural commodities.

Chart V.0.11 **Short-term inflation projection**
(y-o-y rates, in %)

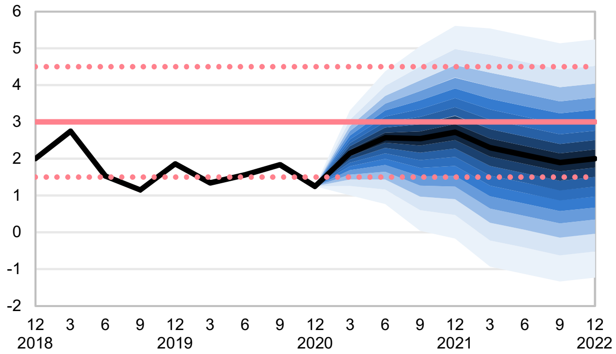


Source: NBS.

Medium-term inflation projection

Under the central February projection, y-o-y inflation will continue to move within the lower half of the target tolerance band this and the next year. This year, it is expected to be somewhat higher than in 2020 under the impact of temporary factors, though disinflationary pressures will persist in the medium term. The main reasons for higher inflation in 2021 are the announced hike in electricity prices and the rising global oil price, which will push up petroleum product prices at home. At the same time, these are the key reasons why the new inflation projection is somewhat higher than the previous

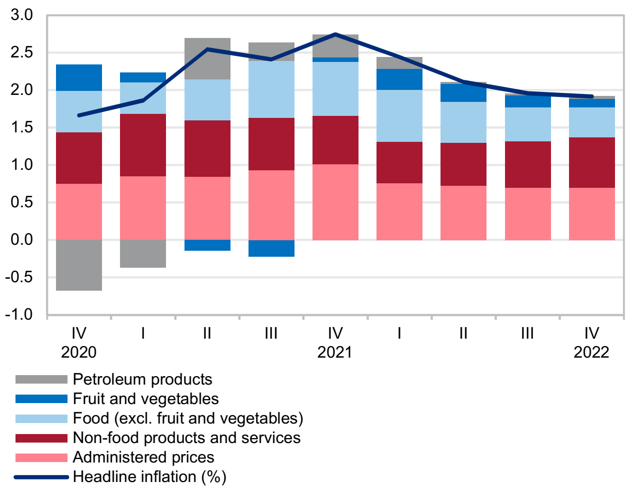
Chart V.0.12 **Inflation projection**
(y-o-y rates, in %)



Source: NBS.

The fan chart depicts the probability of various inflation outcomes in the next eight quarters. The 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.0.13 **Contributions to y-o-y inflation by component**
(in pp)



Source: NBS.

Table V.0.4 **Key projection assumptions**

	2021		2022	
External assumptions	Nov.	Feb.	Nov.	Feb.
Euro area GDP growth	5.3%	4.4%	3.0%	4.0%
Euro area inflation (average)	1.0%	1.0%	1.3%	1.1%
3M EURIBOR (December)	-0.6%	-0.6%	-0.6%	-0.5%
International prices of primary agricult. commodities (Q4 to Q4)*	-4.6%	1.6%	3.0%	-5.9%
Brent oil price per barrel (December, USD)	44	53	45	52
Internal assumptions				
Administered prices (Dec. to Dec.)	4.0%	5.6%	4.0%	4.0%

* Composite index of soybean, wheat and corn prices.
Sources: ECB, Consensus Forecasts, Euronext, CBOT, Bloomberg and NBS.

one. Since the effect of temporary factors will weaken towards year-end, we expect inflation in 2022 to be lower, despite the anticipated economic recovery. As GDP is estimated to rise faster than consumption, demand-side inflationary pressures will remain subdued. As a result, inflation will be lower in 2022 than in 2021.

In terms of individual components, the inflation profile will be determined mainly by administered and petroleum product prices. When it comes to **administered prices,** they are expected to see somewhat higher growth this year (5.6%) due to electricity price adjustments and the inclusion of the fee for renewable energy sources in CPI calculation. Next year, we expect their growth to measure around 4%, as so far.

Petroleum product prices in the domestic market are expected to go up, primarily in Q1, reflecting oil price growth in the global market since November 2020. The contribution of petroleum product prices is thus expected to turn positive, and remain so until the end of the projection horizon. Their contribution to inflation will be the highest in Q2, due to a low base from last year when the global oil price collapsed amid pandemic-induced containment measures, which spilled over to a decline in petroleum product prices at home. Until the end of the projection horizon, we do not expect any major increase in global oil prices or, by extension, petroleum product prices in the domestic market.

By contrast, when it comes to **fruit and vegetable prices**, vegetable prices did not record the seasonally expected increase in late-2020, while fruit prices rose more slowly than usual for the season. Assuming that they remain around their current level, which is slightly below neutral, we do not expect them to have any major impact on inflation growth. As these prices tend to return to their neutral level, we expect their contribution to inflation to be somewhat higher early next year.

We expect some growth in **food prices (excluding fruit and vegetables)**, mostly because of the base effect for meat prices which were unusually low last year. Also, the recent rise in global prices of primary agricultural commodities could reflect on food prices at home. Over the medium term, however, we expect food price growth to be moderate and mostly guided by a gradual rise in demand.

As in our previous projection, we expect growth in **prices of non-food products and services** to be moderate, consistent with a gradual recovery in demand and low imported inflation.

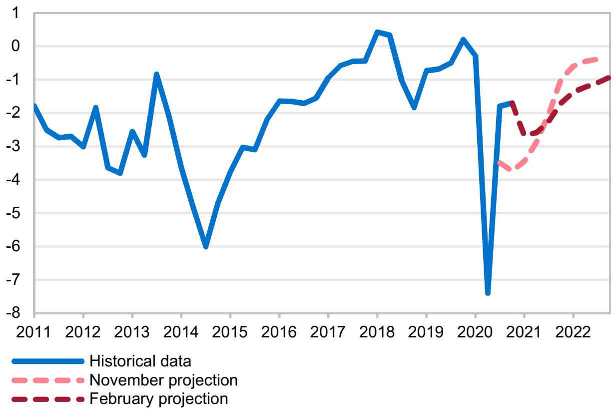
In terms of inflation factors, like our previous three projections, this inflation projection is also determined by the fact that **global supply and demand** remain under a powerful impact of the pandemic. Though global economic recovery slackened from October after the initial leap in global economic activity in mid-2020, the initiated mass vaccination in many countries has raised hopes that global trade and economy will soon be on a sustainable growth path. The pandemic, however, continues to affect the functioning of the global economy and pushes up unit production costs. Demand, on the other hand, remains contained by slow recovery in employment, wages and investment, households' reluctance to spend and the piling up of precautionary savings.

The new winter wave of the coronavirus dented the initiated recovery of our main trade partner, **the euro area**. Its growth is now expected to be lower (4.4%) than three months ago (5.3%). Next year, euro area growth is expected to measure 4.0%. Slower euro area recovery may also imply lower growth in demand for products and services from Serbia, which could produce disinflationary effects at home. Still, euro area output gap is not expected to reflect fully on **Serbia's output gap**, since the pandemic's negative effects are mostly concentrated in non-tradable sectors. Our output gap will deepen mildly in early 2021 and continue to contract thereafter, gradually softening the disinflationary impact of demand on inflation. We estimate that the output gap will come to around -1.7% late this year and contact to roughly -1% in late 2022 as domestic demand rallies and external demand goes gradually up. The rebound in domestic demand will be supported by fiscal policy measures, accommodative monetary policy and favourable terms of financing for businesses and households.

In addition to the positive effect of the NBS's monetary policy easing on domestic demand, another positive impulse ought to come from the anticipated extremely low interest rates in the euro area until the end of the projection horizon. In December, the **ECB** took unconventional monetary policy measures to ease its monetary policy further, including large-scale asset purchases until end-March 2022. Futures indicate that the three-month EURIBOR will be negative not only until the end of our projection horizon, but even until late 2026 (-0.1%).

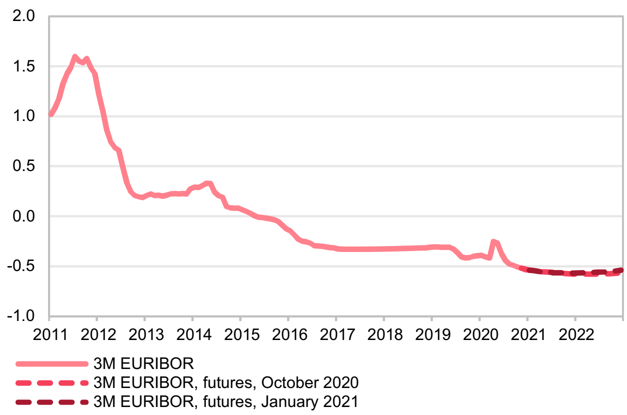
Despite extremely accommodative monetary and fiscal policy measures taken by many countries of the world, **global inflation was relatively low**. Going forward, no major surprises are expected with regard to inflation. Inflation should be somewhat higher in the USA, due to

Chart V.0.14 **Output gap projection**
(in % of potential output)



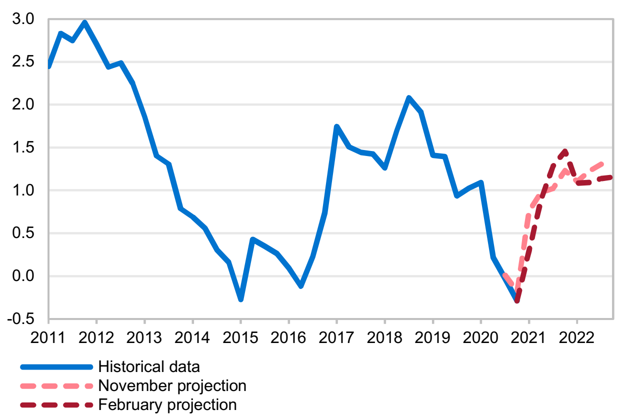
Sources. SORS and NBS.
* Output gap is estimated on the basis of NAVA.

Chart V.0.15 **Expected 3M EURIBOR**
(p.a., in %)



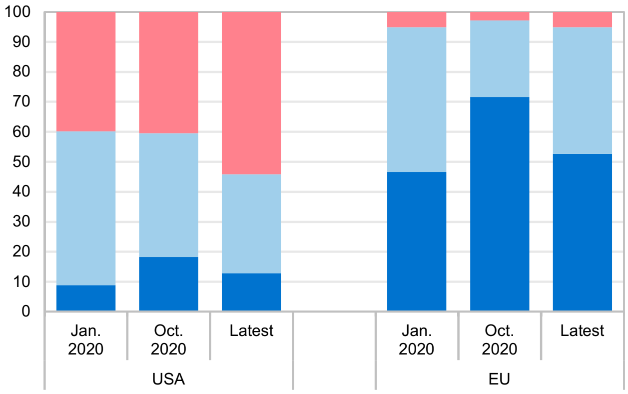
Source: Bloomberg.

Chart V.0.16 **Assumption for euro area inflation**
(y-o-y growth, in %)



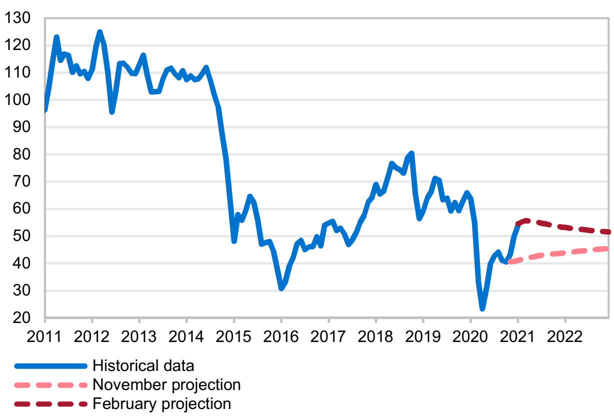
Source: NBS calculation based on projections of relevant institutions.

Chart V.0.17 **Market-implied probability of inflation outcomes**
(in %, over five years)



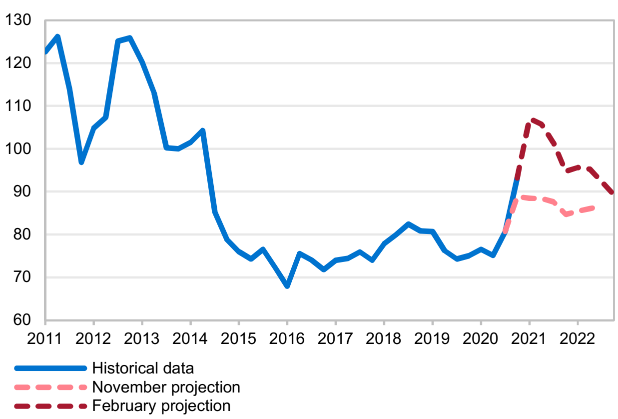
Sources: Bloomberg and IMF.

Chart V.0.18 **Assumption for Brent oil prices**
(USD/barrel)



Source: Bloomberg.

Chart V.0.19 **Assumption for international prices of primary agricultural commodities**
(Q4 2013 = 100)



Sources: CBOT, Euronext and NBS calculation.

robust fiscal spending and expectations of continued monetary accommodation, which should have a simulating effect on the global economy as well. Inflation is expected to remain relatively low in the euro area going forward too – in our projection we assume inflation rates of 1.0% and 1.1% in 2021 and 2022, respectively. In **most countries of the region**, which are also our important trade partners, inflation should be relatively low in the coming period. With this in mind, we expect inflationary pressures from dinar-denominated import prices to be weak until the end of the projection horizon.

When it comes to import prices, the most significant is the **global oil price** which has been rising since November last year. As a result, our assumptions are now higher relative to our projection three months ago. Still, we do not expect the global oil price to rise above the current level on average (around USD 55 per barrel). Namely, though global oil consumption and production are expected to go up in 2021 and 2022 and global oil inventories to continue down during this period, amid rising global GDP and a gradual rebound in travel (particularly in late 2021 and in 2022), global oil consumption is not expected to return to its 2019 level before 2022. Consistent with oil futures, in our new projection we assumed that the global oil price will measure USD 53 per barrel in December 2021 and USD 52 per barrel in December 2022. In line therewith, after the expected increase in Q1, there should be no major changes in petroleum product prices at home.

After the collapse caused by the pandemic, most **primary commodity prices** have been recovering since mid-2020 in line with gradual relaxation of tight containment measures and strengthening of demand, particularly from China. With regard to **global prices of primary agricultural commodities** relevant for us, our projection relies on futures data from global stock exchanges. Consistent with these data, we revised the assumption of growth in these prices up for 2021 (to 1.6% compared with -4.6% in our prior projection) and down for 2022 (to -5.9% compared with 3.0%). Consistent with this, **we expect prices of primary agricultural commodities in the domestic market,**[30] **which mirror movements in their global counterparts**, to display similar dynamics.

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

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

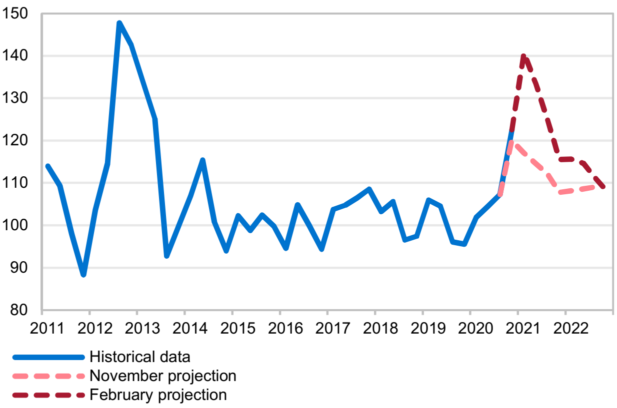
projection horizon. Our projection also assumes a further decline in the country risk premium. Risk premium based on euro debt subsided notably in Q4, and is expected to fall still further as advances are made in controlling the pandemic and global economic activity recovers.

Uncertainties surrounding the inflation projection in the short run are mostly associated with movements in the global oil price and fruit and vegetable prices. In the medium run, the key risks to the projection remain associated with the international environment, and relate primarily to the speed of recovery of global trade and economic growth, most notably euro area growth, global prices of primary agricultural commodities and capital flows to emerging markets. The risks to the projection also relate to the speed of recovery of domestic demand and movement in administered prices at home. On the whole, the risks to the inflation projection are judged to be symmetric.

The outlook for the recovery of global trade and economic growth will largely determine movements in the international commodity market, most notably **prices of oil and other primary commodities**. On the demand side, there is a risk that global economic growth could be both faster and slower than expected, depending on the course of the pandemic, which would affect demand for primary commodities and, by extension, their prices. Supply-side factors are specific for each primary commodity. Although market participants, according to futures, expect the global oil price to remain around its current level (USD 55 per barrel) in the coming period as well, shifts in either direction are possible. Just as the unilateral decision by Saudi Arabia to downsize its production unexpectedly curbed global supply and reflected on oil prices early this year, similar episodes may be expected going forward as well. Estimating that oil inventories in OECD countries will fall below their five-year average by June this year, OPEC+ countries have stressed their commitment to a fast rebalancing of the market and avoiding disruptions in the global oil market. As the extent to which member countries will adhere to this agreement is unknown, however, both upward and downward departures in the oil price are possible.

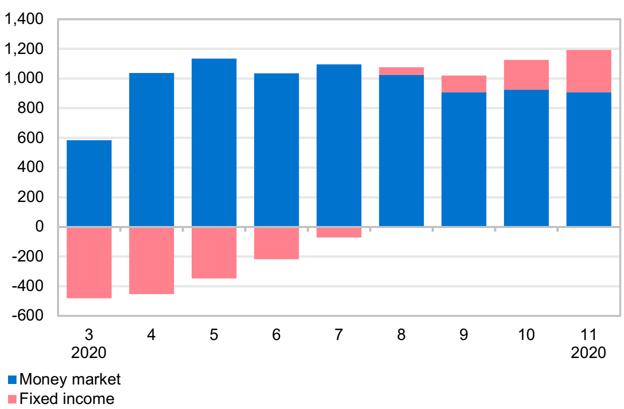
When it comes to **fruit and vegetable prices**, movements in this inflation category are hardest to predict, as output and the resultant prices are largely influenced by weather conditions. As this is the most volatile inflation

Chart V.0.20 **Assumption for domestic prices of primary agricultural commodities***
(Q4 2013 = 100)



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

Chart V.0.21 **Flows into global investment funds**
(in USD bn, cumulative since March 2020)



Source: Morningstar, as in: IMF, Global Financial Stability Update, January 2021.

component, and shifts are possible in either direction, we judge the risks to the projection on this account to be symmetric.

Uncertainty in the medium run is still mostly associated with developments in the international environment, which will largely be determined by the efficiency of global vaccine manufacture and distribution. This will be the key factor behind the **speed of recovery of global trade and economic growth, as well as euro area growth, and, by extension, the pace of recovery of our external demand and the level of imported inflation**. On the one hand, recovery could surprise on the upside if the vaccination process is quick and widespread, and pandemic management efficient. On the other hand, inefficient control of the pandemic and the spread of new virus strains, coupled with problems in vaccine manufacture and distribution, could result in slower than expected economic growth. In view of intensification of the second wave of the coronavirus and the introduction of further containment measures in many euro area countries early in the year, we estimate the risks to its economic growth and inflation in the coming period to be skewed to the downside.

Global **prices of primary agricultural commodities** greatly depend on oil price movements, particularly through the costs of production. Also, energy prices impact demand for inputs in the production of ethanol and biofuels and, by extension, the prices of agricultural products such as corn, sugar and vegetable oil, which adds to uncertainty regarding their future movement. Though the latest projections of global grains production are being revised up, inventories are, on the other hand, expected to fall sharply and trade to increase. Given the uncertainties surrounding global prices of primary commodities, we estimate the risks to the projection on this account to be symmetric.

Large-scale monetary and fiscal policy measures of leading world economies and the initiated mass vaccination have alleviated the **uncertainty in the international financial market**. Inflows to global investment funds continued, thanks to an improved market sentiment. Slower distribution of vaccines to many emerging markets did not pose an impediment to investment. After substantial outflows in the initial stage of the pandemic, capital inflows to emerging economies increased, which helped stabilize their foreign exchange markets. Still, going forward, uncertainty in the international financial market and, by extension, capital flows, will largely depend on the success in controlling the pandemic globally. With this in mind, we judge the risks to the inflation projection on this account to be symmetric.

Table V.0.5 **Key risks to the inflation projection**

Risk	Possible channels of influence on inflation in Serbia	Estimate of the risk effect relative to the baseline scenario
Short-term		
Fruit and vegetable prices (Serbia is net exporter)	Departures directly affect inflation and are possible in either direction, as this is the most volatile inflation component.	↕
Crude oil prices in the global market (Serbia is net importer)	A fall/rise in the global oil price spills over to a fall/rise in petroleum product prices and thereby produces a disinflationary/inflationary effect. This fall/rise also has secondary effects, as it spills over to an increase/decrease in other prices, mostly through transport costs. Also, through a rise/fall in disposable income it contributes to an increase/decrease in demand and can produce inflationary/disinflationary effects.	↕
Medium-term		
Pace of euro area recovery	– Slower euro area recovery leads to a slowdown in external demand growth, lower Serbian exports, higher supply in the domestic market and thereby produces disinflationary effects. Conversely, faster than expected euro area growth would push up exports and contain disinflationary pressures; – Slower/faster euro area recovery leads to a slowdown/acceleration in inflation growth in the euro area and, in the conditions of a relatively stable exchange rate, creates disinflationary/inflationary pressures at home on account of import prices; – Slower euro area recovery leads to higher expansiveness of the euro area's monetary policy, which leads to lower interest rates on euro loans and, by extension, through growth in credit and disposable income, to a rise in demand and inflationary pressures.	↓
Global prices of primary agricultural commodities (Serbia is net exporter)	Prices of primary agricultural commodities in the domestic market largely mirror the dynamics of these prices in the global market. They rise/fall in the case of a rise/fall in these prices in the global market, which thereby produce inflationary/disinflationary effects.	↕
Uncertainty in the international financial market and capital flows to emerging economies	Higher/lower uncertainty in the international financial market leads to higher/lower risk aversion of investors and lower/higher capital flows to emerging economies, which leads to depreciation/appreciation of the domestic currency and, by extension, rise/fall in prices.	↕
Pace of recovery of domestic demand	Deterioration of the epidemiological situation could slow the initiated recovery in economic activity and demand, which would produce disinflationary effects. However, preserved production capacities, jobs and wages in the largest part of the economy, and the rise in disposable income and favourable terms of financing, diminish the negative effects of the pandemic on demand. In addition, further growth in government capital expenditure could be higher than expected, as could its impact on demand and inflationary pressures.	↑
Administered prices	Lower/higher growth in administered prices leads to lower/higher inflation.	↕

Note: ↑ means a more inflationary effect relative to the baseline scenario, ↓ means a more disinflationary effect, and ↕ means that risks to the projection are symmetric relative to the baseline scenario.

The risks to the projection are also associated with the **speed of recovery of domestic demand**. Any worsening of the epidemiological situation could slow the recovery in economic activity. On the other hand, preserved production capacities, jobs and wages in the largest part of the economy, as well as the rise in disposable income and favourable terms of financing thanks to the adopted monetary and fiscal policy measures, could result in faster than expected economic recovery, especially since Serbia has successfully started the vaccination process and is among the world's leading countries in terms of the number of vaccinated persons per number of inhabitants. Also, an additional package of fiscal measures to support the economy and households has been announced for this year. It will be worth EUR 2.0 bn and its purpose is to give a further impulse to domestic demand. In addition, further growth in government capital expenditure could be higher than expected, as was the case in the prior two years, which would also contribute to faster economic recovery. With this in mind, we estimate that the output gap could close even faster than projected on account of domestic demand, i.e. that the risks to the inflation projection on account of domestic demand are skewed to the upside.

According to our estimate, there is a risk that **administered price** growth at home could be somewhat lower or higher than anticipated, so risks on this account are symmetric.

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

The NBS will continue to closely monitor movement and impact of key factors from the domestic and international environment on inflation, financial stability and the speed of economic recovery. It will therefore monitor the implementation of the measures taken so far, and analyse whether they are optimally combined and appropriate in scope, in order to provide necessary support to economic recovery, without threatening price and financial stability.

Comparison and outcome of inflation projections

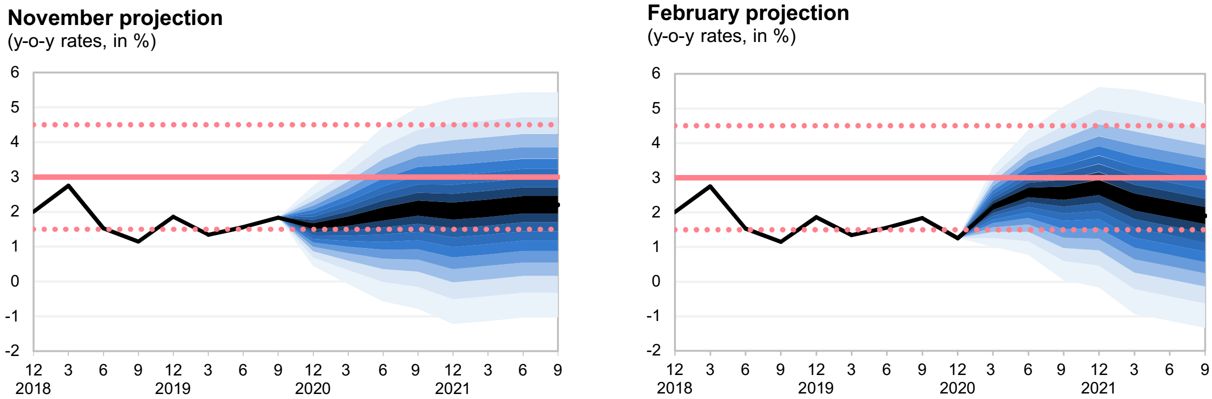
Under the impact of temporary factors, the new medium-term inflation projection is slightly higher this year than in the November projection, but inflation is expected to stay within the lower half of the target tolerance band until the end of the projection horizon. Disinflationary pressures continue to prevail over the medium run.

Relative to the projection three months ago, inflation projected for the next year is somewhat higher, mostly on account of **electricity price increase and a higher global price of oil**.

Administered price growth in 2021 will be higher than we assumed in our previous projection, reflecting the adjustment in electricity prices and the inclusion of the fee for renewable energy sources in CPI calculation. In 2022, we expect the same administered price growth as in our November projection.

Global oil price growth since November last year is the key reason why we expect higher **petroleum product prices** in Q1 this year than in our previous projection. Going forward, consistent with current futures movements, we have assumed no major oil price increase relative to the current level. Hence, the projected y-o-y growth in petroleum product prices in 2022 is similar as in our November projection.

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



Source: NBS.

On the other hand, **fruit and vegetable prices** will give a smaller contribution to headline inflation in 2021. These prices are expected to move around their current level in Q1, which is lower than expected at the time of making the November projection. As these prices tend to return to their neutral level, we expect their somewhat higher growth early next year than in the previous projection.

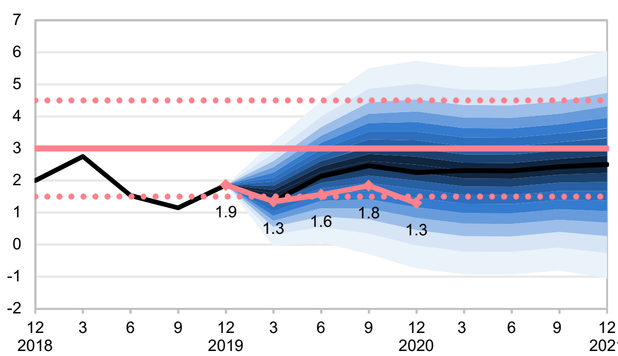
When it comes to food prices (excluding fruit and vegetables), and prices of non-food products and services, we expect them to see moderate growth, similarly as in our November projection, as demand gradually rallies

Outcome of the February 2020 inflation projection

Almost throughout 2020, y-o-y inflation moved below our target midpoint published in the February 2020 *Inflation Report*, hovering around the lower bound of the target tolerance band.

The key reason behind the lower inflation outturn was the **outbreak of the pandemic**, the extent of which was impossible to foresee at the time of making our projection in February last year. The pandemic triggered a drastic downturn in global trade and economic activity. In the **global oil market**, this led to a pronounced imbalance between excessive supply and drastically reduced demand. The global oil price soon collapsed and was by more than 70% lower in April than at end-2019. Though it later recovered, the global oil price remained well below its 2019 level until end-2020, which spilled over to lower petroleum product prices at home. Their disinflationary impact was therefore higher than we assumed a year ago.

Chart V.0.23 **Achievement of February 2020 inflation projection**
(y-o-y rates, in %)



Source: NBS.

The drastic slump in the global oil price and **low aggregate demand amid imposed containment measures** were the key factors behind lower inflation abroad than we expected at the time of making our February projection. **Low inflation, and even deflation in H2, was particularly present in the euro area**, and it was guided primarily by low energy prices. In particular, deflation was recorded by the largest euro area economy and our most important trade partner, Germany, largely due to reduced VAT from July until December 2020 as part of the fiscal stimulus package aimed at relieving the negative effects of the pandemic.

The fall in external demand did not spill over entirely to **domestic demand** and its sharper decline and, by extension, stronger disinflationary pressures were contained by **timely and robust monetary and fiscal policy measures** supporting businesses and households, thanks to which the domestic economy and labour market avoided more serious consequences of the global crisis.

In addition, the departure from the assumed stable EUR/USD relation during the year, i.e. the **strengthening** of the euro against the dollar, also contributed to a lower inflation outturn relative to the projection one year ago.

Table A
Indicators of Serbia's external position

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
EXTERNAL LIQUIDITY INDICATORS (in %)																
FX reserves/imports of goods and services (in months)	6.1	9.0	7.5	5.4	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1
FX reserves/short-term debt	177.0	265.1	250.6	162.6	220.6	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	272.9	205.2[3]
FX reserves /GDP	22.1	34.8	30.5	22.9	32.6	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1	28.8
Debt repayment/GDP	4.7	9.7	9.6	10.1	12.1	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.0	8.1[3]
Debt repayment/exports of goods and services	19.8	36.2	37.5	37.5	48.8	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	17.1[3]
EXTERNAL SOLVENCY INDICATORS (in %)																
External debt/GDP	56.2	55.2	55.1	58.8	68.6	74.5	68.1	76.1	70.4	72.4	73.4	72.0	65.1	62.2	61.5	66.4[3]
Short-term debt/GDP	12.5	13.1	12.2	14.1	14.8	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	12.4	10.7	13.7[3]
External debt/exports of goods and services	234.9	205.7	214.3	218.9	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	139.6[3]
FINANCIAL RISK EXPOSURE INDICATORS (in %)																
FX reserves/M1	290.3	356.1	306.7	300.4	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0
FX reserves/reserve money	169.8	179.5	173.8	140.7	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	67.1	73.0	74.7	78.0	65.1	75.3	78.0	84.5	87.1	91.8	96.2	100.6	106.2	108.2	111.6	103,4
MEMORANDUM: (in EUR million)																
GDP[1]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	45,967	46,925[4]
External debt	12,520	14,291	17,382	20,982	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30.722[3]
External debt servicing	1,054	2,513	3,039	3,594	3,922	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	961[3]
Central bank foreign exchange reserves	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492
Short-term debt[2]	951	968	1,044	1,832	1,852	1,758	612	455	196	99	303	672	844	1,401	1,925	2,449[3]
Current account balance	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,981

CREDIT RATING (change of rating and outlook)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	July/May	Feb	July	March/ Dec	Dec	Nov	March	Aug	July	Jan	Dec	Jan/March/ June/Dec	March/Dec	Dec	Sept/Dec	May
S&P	BB- /stable	BB- /positive	BB- /stable	BB- /negative	BB-/stable		BB /stable	BB-/negative				BB- /positive	BB /stable	BB /positive	BB+ /positive	BB+ /stable
Fitch	BB- /stable			BB- /negative		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 of goods and services during last 12 months.
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 Q3.

[4] NBS estimate.

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 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 465.6 mn) used in December 2009. Private sector external debt excludes loans concluded before 20 December 2000 in respect of which no payments are made (EUR 915.6 million, of which EUR 411.2 million relating to domestic banks and EUR 504.4 million to domestic enterprises).
6. Foreign debt repayment for 2019 does not include advance debt repayment on eurobonds.

Table B
Key macroeconomic indicators

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Real GDP growth (in %)[1]	5.5	5.1	6.4	5.7	-2.7	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.1	4.5	4.2	-1.1[9]
Consumer prices (in %, relative to the same month a year earlier)[2]	17.7	6.6	11.0	8.6	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3
NBS foreign exchange reserves (in EUR million)	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492
Exports (in EUR million)[3]	5,329	6,948	8,110	9,583	8,043	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,349	22,196
- growth rate in % compared to a year earlier	19.1	30.4	-	18.2	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.9
Imports (in EUR million)[3]	9,612	11,970	15,468	18,267	13,099	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,960	26,346
- growth rate in % compared to a year earlier	0.7	24.5	-	18.1	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.8
Current account balance[3]																
(in EUR million)	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,981
as % of GDP	-8.0	-9.1	-17.3	-20.0	-6.3	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9	-4,2
Unemployment according to the Survey (in %)[6]	20.8	20.9	18.1	13.6	16.1	19.2	23.0	23.9	22.1	19.2	17.7	15.3	13.5	12.7	10.4	9.0[10]
Wages (average for the period, in EUR)[7]	210.4	257.8	347.1	402.0	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.7	465.9	506.1
RS budget deficit / surplus (in % of GDP)[4]				-1.6	-3.0	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2	-8.3
Consolidated fiscal result (in % of GDP)[4]	1.1	-1.4	-1.8	-2.5	-4.2	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2	-8.0
RS public debt, (central government, in % of GDP)[8]	47.6	33.9	27.9	26.8	30.9	39.5	42.8	52.9	56.0	66.2	70.0	67.7	57.8	53.6	52.0	56.8
RSD/USD exchange rate (period average)	66.87	67.03	58.39	55.76	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.01
RSD/USD exchange rate (end of period)	72.22	59.98	53.73	62.90	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66
RSD/EUR exchange rate (period average)	82.99	84.11	79.96	81.44	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58
RSD/EUR exchange rate (end of period)	85.50	79.00	79.24	88.60	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58
MEMORANDUM:																
GDP (in EUR million)[5]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	45,967	46,925[11]

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

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

[5] According to ESA 2010.

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

[7] Until 2018, wages are shown according to the old methodology. Since 2018, wages are shown 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. Data for 2020 is the average of eleven months.

[8] Data on the share of public debt in GDP were downloaded from the website of the Ministry of Finance.

[9] SORS flash estimate.

[10] Data for Q3.

[11] NBS estimate.

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

2020

Date	Key policy rate (p.a, in %)	Change (in basis points)
9 January	2.25	0
13 February	2.25	0
11 March	1.75	-50
9 April	1.50	-25
7 May	1.50	0
11 June	1.25	-25
9 July	1.25	0
13 August	1.25	0
10 September	1.25	0
8 October	1.25	0
12 November	1.25	0
10 December	1.00	-25

2021

Date	Key policy rate (p.a, in %)	Change (in basis points)
14 January	1.00	0
11 February	1.00	0
11 March		
13 April		
13 May		
10 June		
8 July		
12 August		
9 September		
7 October		
9 November		
9 December		

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 10 December 2020

At its meeting today, the NBS Executive Board decided to ease monetary policy further and trim the key policy rate by 25 basis points, to 1%.

By making such decision, the Executive Board is providing additional support to the domestic economy, having in mind the scale of the pandemic-induced crisis worldwide, renewed worsening of the epidemiological situation and economic slowdown globally, and especially in Europe. This additional support is possible owing to the responsible conduct of economic policy in the prior period, which ensured the capacity of monetary policy and public finance to fight the current crisis without jeopardising the achieved low and stable inflation and other indicators of macroeconomic stability.

After this cut, the key policy rate is by 1.25 percentage points lower than before the pandemic. The Executive Board expects that further monetary policy easing, coupled with the past robust response of the NBS and the Government, as well as the announced additional fiscal policy measures, will continue to exert a positive effect on the financing conditions for corporates and households and contribute to the rise in their disposable income.

At the same time, the NBS decided to narrow the main interest rate corridor, from ±1.0 percentage point to ±0.9 percentage points relative to the key policy rate, whereby the deposit facility rate was reduced by 15 basis points, to 0.1%, and the lending facilities rate by 35 basis points, to 1.9%.

A softer than initially anticipated economic decline in Q2 and better recovery thereafter are largely attributable to the adequate support provided to the economy by the NBS and the Government. Having this in mind, the NBS expects an even more favourable GDP growth rate this year than anticipated at the start of the pandemic, -1.0% instead of -1.5%, even though the epidemiological situation at home and abroad has deteriorated since October. A better outcome is supported particularly by the faster than expected recovery of investment, mainly due to the preserved production capacities and employment in the pandemic conditions, the accelerated implementation of infrastructure projects and the secured more favourable financing conditions. Labour market data on the rising employment rate and the maintained single-digit unemployment rate attest to the significance of the package of economic measures, which helped sustain favourable trends despite the challenges imposed by the pandemic. The country's maintained positive medium-term outlook and the measures of the Government and the NBS are expected to support the recovery of domestic demand, which will, along with the further normalisation of external demand, lead to a more than full recovery of our economy next year and a GDP growth rate of around 6%.

The Executive Board underlines that inflation in Serbia has stayed firmly under control, as in the past seven years. An important pillar of low and stable inflation is the relative stability of the exchange rate, as well as anchored inflation expectations of the financial and corporate sectors, which illustrate the credibility of monetary policy. Consistent with NBS expectations, October inflation stayed unchanged from a month earlier, measuring 1.8% y-o-y. Despite a continued rise in wages and employment in the majority of sectors, demand-side pressures remain relatively low, as evidenced by low and stable core inflation. According to the NBS's projection, inflation will continue to move in the lower part of the target tolerance band, closer to its lower bound, and will start its gradual approach to the target midpoint (3%) during 2022, reflecting the expected further recovery in demand.

Although global economic recovery as of May was faster than expected, the accelerated spread of the virus as of October is worrying, particularly in Europe. In the short run this could slow the recovery of the euro area, our most important trade and financial partner, and drag down external demand for our exports. Today's decision of the Executive Board aims to mitigate a potential spill-over of the negative economic impact of these trends in the euro area. Still, the vaccine-related news is encouraging, though it is still not known with certainty when it will be available and how fast it will be rolled out. Due to the relatively slow global recovery, the Board expects no significant inflationary pressures from inflation abroad, but mandates caution over potentially higher volatility of primary commodity and food prices amid pandemic-related uncertainties. Still, the Board highlights our economy's strong resilience to external shocks, ensured through responsible running of economic policy in the earlier years and an adequate response to the current global crisis. Moreover, Serbia has recently achieved the lowest price of euro financing in the international financial market – 1.066% over a ten-year term.

The challenges as to the course of the pandemic and its impact on economic developments globally and at home will persist in the coming period, particularly winter. Economic policy makers will therefore strive to support further recovery of our economy, preserve production capacities and employment, and encourage further growth in exports and domestic and foreign direct investment. The NBS will continue to keep a close eye on all developments and the impact of key factors from the domestic and international environment on inflation, financial stability and the pace of economic recovery. It will continuously assess the impact of all past measures so as to support further economic recovery, without prejudice to price and financial stability. The NBS will continue to provide banks with cheap dinar liquidity via additional swap FX and repo securities purchase auctions, thus encouraging further growth in credit and, by extension, economic activity.

The Executive Board adopted today the Memorandum on Inflation Targets until 2023, keeping the inflation target at 3.0±1.5% until the end of 2023.

The next rate-setting meeting will be held on 14 January 2021.

Press release from Executive Board meeting held on 14 January 2021

At its meeting today, the NBS Executive Board voted to keep the key policy rate unchanged at 1.0%.

In keeping the rate on hold, the Board was guided primarily by the achieved effects of the past robust monetary and fiscal policy measures, as well as the expected macroeconomic developments in the period ahead, i.e. the expectation that the timely taken economic measures will continue to exert a positive impact on financial conditions for corporates and households and on their disposable income.

Adequate support provided by the NBS and the Government to the Serbian economy is largely to be credited for the better economic outcome in 2020 than hoped for at the start of the pandemic, with a real GDP growth rate of -1.1%, as estimated by the national Statistical Office. The Executive Board expects that the country's maintained favourable medium-term prospects and the measures taken by the Government and the NBS will contribute to the further recovery of domestic demand. This, along with the normalisation of external demand, will result in a more than complete recovery of our economy this year and its strong growth going forward. What gives the reason for optimism are the preserved production capacities and employment during the pandemic, the accelerated implementation of infrastructure projects, FDI inflow that remained relatively high and project-diversified, the secured favourable financial conditions, and the expected improvement of the epidemiological situation owing to the initiated vaccination. Labour market data on the rising employment rate and the maintained single-digit unemployment rate attest to the significance of the package of economic measures, which helped sustain favourable trends despite the challenges imposed by the pandemic.

The Board stresses that we have entered the eighth year of inflation being low, stable and firmly under control. In 2020, inflation moved in line with NBS projections and averaged 1.6%. In December 2020 it measured 1.3% y-o-y. An important pillar of low and stable inflation is the relative stability of the exchange rate, as well as anchored inflation expectations of the financial and corporate sectors, which illustrate the credibility of monetary policy. Despite a continued rise in wages and employment in the majority of sectors, demand-side pressures remain relatively muted, as evidenced by core inflation movements. According to the NBS projection, inflation will continue to move in the lower part of the target tolerance band, and will start its gradual approach to the target midpoint (3%) during 2022 on the back of the expected further recovery in demand.

Although the accelerated spread of the virus as of October last year, primarily in Europe, threatened to slow the initiated economic recovery, the available data for Q4 signal satisfactory resilience of the economy at the global level and in the euro area, which is our key trade and financial partner. We expect the pandemic to gradually calm in the coming period, owing to the started vaccination of the population, which will, along with the stimulus adopted by the ECB and fiscal stimuli of many countries, contribute to the recovery of the euro area, and thus of our external demand. A cautious conduct of monetary policy is mandated by the still present uncertainty in the international financial market and trends in the international commodity market, primarily in the market of oil, whose price has been going up due to elevated expectations that the global recovery is on a gradual recovery path. Still, the Executive Board emphasises the resilience of our economy to external shocks, as a result of responsible running of the economy in the past years and an adequate response to the current global crisis.

As noted by the Executive Board, the period ahead, particularly the current winter, will witness challenges concerning the course of the pandemic and the impact on global and domestic economic developments. Therefore, economic policy makers will aim to support further recovery of our economy, preserve production capacities and employment, encourage further growth of the export sector, and domestic and foreign direct investment. The NBS will continue to carefully monitor the trends and the impact of key factors at home and abroad on inflation, financial stability and the speed of economic recovery. We shall continuously assess all the measures taken so far in order to support further economic recovery, without prejudice to price and financial stability.

The next rate-setting meeting is scheduled for 11 February 2021.

Press release from Executive Board meeting held on 11 February 2021

At its meeting today, the NBS Executive Board voted to keep the key policy rate at 1.0%.

In making the decision, the Executive Board was guided primarily by the continued stimulating effect of the previously adopted monetary and fiscal policy measures and by the announcement of an additional package of fiscal measures. This means that coordinated monetary and fiscal policy measures will continue to have a positive effect on the financing conditions for corporates and households and on their disposable income.

Strong support of the NBS and Government to our corporates and households will ensure the attainment of the pre-crisis level of economic activity in Q2. Industrial production, retail trade turnover and exports have already reached pre-crisis levels and we expect that other service sectors will also completely recover as we go further into the vaccination process, the progress of which has placed Serbia among the best countries in the world. The rebound in domestic demand will be supported by the continued implementation of infrastructure projects, favourable financing conditions as a result of past monetary policy easing, as well as the preserved labour market in the face of the pandemic. The resilience of the labour market and the significance of the package of economic measures are evidenced by the rising employment and the maintained single-digit unemployment rate during the pandemic. In the Board's view the announced fiscal package will provide an additional impetus to domestic demand and economic recovery. Apart from this, FDI inflow to Serbia of EUR 3.0 bn in 2020 was the highest in the region and mostly channelled to tradable sectors, which should, along with the expected rebound in external demand, lead to the double-digit growth in exports this year.

We have entered the eighth consecutive year of inflation being low, stable and firmly under control. According to NBS projection, y-o-y inflation will move in the lower half of the target tolerance band until the end of the projection horizon. Its moderate rise in the short run will result primarily from the expected increase in the prices of electricity and petroleum products on account of the higher global oil price. The ensured relative stability of the exchange rate and anchored inflation expectations of the financial and corporate sectors remain an important pillar of low and stable inflation.

Uncertainty continues to stem from external environment and is mostly associated with the efficiency in pandemic management and the vaccine production and rollout at global level, as this will determine the pace of the world economic recovery and developments in the international financial and commodity markets. Large-scale monetary and fiscal measures of leading world economies and the initiated mass vaccination have eased uncertainty in the international financial market. However, caution in monetary policy conduct is needed in view of the rise in the global oil price since last November, as well as the surge in other primary commodity prices, driven by the expectations that the world economy is on the path of recovery.

The Executive Board underlines that the focus of economic policy makers will stay on supporting a swift recovery of our economy, preserving production capacities, employment, further growth of the export sector, and a favourable investment environment. The NBS will continue to watch closely the movement and impact of key factors from the domestic and international environment on inflation, financial stability and the speed of economic recovery. It will continuously assess the measures taken so far, in order to provide support to further economic recovery, without jeopardising price and financial stability.

At today's meeting, the Executive Board adopted the February Inflation Report, to be published on 18 February. Apart from the new inflation and GDP projections, the Report also gives detailed explanations of monetary policy decisions and the underlying macroeconomic developments.

The next rate-setting meeting will be held on 11 March.

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