National Bank of Serbia

November 2023

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 November *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 9 November 2023.

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

Nikola Dragašević, 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 3 November

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I Overview

Despite the consequences of the pandemic and the energy crisis, which caused disruptions in the world food and energy market and pushed up global inflation, and despite monetary tightening aimed at containing price growth, **the global economy has proven to be more resilient than initially expected**. However, economic growth remains uneven across countries and regions. It is faster than expected in the USA and slower in China and the euro area, which was hit the most by the effects of the Ukraine conflict and the rise in energy prices last year. In October, the IMF kept the July global growth projection for 2023 at 3%, while revising the projection for 2024 down by 0.1 pp, to 2.9%. The risks to the October projection are lower than six months ago, but remain tilted to the downside and are associated with potential further worsening of the crisis in China's construction sector, which may slow the growth of countries exporting primary commodities, and, by extension, global growth. Another risk is the high level of indebtedness of some countries in an environment of high interest rates.

Although the risks to the global growth projection are lower than six months ago, also reflecting the progress in reducing global inflation, they remain tilted to the downside.

Although **global inflation is slowing**, reflecting mainly lower food and energy prices and tighter monetary conditions, inflation in most inflation-targeting countries remains above the target and is not expected to return to the target before 2025 in many of them. Moreover, caution in the conduct of the NBS's monetary policy is mandated by heightened global geopolitical tensions, which have intensified with the latest developments in the Middle East and may again drive up energy and food prices and spur the growth in global inflation.

Global inflation is slowing, owing mainly to falling world energy and food prices.

Owing to the established downward trajectory of inflation and the effects of past monetary tightening, **it is estimated that central banks of advanced economies are generally nearing the end of the monetary policy tightening cycle**. The leading central banks, the Fed and the ECB, emphasise that tighter monetary conditions will be maintained in the coming period, until they are sure of a sustainable reduction in inflation and its return to the 2% target. On the other hand, some inflation-targeting central banks of the region have already started or announced the start of monetary policy easing

The monetary tightening cycle of leading central banks is estimated to be nearing its end, though restrictive monetary conditions will be maintained until inflation is assessed to be sustainably returning to the target in the medium run.

In the period since the previous Inflation Report, the NBS Executive Board kept the key policy rate on hold – at 6.5% since July, but tightened monetary conditions with the required reserve instrument.

The Executive Board's decision to **keep the key policy rate on hold** in the period since the previous *Report* was motivated by further easing of global inflationary pressures, the established downward path of domestic inflation, and its expected movement within the target bounds over the monetary policy horizon. Still, in September the NBS made the decision to absorb a part of banks' excess dinar liquidity through the required reserve instrument, thereby further tightening domestic monetary conditions. The required reserve ratios on the FX base were raised by 3 pp each, to 23% and 16% for liabilities with the contracted maturity of below and over two years, respectively, and the required reserve ratios on the dinar base by 2 pp each, to 7% and 2%, respectively. At the same time, the percentages of dinar allocations of FX required reserves were increased by 8 pp each, to 46% and 38% for liabilities with the contracted maturity of below and over two years, respectively.

The transmission of the effects of monetary tightening to interest rates in the money, lending and savings market signals the effectiveness of the transmission mechanism through the interest rate channel.

Past monetary tightening by the NBS **continued to drive up the interest rates in the interbank money and lending market in dinars**. At the same time, the ECB's monetary tightening resulted in a further rise in interest rates in the euro area money market, and thus in interest rates on euro corporate loans in the domestic market, while interest rates on euro household loans remained unchanged in September, owing to the NBS's decision to temporarily cap the interest rates on new housing loans to natural persons. Without waiting for the risks of rising interest rates in the euro area to materialise and jeopardise the capacity for repaying housing loans and, in turn, financial stability, the NBS capped the interest rate for first-time beneficiaries of variable-rate housing loans whose contracted amount does not exceed EUR 200,000 from October this year to end-2024.

The effects of past monetary tightening aided the weakening of inflationary pressures also through the lending channel, without prejudice to financial stability.

Lending activity stagnated in September in y-o-y terms and grew RSD 23 bn q-o-q. Growth in corporate loans in Q3 was led by investment loans, with household lending going up on account of cash loans. Owing to the robust bank regulatory framework and the adopted macroprudential policy measures, which were synchronised with monetary policy measures, in September the **NPL share in total loans** stayed close to the minimum of around 3%.

The external position improved further in Q3, mostly in trade in goods, where the deficit narrowed significantly y-o-y. Trade in services also went up, with the surplus becoming larger.

External economic relations improved further – positive trends from H1 2023 continued, with the current account deficit falling to a record low of close to EUR 800 mn in the first nine months, down by as much as EUR 2.5 bn y-o-y. The goods deficit, lower by EUR 2.8 bn, had the largest impact on the reduction in the current account deficit, with the surplus on the services account continuing to widen. The increased deficit on the primary income account worked in the opposite direction, reflecting rising FDIs and a slight reduction in the surplus on the secondary income account. The decrease in the goods deficit is the result of a combined impact of export growth (5.8% y-o-y) and lower imports (-6.0% y-o-y) in an environment, among other things, of a smaller energy balance deficit (around EUR 1.8 bn), thanks to a reduction in world energy prices, lower quantity imports and increased electricity exports. The deficit declined also on account of the continued vibrant growth in manufacturing exports, with 17 of 23 sectors experiencing an upturn, particularly those relating to the automobile industry, manufacture of machinery, equipment and electronics. Being much lower in the year so far, the current account deficit is projected at around or even below 2.5% of GDP in 2023. According to our projection, the expected acceleration of the investment cycle and the related imports of equipment and intermediate goods, which will be compensated to a large extent by the growth in export capacities and the recovery of external demand, will lead to the current account deficit measuring around 4% of GDP next year and in the medium run – a level ensuring external sustainability.

External capital inflows exceeded the current account deficit multiple times, fuelling appreciation pressures and boosting FX reserves to a record high of EUR 24.4 bn at end-October.

External capital inflows exceeded the current account deficit multiple times in Q3 as well, fuelling further appreciation pressures. In the year to September, the largest capital inflow of over EUR 3.2 bn (EUR 3 bn net) was generated by FDIs. In our estimate, net FDIs will amount to around 5% of GDP in the years to come and will continue to fully cover the current account deficit in the medium run, supporting the sustainability of our external position. At the same time, FDI inflows are anticipated to remain broadly diversified by region and project, and to be mainly channelled to export-oriented sectors. In the ten months of this year, the NBS bought EUR 3.4 bn net, boosting FX reserves to a record high of EUR 24.4 bn at end-October.

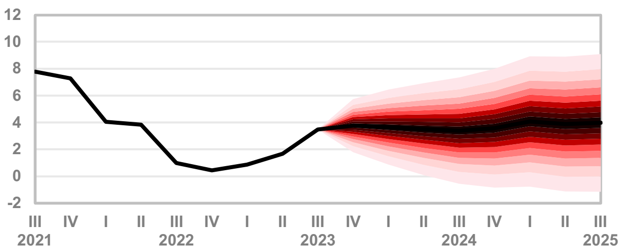
The fiscal deficit will be lower than initially planned and measure around 2.8% of GDP in 2023, thanks to better than expected revenues and reduced transfers to the energy sector.

In the first nine months of the year, a general government surplus of 0.3% of GDP was recorded, which is much more favourable than the initially projected deficit. This reflects higher than planned revenues, due mostly to increased corporate profitability in the past year, as well as reduced transfers to the energy sector. Room was thus created for the fiscal policy to support domestic demand without threatening the downward public debt trajectory. General government public debt measured 51.7% of GDP at end-September. A better than planned fiscal outturn in H1 2023 created room for supporting domestic investment and consumption. Thus, in line with the supplementary budget, pensions and some public sector wages raised by 5.5% each, while the planned government capital expenditure expanded by RSD 23 bn, which is poised to have the strongest effect on the fiscal result in Q4. The supplementary budget puts the deficit at 2.8% of GDP this year, which is better than the initial plan (3.3%). The Draft Budget Law for 2024 projects the central government budget deficit to measure 2.2% of GDP. In 2024 as well, a substantial amount of budgetary funds will be earmarked for boosting investment in transport infrastructure and the energy sector.

Third-quarter GDP growth is estimated at 3.5% y-o-y, exceeding our expectations from the previous Report.

Economic growth picked up speed in Q3. According to the SORS estimate, y-o-y GDP growth measured 3.5% in Q3, underpinned primarily by construction due to accelerated implementation of infrastructure projects. Though external demand, primarily from the euro area, slackened, manufacturing posted better than expected outturns, propped up by past investment and rising domestic demand. Further, data on the yields of key crops indicate that this year's agricultural season was better than average, exceeding our expectations from August. A positive contribution also came from most service sectors. On the expenditure side, growth was led by rising investment, mostly private. Net exports also gave a positive contribution, though smaller than in H1 2023, as real y-o-y growth in the exports of goods and services continued up, and imports declined further.

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



Economic growth prospects at home are more favourable than three months ago. Under our new projection, real GDP growth will measure around 2.5% in 2023. We expect it to accelerate further to 3–4% in 2024 and resume its pre-pandemic growth trajectory of around 4% thereafter.

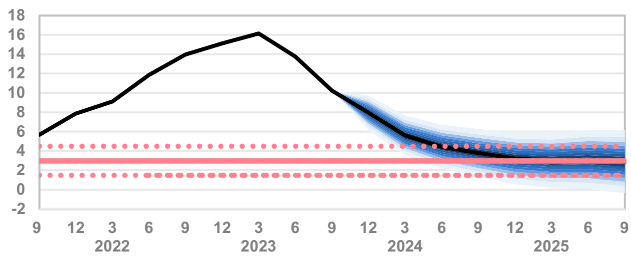
As third-quarter GDP growth outstripped our expectations from the previous Report, we now estimate **the GDP growth rate in 2023 to measure around 2.5%**, exceeding our expectations from August when we anticipated it to settle closer to the lower bound of the projected 2–3% range. At the annual level, growth will be led by net exports, followed by fixed investment thanks to increased corporate profitability, high FDI inflows, and rising government investment in transport infrastructure. A positive impulse is also anticipated from private consumption which is expected to rebound in Q4 on the back of an increase in real wages and employment in the private sector, and higher pensions and some wages in the public sector. As global cost-push pressures wane, the euro area, our key trade partner, recovers and external demand rebounds, and the implementation of planned investment projects in the area of transport, energy and utility infrastructure gains speed, we expect Serbia's GDP growth to step up to 3.0–4.0% as of 2024 and then return to the pre-pandemic growth trajectory of around 4% per annum. Reflecting continued positive trends in the labour market, growth will be led by private consumption which will, however, rise more slowly than total GDP, as well as by investment, mostly private. As investment and personal consumption are expected to accelerate, we anticipate that imports will rise somewhat more quickly than exports in 2024 and that the contribution of net exports will therefore be negative. Net exports are then expected to provide a neutral contribution as external demand rallies further and the effects of past investment in export-oriented sectors kick in.

In Q3, y-o-y inflation in Serbia moved at a lower level than we projected in August, aided by reduced food prices and receding core inflation.

Y-o-y inflation has been on a downward trajectory since April. In August and September, it measured even slightly less than we projected in our August medium-term projection. The slowing of inflation to 10.2% in September is the result of lower food prices and prices within core inflation (CPI excluding food, energy, alcohol and cigarettes). Y-o-y core inflation has been single-digit since June, falling to 8.2% in September. The decline in core inflation was aided by dissipating cost-push pressures, but also by monetary policy tightening. Inflation's downward path towards a single-digit level helped lower one year-ahead expectations of the financial sector, with two- and three years-ahead expectations moving within the NBS's target band.

Under our new projection, inflation will continue to slow to around 8% at end-2023 and retreat within the target band towards mid-2024.

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



Under our new projection, after falling to around 8% late in the year, **y-o-y inflation will most probably retreat within the target band towards mid-next year and continue to slow thereafter, approaching the target midpoint in late 2024**. Such movements will be aided primarily by the effects of past monetary policy tightening, subsiding global cost-push pressures, slowing of imported inflation and subdued demand amid weaker global growth. The inflation projected for 2024 is marginally higher than in our August projection, reflecting primarily the higher global price of oil.

We judge the risks to the inflation and GDP projections to be symmetric, and the NBS will estimate whether there is a need to respond with additional measures.

Uncertainty surrounding the inflation and GDP projections remains largely associated with international factors – geopolitical relations and the global growth outlook, and their impact on international prices of energy and primary commodities. After the outbreak of the Middle East conflict, the risks on account of geopolitical tensions have become more pronounced than at the time of the previous *Report*, while the risks on account of the speed of core inflation's decline and the degree of monetary policy tightening by leading central banks have now abated. At home, the risks to the projection are associated with the level of FDI inflows, outcome of the next year's agricultural season, pace of investment in infrastructure and the energy sector and, in part, the speed of coal production recovery. Overall, the risks to the inflation and GDP projections for this and the next year are judged to be symmetric. The NBS will continue to monitor and analyse trends in international commodity and financial markets and pursue a data-based approach to future monetary policy decisions, taking into account the expected effects of past monetary tightening on inflation going forward. Delivering price and financial stability in the medium term will remain a monetary policy priority, along with supporting further economic growth and development, a rise in employment and the preservation of a favourable investment environment.

II Monetary policy since the August *Report*

In making the decision to keep the key policy rate unchanged in the period since the previous Report, the Executive Board was guided by the continued easing of global inflationary pressures, established downward path of inflation at home and its expected movement within the target band over the monetary policy horizon.

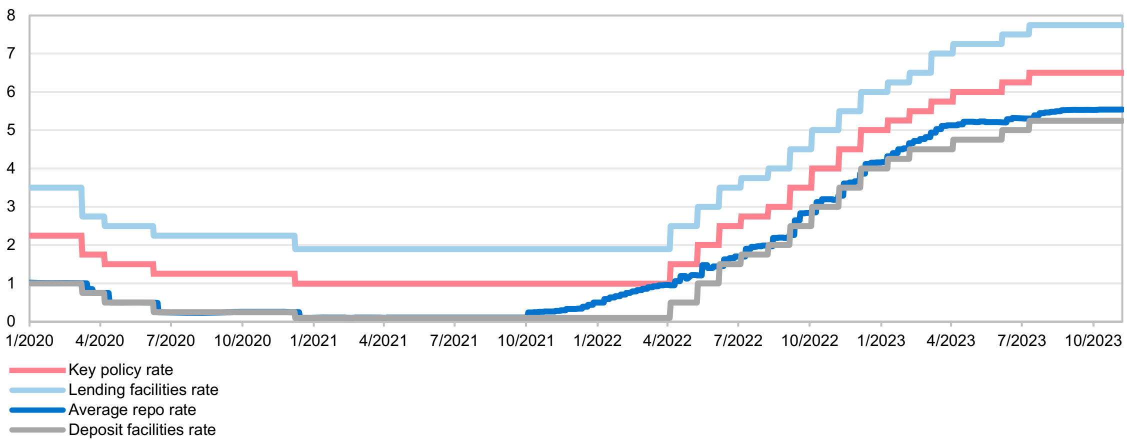
In September, the NBS decided to mop up a part of the excess dinar liquidity from banks using the required reserves instrument and thus further tighten monetary conditions at home.

Since the August Inflation *Report*, **the NBS Executive Board kept the key policy rate unchanged from its July level of 6.5%**. The July hike was the 15th consecutive rate increase in the current cycle (since April 2022), resulting in a 550 bp higher key policy rate overall. Since October 2021, the weighted average repo rate was also raised almost to the same extent, to 5.54% at end-October. After the July hike, the deposit and lending facility rates were kept at 5.25% and 7.75%, respectively.

Although it kept its key policy rate on hold, in September the NBS Executive Board decided to raise banks' **required reserve ratios, namely: a) the required reserve ratio on the FX base by 3 pp each**, to 23% and 16% for liabilities with the contracted maturity of below and over two years, respectively; b) the **required reserve ratio on the dinar base by 2 pp each**, to 7% and 2% for liabilities with the contracted maturity of below and over two years, respectively. At the same time, it raised the **percentages of dinar allocations of FX required reserves by 8 pp each**, to 46% and 38% for liabilities with the contracted maturity of below and over two years, respectively.

The said changes in the required reserves aim to support past monetary policy tightening in an environment of pronounced excess dinar liquidity in the banking sector, further enhancing the efficiency of the monetary policy transmission mechanism and helping inflation return within the target tolerance band. Serbia's banking system has been operating in the conditions of a **structural surplus of dinar liquidity** for years. Since May last year, and especially in the current year, this surplus has gradually increased, primarily as a result of the NBS's net FX purchases in the domestic FX market to prevent excessive strengthening of the dinar against the euro amid heightened appreciation pressures on the dinar. The reduction of excess dinar liquidity in the banking sector

Chart II.0.1 **Movement in the key policy rate and average repo rate**
(y-o-y rates, in %)



Source: NBS.

through increased required reserves should boost the turnover in the interbank money market, thereby strengthening the representativeness of benchmark interest rates in that market (BEONIA and BELIBOR).

The Executive Board's decisions in September and October were based on the **August medium-term inflation projection**, according to which it was expected that y-o-y inflation would continue to slow down. After dropping to around 8% late this year, it will retreat within the bounds of the target tolerance band in Q2 2024. This will be supported by the past tightening of monetary conditions, further weakening of global cost-push pressures and the high base from food and energy prices, as well as by the slowdown in imported inflation and lower demand amid slackened global growth.

When deciding on the monetary policy, the Executive Board was guided by the fact that the **y-o-y inflation trajectory has turned downward since April** this year, with inflation in August and September somewhat lower than the August medium-term projection, at 11.5% and 10.2%, respectively. Inflation deceleration resulted from the slowing down of food prices and prices within core inflation (CPI excluding food, energy, alcohol and cigarettes), whose y-o-y growth since June hovered at one-digit figures, measuring 9.1% in August. It dropped further in September to 8.2%. The slide in core inflation was also considerably aided by the **tightening of monetary conditions and lowering of inflation expectations**.

In the current cycle of monetary policy tightening, the Executive Board primarily sought to influence market agents' inflation expectations, accelerate their retreat within the target band and ensure that inflation strikes a sustainable downward path. **Inflation expectations** of the financial and corporate sectors have recorded a fall over the past months. The decline is especially pronounced in the financial sector, whose two and three years-ahead expectations are within the NBS target band.

In its monetary policy making, the Executive Board had in mind that global cost-push pressures have continued to subside as halts in global value chains are resolved and the prices of most primary commodities in the global market fall, although the **global inflation outlook is somewhat weaker than in the August *Report***. The revisions partly reflect the impact of higher global prices of crude oil, and partly somewhat higher prices of some industrial products, though they should remain significantly below the peak reached in 2022. In particular, caution is mandated by **core inflation in many countries**, especially in the services sectors, due to tight labour markets, higher wages and an increase in unit labour costs. Against such backdrop, many central banks continued to raise their policy rates, though at a slower pace than in 2022.

Headline inflation in the **euro area**, our key trade partner, slowed down further, though it is still above the target. According to the ECB's September projection, inflation will gradually decrease over the projection horizon reflecting the expected moderation of energy and food prices, as well as the effects of monetary policy tightening, resolution of global supply chain bottlenecks and gradual normalisation of post-pandemic demand. Core inflation in the euro area also slackened to its lowest level in the past year. The greatest upside risk to core inflation in the period ahead continues to be the possible opening up of the wage-price spiral, if wage growth is not offset by lower corporate profit margins which increased in the prior period.

Stating that inflation is decreasing, but that projections indicate it will remain at a high level over a longer period, the **ECB** emphasized its commitment to bringing inflation back to the target in a timely manner, and further tightened its monetary policy in September by raising its key rate and the rates on lending and deposit facilities to 4.5%, 4.75% and 4.0%, respectively. The ECB raised its interest rates to the highest level since the introduction of the euro in 1999 in order to curb inflation, despite concerns over the economic slowdown. The ECB revised down its projection of economic activity for this and the next year by 0.2 pp and 0.5 pp, to 0.7% and 1%, respectively. Germany, as the largest euro area economy, is slowing down sharply, largely due to the adjustment of its growth model which was based on cheap energy supply, and exports, primarily to China.

Inflation is somewhat lower in the USA. This justifies the **Fed's** decision to keep the federal funds rate unchanged, after an increase in July. However, the Fed pointed out that it is ready to adjust monetary policy if risks arise that could hinder the achievement of objectives.

In its monetary policy making, the NBS Executive Board took into account that the **global tightening of financial conditions** could dampen capital inflows to emerging economies. As for Serbia, it is encouraging to see **robust FDI inflow, several times higher than the current account deficit whose share in GDP will be more than two times lower this year** relative to last year. In addition, the Executive Board emphasized that **Serbia's credit rating** was maintained one notch below the investment grade in the face of numerous global challenges, including the unfavourable effects of the Ukraine conflict, deceleration of external demand, as well as the still high, although declining, global inflation. The rating agencies assess that Serbia has a coherent economic policy framework, credible monetary policy, preserved and moderate public debt levels, adequate FX reserves, and a stable banking sector.

Among the challenges from the international environment which mandate caution, the Executive Board also highlighted **geopolitical tensions and uncertainty regarding the duration of the Ukraine conflict**, increases in global prices of crude oil and energy availability and prices in the coming period. The recent hike in the price of crude oil primarily reflects the decision of the OPEC+ countries to extend the cap on supply until the end of the year, but also growing oil demand. In October, its volatile movement also reflected the outbreak of the conflict in the Middle East. The prices of natural gas are also rising, given that the heating season is approaching, and the production was reduced in Australia and Norway. Nevertheless, the Executive Board highlighted its estimate that global energy price hikes will not have a major negative effect on inflation in Serbia and will not threaten its downward trajectory, assuming that geopolitical tensions do not escalate further.

Also, **China's economic performance** will affect global prices not only of energy but also of most other primary commodities, thus being one of the important factors of inflation movements in the period ahead that the Executive Board must reckon with. After recovering in early 2023 thanks to the opening of the economy, China's economic growth is expected to slow down this and the next year due to problems in the construction sector. China implemented a number of measures to boost economic activity, including a key rate cut. As a result, China accelerated its economic growth in Q3 above expectations, but it is still too early to assess the longer-term effects of these measures.

In deciding on the key policy rate, the NBS Executive Board made sure that monetary policy tightening does not threaten the continuity of economic growth. It is important to note that the NBS's decision on required reserves resulted in the mopping up of around 20% of surplus dinar liquidity, leaving funds for banks to invest in loans to the private sector. As expected, lending activity slowed down as of H2 2022, reflecting tighter financial conditions in the European and home market, the resulting fall in loan demand, as well as the maturing of guarantee scheme loans to corporates. Domestic demand continued to be supported by the preserved labour market, stepped-up corporate profitability and FDI inflow, as well as the still relatively high government allocations for capital investments. Monthly real sector indicators signal that **economic growth dynamics will accelerate further in Q3 and be more favourable than anticipated in the NBS August projection** which placed GDP growth rate in 2023 between 2% and 3%, but more likely closer to the lower bound. Despite subdued external demand, notably from the euro area, more favourable trends than expected were recorded in manufacturing, powered by investments from the previous period and growing domestic demand. Moreover, data on the estimated main crops production indicate that **this year's agricultural season will most probably be above average, exceeding the NBS's expectations**. A positive contribution in the remainder of the year is expected from the construction industry, resulting from continued implementation of infrastructure projects, and from the services sector, which should be supported by a further rise in employment and wages, notably in the private sector. Personal consumption recovery in the remainder of this year should be boosted by higher pensions and some public sector wages, and one-off payments to pensioners. However, according to the NBS's estimate, domestic demand growth will be slower than total GDP, without generating any stronger inflationary pressures. The weakening of inflationary pressures in the international and domestic market, as indicated by lower producer prices, should have a positive effect on economic growth in the period ahead.

In keeping the key policy rate on hold in November as well, the NBS Executive Board pointed out that, besides the volatile movement of global oil prices in the previous two months and expectations of their slightly higher levels late this year and in 2024, the inflation outlook for 2024 has not changed significantly from the August projection. When making the decision, the Board also relied on the fact that the full effects of past monetary policy tightening are yet to play out.

However, developments in the international environment and geopolitical tensions, especially following the outbreak of the conflict in the Middle East, as well as the volatility of global prices of crude oil and some food mandate caution in monetary policy making.

As the main risks to inflation and other economic developments continue to emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets and assess whether there is a need for further tightening of monetary conditions. Delivering price stability in the medium term and preserving and strengthening financial stability will remain a priority of the NBS's monetary policy, along with supporting continued growth and development of our economy, a further rise in employment and a favourable investment environment.

III Inflation movements

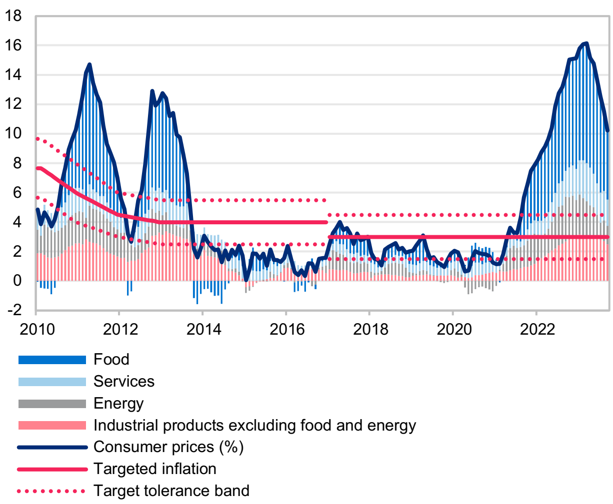
In the period since the previous Inflation Report, y-o-y inflation in Serbia continued on a downward path, falling to 10.2% in September amid further weakening of global cost-push pressures and the materialisation of the effects of past monetary tightening. The same factors led to a slowdown in core inflation to 8.2% y-o-y in September. In parallel, corporate inflation expectations recorded a decline in Q3, and so did the financial sector expectations, which stand within the NBS target band for both two and three years ahead.

Inflation movements in Q3

Y-o-y inflation continued on a downward path in Q3, falling from 13.7% in June to 10.2% in September, somewhat faster than anticipated in the August *Report*. This mostly reflected the slower y-o-y rise in food prices (primarily vegetable prices), whose contribution to inflation in September edged down by 2.4 pp relative to June, amid lower costs of production due to a decline in global prices of primary agricultural commodities, as well as preserved supply of vegetables at home despite unfavourable agrometeorological conditions in summer months. Although the prices of petroleum products increased their contribution to y-o-y inflation in Q3 due to the increase in their global prices, energy prices overall decreased their contribution to y-o-y inflation in Q3 (by 0.3 pp), reflecting also the drop-out of the last year's electricity price hike from the calculation. Relative to June, other CPI components decreased their contribution to y-o-y inflation in September as well – the prices of industrial products (excluding food and energy) by 0.5 pp, and the prices of services by 0.3 pp. **Y-o-y core inflation** (measured by CPI excluding food, energy, alcohol and cigarettes) also decelerated additionally in Q3, from 9.9% in June to 8.2% in September, aided by a further drop in the prices of imported goods and services and the effects of past monetary policy tightening.

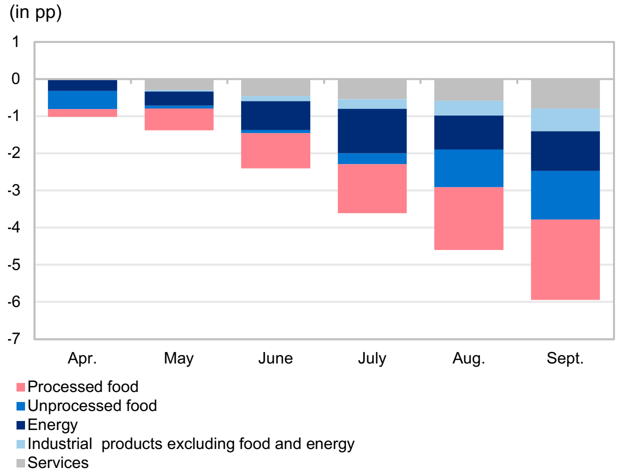
In quarterly terms, **consumer prices decelerated significantly, to 0.6% in Q3** (from 2.3% in Q2), this being their lowest growth in the past ten quarters. This was mostly a consequence of the drop in the **prices of food and non-alcoholic beverages** by 1.7% in Q3 (with a negative 0.6 pp contribution to inflation). **Unprocessed food** prices slackened by 6.0% in Q3, as a result of a sharp cheapening of fresh vegetables (18.5%, with a negative 0.8 pp contribution to inflation). Although the prices of

Chart III.0.1 **Contribution of CPI components to y-o-y consumer price growth**
(in pp)



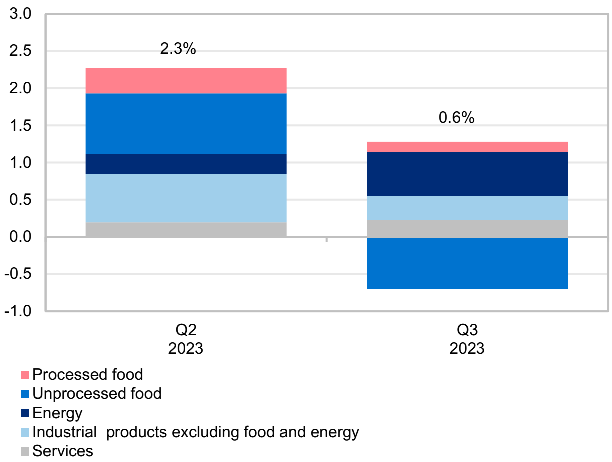
Sources: SORS and NBS calculation.

Chart III.0.2 **Change in contribution of main CPI components to y-o-y inflation – relative to March**
(in pp)



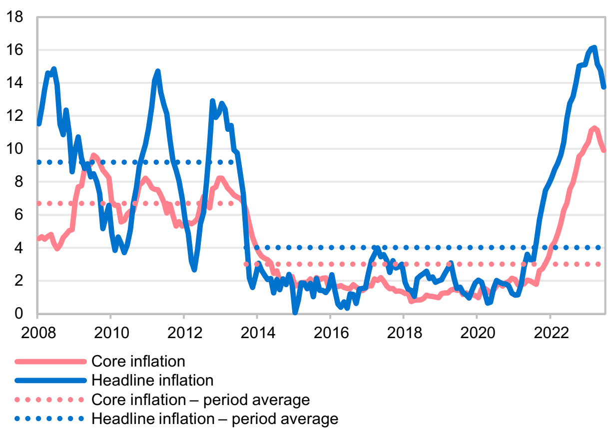
Sources: SORS and NBS calculation.

Chart III.0.3 **Contribution of main CPI components to quarterly inflation**
(in pp)



Sources: SORS and NBS calculation.

Chart III.0.4 **Headline and core inflation**
(y-o-y rates, in %)



Sources: SORS and NBS calculation.

Table III.0.1 **Growth and contribution of CPI components to consumer price growth in Q3 2023**
(quarterly)

	Growth rates (%)	Contribution (pp)
Consumer prices (CPI)	**0.6**	**0.6**
Unprocessed food	-6.0	-0.7
Processed food	0.6	0.1
Industrial products excluding food and energy	1.2	0.3
Energy	3.9	0.6
Services	1.0	0.2
CPI excluding energy, food, alcohol and cigarettes	0.9	0.4
Administered prices	1.7	0.3

Sources: SORS and NBS calculation.

fresh fruit grew by 3.5% in Q3, and the prices of fresh meat by 1.2%, this hike was less intense than in Q2 and provided a 0.1 pp aggregate contribution to inflation. **Processed food** prices also slowed down significantly in Q3 – from 1.6% in Q2 to 0.6%, owing to a drop in the prices of milk and dairy products, edible oils and fats, bread and flour, as well as weaker growth in the prices of non-alcoholic beverages and confectionery, indicating the easing of cost-push pressures in food production.

The greatest positive contribution to inflation in Q3 came from a 3.9% hike in **energy prices**, driven almost entirely by the increase in the prices of **petroleum products** in the domestic market by 10.3% (with a 0.5 pp contribution to inflation) amid a surge in global crude oil prices in summer months. Conversely, the prices of firewood and butane gas declined mildly in Q3.

The prices of **industrial products (excluding food and energy)** rose 1.2% in Q3, owing to the July cigarette price adjustment (by 2.8%, with a 0.1 pp contribution to inflation), as well as higher prices of furniture and household appliances, pharmaceutical products and textbooks and school stationery (with a 0.2 pp aggregate contribution to inflation). Still, the rise in the prices of industrial products in Q3 was two times lower than in Q2.

The **prices of services** increased by 1.0% in Q3 on account of the higher prices of utility services, catering, crafts and personal services, as well as higher prices of tourist packages and administrative taxes (with a 0.2 pp aggregate contribution to inflation). The prices of rent and motor vehicle insurance edged down negligibly in Q3, while the y-o-y growth in the prices of other services decelerated.

Administered prices grew 1.7% in Q3 (the same as in Q2), primarily owing to the already mentioned hike in the prices of cigarettes and utility services. In y-o-y terms, these prices slowed down their growth, to a single-digit level in September (8.9%), supported by the drop-out of the last year's electricity and gas prices hike from the y-o-y calculation.

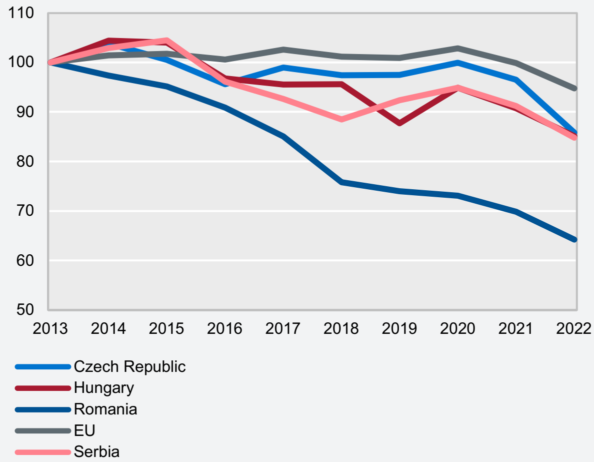
Core inflation recorded an increase of around 1% in Q3, which was driven by the rise in the prices of industrial products excluding food and energy almost to the same extent as by the rise in the prices of services.

Text box 1: Pork price movements in Serbia, underlying factors and outlook going forward

In the past period, the prices of processed and unprocessed meat, notably pork, have posted high y-o-y growth rates and trended dominantly above the headline y-o-y inflation. In addition, the outbreak and spread of the African plague virus have raised concerns among the public that there will be a shortage of pork in the coming period, thus pushing prices further up. Therefore, this text box aims to explain the dynamics of movements in the prices of pork in the previous period, the underlying factors affecting the meat production chain, as well as our expectations going forward.

Price movements in Serbia's livestock population and its meat production are the starting point in the analysis. It should be noted that the livestock population issue is not new or triggered by the African plague, but rather a structural and years-long problem of animal husbandry in Serbia, as well as in Europe. According to available SORS data, in the past 20 years the number of pigs in Serbia has been dominantly on the downward path and declined by a third. Looking at the past decade only, the total number of pigs at end-2013 equalled around 3.14 mn and it contracted to 2.67 mn by end-2022, which is a cumulative fall of 15.2% (Chart O.1.1).

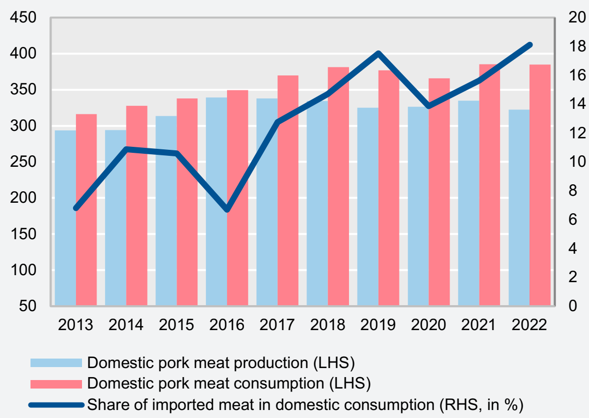
Chart O.1.1 **Pig livestock in Serbia and selected countries**
(index 2013 = 100)



Source: Eurostat.

On the other hand, according to data of the Ministry of Agriculture, Forestry and Water Management, domestic meat production in the 2013–2022 period rose cumulatively by 9.9% (around 29,000 tonnes). However, owing to faster growth in domestic consumption in the same period, which measured 21.7% cumulatively (around 69,000 tonnes), the gap between consumption and domestic production widened, with the shortages being filled up through imports. The share of imported meat in total consumption rose from 8% in 2013 to almost 20% in 2022 (Chart O.1.2), thus making the local market more dependent on meat prices in the international market.

Chart O.1.2 **Pork meat production and consumption**
(in thous. tonnes)



Source: Ministry of Agriculture, Forestry and Water Management.

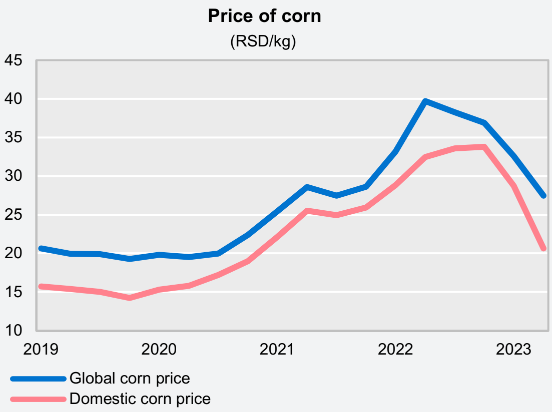
As for the composition of pork import, the bulk of it is frozen, dried or smoked meat, but it is also imported fresh. In the 2013–2022 period, these categories on average accounted for 80% of pork import. Of this, the bulk consisted of frozen meat, mostly imported from Spain, Germany, Hungary and the Netherlands, making up on average around 60.5%, 16.6%, 10.2% and 4.4% of total frozen meat import, respectively. Fresh meat was mostly imported from Croatia, except in 2022 when more fresh meat came from Spain, while dried and smoked meat is mostly imported from Montenegro.

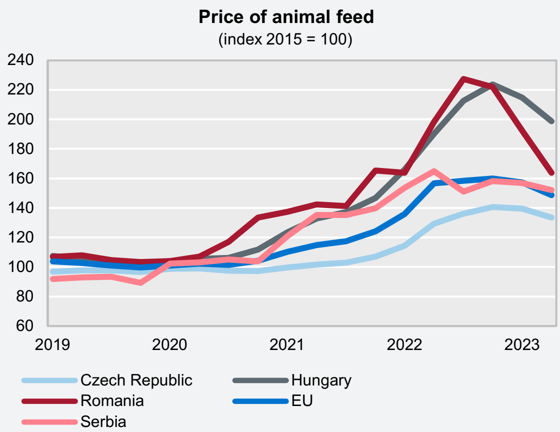
Though the issue has been present in the previous years (2015–2018), movements in terms of the number of livestock population and pork meat production and, by extension, their spillover onto consumer prices, underwent the most dynamic changes in 2020–2022. Specifically, the coronavirus pandemic prevented the provision of accommodation and food services, thus leading to reduced meat consumption, wherefore consumer prices of pork meat declined in 2020. As for meat producers, these movements had an adverse effect on sale (both in terms of quantity and price), resulting in dampened motivation for new production. After the initial shock in 2020, already in H2 2021 input costs of pig breeding went up, and were further intensified after the outbreak of the conflict in Ukraine. In this case, the pressure on producers came from the significantly increased production costs and the lack of financial profitability of production.

Animal feed makes up the bulk of the costs of pig breeding, and its share in total costs amounts to around 60% (according to the calculation of the Agriculture and Horticulture Development Board – AHDB, for the UK; the situation is similar in Serbia), with corn accounting for the biggest share in the feed itself. Corn being a stock exchange commodity, its price in the domestic market mirrors the movements in corn prices in the international market (Chart O.1.3), as indicated by the high correlation coefficient in the period 2020–2022 (0.98). The price of corn in the Commodity Exchange almost doubled in the observed period, rising by 46% in 2021 and by an additional 31% in 2022.

On a parallel note, animal feed price index (part of the index of prices of the means of agricultural production, intermediate goods and services, published quarterly by the SORS) in 2022 on average trended more than 50% above the 2020 average (Chart O.1.3). The combined effect of these factors resulted in the number of pigs falling by slightly more than 10% in the 2020–2022 period, and meat production contracting by 1% in the same period.

Chart O.1.3 **Corn and animal feed prices at home and abroad**



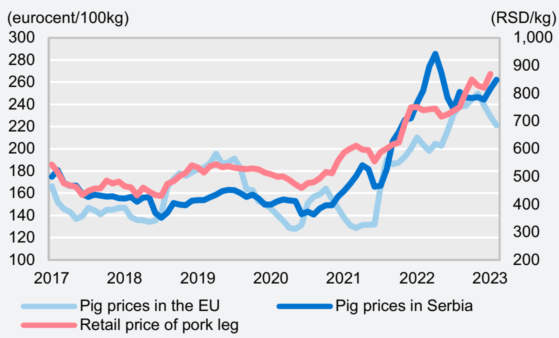


Sources: Commodity Stock Exchange, Refinitiv and SORS.

In addition to problems pertaining to the domestic livestock population, the price of pork in Serbia is also under the impact of movements in live pig and pork meat prices in the international market, notably EU countries, and the contribution of this factor gains in importance given the rise in the quantity of pigs and pork meat imported in the past period. The prices of live pigs in Serbia and the EU displayed similar movements in 2019–2023 (Chart O.1.4), with a high positive correlation coefficient of 0.77, which in turn affects the retail price of pork in the domestic market (correlation coefficient between the prices of live pigs and retail prices of pork in the domestic market equals 0.92).

The said three-year period was marked with similar movements in countries of the region, indicating that the problem is typical for the entire region, and not just Serbia. The number of pigs in the EU and selected regional peers (Czech Republic, Hungary and Romania) decreased between 8% and 14% (Chart O.1.1), and pork meat production also contracted. The above negative movements in the initial stages of the production chain

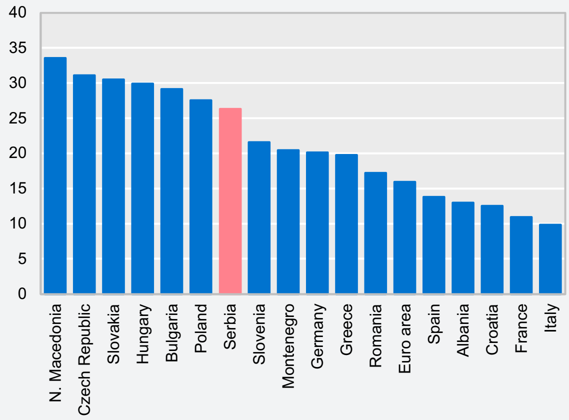
Chart O.1.4 **Live pig prices in Serbia and EU and retail pork prices in Serbia**



Sources: AHDB, Stips and the Ministry of Internal and Foreign Trade for retail prices.

reflected on retail pork prices, driving them up at two-digit rates in 18 observed countries in 2022. Growth was particularly pronounced in CESEE countries, ranging between 25 and 30% (Chart O.1.5) and resulting in costlier meat import to Serbia.

Chart O.1.5 **Pork meat price growth rates in 2022**
(in %)



Source: Eurostat.

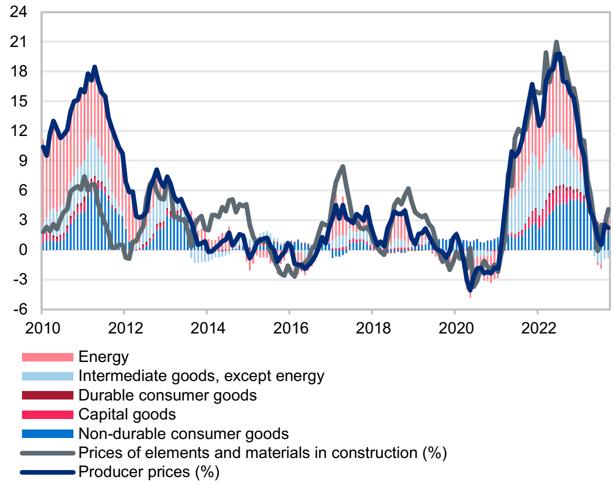
Under the impact of the listed domestic and international factors, retail pork meat prices in Serbia have been on a steady upward path over the past two years, with the average rise in pork meat prices measuring 19.7% and 26.3% in 2021 and 2022, respectively, and 17.7%[1] y-o-y in September 2023. Our projection for the entire fresh meat category, which in addition to pork includes poultry, beef and lamb meat, assumes moderate growth in Q4, at the level of the previous two years. Thus, the dynamics of y-o-y movements and the contribution of these prices to headline inflation will remain close to the Q3 outcomes (growth of slightly more than 10% y-o-y, 0.4 pp contribution to y-o-y inflation at end-year).

The outlook for pork meat prices is surrounded by moderate uncertainty due to the effects of a range of factors. Uncertainty from the supply side is generated because of the pace at which the African plague virus is spreading in Serbia and a major part of Europe given that the elimination of the livestock, as a measure for preventing the spread of the disease, can have negative consequences in the longer term due to decreased fertilisation options. The data of the Ministry of Agriculture show that around 55,000 pigs have been slaughtered to supress the epidemic of African plague in Serbia, which is only around 2% of the entire livestock population and should not drive meat prices up significantly in the coming period.

In contrast, lower input prices in production are expected to encourage growth in the livestock population, which would be reflected in the declining prices of pork. Also, the same factor should drive EU pork prices down, thus cheapening imports and by extension lowering retail meat prices at home. The fall in input prices has been recorded since Q2 2023 under the impact of a new agricultural season which is globally deemed as favourable, as well as due to the lower prices of fuel, overseas transport and mineral fertilisers. On the side of input costs, this created more favourable options in pig breeding and meat production, as evidenced by the AHDB's calculation of profitability of pig breeding, which shows that in Q2 2023 pig breeding entered the positive territory after ten quarters. Specifically, the price of corn at home mirrored the trends in the international markets and during 2023 moved on the downward trajectory, measuring around RSD 15 per kilo in October, its lowest level in three years. In any case, meat prices pose a risk to inflation projection in both directions, but for now it seems that the upside risk is not so large as to threaten the downward trajectory of inflation which is expected in the coming period, and its return within the bounds of the target band in mid-2024.

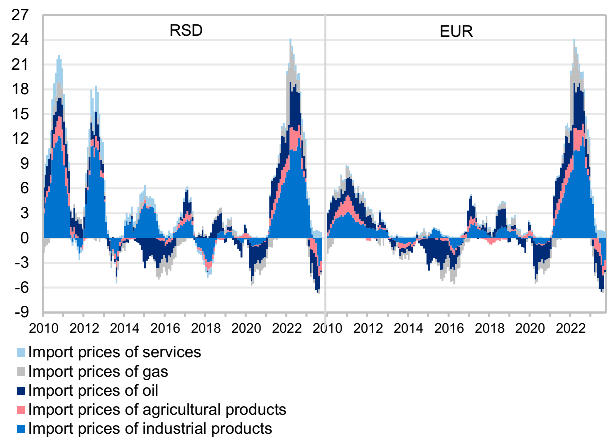
[1] The SORS does not publish data on individual meat price categories, therefore this is a calculation of the NBS based on Eurostat's data.

Chart III.0.5 **Contribution of components to y-o-y producer price growth***
(end-of-period, in pp)



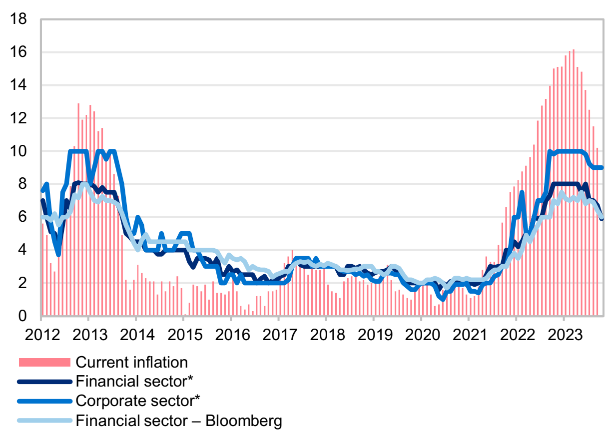
Sources: SORS and NBS calculation.
* Industrial producer prices for the domestic market.

Chart III.0.6 **Contribution of individual components to y-o-y rate of import price growth**
(end-of-period, in pp)



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

Chart III.0.7 **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 Q3

Industrial producer prices in the domestic market recorded a higher y-o-y growth rate in September relative to June (2.5% vs. 1.2%), mainly because of the higher costs of **exploitation of crude oil and production of petroleum products** amid a hike in global prices of crude oil in Q3. The **prices of capital goods** rose at the same time, notably of construction material. On the other hand, the **prices of non-durable consumer goods**, primarily in food production, continued to decelerate in Q3 in y-o-y terms, indicating further weakening of cost-push pressures in the food industry. In y-o-y terms, the prices of **durable consumer goods** dropped in August and September, for the first time since April 2021, while the prices of intermediate goods continued their y-o-y fall in Q3 (starting in May), on account of the lower prices in the production of chemicals, wood and paper products, rubber and plastic products, as well as the sharp cheapening of base metals. Similar to the y-o-y dynamics of industrial producer price, the **prices of elements and materials in construction** grew 4.1% y-o-y in September (after falling by 0.1% y-o-y in June). At quarterly level, industrial producer prices rose by 1.5% in Q3, and the prices of elements and materials in construction by 3.0%. It should be noted that, although costs in industry and construction increased in Q3 relative to Q2, they are still significantly lower than in early 2023 and during the entire 2022.

Import prices expressed in dinars[1] declined further in Q3, dropping by 3.7% y-o-y in September. With the exception of the prices of services, approximated by the euro area core inflation, other components continued to provide a negative contribution to y-o-y growth in import prices in Q3, with the strongest negative contribution coming from equipment, intermediate goods and other imported goods, approximated by the export prices of Germany (2.8 pp). At quarterly level, import prices expressed in dinars edged up by 1.9% in Q3, mirroring the movement in the global crude oil price.

Inflation expectations

Consistent with inflation movements and our assumptions, inflation expectations of the financial sector and corporates are falling, with expectations of the

[1] Preliminary data. The base year is 2010. The weighted average of several components is used as an indicator of import prices: the global Brent oil price, import gas price, food price index (FAO index), consumer prices within euro area core inflation, and export prices of Germany, one of Sebia's key trade partners. The fixed weights of the components are calculated according to the value of imported goods and services in 2022.

financial sector for both two and three years ahead standing within the NBS target tolerance band.

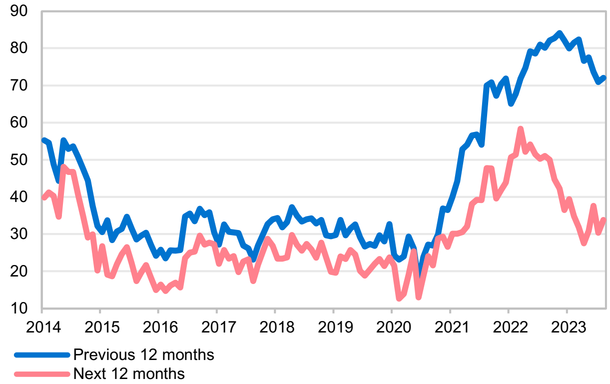
According to the October Ipsos survey, **one-year ahead inflation expectations of the financial sector** declined to 5.9%, returning to below 6.0% after 16 months. According to the October Bloomberg survey, these inflation expectations also declined – to 6.0%.

One-year ahead inflation expectations of the corporate sector have been on a decline since May and measured 9.0% in October.

One-year ahead inflation expectations of households have stayed unchanged since February at 15%. According to the results of the qualitative survey, the index of expected inflation (33.8 index points) recorded lower values than the index of perceived inflation (72.1 index points), indicating that households expect that inflation will be lower in the coming 12 months than in the previous year.

After falling from 4.5% in August to 4.0% in September and October, **inflation expectations of the financial sector for two years ahead** recorded their lowest level in the past year, while expectations for **three years ahead** fell to the target mid-point of 3.0%, i.e. **staying constantly within the NBS target tolerance band. Corporate inflation expectations for two years ahead fell** to 6.0%, while expectations **for three years ahead** equalled 5.0%. **Inflation expectations of households** for two and three years ahead have measured 10% since April.

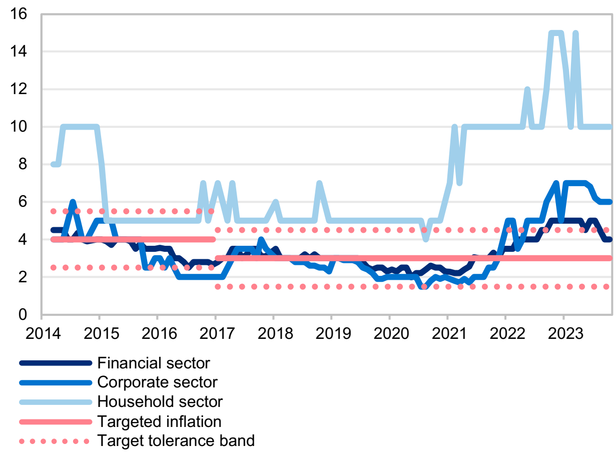
Chart III.0.8 **Household perceived and expected inflation***
(in index points)



Sources: Ipsos/Ninamedia and NBS calculation.

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

Chart III.0.9 **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.

IV Inflation determinants

1 Financial market trends

The NBS has kept the key policy rate unchanged since August, with the past monetary policy measures continuing to push up interest rates in the interbank market of money and dinar loans. In September, the NBS adopted the measure to increase required reserve rates in order to absorb a portion of excess dinar liquidity, which reflected on a decrease in overnight bank deposits with the NBS and a rise in the volume of trade in the overnight interbank money market.

Continued ECB monetary policy tightening resulted in a further rise in the rates on euro corporate loans in the domestic market, while the interest rate on new euro housing loans to households was lowered in September following the NBS's decision to cap the rates on housing loans to natural persons.

Interest rates

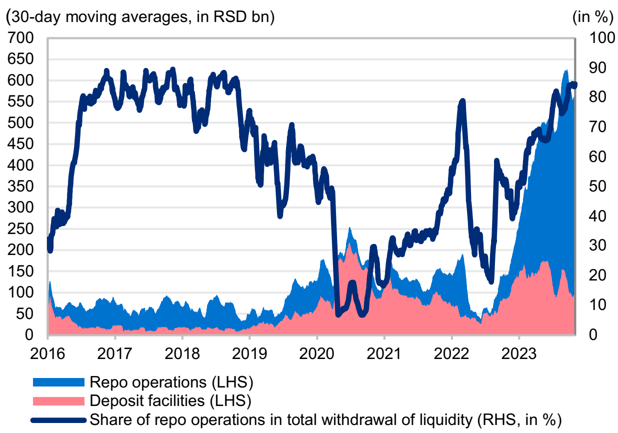
The NBS has kept the **key policy rate** at the level of 6.5% since August. Consequently, the interest rates on lending and deposit facilities have also remained unchanged (7.75% and 5.25%, respectively).

In September, the NBS **decided to increase the required reserve rates** in order to reduce excess dinar liquidity of the banking system, triggering primarily a decrease in the amount of overnight bank deposits with the NBS and bolstering the volume of trade in the overnight interbank market, which was one of the goals of this measure in the first place.

The average stock of sold repo securities went up from RSD 375.3 bn in June to RSD 486.2 bn in September, while the average repo rate rose by 22 bp, to 5.53%. At the last repo auction in September, the NBS sold securities worth RSD 440.0 bn nominally (and the same amount was also sold at the last auction in October), which is an increase of RSD 70 bn compared to the last repo auction held in June.

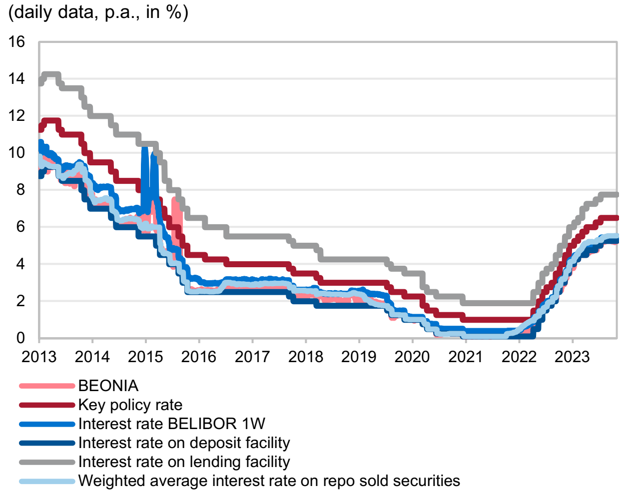
With the effectiveness of the higher required reserve rates, overnight deposits of commercial banks with the

Chart IV.1.1 **NBS operations – liquidity withdrawal**



Source: NBS.

Chart IV.1.2 **Interest rate movements**

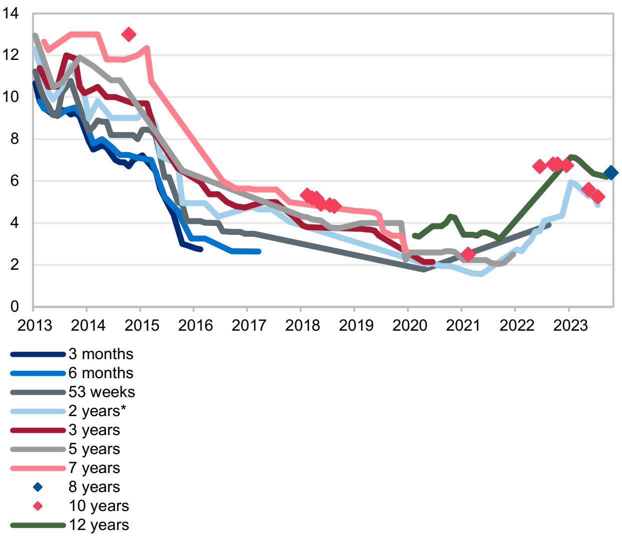


Sources: Thomson Reuters and NBS.

NBS dropped. The daily average amount of deposits declined by RSD 22.4 bn from June to RSD 99.9 bn in September, and further down to RSD 89.8 bn in October.

The interest rates in the **interbank money market** went up mildly in the July–October period. BEONIA increased by 24 bp, to 5.24% at end-October, with the average daily turnover growing from RSD 1.0 bn in June to RSD 4.2 bn in October. BELIBOR rates ranged between 5.25% for the shortest and 5.81% for the six-month maturity.

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

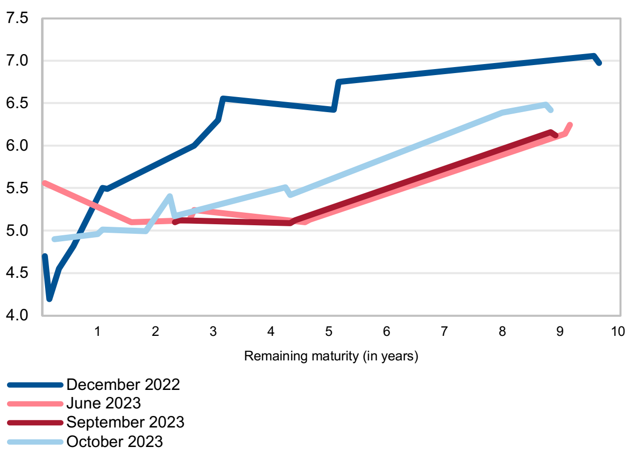


Source: Ministry of Finance.
* Excluding coupon securities with the rate linked to the NBS key policy rate.

In Q3, in **the primary market of dinar government securities**, three sale auctions took place. In July, auctions for securities with 2Y and 10Y original maturity were held, where yield rates were cut by 42 bp, to 4.86% (relative to the June auction), and by 35 bp, to 5.25% (relative to the May auction), respectively. Both auctions were oversubscribed, selling RSD 7.0 bn worth of securities, nominally. In September, one auction was held for dinar securities with 12.5Y original maturity, where securities nominally worth RSD 5.1 bn were sold, this being the planned volume of sale, while the demand amounted to RSD 8.65 bn. The yield rate on these securities declined by 15 bp relative to the previous auction held in June, to 6.20%. In October, the government issued in the domestic market for the first time bonds with original 8Y maturity with the 6.39% yield rate, which is below the coupon rate (7.00%). They were sold in the nominal value of RSD 19.2 bn, the demand being almost double (RSD 34.9 bn).

In the July–October period, non-residents participated in the primary market by purchasing 8Y and 12.5Y original maturity dinar securities in the total nominal value of around RSD 3.5 bn. However, given the maturity of 7Y and 12Y dinar securities in their portfolio, and them being net sellers in the secondary market, the stock of dinar government securities in non-residents' ownership decreased by RSD 6.5 bn, to RSD 130.9 bn at end-October, making up around 16% of the total portfolio of dinar government securities.

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



Source: Central Securities Depository and Clearing House.

The turnover in the **secondary dinar securities market** increased from the previous quarter by almost 30% to close to RSD 51 bn in Q3. The turnover increased further in October, to RSD 37.3 bn, this being the highest monthly turnover since November 2021. The weighted average yields on dinar government securities were relatively stable in Q3, only to increase in October on account of greater investors' risk aversion, to 5.39%, 5.43%, and 6.47% for around 3Y, up to 5Y and around 9Y remaining maturity, respectively.

There were no auctions for the sale of **government euro securities** in Q3, and as no previously issued securities matured, the stock of sold euro securities remained unchanged at EUR 1,919.5 mn at end-September.

Consistent with interest rate movements in the interbank money market in Q3, the interest rates on **new dinar** corporate **loans** increased by 0.1 pp, to 8.6%, while the interest rates on dinar household loans edged up by 0.3 pp and measured 13.4% in September.

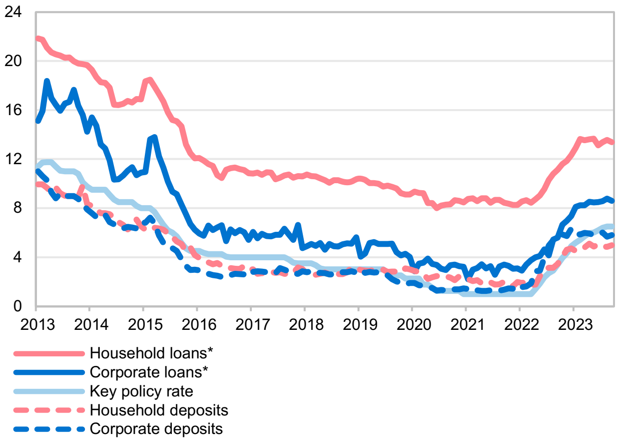
A mild rise in the weighted average rate on dinar corporate loans in Q3 was driven by the increase in the rates on working capital loans by 0.4 pp, to 8.9% (with the share of around 62% in dinar corporate loans). This was almost offset by the decline in the rates on other non-categorised loans by 0.4 pp, to 8.1%, while the rate on investment loans stayed broadly unchanged, at 9.0%. The rise in interest rate on dinar household loans was led by the higher rates on cash loans (increase by 0.3 pp, to 14.2%).

Continued monetary tightening by the ECB and a rise in interest rates in the euro area money market reflected on **euro** corporate lending rates in the domestic market, which increased by 0.3 pp to 6.9% in Q3. The interest rate on euro household loans remained broadly unchanged, at 7.2% in September.

The increase in the weighted average rate on euro corporate loans was driven by the rise in rates on working capital loans by 0.5 pp, to 7.0% and investment loans, by 0.2 pp, to 7.1%, which together make up around 90% of euro corporate lending. In mid-September, the Decision on Temporary Measures for Banks Relating to Natural Persons' Housing Loans entered into force, pushing down the average rate on housing loans by 0.2 pp, to 6.4% due to the rate cap on new housing loans. The impact of the declining average rate on euro-indexed housing loans on the total weighted average interest rate on euro household loans was offset by the rising rate on other non-categorised loans by 0.3 pp to 9.8%.

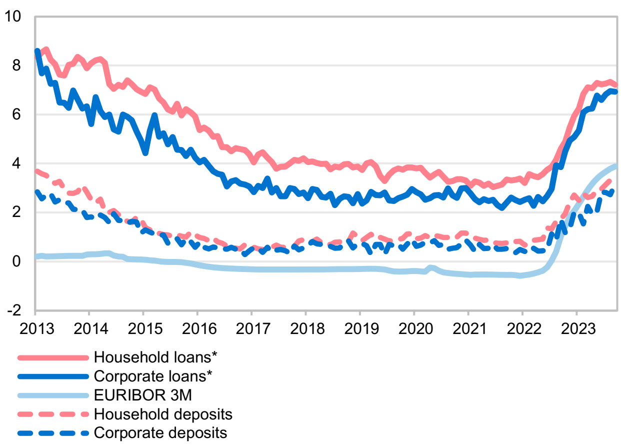
The interest rate on **dinar household savings** stayed unchanged at 5.0%, while the rate on dinar corporate deposits declined marginally, to 5.8% in September. At the same time, the interest rate on **euro household savings** increased by 0.6 pp, to 3.6%, and the rate on **term euro corporate deposits** by 0.4 pp, to 3.2%.

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



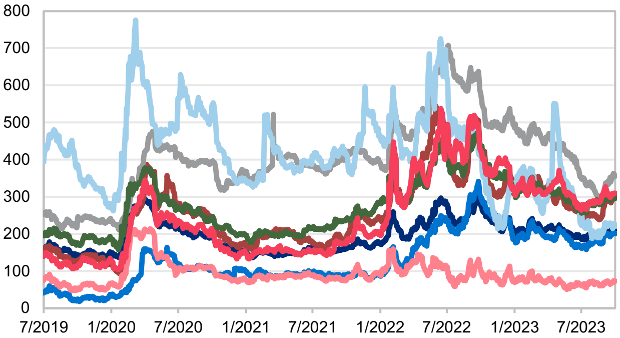
Source: NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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



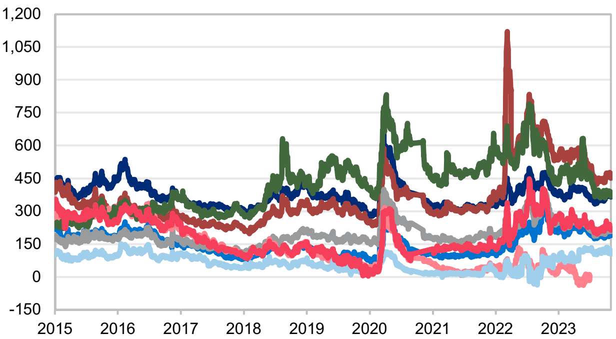
Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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.

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

	2018	2019	2020	2021	2022
S&P	BB /positive[5]	BB+ /positive[5]	BB+ /stable[2]	BB+ /positive[5]	BB+ /stable[3]
Fitch		BB+ /stable[4]			
Moody's		Ba3 /positive[4]		Ba2 /stable[1]	

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

Risk premium

Amid persistent uncertainty in the international financial market and tightening of geopolitical tensions, the global risk premium of emerging economies rose moderately in Q3 and continued up in October as well.

EURO EMBIG Composite increased by 6 bp in Q3, and by 9 bp in October, to 213 bp at the end of the month. In Q3, Serbia's risk premium EURO EMBIG remained unchanged only to increase slightly in October by 3 bp to 309 bp. On the other hand, Serbia's dollar risk premium EMBI went down by 26 bp, to 214 bp at end-October, continuing to move below EMBI Composite which stood at 366 bp at end-October, down by 5 bp from end-Q2.

In August, Fitch kept Serbia's credit rating at BB+, one notch away from investment grade, with a stable outlook. Fitch particularly stressed a credible economic policy framework, higher GDP per capita, better governance and a higher level of human development compared to countries with a similar rating, as well as sound public finances.

In September, Moody's affirmed Serbia's credit rating at Ba2, as well as a stable outlook. Moody's stresses favourable growth outlook over medium run underpinned by considerable FDI inflow, economic resilience to unfavourable trends from the international environment, sound public finances and fiscal room for absorbing potential shocks, as well as progress in the implementation of structural reforms.

In October, Standard & Poor's kept Serbia's credit rating at BB+, with a stable outlook. Among the factors contributing to such assessment are inflation slowdown, a credible monetary policy framework, moderate public debt and narrowing of external imbalances, despite negative developments in the international environment and reduced external demand.

Foreign capital inflow

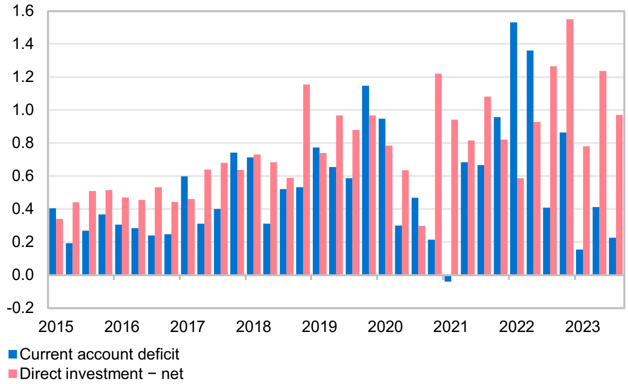
As the quarter before, Q3 saw a surplus in the financial account of the balance of payments, with FDI accounting for the bulk of capital inflow. Coupled with the maintained low values of the current account deficit in Q3, this contributed to the continuation of appreciation pressures in the domestic market.

A relatively high net **FDI inflow** was recorded in Q3 (EUR 970.9 mn), with FDI inflow to Serbia measuring over EUR 1 bn. In the first nine months of the year, the total FDI inflow to Serbia exceeded EUR 3.2 bn, up by 8% y-o-y. More than four fifths of FDI took the form of equity and reinvested earnings, confirming foreign investors' commitment to Serbia. By industry, most investments were channelled to manufacturing, construction, mining, and professional, scientific, innovation and technical activities.

In Q3, residents increased investment in securities in international markets, while non-residents slightly reduced investment in domestic securities. As a consequence, **portfolio investments** recorded a net capital outflow of EUR 147.2 mn in Q3. In the first nine months of 2023, portfolio investments generated a net inflow of EUR 1.1 bn, owing to a successful eurobond issue in the amount of USD 1.75 bn at the beginning of the year.

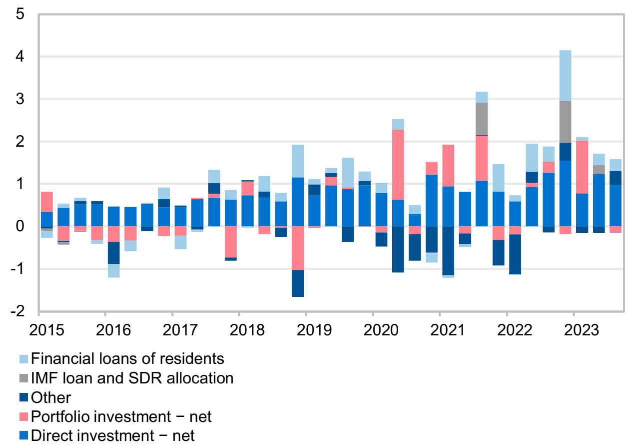
Financial loans provided a net inflow of EUR 278.3 mn in Q3, given that government and corporate borrowing increased, while banks reduced their short-term liabilities to foreign creditors. Inflows were also registered in respect of **trade credits and advances** (EUR 253.2 mn) and **currency and deposits** (EUR 35.0 mn) as the increase of funds in non-residents' accounts with domestic banks outstripped the increase of funds in domestic bank accounts abroad.

Chart IV.1.9 **Current account deficit and net FDI inflow**
(in EUR bn)



Source: NBS.
Note: Preliminary data for Q3 2023.

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



Source: NBS.
Note: Preliminary data for Q3 2023.

Text box 2: FX supply and demand factors at home

Having successfully tackled external and internal imbalances (inflation brought down to low and stable levels, the current account deficit narrowed and fiscal consolidation carried out, striking a balance on the fiscal front), since 2017 Serbia has witnessed mounting **appreciation pressures**, thanks to improved macroeconomic indicators. The effect of these pressures in the domestic FX market is still dominant. In the past seven years, occasional depreciation pressures on the dinar have been generated most often by external shocks, such as the Covid-19 pandemic and geopolitical tensions, or factors such as the seasonally- and crisis-amplified FX demand of energy importers.

In the first four months of 2022, strong depreciation pressures prevailed, triggered primarily by the high FX demand of domestic companies – energy importers, mainly due to elevated global energy prices amid the geopolitical and energy crisis. After the escalation of the Ukraine conflict, tensions in global financial markets engulfed the domestic market, fuelling, in late February, sharp FX demand of non-residents who, through the FX hedging mechanism, protected their dinar investments for a while. Depreciation pressures were also stoked by citizens' stepped-up demand for foreign cash – March saw a record high net sale of foreign cash by banks to exchange dealers and natural persons.

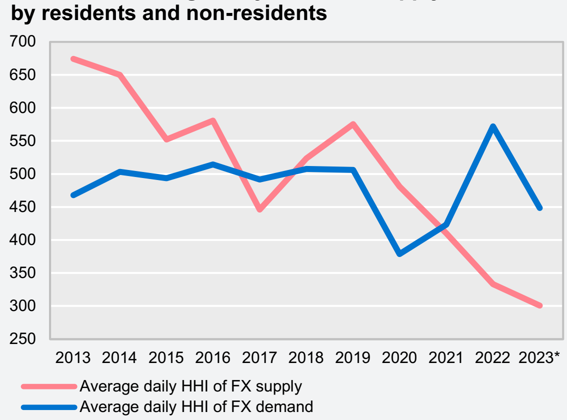
The NBS responded to the above trends in a timely and decisive fashion – in the first four months, it intervened in the FX market by selling EUR 2.3 bn net, and supplied banks with sufficient quantities of foreign cash, thus stabilising the FX market.

Since May 2022, **appreciation pressures renewed**. Supply-side factors exerted a strong effect in this context, creating the surplus of FX supply compared to demand, each month until the year end, despite the persistently high FX demand of energy importers. As a result, until end-2022 the NBS managed not only to counterbalance the entire net FX sale in the first four months, but also to end the year by buying EUR 1 bn net, thus boosting FX reserves to new record highs.

Until late October 2023, **supply-side factors**, primarily the elevated net foreign cash purchases of banks from authorised exchange dealers and citizens, and FX supply of domestic companies (excluding those from the energy sector), **outdid the effect of demand-side factors** each month, except for January, when energy importers' FX demand was seasonally higher. These trends mirror mainly **favourable balance of payments trends** – vigorous FDI inflows, rising goods exports, remittances and tourism inflows. In the ten months of 2023, the NBS intervened in the domestic FX market by buying EUR 3.4 bn net, in order to maintain relative stability of the dinar exchange rate against the euro.

Given the importance of **FX supply and demand of banks' domestic and foreign clients**, as the factors triggering appreciation or depreciation pressures on the dinar, the NBS carries out in-depth analyses of their characteristics in an effort to detect potential trends. One of the FX supply and demand aspects is **concentration, i.e. the degree to which they are unequally distributed among market players**. The Herfindahl-Hirschman Index is the most often used measure of concentration. It takes values from 0 (demand or supply fully equally distributed among market players) to 10,000 (overall supply or demand comes from a single market player only).[1]

Chart O.2.1 **Average daily HHI of FX supply and demand by residents and non-residents**



Source: NBS.
* As at 30 September 2023.

Observing the Herfindahl-Hirschman Index over a longer period, we can conclude that the **FX supply concentration** has been gradually **declining** over the past years (Chart O.2.1), reflecting dynamic **growth in the number of residents**

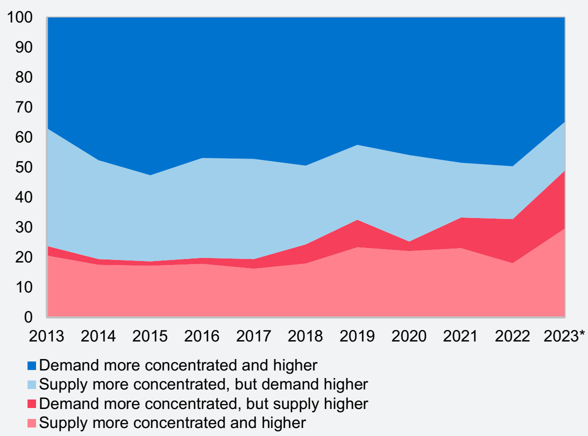
[1] For more information, see the *NBS Working Papers Bulletin, September 2023, Analysis of the concentration of FX supply and demand in the local market.*

on the FX supply side. Since 2015, the rise in the number of residents on the FX supply side has been faster each year than the number of residents on the demand side. The number of residents supplying FX rose at the fastest pace in 2021 (25%) and 2022 (14%). **A reduced concentration of FX supply reflects a positive trend of the diversification of FX sources**, amid elevated FDI and a rising number of export-oriented companies. On the other hand, the concentration of FX demand does not show a clear trend in the observed ten-year period.

The Herfindahl-Hirschman Index shows statistical significance in explaining the direction of net demand, i.e. the difference between FX demand and supply of bank clients. An in-depth analysis has demonstrated that in each of the last ten years, around two-thirds of working days were marked by the domination of the more concentrated market side. The case of several residents, energy importers, stands out – being among the largest FX buyers, their share in total FX demand is highly correlated with the share of days in the year during which FX demand is more concentrated than FX supply, which suggests the possibility that these residents dominate this segment of the FX market in certain periods (the seasonal character of energy importers' demand), with a prevailing influence on the FX market as a whole.

However, this segment of the FX market shows a growing trend of the frequency of days during which **FX supply covers entire FX demand when demand is more concentrated than supply** (the dark red surface in Chart O.2.2). The period during which this trend is present coincided with the period of the prevailing appreciation pressures on the dinar (since 2017), which is when the NBS intervened mainly on the FX purchase side due to FX supply surpluses in the domestic market, and is a result of the **expansion of the base of residents – FX suppliers, i.e. the increase in the number of these residents and the growing amount of FX that they sell in the market**. Moreover, FX sales and purchases are rising in this market segment year after year (except for the pandemic year of 2020), exceeding EUR 40 bn in 2022, and it is already certain that purchases and sales will reach similar levels this year as well. Gross FX sales and purchases by residents are rising as well. However, in the first nine months of this year, gross FX sales exceeded gross purchases by residents (which are still high). This has not been recorded so far and is a reflection mainly of favourable balance of payments trends.

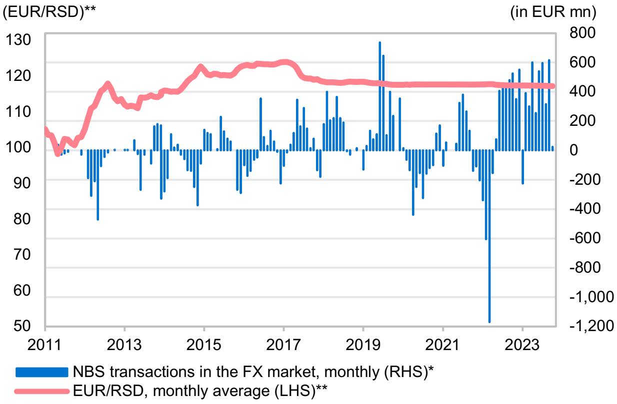
Chart O.2.2 **Higher capacity of FX supply to absorb FX demand in days when demand is more concentrated than supply**
(in %)



Source: NBS.
* As at 30 September 2023.

The increase in the number of participants and the value of concluded transactions, both on the FX demand and supply side, has a positive impact on liquidity, i.e. on the deepening and development of this segment of the FX market, and hence on further advancement and development of the FX market as a whole.

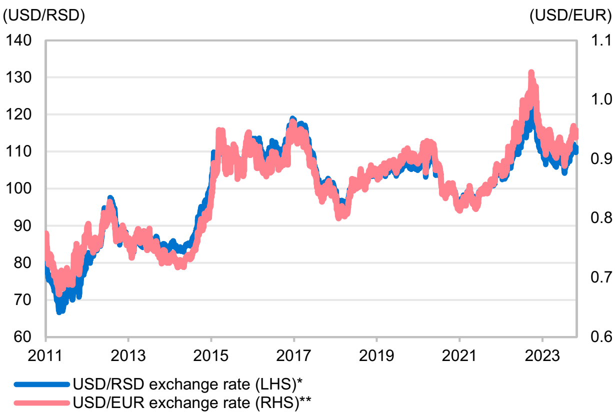
Chart IV.1.11 **Dinar exchange rate and NBS transactions in the FX market**



Source: NBS.

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

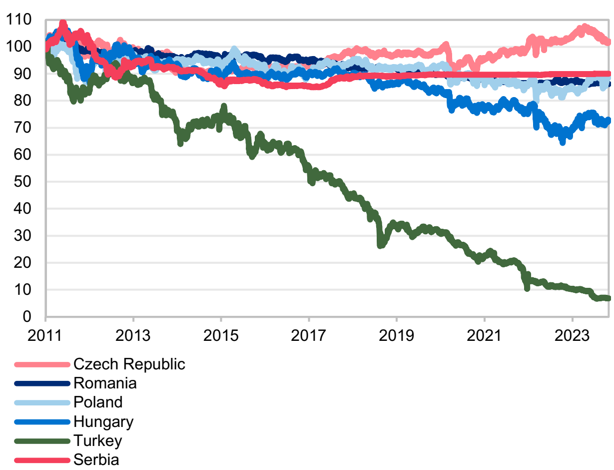
Chart IV.1.12 **Movements in USD/RSD and USD/EUR exchange rates**



Source: NBS.

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

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.

Trends in the FX market and exchange rate

The dinar remained relatively stable against the euro in Q3, and its value remained almost unchanged at end-September compared to end-June, while nominally higher by 0.1% than at end-2022. At the same time, under the impact of the euro's weakening against the dollar in the international market, at period end, the dinar depreciated nominally against the dollar by 2.7%, and by 0.5% from the beginning of the year.

The FX supply outstripped the demand by multiple times in Q3 as well, intensifying appreciation pressures. The rise in FX supply was aided the most by the purchase of foreign cash, which continued recording high values, and by residents, who remained net FX sellers throughout Q3, owing to a persistent rise in exports and FDI inflows. FX inflows from payment card operations and the rise in FX-indexed bank assets worked in the same direction.[2] These inflows more than sufficed to cover non-residents' FX demand, primarily in August, while in the remaining months non-residents too were net FX sellers.

To maintain the relative stability of the dinar exchange rate against the euro, in Q3 the NBS intervened in the IFEM primarily on the purchase side, buying EUR 1,525 mn net and EUR 25 mn net more in October. Thus, the amount of net FX purchases based on NBS interventions in the IFEM reached EUR 3,410 mn in the first ten months of 2023.

In Q3, the average daily turnover in the IFEM[3] measured EUR 24.9 mn, down by EUR 8.7 mn q-o-q and by EUR 17.7 mn y-o-y. In addition, the NBS continued buying/selling foreign currency from/to banks in bilateral swap transactions introduced early last year. In Q3, it swap bought and sold EUR 132 mn each (compared to EUR 88 mn each in Q2).

All currencies of inflation-targeting regional peers weakened against the euro in Q3. The Hungarian forint, the Polish zloty and the Czech koruna weakened the most (5.1%, 4.0% and 2.5%, respectively), which can be associated with the onset of the monetary policy easing cycle or its announcements, and in the case of the Czech Republic – with the central bank's decision to end foreign exchange market interventions. The Turkish lira depreciated by additional 2.3% in Q3, despite the three increases in the policy rate (by 15 pp in total, to 30.0%), while the Romanian leu weakened insignificantly (0.2%).

[2] Attempting to balance their long open foreign currency position and thus reduce the exposure to FX risk, banks sell foreign currency, which results in the strengthening of the dinar.
[3] Excluding the NBS.

2 Money and loans

The rising dinar component was the key determinant behind the overall money supply growth in Q3, with household dinar savings reaching new record levels. Domestic lending was stagnating in y-o-y terms, reflecting high last year's base, the maturing of guarantee scheme loans and higher lending interest rates due to the monetary tightening by the ECB and the NBS.

Money

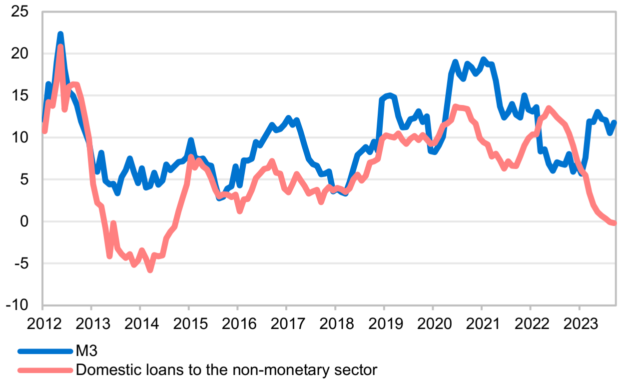
The broadest monetary aggregate M3, which in addition to dinars includes FX deposits of non-monetary sectors, rose by 3.9% in Q3, mainly owing to the expansion of the most liquid component – dinar demand deposits (contribution of 1.6 pp).

In terms of individual categories, dinar **demand deposits** added RSD 68.1 bn in Q3, led by the rising transaction deposits of corporates (RSD 40.6 bn) and households (RSD 30.8 bn). **Dinar time deposits** also went up in Q3 by RSD 25.1 bn on the back of a continued rise in **household dinar savings** by RSD 7.7 bn. In conditions of the preserved financial stability in periods of heightened global uncertainty, household dinar savings continued to post record levels, measuring RSD 115.6 bn at end-September.[4] Relative stability of the dinar exchange rate against the euro, higher interest rates on dinar compared to euro savings, as well as the more favourable tax treatment, made dinar savings more profitable than FX savings, contributing to their more dynamic growth.

FX deposits of non-monetary sectors went up by EUR 496.8 mn in Q3, led by the rising FX deposits of households, with corporate deposits following suit. Household FX savings reached EUR 13.1 bn, boosted by the remittances inflow, while the growth of corporate deposits is associated with the high FDI inflow and Q3 exports.

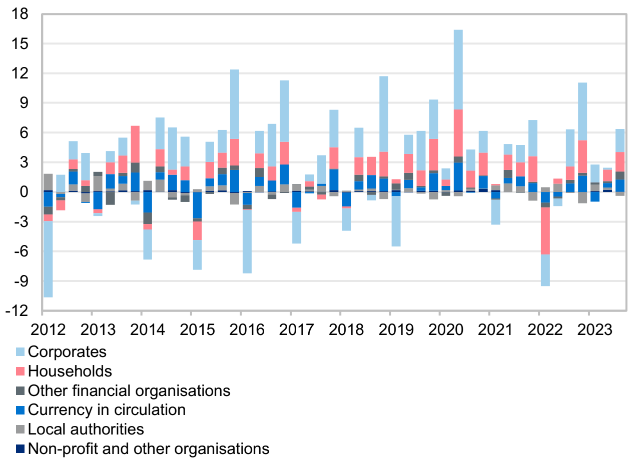
Y-o-y, the rise in M3 money supply in September came close to 12%, slightly above the multi-year average. Compared to June, y-o-y growth dynamics of M3 has lost pace, reflecting subdued lending, with higher fiscal transfers working in the opposite direction.

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



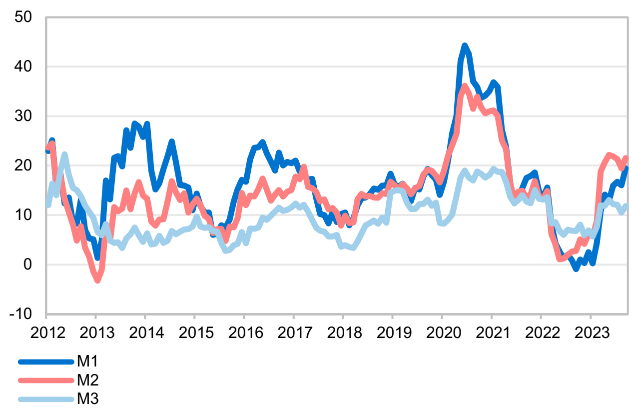
Source: NBS.

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



Source: NBS.

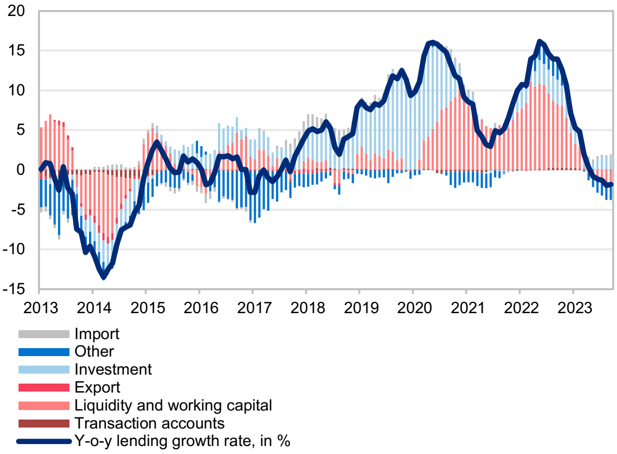
Chart IV.2.3 **Monetary aggregate movements**
(nominal y-o-y rates, in %)



Source: NBS.

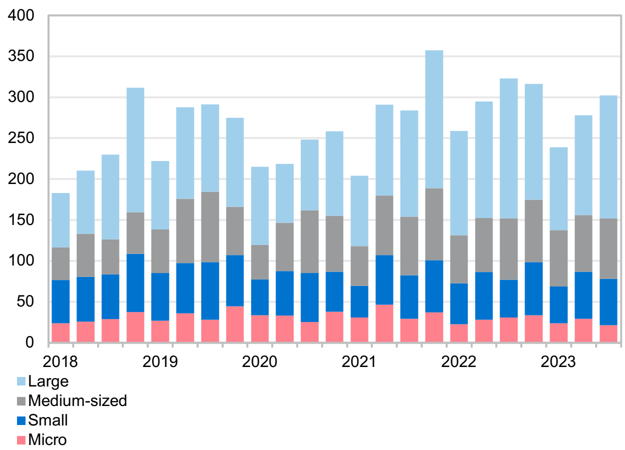
[4] If assets of non-residents are included, at end-September dinar savings equalled RSD 116.4 bn and FX-savings EUR 14.1 bn.

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



Source: NBS.

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



Source: NBS.

Loans

Total domestic loans continued to slow down y-o-y in Q3, and, excluding the exchange rate effect,[5] remained almost unchanged in September 2023 (0.1% lower) relative to the same month of 2022. **Corporate loans** dropped by 1.8%, while **household loans** edged up by 1.6% compared to one year ago. The slowing of domestic lending reflected the high last year's base, the maturing of guarantee scheme loans, higher lending interest rates due to the monetary tightening by the ECB and the NBS, and banks' tightened credit standards.

Excluding the exchange rate effect, **corporate loans** added RSD 19.2 bn in Q3. The growth was led by investment loans, which gained RSD 19.1 bn, followed by liquidity and working capital loans (RSD 2.8 bn), whose weaker growth was associated also with the maturing of guarantee scheme loans, though that influence, most pronounced in H1, wore off gradually with the decline in maturing loan amounts. Current account overdrafts also went up mildly (RSD 1.0 bn), while a decrease was recorded for other non-categorised loans (RSD 1.9 bn) and import loans (RSD 1.8 bn). Such trends pushed the share of liquidity and working capital loans in total corporate loans down relative to June, to 46.7% in September, and that of investment loans up to 41.6%. Sector-wise, borrowing increased for companies in manufacturing, real estate and transport, while debt repayment was the largest by energy companies. In terms of company size, loans approved to micro, small and medium-sized enterprises made up 58.3% of total corporate loans in September. The contraction of dinar corporate receivables (in part due to the maturing of guarantee scheme loans that were predominantly approved in dinars) and the rise in FX-indexed receivables resulted in the lower degree of dinarisation of corporate receivables in Q3, down by 0.7 pp to 16.3%.

The volume of new corporate loans in Q3 amounted to RSD 302.0 bn, down by 6.4% compared to the same period last year. Liquidity and working capital loans remained dominant (59.0%), followed by investment loans (26.7%), which went up mildly relative to the same period last year, as opposed to all other loan categories. In both cases, micro, small and medium-sized enterprises used slightly more than one half of loans.

Household loans, excluding the exchange rate effect, gained RSD 6.6 bn in Q3, led by the rise in cash loans (RSD 8.5 bn), while the stock of housing loans edged

[5] Calculated at the new programme exchange rate, as at 31 October 2022.

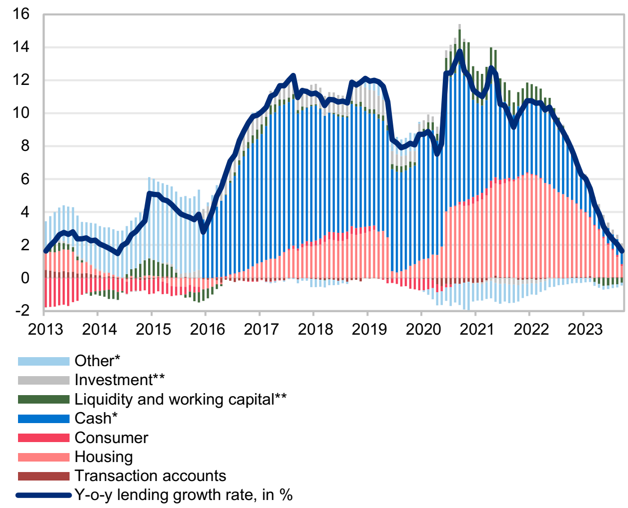
down by RSD 2.7 bn from end-June. In September, the share of housing in total household loans equalled 39.7%, while cash loans remained the dominant category, accounting for 44.3%. Such trends drove the degree of dinarisation of household receivables up by 0.5 pp, to 53.6%.

To reduce the burden on housing loan beneficiaries in an environment of rising interest rates, the NBS adopted a decision in September[6] capping the interest rate for borrowers – first-time housing loan beneficiaries, for variable rate loans whose contracted amount does not exceed EUR 200,000. For those borrowers, the nominal interest rate was temporarily capped, for a 15-month period, starting from the October instalment, and the bank will not be allowed to request from the borrower the interest rate difference arising from the application of this decision. Through the interest rate capping, instalments of most loans will be reduced by 10% to 25%, whereby the disposable household income will increase.

The volume of new household loans in Q3, amounting to RSD 132.3 bn remained almost unchanged from the same period of the last year. Cash loans accounted for almost two-thirds and housing for 15.5% of new household loans (a decrease from 2022, when they accounted for 23.5% new household loans, on average), reflecting elevated real estate prices and costs of borrowing.

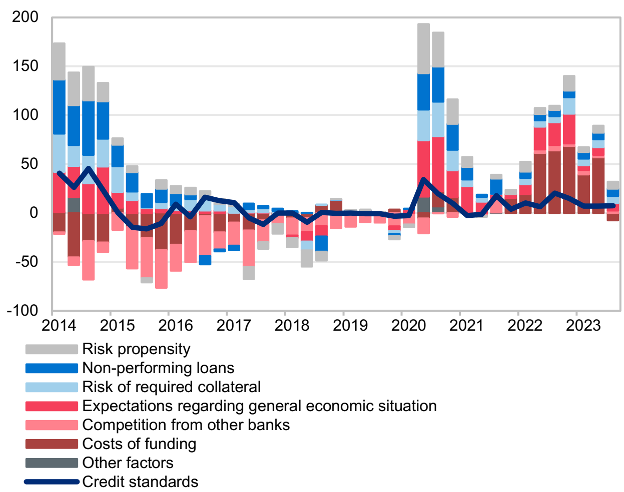
The results of the NBS's October lending survey[7] show that banks, consistent with the expectations, continued to mildly tighten household and corporate standards in Q3. The higher cost of financing, reflecting the NBS's and the ECB's monetary tightening, is the key factor behind more stringent household credit standards. In both sectors, tightening was prompted by heightened risk perception amid the uncertainty regarding the general economic situation, the risk of the required collateral and non-performing receivables. Banks expect that corporate credit standards will tighten further in Q4, with household standards remaining unchanged. In banks' view, corporate and household loan demand contracted in Q3, with some categories of dinar loans bucking the trend – corporate short-term loans and household consumer loans. Demand contraction in the corporate segment reflected a lower need for financing investments and acquisitions, and in the household segment – the

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



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

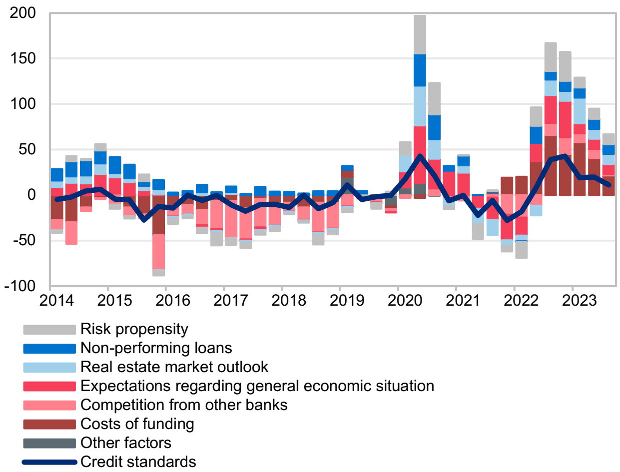
Chart IV.2.7 **Change in corporate credit standards and contributing factors**
(in net %)



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

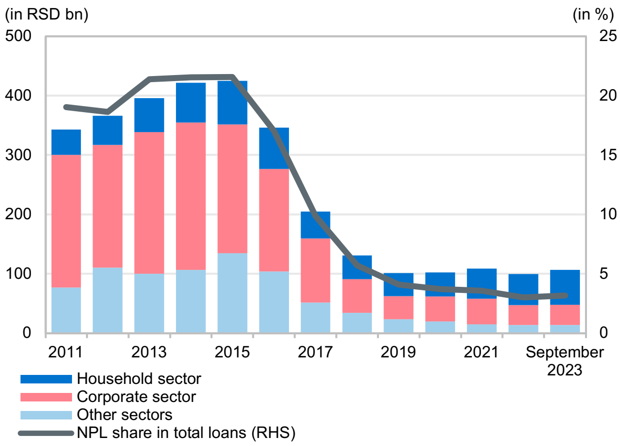
[6] Decision on Temporary Measures for Banks Relating to Natural Persons' Housing Loans, RS Official Gazette, No 78/2023.
[7] The NBS has conducted the survey since the beginning of 2014.

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



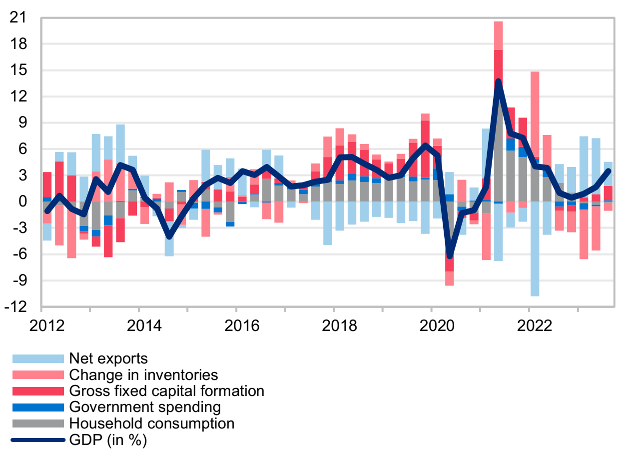
Source: NBS.
Note: Growth indicates the tightening and decline indicates the easing of credit standards.

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



Source: NBS.

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



Sources: SORS and NBS calculation.
Note: NBS estimate for Q3 2023.

situation in the real estate market, characterised by high apartment prices, subdued purchases of durable consumer goods and the use of past savings. Banks expect loan demand to expand in Q4.

Gross **NPL ratio** continued to move close to its historical low in Q3, measuring 3.17% in September, suggesting that the tightening in financial conditions had no major consequences on bank asset quality. In September, gross NPL ratio of the corporate sector[8] equalled 2.1%, and of the household sector[9] 4.4%. NPL coverage remains high – allowances for impairment of total loans in September measured 100.9% of NPLs, and allowances for impairment of NPLs – 58.7% of NPLs.

Capital adequacy ratio at end-Q3 2023 equalled 22.2%, down by 0.1 pp compared to end-Q2, indicating high capitalisation (regulatory minimum – 8.0%) and resilience of the banking sector to external and local risks.

3 Aggregate demand

According to the SORS flash estimate, economic growth measured 3.5% y-o-y in Q3, mostly based on rising investments, notably private ones, according to our estimate. A positive contribution also came from net exports, though to a lesser extent than in H1. Total consumption had a neutral effect on economic growth in Q3, reflecting the recovery of government consumption and the continuing negative, though smaller than a quarter earlier, contribution of private consumption.

Domestic demand

According to our estimate, y-o-y **private consumption** continued to decline for the third consecutive quarter and was cut down by 0.2% in Q3. That private consumption went down is indicated by the real retail trade turnover which dropped by 2.0% y-o-y in Q3, while the rise in the import of consumer goods in euro terms decelerated further to 3.3% y-o-y (from 5.3% in Q2). Tourism indicators also point to lower private consumption as the number of domestic tourist arrivals and overnight stays declined in Q3 by 4.7% and 10.4% y-o-y, respectively.

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[8] Includes companies and public enterprises. Looking at companies only, the share of NPLs in total loans stood at 2.4% in September.
[9] With entrepreneurs and private households included, the share of NPLs stood at 4.3% in September.

Observing the sources of household consumption, one can notice that remittances fell by 6.0% y-o-y in Q3 compared to Q2 when they almost flatlined, which can be linked to the higher base from the same period last year and the economic slowdown and rising living expenses in Western European countries. In addition, past monetary policy tightening and the consequent rise in interest rates provided an additional dampening effect on loans intended for consumption, whose growth softened to 0.9% y-o-y. On the other hand, wage bill, as the main source of consumption, continued to grow in real terms (4.0% y-o-y in July–August).

We estimate that **government consumption** in Q3 edged up by 1.0% y-o-y, due to higher outlays for public sector wages and purchase of goods and services, after recording a 2.9% y-o-y drop in H1. As a result of these movements, **total consumption** stagnated in Q3 at the y-o-y level.

Despite persistent geopolitical tensions, **private investments** maintained the positive dynamics in Q3 and are estimated to have increased by 5.8% y-o-y. We estimate that most investments were financed from own sources, as indicated by a significant increase in corporate profitability last year. In addition, investment loans sped up in Q3 to 4.3% y-o-y (from 3.0% in Q2). Private investment growth is indicated also by the increase in the production of construction material by 3.6% y-o-y in Q3 (after having declined by 10.7% in Q2). On the other hand, in y-o-y terms, FDI inflow decreased in Q3, mainly due to the high base effect (given the sudden surge in FDI inflow in Q3 2022 after a temporary deceleration due to the outbreak of the Ukraine conflict and heightened global uncertainty).

The implementation of government-financed infrastructure projects continued in Q3. We, therefore, estimate the rise in **government investments** at around 10% y-o-y. Accordingly, the **total fixed investment** increase is estimated at 7% y-o-y and its contribution to GDP growth in Q3 at 1.7 pp.

On the other hand, a **drop in inventories** produced a 0.9 pp negative contribution in Q3, according to our estimate.

Quarterly GDP growth is estimated to have decelerated from 1.4% s-a in Q2 to 0.8% s-a in Q3, driven primarily by reduced net exports in conditions of weaker external demand, while domestic demand stepped up to 3.0% s-a in Q3, from 0.3% s-a in Q2.

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

	2022	2023			
	Q4	Q1	Q2	Q3	
Household consumption	**1.5**	**-0.2**	**-0.5**	**-0.2**	*
Indicators					
Retail trade	2.6	-4.1	-6.3	-2.0	
Catering turnover	33.4	16.9	7.6	18.6	**
Number of domestic tourists	41.0	3.7	1.0	-4.7	
Number of overnight stays of domestic tourists	48.4	3.9	0.8	-10.4	
Consumer goods import (BEC classification), nominal	24.3	12.4	5.3	3.3	
Sources					
Total wage bill, nominal	15.5	18.1	17.8	16.8	***
Net remittances inflow, nominal	19.0	29.5	0.1	-6.0	
Stock of loans intended for consumption, nominal	3.6	3.1	1.0	0.9	

Sources: SORS and NBS calculation.
* NBS estimate.
** July.
*** July–August.

Table IV.3.2 **Investment indicators**

	2022	2023			
	Q4	Q1	Q2	Q3	
Real y-o-y growth rates (in %)					
Fixed investment (national accounts)	-2.7	2.2	3.9	7.0	*
Construction (national accounts)	-12.5	-1.4	15.1	16.5	*
Government investment	14.6	11.3	7.2	10.0	*
Number of issued construction permits	-17.5	-7.8	3.0	13.2	**
Production of construction material	2.3	-5.7	-10.7	3.6	
Value of works performed	-10.8	-4.5	17.9	15.8	
Import of equipment, nominal	11.3	4.5	-20.8	-16.5	
Production of domestic machinery and equipment	18.9	27.6	11.0	-2.5	

Sources: SORS and NBS calculation.
* NBS estimate.
** July–August.

Text box 3: Impact of fiscal policy measures on inflation in Serbia

This text box presents how we assess the effect of fiscal policy measures on inflation in our medium-term inflation projection model. We will also estimate the impact of the measures planned in the supplementary budget for 2023 and the *Revised Fiscal Strategy for 2024 with Projections for 2025 and 2026* on demand and, by extension, on inflation.

In medium-term inflation projection models, the effect of the fiscal policy on aggregate demand is customarily approximated by the so-called **fiscal impulse**. It is important to know that the fiscal impulse is not the same as the fiscal result (fiscal deficit or surplus), nor does it represent the difference between two successive fiscal results. The fiscal impulse is the difference between two successive **structural fiscal results** (e.g. two structural results in two successive years).

The structural fiscal balance is a derived category of fiscal result obtained when revenues resulting from the stage of the economic cycle, i.e. the effect of automatic fiscal stabilisers, **and one-off revenues, such as grants, are excluded from public revenue**. Also, **expenditures not resulting from the effect of the fiscal policy in the current year (such as interest on public debt, called guarantees and budget loans) are excluded from expenditure, as they do not affect demand, or inflation, directly**. In other words, we exclude the effect of those factors which lead to a change in the total fiscal deficit but are not the consequence of a change in the character of the fiscal policy. There are periods when the total fiscal result and the structural balance differ greatly. For instance, the deficit may decline due to economic activity growth, where this is not a consequence of a change in the character of the fiscal policy, but of the stage of the production cycle, which in this case means the acceleration of economic growth to above the potential. This is why it is important to exclude the cyclical fiscal policy component when analysing the impact of fiscal policy measures on demand and inflation.

We then estimated the cyclical fiscal balance, which represents a component of the fiscal balance that reacts automatically to the production cycle stage and is computed as follows:

$$PB_{cyclical,t} = \beta * GDPgap_{t,}$$

where β is the elasticity coefficient of revenue to total GDP which, according to the econometric estimate obtained for the 2008–2021 period, equals 0.45, and *GDPgap* is the estimate of the output gap obtained by applying the Hodrick–Prescott filter.[1]

The structural fiscal balance is the difference between the primary fiscal balance and the cyclical fiscal balance:

$$PB_{structural,t} = PB_{primary,t} - PB_{cyclical,t}\,,$$

and the difference between two structural balances is the fiscal impulse, that is the structural change of fiscal policy:

$$fi_t = -\Delta PB_{structural,t}.$$

We can determine the character of fiscal policy by comparing the fiscal impulse sign to the output gap sign. Fiscal policy is procyclical when the two indicators have the same sign, and countercyclical when their signs are opposite.

Based on the graphic representation of movement in the fiscal impulse and the output gap, we can see that fiscal policy was mostly procyclical in the pre-pandemic years, and countercyclical since the outbreak of the pandemic, helping moderate the effects of the crisis on economic activity and employment.

In our medium-term inflation projection model, the fiscal impulse is included in the demand equation as follows:

$$GDPgap_t = 0.4 * GDPgap_{t-1} - 0.2 * rmci_t + 0.7 * GDPgap_t^{ez} + \mathbf{0.15} * \boldsymbol{fi_t} + 0.1 * wagegap_{t-1} + \varepsilon_t^{GDPgap}$$

where $BDPgap_t$ is the output gap, $BDPgap_{t-1}$ is the lagged gap and $BDPgap_t^{ez}$ is the euro area output gap. The variable $rmci_t$ is the monetary conditions index, which represents a linear combination of the real exchange rate gap and the real interest rate gap, and $wage\ gap_{t-1}$ is the real wage gap in the previous period.

Projections of revenue and expenditure from the *Fiscal Strategy* are used to estimate the fiscal impulse for the coming years, which is introduced exogenously into the aggregate demand equation.

The inclusion of the fiscal impulse in the medium-term projection model required its disaggregation from annual to quarterly level, which we did by using the Chow-Lin statistical method. Furthermore, it was necessary to determine the

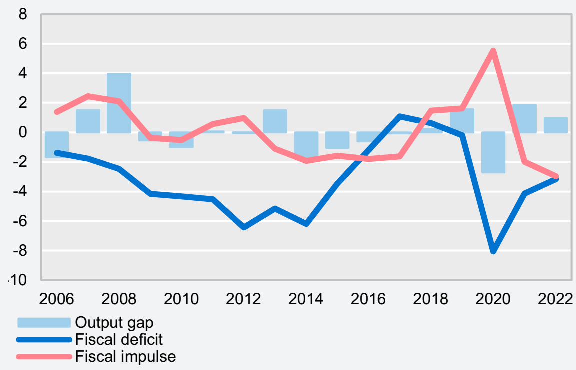
[1] For more details, see: *NBS Working Papers Bulletin – September 2022.*

coefficient of the fiscal impulse in the aggregate demand equation, which we took over from empirical papers for a small open economy and which mostly equals around 0.2.[2]

The fiscal impulse is then included in the inflation equation (so-called Phillips curve) through the output gap series, which affects both food and non-food inflation with coefficients of 0.35 and 0.2, respectively.

When the output gap is decomposed over the historical period based on the above equation, we see that the fiscal policy was restrictive in the period of fiscal consolidation, moderately accommodative in 2018 and 2019, and more accommodative after the outbreak of the pandemic, preventing a steeper fall in aggregate demand. After this, in 2021 and 2022, the fiscal policy was restrictive and did not further fuel inflation expectations.

Chart O.3.1 **Output gap, fiscal deficit and fiscal impulse**
(in %)

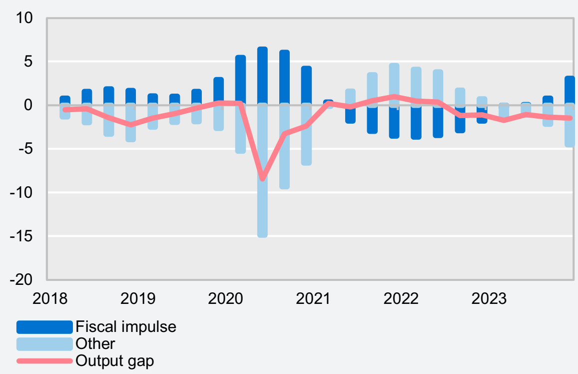


Source: NBS calculation.

As this year the government decided to raise pensions and some public sector wages further by 5.5% each and make one-off payments of RSD 10,000 to children under 16 years of age and RSD 20,000 to pensioners, most of which will be implemented in Q4, we used the above procedure to estimate the effect of these measures on demand and, by extension, on inflation. Their effect on expenditure growth is estimated at around RSD 90 bn this year, but actual revenues are at the same time higher than planned in the *Fiscal Strategy for 2024 with Projections for 2025 and 2026*, and the amount earmarked for supporting the energy sector in tackling the energy crisis is lower. The supplementary budget for this year, adopted in September, included most of these measures on the expenditure side, and the increase in excise tax on cigarettes, coffee, alcoholic beverages and petroleum products by 8% each on the revenue side.

Taking into account the new estimate of the fiscal impulse from the *Revised Fiscal Strategy for 2024 with Projections for 2025 and 2026*, we estimate the effect of the new expenditure-side measures (which will be implemented in Q4) on inflation this year to equal around 0.1 pp. Next year, though the 5.5% rise in some public sector wages and pensions increases the base for the rise in wages (10%) and pensions (14.8%) planned in 2024, the *Revised Fiscal Strategy for 2024 with Projections for 2025 and 2026* at the same time envisages higher revenues, so this will produce no further effects on inflation. Moreover, the hike in some public sector wages and pensions, announced already in June, has already been included in our August inflation projection, and it is only the one-off payments to pensioners of RSD 20,000 that produce an additional effect. Our August calculations did not include the October increase in excise tax, which is estimated to produce a direct impact of around 0.3 pp on inflation. This is a one-off effect, but it will remain in y-o-y inflation for one year because of the calculation method. In other words, the effect of fiscal transfers and higher excise tax on inflation is not great, with fiscal transfers somewhat softening the disinflationary impact of demand on inflation in Q4 this year relative to what we expected in our previous projection. In 2024, the estimated fiscal impulse should have a mildly negative effect on inflation, so that it does not threaten the downward path of projected inflation and its return within the target band towards mid-2024.

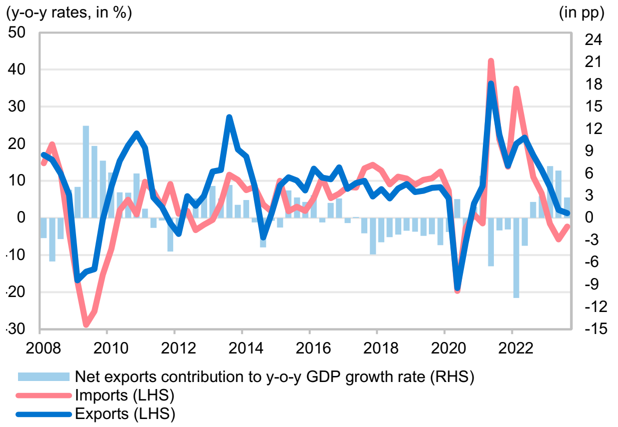
Chart O.3.2 **Share of fiscal impulse in output gap**
(in pp)



Source: NBS calculation.
Note: estimate for Q4 2023.

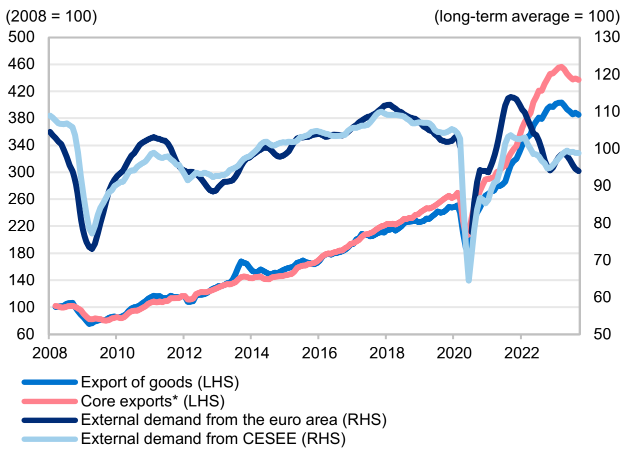
[2] Sales, M. (2010). *Bayesian Estimation of a Simple Macroeconomic Model for a Small Open and Partially Dollarized Economy.* Central Bank of Peru Working Paper 2010–007; Karel Musil, Mikhail Pranovich and Jan Vlcek (2018), *Structural Quarterly Projections Model for Belarus,* IMF Working Papers, WP/18/254.

Chart IV.3.2 **Exports and imports of goods and services**
(in previous-year constant prices, ref. 2010)



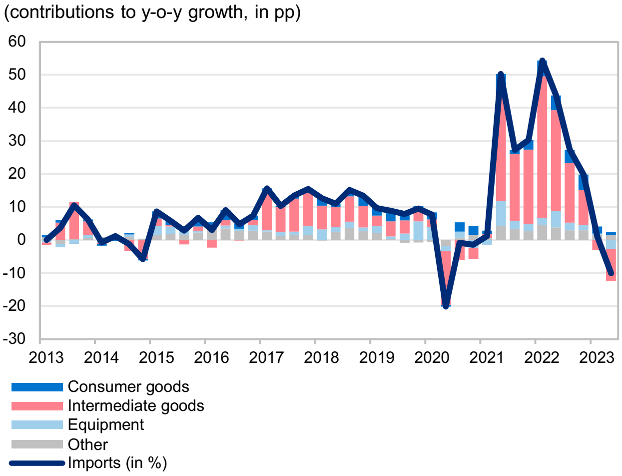
Sources: SORS and NBS calculation.
Note: NBS estimate for Q3 2023.

Chart IV.3.3 **Movement in external demand indicators for Serbian exports**
(3M moving average, s-a)



Sources: European Commission, SORS and NBS.
* Core exports are total exports excluding the export of agricultural products, base metals, motor vehicles, petroleum products and electricity.

Chart IV.3.4 **Movement of key import components**
(contributions to y-o-y growth, in pp)



Sources: SORS and NBS calculation.

Net external demand

Y-o-y, net exports continued to provide a positive contribution to GDP growth in Q3 (2.7 pp). In our estimate, though at a slower pace, real exports grew in Q3 as well (1.2% y-o-y), and real imports declined for the third consecutive quarter (-2.4% y-o-y).

Commodity exports in euro terms went down by 1.1% y-o-y in Q3, as a consequence of the drop in agricultural and mining exports (by 28.5% and 19.0% y-o-y in Q3). At the same time, manufacturing exports continued up, albeit at a slower rate (1.8% y-o-y), with the increase recorded in 14 out of 23 branches.[10]

Y-o-y, the largest positive contribution to manufacturing export growth in Q3 came from the automobile industry (and associated sectors), followed by metal products and base metals. The reduced exports of the chemical industry, rubber and plastic products, and food worked in the opposite direction.

At the same time, **commodity imports** in euro terms recorded a sharper y-o-y decline of 8.6% in Q3, reflecting, inter alia, lower import prices. Imports classification by BEC (Broad Economic Categories) reveals that the decline in imports is mostly owed to intermediate goods (-15.1%), a category inclusive of energy imports. In y-o-y terms, energy imports dropped by EUR 541 mn. Import of equipment also declined (-16.5%), while the import of consumer goods was somewhat higher than in the same period last year (3.3% y-o-y), though this increase has slowed down relative to previous quarters.

Positive trends in foreign **trade in services** extended in Q3, as a surplus was recorded in the amount of EUR 538.2 mn. However, it should be noted that for the first time since Q2 2022, y-o-y services imports grew faster than exports in Q3. The key contributors to export growth were ICT and business services. On the other hand, tourist and business services provided the highest contribution to import growth.

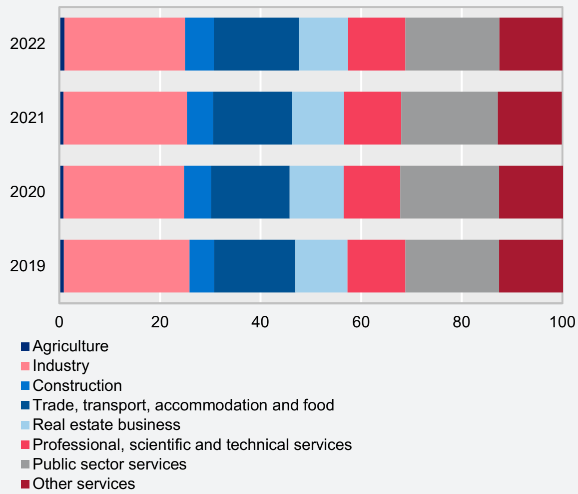
Continued export growth and lower energy imports reflected on the higher coverage of commodity imports with exports in Q3, which measured 81.1% in September,[11] or 91.9% including services, up by 6.9 pp and 7.6 pp, respectively from end-2022.

[10] For more information, see Text box 4, p. 35.
[11] Measured by the 12-month moving average.

Text box 4: Manufacturing trends in Germany and their impact on Serbia's manufacturing output and export

Germany is well-known for its robust industrial sector, most notably its manufacturing which has been the engine of economic development of the largest European economy and the entire euro area for decades. This is also evident from the high **share of gross value added in GDP of the German industrial sector**, which measured around 23% in the past decade (2013–2022) and around 20% for manufacturing alone. Though this share subsided somewhat in the past three years due to the multifaceted global crisis whose adverse effects hit the manufacturing sector in particular, the relative significance of industry (especially manufacturing) in the structure of the German economy remains higher than that of other sectors.

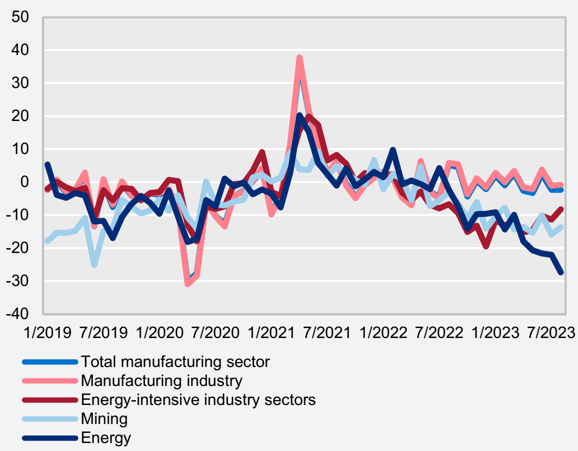
Chart O.4.1 **Gross value added by sector in Germany**
(in %)



Source: Eurostat.

Already in the pre-crisis year of 2019, German manufacturing faced some challenges, posting a decline of 3.1% in the volume of activity after five years of growth. This was mostly due to problems in the automotive industry owing to structural changes at the time (stricter regulation of exhaust fumes and a switch to electric vehicles), but also to adverse international circumstances (lower exports to the UK due to Brexit and the flare-up of trade tensions between the USA and China). When the coronavirus pandemic broke out in 2020, Germany's real GDP declined after 10 successive years of growth, with manufacturing activity contracting by 8.9% (and the production of motor vehicles by as much as 18.8%). Manufacturing activity gained 4.8% in 2021 on the back of a partial rallying of demand and the low base effect, but remained below its pre-crisis level due to bottlenecks in the global supply of inputs and intermediate goods, with producers of motor vehicles forced to cut their production further on account of a shortage of semi-conductors. As gas and electricity prices soared to record-high levels amid the energy and Ukraine crises, while corporates' production costs increased due to stubborn inflation, German manufacturing posted a mild decline in 2022 (by 0.3%) despite the gradual easing of supply chain disruptions.

Chart O.4.2 **Manufacturing activity trends in Germany**
(monthly data, y-o-y, rates, in %)



Sources: Destatis and NBS calculation.

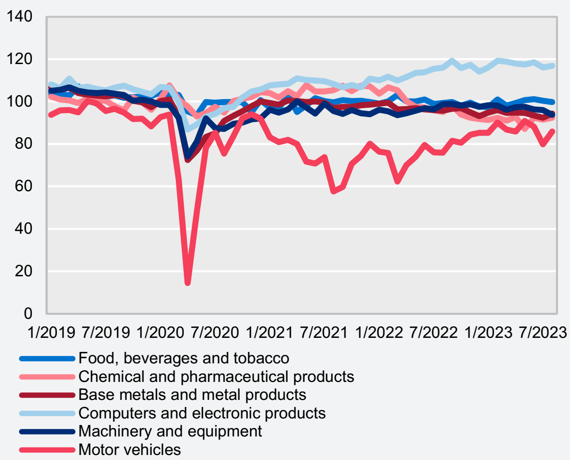
Germany's manufacturing sector was negatively affected by the purchasing power diminished by persistent inflation, softer external demand, slowing of China's growth and rate hikes by the ECB. **Weaker performances of the German manufacturing industry so far in 2023 have largely also reflected the continued decline in new orders** (a trend in place since March 2022, with new orders falling by 6.7% y-o-y in the local market and by 7.0% in foreign markets in the eight months of 2023). **Manufacturing output therefore increased only modestly in the January–August 2023 period, by 0.6% y-o-y, thanks to a relatively propitious start of the year, as the developments over the past few months make the outlook for a faster recovery of German output uncertain.** After posting a monthly decline in June and July (by

0.9% and 1.5% s-a, respectively), manufacturing industry trends improved somewhat in August according to preliminary data, as the volume of production increased by 0.5% s-a in 12 sectors (by contrast to July, when only seven sectors posted growth). In view of the automotive industry's importance for the German economy, it is encouraging that the monthly volume of production rose by 7.6% s-a in August (after declining for two months in a row). The production of metal products and base metals, as well as of electrical equipment and computers, also rallied slightly in August. Activity in the production of food, chemical and textile products remained solid. By contrast, activity in the production of machinery and equipment and construction materials declined further. During the summer months, activity also subsided in the production of beverages and tobacco products, clothes and footwear, as well as in wood and paper processing.

As Germany is one of Serbia's most important economic and foreign trade partners, **weaker performances of its manufacturing sector from 2019 to 2022 certainly affected our manufacturing industry which slackened in the observed period, but did not decline in any year**. Serbia's manufacturing industry saw a slight decline in the volume of production by 0.1% y-o-y from January to September, mostly reflecting reduced production of metal products (other than machines), coke and petroleum products, paper, and chemical industry products. At the same time, hefty investments in existing production capacities and their expansion, primarily in the automotive industry, helped these manufacturing sectors maintain stable and relatively high growth rates even in this turbulent period. The production of motor vehicles and trailers in the nine months of 2023 went up by 14.2% y-o-y, production of machinery and equipment by 11.7%, and of electrical equipment and computers, and electronic products, by 3.2% and 52.4%, respectively. The volume of production in these manufacturing industry sectors increased in the previous two years as well.

A strong domestic manufacturing sector is also important for our country's external trade balance, particularly since manufacturing export makes up the bulk of Serbia's goods export – more than 85% in the past three years. **At the same time, Germany's share in our total manufacturing export has risen from year to year – from 13% in 2019 to 17% in 2023, which is a clear indicator of the importance of the German economic activity for our manufacturing and export.** For the time being, adverse developments in Germany's manufacturing sector have not reflected negatively on our goods export to any major degree, as it continues to post relatively high y-o-y growth rates. In euro terms, manufacturing industry export rose by 7.0% y-o-y in the January–September 2023 period, while manufacturing industry export to Germany increased by as much as 17.5%. The bulk of manufacturing industry export in 2023 (which rose by EUR 1.2 bn relative to the same period last year) is attributable to higher export of electrical equipment (by EUR 420 mn), motor vehicles and trailers (by EUR 413 mn), and machinery and equipment (by EUR 348 mn), thanks precisely to sustained growth in investment in these sectors. This is signalled by the high inflow of FDIs to these sectors and

Chart O.4.3 **Manufacturing activity trends in selected manufacturing sectors in Germany**
(indices 2015 = 100, s-a)



Sources: Destatis and Deutsche Bundesbank.

Table O.4.1 **Serbia's manufacturing industry exports, January–September 2023**
(change relative to January–September 2022, in EUR mn)

	Total exports	Exports to Germany
Manufacture of electrical equipment	420	175
Manufacture of motor vehicles and trailers	413	200
Manufacture of unmentioned machinery and equipment	348	124
Manufacture of metal products, other than machines	202	11
Manufacture of computers, electronic and optical products	87	1
Manufacture of furniture	70	6
Manufacture of coke and petroleum products	-160	-2
Manufacture of chemicals and chemical products	-224	-28
Manufacture of base metals	-286	-24
Other	330	3
Total	1,201	467

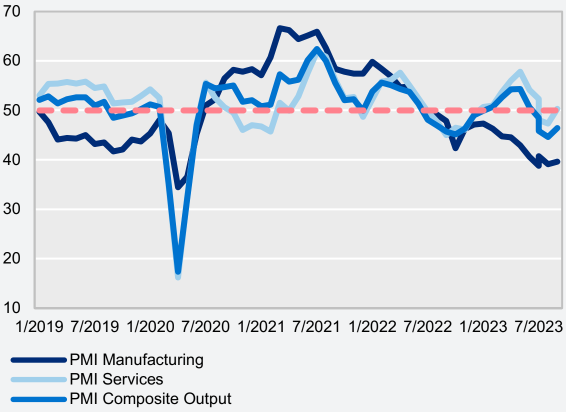
Source: SORS and NBS calculation.

the resulting expansion of export capacities. The rise in the export of these sectors to Germany alone makes up between 36% and 48% of the increase in export to all countries taken together.

It should, however, be noted that there has been some slowdown in the growth of Serbia's total export and export to Germany in the past three months, which may be ascribed to both lower external demand and the slackening of Germany's production. This is also signalled by the **German Manufacturing PMI** which continued to languish below 50 points in Q3 and early Q4, suggesting contraction due mostly to the steady decline in new orders. It is important to note that in our previous *Report* we expected export growth to slow in H2, precisely because we took account of the downward revision of Germany's growth prospects. On the other hand, manufacturing output rallied in Q3 as growth of 1.9% and 0.8% s-a was posted in August and September, respectively, with growth recorded in a total of 11 and 14 sectors (by contrast to July when output increased in only six).

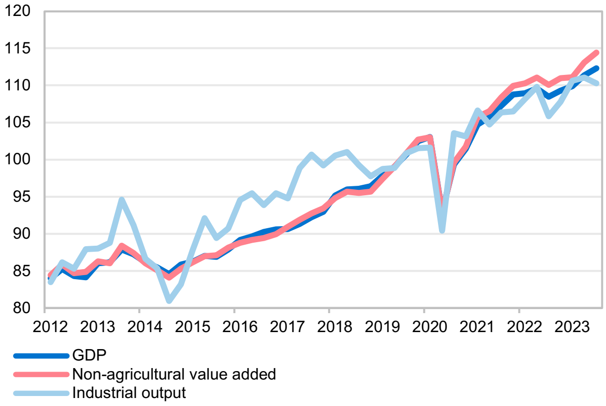
Going forward, the growth outlook for our economy will depend on the pace of recovery of Germany, as our most important individual economic partner. A positive thing is that Germany is expected to recover next year – the IMF places German growth at 0.8%, the joint projection of one Austrian and four German institutes is 1.3%, while Consensus Economics expects growth to measure 0.5% in 2024, after the decline by 0.4% this year. This should certainly boost growth in our manufacturing activity and goods export, which we took into consideration in our new GDP projection for 2024.

Chart O.4.4 **Leading economic activity indices for Germany**
(in index points)



Sources: S&P Global and HCOB.

Chart IV.4.1 **Economic activity indicators**
(s-a, 2019 = 100)



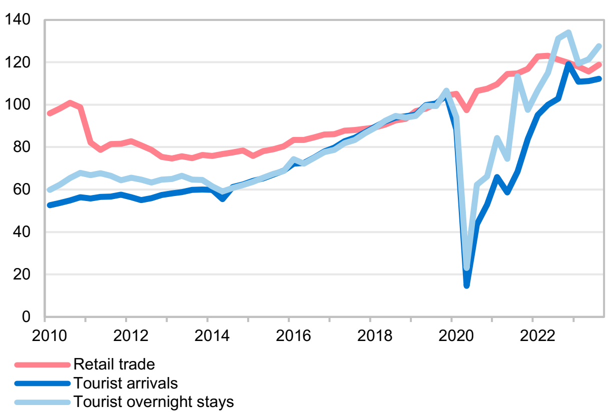
Sources: SORS and NBS calculation.

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

	2022		2023		
	Q3	Q4	Q1	Q2	Q3*
GDP (in %, y-o-y)	**1.0**	**0.5**	**0.9**	**1.7**	**3.5**
Agriculture	-0.6	-0.5	0.4	0.4	0.7
Industry	-0.1	0.3	0.5	0.2	0.7
Construction	-0.7	-0.9	-0.1	0.7	0.9
Services	1.9	1.3	0.2	0.6	1.0
Net taxes	0.4	0.2	-0.2	-0.2	0.2

Sources: SORS and NBS calculation.
* NBS estimate.

Chart IV.4.2 **Service sector indicators**
(s-a, 2019 = 100)



Sources: SORS and NBS calculation.

4 Economic activity

Economic activity stepped up from 1.7% y-o-y in Q2 to 3.5% in Q3, led by the recovery of construction and manufacturing. Other sectors also gathered pace relative to the quarter before, providing a positive contribution to economic growth in Q3.

At the quarterly level, growth is estimated to have outperformed our expectations from the previous Report, amounting to 0.8% s-a, on the back of construction and services.

Having increased collectively by 2.1% y-o-y, in our estimate, **services** added 1.1 pp to economic growth in Q3. This is indicated primarily by tourism data, i.e. the number of tourist arrivals that went up by 5.7% y-o-y in Q3, and even more so by the number of foreign tourists that gained 17.2% y-o-y. Real catering turnover also increased – by 18.6% y-o-y in July. At the same time, real retail trade turnover contracted by 2.0% y-o-y in Q3, though it picked up in s-a terms by 2.7% q-o-q.

Industrial production is estimated to have grown 3.5% y-o-y in Q3, reflecting the rebound in the electricity and manufacturing sectors. After problems in late 2021 and early 2022 that weighed down on coal and hence electricity output, the electricity system stabilised in 2023 (owing in part to increased coal imports), resulting in an 11.0% y-o-y increase in electricity production in Q3 and a 1.5 pp contribution to the volume of industrial production. On top of this, in contrast to Q2, the volume of production in mining also increased amid more intense exploitation of metal ores (by 5.8% y-o-y), which coupled with the pick-up in manufacturing helped the volume of overall industrial production expand by 3.8% y-o-y in Q3.

In contrast to the downturn in H1 (1.2% y-o-y), manufacturing output increased in Q3 by 2.0% y-o-y, primarily as a result of the upswing in the production of computers, electronic and optical products, and food industry (almost entirely owing to the strong rebound in September when the food industry grew by 13.7% y-o-y). The production of base metals also gathered pace in Q3 (40.6% y-o-y), underpinned, inter alia, by the low base effect having in mind the shutdown of one blast furnace in the Smederevo steel plant in July last year, whose full effect unfolded as of August. Furthermore, a notable increase was recorded in the production of pharmaceutical and chemical products, as well as motor vehicles and trailers.

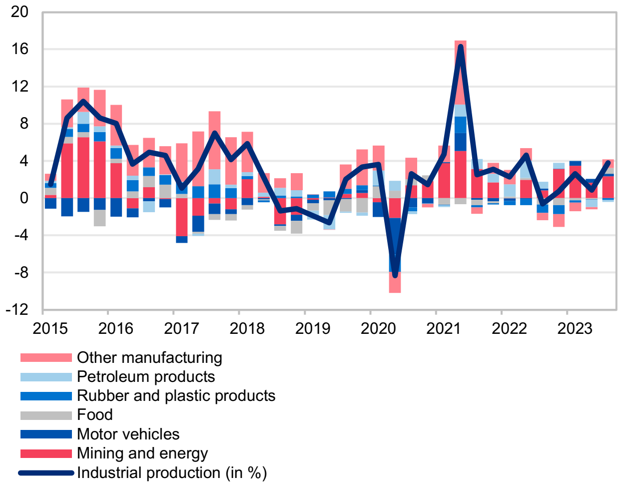
According to our estimate, **construction** expanded by around 17% y-o-y in Q3, as indicated by the y-o-y increase in the value of construction works performed (15.8%) and in the production of construction material (3.6%). Besides, the number of issued construction permits went up by 14.2% y-o-y in July. On the other hand, construction material imports dropped by 1.6% y-o-y in Q3.

It should be noted that the SORS preliminary estimate of the growth in the production of key crops indicates that this year's agricultural season will be better than average, which should result, in our view, in a double-digit increase in **agricultural production** relative to the previous year (around 11%), when agricultural performance was below-average due to bad weather conditions.

Net taxes are estimated to have edged up in Q3 by 1.2% y-o-y, contributing 0.2 pp to GDP growth.

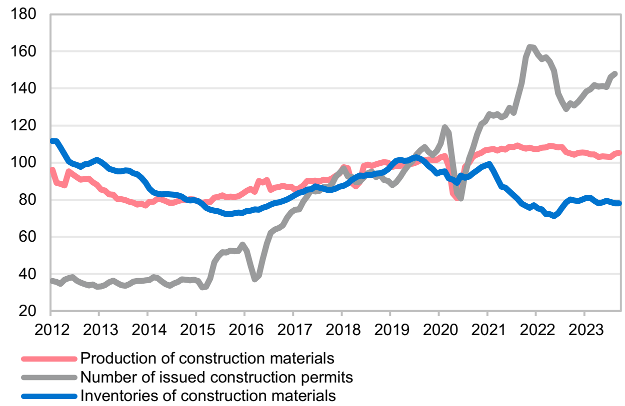
At the quarterly level, economic growth is estimated to have slowed down sligthly from 1.4% s-a in Q2 to 0.8% in Q3. The growth was led by construction and services, though agriculture and industry provided a mild positive contribution as well.

Chart IV.4.3 **Contributions to y-o-y industry growth rate**
(in pp)



Sources: SORS and NBS calculation.

Chart IV.4.4 **Construction activity indicators**
(quarterly averages s-a, 2019 = 100)



Sources: SORS and NBS calculation.

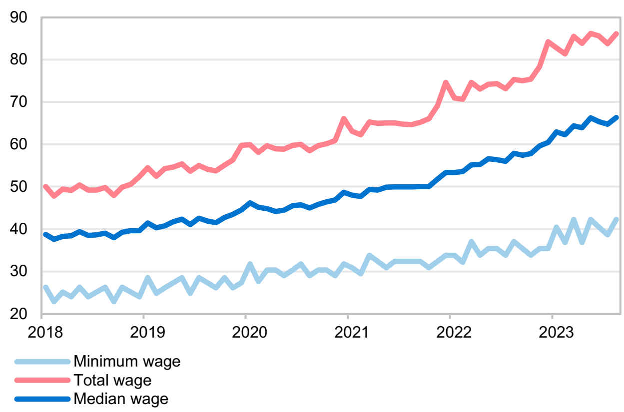
5 Labour market developments

In Q3, nominal wages and formal employment went further up, while unemployment decreased to a new low in September.

Wages

The average nominal net wage equalled RSD 84,947 (EUR 725) **in July–August**. Its y-o-y growth decelerated to 14.5% (from 15.4% in Q2) and was driven, as in the prior period, by the faster rise in average wages in the **private** (15.2%) than in the **public sector** (12.9%). This narrowed the gap between average public and private sector wages to 1.05 in the first eight months of this year (from 1.09 in the same period last year). The median net wage in July–August measured RSD 65,568, having risen by 15.1% y-o-y. **In September, the Government adopted the decision on raising the minimum wage from RSD 230 to RSD 271 per hour** (starting from 1 January 2024). The effect of this decision will be a minimum net wage of around RSD 47,000 next year, covering around 90% of the current minimum consumer basket.

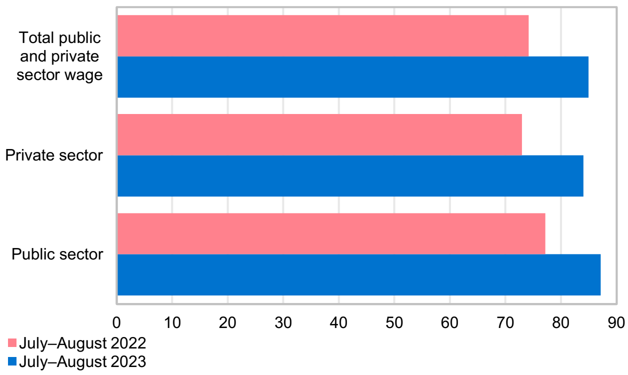
Chart IV.5.1 **Monthly wage dynamics in Serbia**
(in RSD thousand)



Source: SORS.
Note: Since January 2018, Tax Administration data have been used for wage calculations.

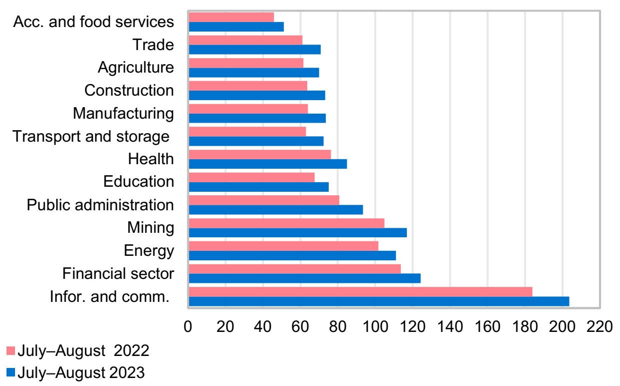
In July–August, **the y-o-y growth in average wages continued in all economic branches** and the only sectors which did not record a double-digit increase were energy and financial services (9.3% each). The sharpest y-o-y growth was posted by trade (15.8%) and administrative

Chart IV.5.2 **Average nominal net wage**
(in RSD thousand)



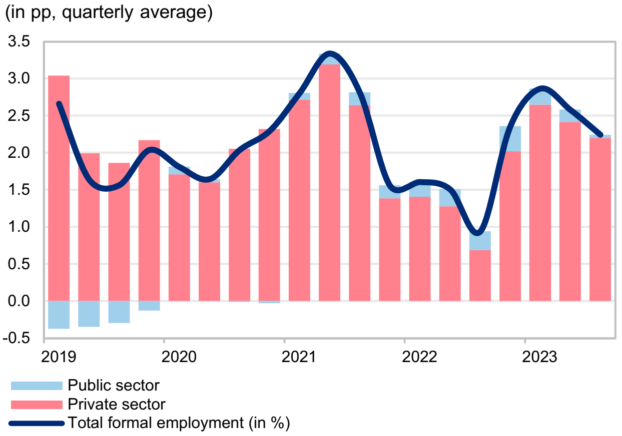
Source: SORS.

Chart IV.5.3 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

Chart IV.5.4 **Structure of y-o-y growth in total formal employment**
(in pp, quarterly average)



Sources: SORS and NBS calculation.

and auxiliary services (15.6%), while the y-o-y rise in the ICT[12] decelerated to 10.7% (from 16.4% in Q2). When it comes to dominantly public sector activities, in addition to public administration, high y-o-y growth rates were also recorded in health and education (11.1% each).

Total nominal net wage bill, as the main source of consumer demand, recorded a 16.8% y-o-y increase in July and August on account of a further rise in average wages and formal employment.

According to a preliminary estimate, the **overall economic productivity** gained 1.2% y-o-y, after declining by 0.9% in Q2, owing to faster growth in economic activity than in employment.

Employment

According to SORS data, **total formal employment** slowed down its y-o-y growth from 2.6% in Q2 to 2.2% in Q3, reaching in September a new record high level of 2.37 mn people, up by around 53 thousand from a year ago. The y-o-y growth in formal employment in Q3 was driven by employment with legal entities and entrepreneurs, whereas the number of registered individual farmers kept decreasing.

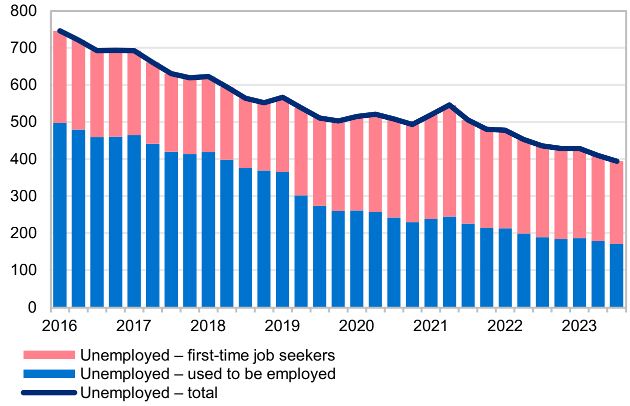
Private sector formal employment reached a new record high of 1.76 mn in Q3, with the September figure outstripping that of a year ago by around 56 thousand people. The highest number of new recruits was registered in professional, scientific, innovation and technical services (by around 17 thousand), followed by the ICT services (almost 12 thousand) and manufacturing (around nine thousand). At the same time, employment increased in other sectors dominantly belonging to the private sector as well, except administration and auxiliary services and agriculture where employment decreased by around six thousand collectively. **Public sector formal employment** decreased in September primarily because of the last year's high base attributable to the population census, while employment increased in health and education by around five thousand and two thousand, respectively.

Registered unemployment, according to the NES, recorded a y-o-y decline of around 37 thousand in September, to the new lowest level of around 391,040. The decline was widely dispersed across occupation groups.

[12] Excluding ICT sector wages from the statistical scope, the y-o-y rate of growth of total nominal net wages in the July–August period would measure 14.1% (according to NBS calculation).

According to the available **LFS** data, covering both formal and informal labour market segments, the participation rate of the working age population (15-64) stood at 72% in Q2 2023, while the activity rate (15+) measured 55.8%. The employment rate went up by 0.4 pp y-o-y, to 50.4% in Q2 2023, while the unemployment rate increased by 0.7 pp, to 9.6%.

Chart IV.5.5 **Movement of registered unemployment**
(in thousand persons, quarterly average)



Source: National Employment Service.

V Projection

The new projection places real GDP growth at around 2.5%, as the domestic economy's growth outlook for 2023 is more favourable than three months ago. Growth will be led by net exports, as a result of real growth in exports and the decline in the imports of goods and services so far in the year, and by fixed investment, thanks to increased corporate profitability, high FDI inflows and government investment in transport infrastructure. A positive impulse is also anticipated from private consumption on the back of the expected recovery in Q4. With the waning of global inflationary pressures, rallying of the euro area and the projected accelerated implementation of planned investment projects in the area of transport, energy and utility infrastructure, we expect GDP growth to pick up to 3.0–4.0% as of 2024 and return to the pre-pandemic growth trajectory of around 4% per annum thereafter.

Under our new projection, after dropping to around 8% late this year, y-o-y inflation will most probably retreat within the target band towards mid-next year and continue to slow thereafter, approaching the target midpoint in late 2024. Such movements will be aided primarily by the effects of past monetary policy tightening, subsiding global cost-push pressures, slowing of imported inflation and subdued demand amid weaker global growth.

Uncertainty surrounding the inflation and GDP projections remains largely associated with international factors – geopolitical relations and the global growth outlook, and their impact on international prices of energy and primary commodities. After the outbreak of the Middle East conflict, the risks on account of geopolitical tensions have become more pronounced than in the previous Report, while the risks on account of the speed of core inflation's decline and the degree of monetary policy tightening by leading central banks have now abated. At home, the risks to the projection are associated with the level of FDI inflows, outcome of the next year's agricultural season, pace of investment in infrastructure and the energy sector and, in part, the speed of coal production recovery.

External assumptions

Economic activity

Despite the consequences of the pandemic and the energy crisis, which caused disruptions in the global food and energy markets, further amplified by the conflict in Ukraine, as well as the tightening of global monetary conditions aimed at lowering high inflation, global economy turned out to be more resilient in the past period compared to the initial expectations. Nevertheless, **the global economic recovery remained slow and uneven. In October, the IMF projected a global slowdown from 3.5% in 2022 to 3.0% in 2023, unchanged relative to July, and to 2.9% in 2024**, which is 0.1 pp lower than the July projection as well as below the pre-pandemic average (3.8% in the 2000–2019 period). The projected global downturn is more pronounced in advanced economies – from 2.6% in 2022 to 1.5% in 2023 and 1.4% in 2024, than in emerging and developing ones – from 4.1% in 2022 to 4.0% in 2023 and 2024. Economic growth is uneven across countries and regions, faster than expected in the USA and slower in China due to issues in

Table V.0.1 **Key projection assumptions**

	2023		2024		2025
External assumptions	Aug	Nov	Aug	Nov	Nov
Euro area GDP growth	0.5%	0.7%	0.9%	1.0%	1.5%
Euro area inflation (average)	5.4%	5.6%	2.4%	2.6%	2.1%
3M EURIBOR (December)	3.9%	4.0%	3.2%	3.1%	2.8%
International prices of primary agricult. commodities (Q4 to Q4)*	-18.0%	-26.3%	0.0%	4.2%	-1.0%
Brent oil price per barrel (December, USD)	81	88	77	84	84
Internal assumptions					
Administered prices (Dec. to Dec.)	11.5%	11.1%	7.0%	5.2%	6.5%

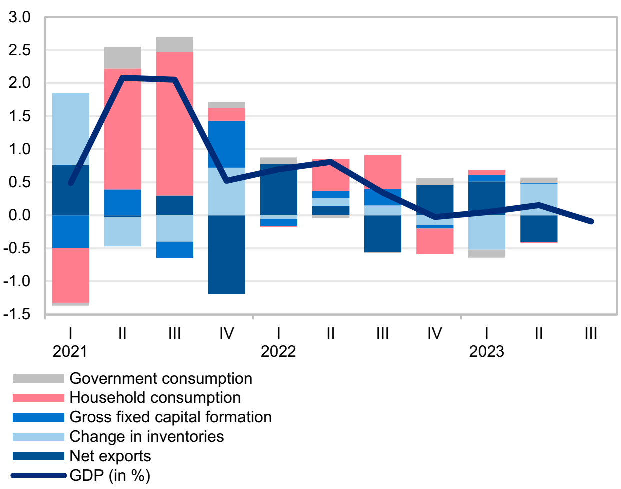
* Composite index of soybean, wheat and corn prices.
Sources: ECB, Consensus Economics, Euronext, CBOT, Bloomberg and NBS.

Table V.0.2 **Real GDP growth forecasts for 2023 and 2024**
(in %)

	2023		2024	
	Previous projection	New projection	Previous projection	New projection
World	3.0	3.0	3.0	2.9
Euro area	0.9	0.7	1.5	1.2
Germany	-0.3	-0.5	1.3	0.9
Italy	1.1	0.7	0.9	0.7
USA	1.8	2.1	1.0	1.5
Russia	1.5	2.2	1.3	1.1
China	5.2	5.0	4.5	4.2

Sources: IMF WEO Update (July 2023) and IMF WEO (October 2023).

Chart V.0.1 **Contributions of components to the real GDP growth rate in the euro area**
(s-a, quarterly, in pp)



Source: Eurostat.

the real estate sector, as well as in the euro area which bore the brunt of last year's energy crisis.

Risks to the IMF's October projection of global growth are lower than six months ago, though they **remain skewed to the downside**. Key downside risks pertain to a potential exacerbation of the crisis in the Chinese construction sector, reflecting negatively on China's and global economy; the high level of some countries' indebtedness due to interest rate hikes; elevated short-term inflation expectations which are trending above the target tolerance band. In addition, exacerbated geopolitical tensions and climate changes can once again drive the global prices of primary commodities up, and by extension global inflation as well, which would mandate additional monetary policy tightening. On the other hand, the IMF listed faster slowdown in global inflation and more intensive recovery of domestic demand as upside risks.

In Q2, **the euro area economy** recorded mild growth of 0.2% s-a thanks to the recovery in government consumption and inventories. The ECB estimates that the weaker economic activity reflects subdued exports of euro area countries due to the appreciation of the euro and tightened financial and credit conditions, as well as lower investments in the production and real estate sectors. In addition, the services sector, which demonstrated its resilience in the prior period, is also showing signs of decelerating activity. Our key trade partners in the euro area recorded diverging economic movements in Q2 – GDP in **Germany** edged up slightly by 0.1% s-a, while **Italy's** decreased 0.4% s-a. During Q3, leading euro area economic activity indicators, PMI and ESI, continued to linger in the area suggesting contraction, mostly because of a further slump in the production sector's activity, attributable to the constant decline in new orders. According to the Eurostat's preliminary flash estimate, the euro area economy on the whole – just like that of Germany – recorded a mild decline of 0.1% s-a in Q3.

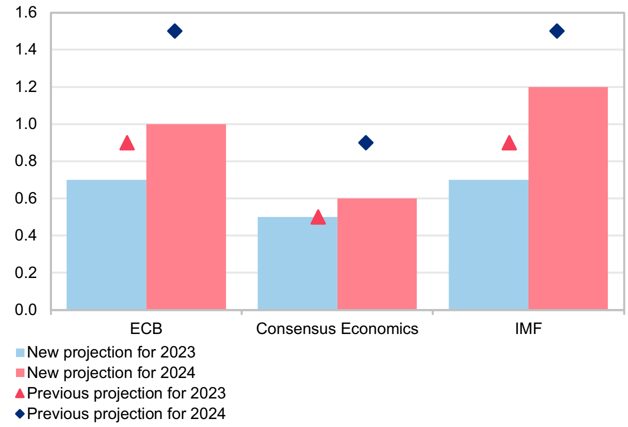
Aware of the deteriorating short-term economic indicators, stricter financing conditions and the euro's appreciation against the dollar, **in September the ECB** trimmed down its June euro area economic growth projection for 2023 – by 0.2 pp, to 0.7%, while the projection for 2024 was trimmed by 0.5 pp, to 1.0%, due to the lower effect of tendencies spilling over from 2023 (our assumptions relied on these projections). The **ECB assessed that risks to the baseline September projection are skewed to the downside** – the euro area's projected GDP growth may be even lower if the effects of the ECB's monetary tightening turn out to be stronger than anticipated or if the global economy decelerates further on account of China's slower growth. On the other hand, GDP growth might exceed the projection if the private sector's confidence is regained on account of a decrease in uncertainty, increase in real income and the preserved labour market given that the euro area's unemployment rate is still record low (6.5% in September). Nonetheless, growth in the number of employed persons in the euro area is slowing down gradually, not only in the production but in the services sector as well, the latter being the key generator of new jobs since mid-2022.

In October, Consensus Economics' analysts retained the 0.5% July growth forecast for the euro area for 2023, which has so far managed to dodge the technical recession. GDP growth projection for 2024 has been trimmed by 0.3 pp to 0.6%, given the continuous weakening in economic activity, especially in the manufacturing industry of leading euro area countries. Germany,[13] France, Italy, the Netherlands and Spain recorded a fall in industrial products demand, most notably external demand, given that it bears the negative effects of tightened global monetary conditions. Germany has been facing recession pressures since end-2022 and in October its GDP was forecast to retreat 0.4% in 2023 (0.1 pp lower than July projection), while Italy's GDP was forecast to go up 0.7% in 2023 (0.4 pp lower than the July projection). Growth projections for 2024 have also been revised down – to 0.5% in Germany and 0.6% in Italy.

As in Q1, Q2 saw the **US economy** grow 0.5% s-a (i.e. 2.1% annualised) on the back of larger fixed investments and to a lesser extent the preserved growth in private and public consumption. The Fed estimates that the same factors also contributed to the sound economic activity during Q3. In September, the US ISM manufacturing PMI came close to exiting the contraction zone thanks to the accelerated realisation of prior orders, while new orders remained on the downward path. The labour demand and supply imbalance in the USA is gradually being resolved since the unemployment rate went up to 3.8% in September, accompanied by modest growth in employment and participation rates. At the same time, as of July the number of job openings and labour turnovers has been declining, with nominal wages rising more slowly. According to the preliminary assessment of the US Bureau of Economic Analysis, US growth picked up significantly in Q3, to 1.2% s-a (i.e. 4.9% annualised). Though GDP growth is estimated to be lower by the end of the year because of the workers' strike in the car

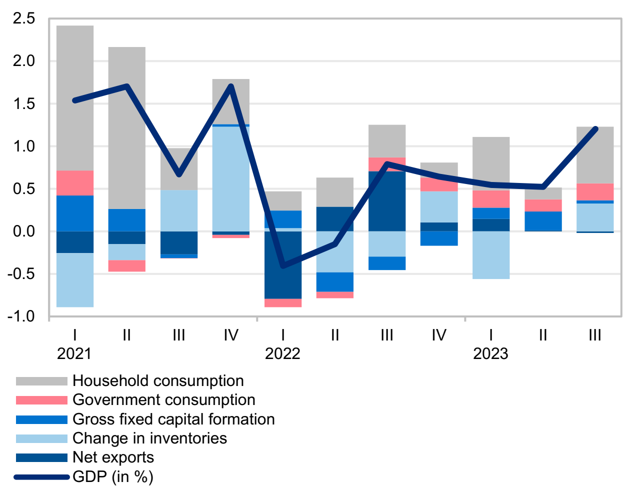
[13] For more details on the effects of Germany's manufacturing industry on the production sector in Serbia, see Text box 4 on p. 35.

Chart V.0.2 **Revisions of euro area GDP growth projections for 2023 and 2024**
(in %)



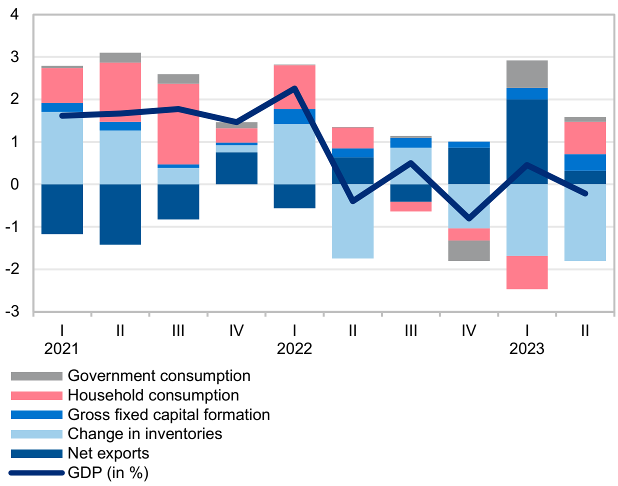
Sources: ECB (June and September), Consensus Economics (July and October) and IMF (July and October).

Chart V.0.3 **Contribution of components to the real GDP growth rate in the USA**
(s-a, quarterly, in pp)



Sources: U.S. BEA and NBS calculation.

Chart V.0.4 **Contributions of components to the real GDP growth rate in the CESEE region***
(s-a, quarterly, in pp)



Source: Eurostat.
* Including Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, Slovenia and Slovakia.

industry, **in September the Fed** made strong upward revisions to its June projection of GDP growth in 2023 – by 1.1 pp to 2.1%, since consumption and investments in the private sector turned out to be more resilient to tightened financial conditions than previously expected. The projected GDP growth rate for 2024 is 1.5%.

At the level of the **CESEE region**, Q2 recorded a mild 0.2% s-a decline in GDP, owed entirely to the fall in inventories. The economic dynamics remained divergent across countries of the region in Q2 as well – Poland recorded a pronounced GDP fall of 1.4% s-a, which was much lower in Hungary (0.2% s-a), but was recorded for the fourth consecutive quarter. The Czech GDP stagnated in Q2, while in other countries it rose between 0.5% in Bulgaria and Slovakia and 1.7% in Romania. Leading economic indicators suggest poorer performance in the region in Q3, which Consensus Economics analysts attribute to the still high costs of living despite the subsiding inflation, noting that the potential economic recovery in the region will be slow, uneven and under the impact of external shocks. Conflicts in Ukraine and the Middle East are the main cloud casting a shadow over energy supply and raising investor and consumer concerns over the renewed rise in oil prices, as this would mean that interest rates will remain elevated over a longer period and, by extension, the borrowing costs as well. The bleaker forecasts for the euro area's economy are reflecting negatively on the exports of countries in the region, notably their manufacturing industries.

According to the preliminary data of the federal statistical bureau, for the first time since the escalation of the Ukraine crisis in early 2022 and the introduction of Western sanctions, the **Russian economy** recorded 4.9% y-o-y growth in Q2 2023 thanks to a rebound in domestic demand. In October, the Bank of Russia forecast that Russia's GDP would grow 2.5% in 2023, and the IMF 2.2% (0.7 pp above the July projection), considering the significant fiscal stimulus and sound investment and consumption growth, as well as a robust labour market.

Table V.0.3 **Real GDP growth projections by country of the region**
(in %)

	October 2023		July 2023	
	2023	2024	2023	2024
Poland	0.2	2.7	1.0	2.9
Czech Republic	0.0	2.2	0.2	2.5
Hungary	-0.5	2.7	-0.1	2.8
Romania	2.3	3.4	2.6	3.7
Slovakia	1.2	2.0	1.1	2.2
Slovenia	1.4	2.3	1.3	2.3
Croatia	2.6	2.4	2.2	2.5
Bulgaria	1.7	2.3	1.6	2.3
Albania	2.9	3.6	2.7	3.5
Bosnia and Herzegovina	1.6	2.6	1.5	2.7
North Macedonia	1.9	2.8	1.7	2.9
Montenegro	3.9	3.4	3.7	3.3

Source: Consensus Economics.

According to the preliminary estimate of the national statistical office, in Q3 the **Chinese economy** posted y-o-y growth of 4.9% (after 6.3% in Q2), thus exceeding expectations. It was driven by sound activity in the industrial sector and the recovery in the services sector. A comprehensive fiscal stimulus reflects economic activity in conditions of a prolonged crisis in the real estate sector and subdued foreign trade. In view of the dented investments in the construction sector, which is faced with piled up debts, in October the IMF revised down its July projection of China's GDP growth by 0.2 pp, to 5.0% in 2023.

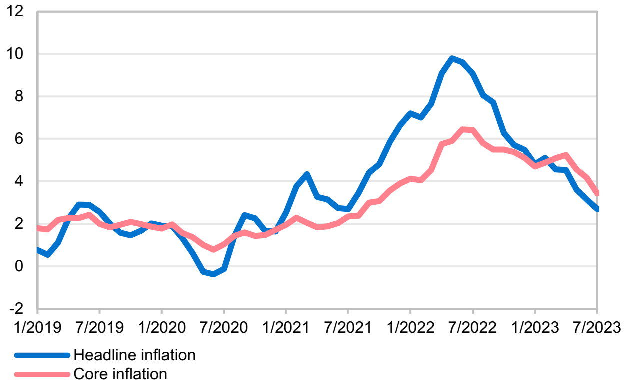
Inflation

Under a dominant impact of tightened monetary conditions and lowered energy prices in the past period, as well as food prices, though to a lesser extent, **global inflation** has more than halved in a year – from the record high y-o-y level of 11.3% in Q2 2022 to 5.3% in Q2 2023. **In October, the IMF forecast a slowdown in global inflation from 8.7% in 2022 to 6.9% in 2023, and then to 5.8% in 2024.** This is 0.1 pp and 0.6 pp, respectively, above the July inflation projections for 2023 and 2024, notably because core inflation was higher than expected. **The IMF projected a decline in core inflation as well, though at a slower pace** – from 6.4% in 2022 to 6.3% in 2023, and then to 5.3% in 2024, against the backdrop of the still tight labour market, persistent cost-push pressures in the services sector, as well as the relatively high inflation expectations, especially short-term ones. Also, the forecast predicts that in the majority of countries inflation will not return within the bounds of the tolerance band before 2025.

During Q3, **euro area inflation** continued on the downward path, equalling 4.3% y-o-y in September. According to Eurostat's preliminary flash estimate, it lost significant steam in October, falling to 2.9% y-o-y amid a slowdown in food price growth and a pronounced fall in energy prices, where the effect of high last year's base was reflected. **Euro area core inflation** (measured by the harmonised CPI excluding energy, food, alcohol and cigarettes) also slowed during Q3, to 4.5% y-o-y in September, and then to 4.2% y-o-y in October, its lowest level in the past year. Measured by changes in the harmonised CPI, **inflation in Germany and Italy** slowed down significantly by end-Q3 and then additionally in October, to 3.0% y-o-y and 1.9% y-o-y, respectively, notably due to the fall in energy prices attributable to the base effect.

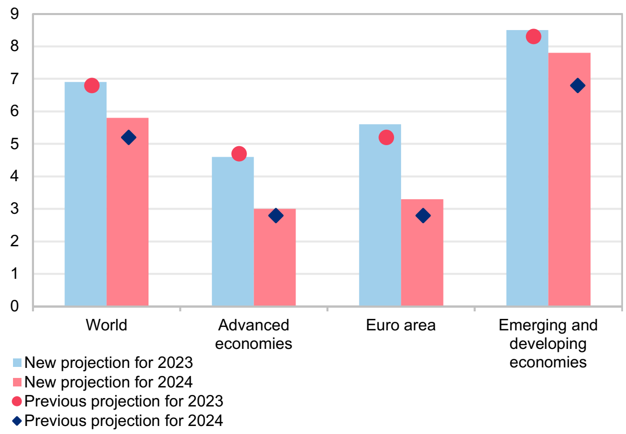
In conditions of loosening cost-push pressures and the resolution of supply bottlenecks, as well as the tightened monetary policy, the **ECB expects euro area inflation to continue on the downward trajectory**. In September, it projected inflation at 5.6% in 2023 and 3.2% in 2024, and forecast its return to the target level in Q3 2025. Nonetheless, the current spike in energy prices, which are forecast to remain elevated for a longer period, drove inflation projections in September up 0.2 pp from June. At the same time, core inflation projection for the euro area in 2023 remained unchanged at 5.1%, while the forecast for 2024 was slightly revised down, by 0.1 pp to 2.9%. The ECB estimated that core inflation would remain above headline until the start of 2024, and its gradual decline reflects the waning of the effects of past

Chart V.0.5 **Headline and core inflation***
(s-a, median, p.a., in %)



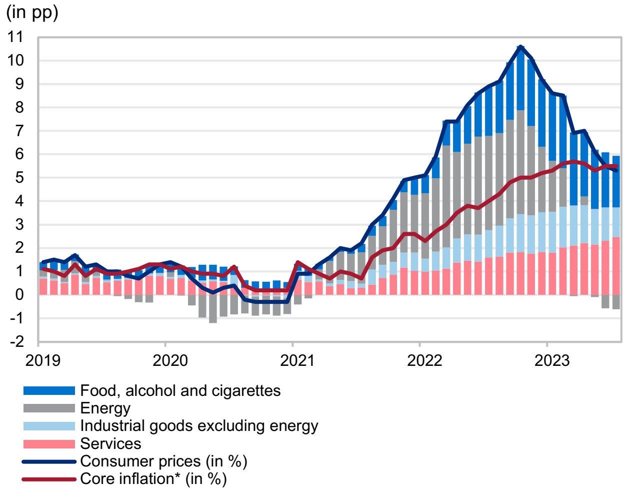
Source: IMF WEO (October 2023).
Note: Quarterly medians of headline and core inflation (per annum) for a total of 17 emerging and developing, and 18 advanced economies, which together make up around 81% of the global economy.

Chart V.0.6 **Revisions of inflation projections by economic region for 2023 and 2024**
(in %)



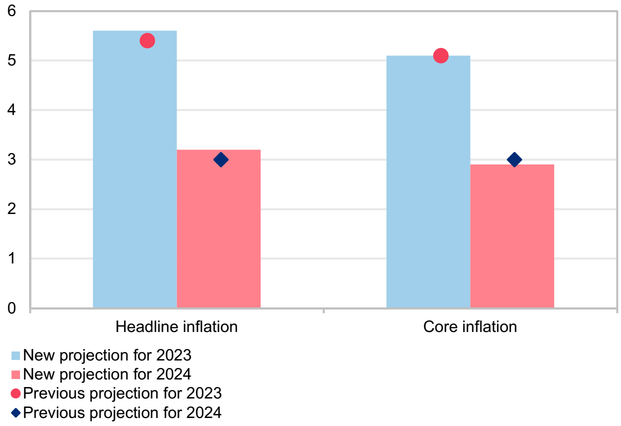
Sources: IMF WEO (October 2023) and IMF WEO Update (July 2023).

Chart V.0.7 **Contributions of HICP components to y-o-y inflation in the euro area**
(in pp)



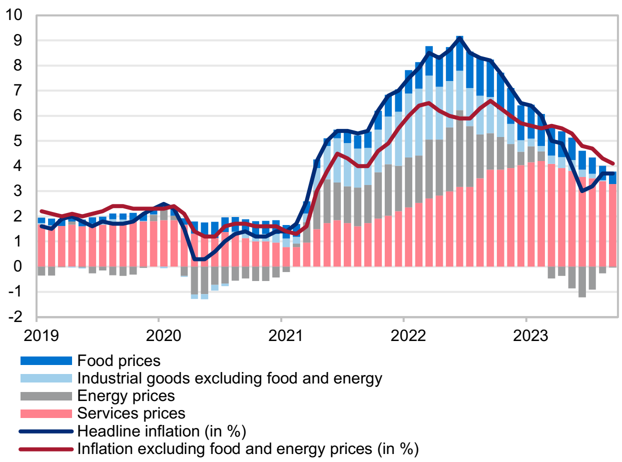
Sources: Eurostat and NBS calculation.
* HICP excluding energy, food, alcohol and cigarettes.

Chart V.0.8 **Revision of the euro area inflation projection for 2023 and 2024**
(in %)



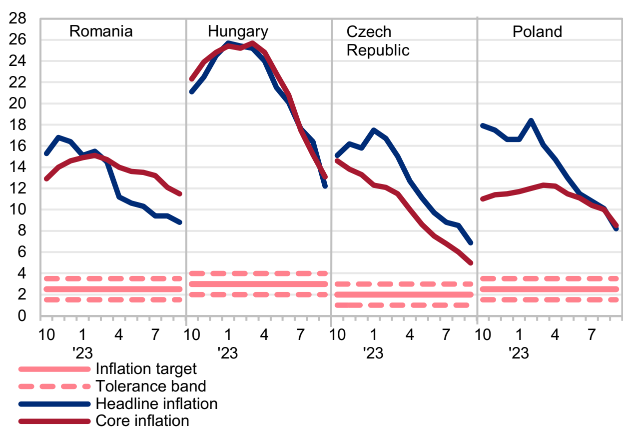
Sources: ECB (September 2023).

Chart V.0.9 **Contributions of CPI components to y-o-y inflation in the USA**
(in pp)



Sources: U.S. Bureau of Labor Statistics and NBS calculation.

Chart V.0.10 **CPI movements in selected CESEE countries in the previous year (until September 2023)**
(y-o-y rates, in %)



Sources: Central banks of selected countries.

shocks in the market of energy and other raw materials in production, while increase in the cost of wages worked in the opposite direction. Though it slowed as of mid-2023, it is still pronounced due to an increase in the minimum wage and the still tight conditions in the euro area labour market.

After touching its minimum level in the past year this June (3.0% y-o-y), **headline inflation in the USA** (measured by the change in the CPI) rose during Q3, measuring 3.7% y-o-y in September, mostly due to the fact that the y-o-y fall in energy prices was significantly moderated with the dissipation of the base effect. Still, inflation remained below the level recorded in a major part of the year, thanks to the further slowdown in y-o-y growth in food prices, as well as the prices of industrial products and services. In this regard, **core inflation in the USA** (measured by the change in the CPI excluding food and energy) continued on the downward path, falling to 4.1% y-o-y in September, whereby it came even closer to headline inflation. A similar y-o-y dynamics was recorded in Q3 with the personal consumption indices – total and excluding food and energy, which is the **Fed's** measure of headline and core inflation, and for which its September forecast predicted 3.3% and 3.7% growth in 2023, respectively. In the coming years, the Fed forecast a slowdown in inflation, supported by the more efficient alignment of supply and demand in the products and services markets, as well as the labour market, while headline and core inflation are not expected to come close to the 2.0% target before 2026.

Inflation in CESEE countries pursuing inflation targeting continued to lose pace during Q3, mostly due to the slowdown in food inflation, where the effects of the high base from the corresponding period last year were manifested. In y-o-y terms, inflation in the **Czech Republic** slowed to 6.9% in September, in **Poland** and **Romania** to 8.2% and 8.8%, respectively, and in Hungary to 12.2%. With the exception of the Czech Republic, Q3 core inflation in other regional peers trended above headline inflation. According to Consensus Economics' analysts, though y-o-y inflation is expected to continue slowing down, it might stay elevated for some time yet, primarily because of the pronounced rise in energy prices and hampered supply in the wake of the escalation of the conflict in the Middle East. At the level of 2023, in October the Consensus Economics projected inflation of 9.9% for the Southeast European region (0.4 pp above the July projection) and 12.1% for the region of Central Europe (0.2 pp below the July projection), while for 2024 average inflation is projected at 5.0% and 4.8%, respectively.

Western Balkan countries registered divergent movements in y-o-y inflation during Q3. Inflation in Albania and Bosnia and Herzegovina slowed down further, to 4.1% in September, and to 6.6% in North Macedonia. In parallel, y-o-y inflation in Montenegro rose to 7.9%, dominantly as a consequence of hikes in energy prices.

Table V.0.4 **Inflation projections by country of the region**
(in %)

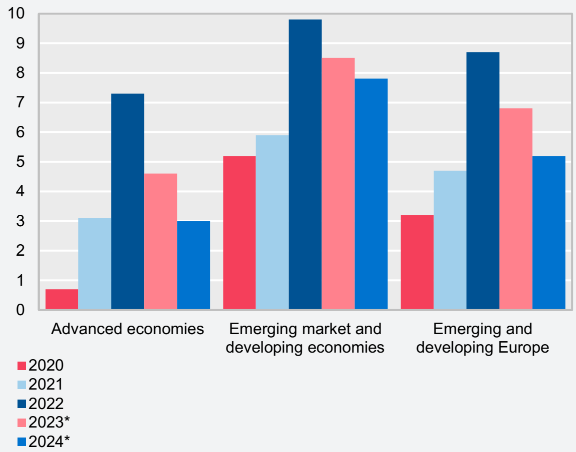
	October 2023		July 2023	
	2023	2024	2023	2024
Poland	11.7	5.6	12.2	6.1
Czech Republic	10.8	2.8	10.8	2.9
Hungary	17.8	5.3	18.1	5.6
Romania	10.5	5.8	10.1	5.3
Slovakia	10.7	4.4	10.8	4.9
Slovenia	7.5	3.6	7.0	3.3
Croatia	8.1	3.8	7.4	3.4
Bulgaria	9.8	4.4	9.9	4.2
Albania	4.4	3.1	4.6	3.1
Bosnia and Herzegovina	6.4	2.6	7.4	2.8
North Macedonia	9.2	4.0	8.9	3.6
Montenegro	8.7	4.9	8.1	4.4

Source: Consensus Economics.

Text box 5: Inflation outlook at home and abroad

A key challenge posed to economic policy makers across the globe is the **struggle with the persistently high inflation against the backdrop of modest economic growth**. Are the monetary policy tightening measures undertaken so far sufficient to ensure a sustainable return of inflation to the target and how resilient economic growth is – these are the fundamental questions central banks are faced with. How to avoid an insufficient monetary tightening which would threaten the achievement of the inflation target, but also how to avoid excessive tightening which would unnecessarily hinder economic activity and employment, and possibly financial stability as well? Deciding on optimal monetary policy measures is never an easy task, and it is now made even more difficult because of the complex supply and demand situation after the pandemic, geopolitical tensions and the conflicts in Ukraine and the Middle East, as well as due to the rising crude oil prices in the global market.

Chart O.5.1 **Changes in consumer prices**
(y-o-y, in %)

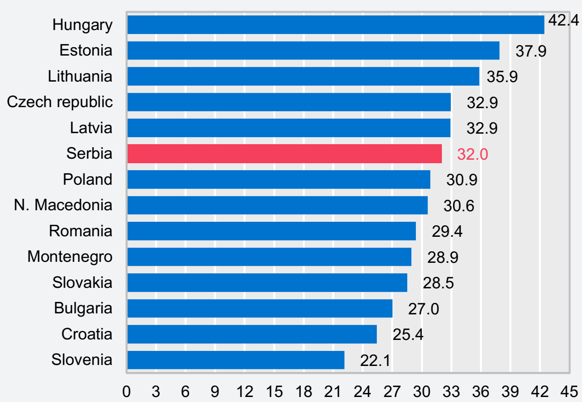


Source: World Economic Outlook, IMF, October 2023.
* Estimate.

Though retreating, inflation is still relatively high, exceeding central bank targets in almost all inflation targeting countries. At the same time, there is huge divergence in inflation rates across countries: from almost zero in China to more than 50% in Turkey and over 100% in Argentina. Even so, the majority of countries forecasts the return of inflation within the target tolerance band over the projection horizon. The dominant factors cited as slowing inflation down are lower cost-push pressures, slower domestic demand, high base and the effects of past monetary tightening. The factors viewed as still inflationary in the majority of countries are the tight labour market and resilient core inflation.

The most favourable movements among countries in the region in terms of inflation are recorded in the Czech Republic, where inflation is expected to be within the target tolerance band already in early 2024, while the possibility that the policy rate could go down next year has also been announced. Though Hungary posted the highest y-o-y inflation rates among regional peers (average inflation this year should be within the 17.6–18.1% range), it expects inflation to return within the tolerance band in early 2025. Poland expects inflation to return within the target band a bit later, in mid-2025, while average inflation in 2023 should equal between 11.3% and 11.5%. The Romanian central bank expects inflation to return within the target band in Q3 2025. As for the euro area, our key economic partner, though inflation has been trending at a single-digit level for quite some time, the ECB does not expect it to return to the 2% target before end-2025.

Chart O.5.2 **Cumulative inflation rate from the start of 2021 until September 2023 (HICP)**
(in %)



Source: Eurostat.

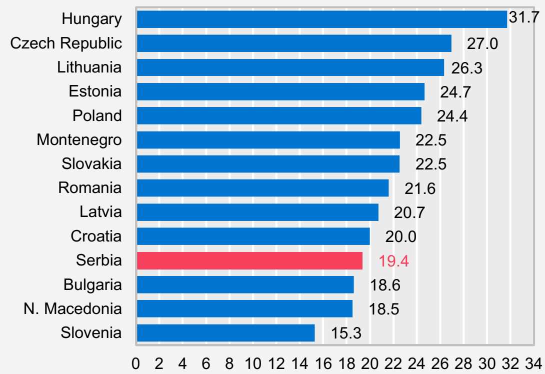
Inflation in Europe took off in early 2021, and somewhat later in Serbia – in August the same year, hence it makes sense to do a comparative analysis and observe cumulative inflation in the period January 2021–September 2023, according to which inflation in Serbia is somewhere around the regional average. As for the CESEE and Baltic regions, five countries have higher inflation than

Serbia (among them Hungary and the Czech Republic), while in eight countries inflation is trending at a lower level than in Serbia. In the observed period, between 60% and 70% of y-o-y inflation in Serbia is constantly attributable to food and energy price growth, i.e. it comes from the supply side, which monetary policy can influence only so much. Also, the extent to which food prices will drive inflation up does not depend only on the food prices themselves, but also on their share in the consumer basket, which is relatively high in Serbia – around 30%, especially when compared to the euro area, where it stands at 16%.

Core inflation, i.e. inflation excluding the prices of food, energy, alcohol and cigarettes, posted the fourth smallest cumulative increase in Serbia (19.4%) among 14 observed countries. Countries such as the Czech Republic, Poland and Hungary have a much higher core inflation than Serbia, reflecting tight labour market conditions and domestic demand.

Over the past several months, we often heard assessments by some analysts that y-o-y inflation in Serbia is retreating more slowly than in other European countries. However, we should bear in mind that such inflation movements in Serbia are under the impact of the Government's decision to avoid major hikes in household and corporate energy prices during 2022, and instead distribute the necessary increases over a period of two years in order to protect the living standard of citizens. This is why inflation peaked in Serbia somewhat later than in other European countries. It should also be noted that inflation peak in Serbia was achieved at a much lower level than in most of the observed countries, which means that the high base effect from the same period last year is smaller in Serbia. This effect is another important contributor to the current slowing of y-o-y inflation in other countries. We expect y-o-y inflation to continue on the downward path, measuring around 8% at the end of the year, and returning within the target tolerance band in mid-2024. In addition to the undertaken monetary policy measures, such inflation movements will also be under the influence of the weakening global cost-push pressures and the fact that food and energy hikes from H2 2022 will drop out of the y-o-y calculation.

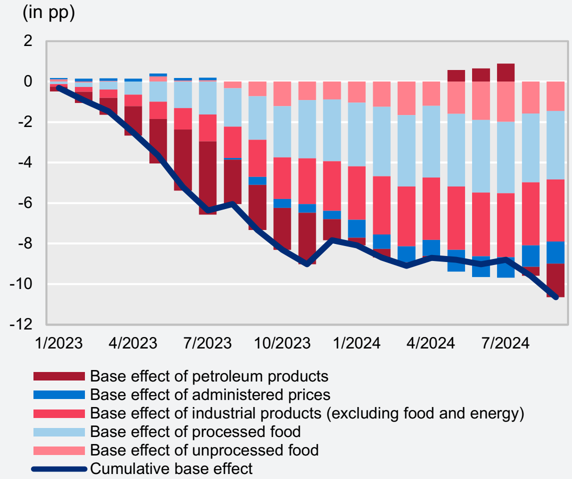
Chart O.5.3 **Cumulative rate of core inflation from the start of 2021 until September 2023 (HICP)**
(in %)



Source: Eurostat.

Talking specifically about the impact of the base effect in Serbia, according to our estimate[1] and observed in isolation, it will have a significant influence on disinflation going forward. In cumulative terms, the total base effect will lead to a fall in y-o-y inflation between September this year and September the following year, by 4.6 pp. Observed by inflation components, the base effect from food and non-food products will be the most important in the coming period.

Chart O.5.4 **Cumulative base effect on y-o-y inflation in Serbia since January 2023**
(in pp)



Sources: SORS and NBS calculation.

Uncertainty over inflation outlook in the international environment has been a dominant source of economic uncertainty in the past two years

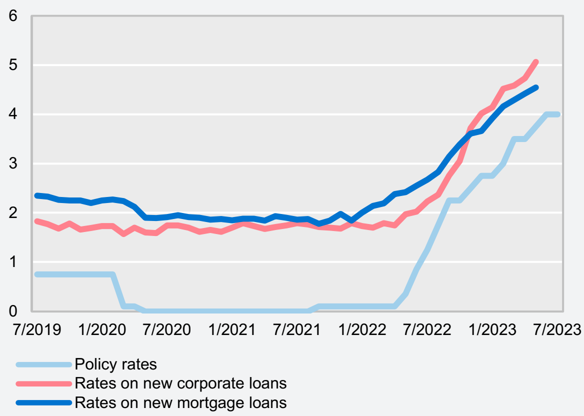
[1] In our estimate of the base effect, we followed the ECB's methodology, according to which the contributions of base effects to the monthly changes in the y-o-y inflation rate are calculated as the deviation of the (non-seasonally adjusted) m-o-m change 12 months earlier from the estimated "normal" m-o-m change. The "normal" m-o-m change is the seasonally usual change for that month, taking into account the inflation movement trend. For more information, see: Text box 4: Estimate of the impact of base effects on y-o-y inflation, *Inflation Report – August 2021*, p. 69.

both for Serbia and other countries. Today, though the disinflation process is unfolding in almost all countries, uncertainty is mostly amplified by the slowdown in China's growth and a rise in global crude oil prices. The signs of subdued growth in the Chinese economy are raising concerns bearing in mind the country's importance for global economic growth, trade and financial markets. Analyses indicate that a 3 pp non-anticipated one-year decline in China's domestic demand has a direct effect on global GDP growth, reducing it by 0.6 pp and possibly by even more than 1 pp if the slowdown in China is accompanied by a significant tightening in global financial conditions.[2]

Also, **the recent hike in global prices of oil and some foodstuffs, as well as the dollar's strengthening**, could exert pressure on inflation in the near term. Energy and food prices have large weights in the consumer price indices of a number of emerging countries, Serbia included, and are an important determinant of households' inflation expectations. Relative to the maximums reached in 2022, energy prices are lower, but the risks of disruptions occurring in these markets and of a further price hike are still quite high, as indicated by movements in the past three months when the global oil prices reached USD 95 per barrel in a short period. The risks from food prices are also pronounced.

El Niño,[3] which began in June, will most likely have an adverse effect on next year's harvest and the introduction of export limits by key producers (notably of rice, whose global price is at a 15-year high), while the conflict in Ukraine can exert pressure on the prices of wheat, corn, cooking oils and fertilisers.

Chart O.5.5 **Borrowing costs are rising**
(p.a., in %, median, advanced economies)



Source: OECD Economic Outlook, Interim Report, September 2023.

Even so, the fall in global energy prices and somewhat less in global food prices has driven global inflation down. Core inflation, excluding food and energy prices, also declined, though to a lesser extent, reflecting the combined effect of demand, as indicated by tight labour market conditions in many countries and the spillover effect of past shocks, especially the energy price hike onto costs and other prices. Near-term inflation expectations are an important transmission channel as they reflect on wages and the prices of goods and services. **A key question is how fast wages will rise and whether companies will absorb higher wage costs** without raising the prices of their products and services further. In the majority of countries the nominal wage growth is above the rates that are aligned with the medium-term inflation target. However, inflation could continue to retreat even with a temporary increase in wages if these higher costs are absorbed through reduced corporate profits, since the necessary room for that has been secured thanks to the significant hikes in profits in the past two years.

Central banks had to respond to the rising inflation by tightening their monetary conditions, which started to have an effect through the financial system. The fact that the Fed kept its rate unchanged in September and November, and the ECB in October most likely means that the end of their monetary policy tightening cycle is near. Credit activity has already decelerated sharply in the euro area, and even if policy rates are not increased any further, the effects of past hikes will continue to play out for some time. Real interest rates in advanced economies are now above the neutral rates and the IMF[4] expects them to remain like that until 2025. Central banks are expected to slowly turn to monetary policy accommodation during 2024, as inflation rates sustainably return to their target.

[2] OECD Economic Outlook, Interim Report September 2023: Confronting Inflation and Low Growth.

[3] A global atmospheric and ocean phenomenon created through the fluctuation of wind directions and water temperature in the tropical parts of the Pacific, occurring every 2–7 years.

[4] WEO, IMF, October 2023.

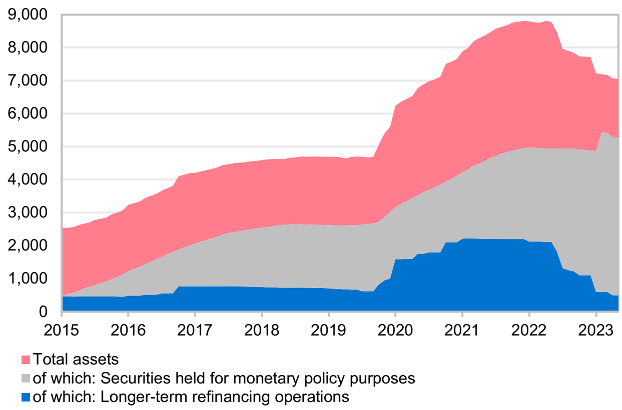
Monetary policy

In the September meeting, the **ECB** continued lifting its rates by 0.25 pp, hence the main refinancing operations rate came at 4.50%, and the lending and deposit facilities rates at 4.75% and 4.00%, respectively. Since July 2022, when the ECB embarked on the cycle of monetary policy tightening, the main refinancing rate has been lifted ten times, by a total of 4.50 pp. At the same time, the ECB continued downsizing its balance sheet as planned, at a moderate pace. The portfolio of securities purchased under the **APP programme** is shrinking because the ECB is no longer reinvesting the principal payments from maturing securities. As for the pandemic emergency purchase programme PEPP, the principal payments from maturing securities will be reinvested at least until end-2024, with a gradual wrapping up of the **PEPP** portfolio to avoid an adverse impact on monetary conditions. In addition, the impact of the return of funds borrowed within **targeted long-term refinancing operations (TLTROs)** on monetary conditions is regularly monitored. When making the September decision on lifting the main refinancing rate, the ECB underlined that with this increase it reached the level that ensures restrictive monetary conditions that will lead to a decline in inflation and its return to the 2% target in the medium-term. It added that the rate of headline inflation continued to slow, but is still expected to remain high over a longer period, which is why monetary conditions need to stay restrictive. In September, the ECB Executive Board was split over the decision whether to increase or pause the current cycle of monetary policy tightening due to the further slack in economic activity. Nonetheless, the decision on halting the cycle was made in October with the note that future decisions on interest rates will also depend on the inflation outlook in light of new economic and financial data, dynamics of baseline inflation and strength of the monetary policy transmission.

In the September and November meetings, **the Fed** did not change its federal funds rate range, which was increased to 5.25–5.50% in July. When making decisions in the future, the Fed will take into account the cumulative effects of past monetary policy tightening, as well as the delay with which the monetary policy impacts economic activity, inflation and financial conditions. According to the Fed's September projection, the fed funds rate median is 5.6% for end-2023, the same as in the June projection, and 5.1% and 3.9%, respectively, for 2024 and 2025, which is 0.5 pp higher for both years.

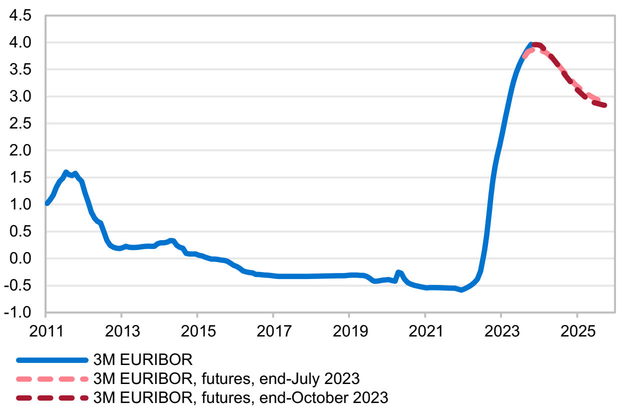
The **Bank of England** kept its policy rate unchanged at 5.25% in September and November, its highest level since 2008. This is the first pause in the monetary policy

Chart V.0.11 **Consolidated Eurosystem balance sheet**
(end-of-month, in EUR bn)



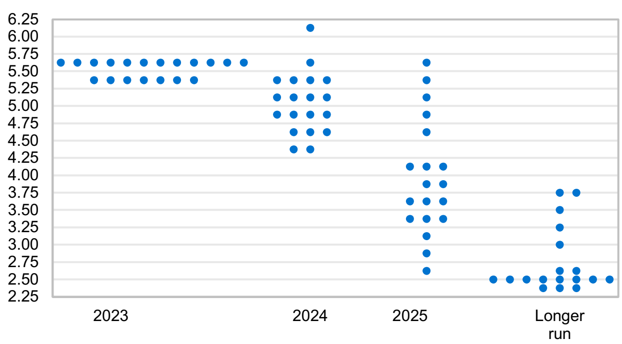
Source: ECB.

Chart V.0.12 **Expected 3M EURIBOR**
(p.a., in %)



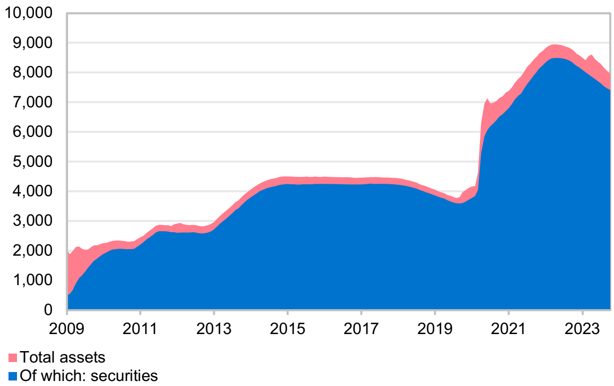
Source: Bloomberg.

Chart V.0.13 **FOMC participants' expectations of appropriate monetary policy: midpoint of target range or target level for the federal funds rate**
(in %)



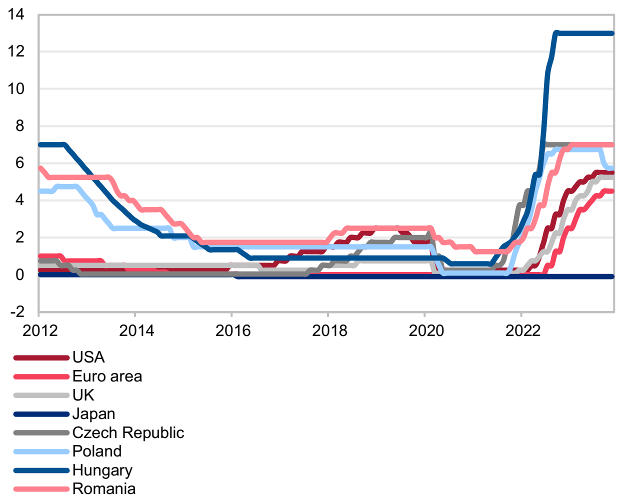
Source: Fed, Summary of Economic Projections, September 2023.

Chart V.0.14 **Fed's total assets**
(monthly average, in USD bn)



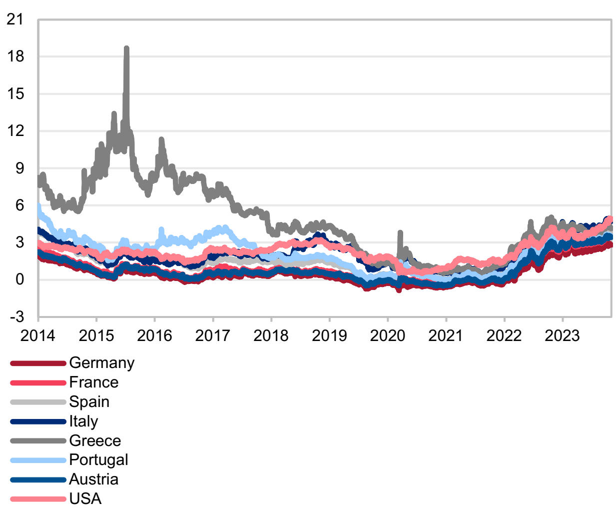
Source: Fed.

Chart V.0.15 **Policy rates across selected countries**
(p.a., in %)



Sources: Central banks of selected countries.

Chart V.0.16 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



Source: Bloomberg.

tightening cycle that has been underway for almost two years, and it comes after the data on inflation and labour market which indicate that the measures taken so far are starting to yield results. In September, the central bank of **Switzerland** also kept its policy rate unchanged at 1.75%, thus taking a break from policy rate hikes since June last year.

Of the central banks **in the CESEE region** pursuing inflation targeting, the central banks of **Turkey** and **Russia** lifted their policy rates in Q3 2023. Their press releases underlined that the additional monetary policy tightening was needed to curb inflation growth and enable its return to the target level. Policy rates of the Turkish and Russian central banks currently measure 35.0% and 15.0%, respectively. In contrast, other central banks in the region pursuing inflation targeting have most likely discontinued with monetary policy tightening, however, future monetary policy decisions will certainly depend on the assessments of the stability of the disinflation trend, the analysis of the labour market and the domestic and external demand. The central banks of the **Czech Republic** and **Romania** kept their policy rates on hold – at 7.0% each. The Romanian central bank noted the downward trend inflation has been displaying since February 2023, thanks to the slower growth in food prices and a further reduction in energy prices, while the central bank of the Czech Republic announced that it will most likely embark on a monetary policy accommodation cycle next year. In contrast, the central banks of Poland and Hungary have eased their monetary policies. The decision on the first policy rate cut was made by the **Polish** central bank in early September, and then again in early October, hence the total cut for now is 1.00 pp, and the rate equals 5.75%. The central bank of **Hungary** trimmed its rate on one-day deposits by 100 bp to 13.0% in September, following several similar cuts since May this year. In October it trimmed its policy rate as well, by 75 bp to 12.25%, stating that this was enabled by strong disinflation and the country's lower vulnerability.

Financial and commodity markets

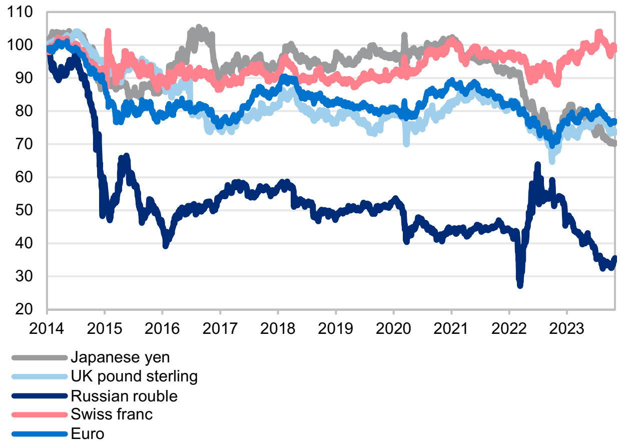
Yields on ten-year government bonds of advanced European economies rose during Q3 – on average by 54 bp q-o-q, while yields on ten-year US Treasuries rose by 73 bp. The start of Q3 witnessed a fall in yields, when the published statistics on inflation slowing down gave rise to expectations that leading central banks might put an end to the cycle of monetary policy tightening. However, the data that followed, indicating the resilience of the US and euro area's labour markets and economic activity, fortified the belief that leading central banks will keep their policy rates high over a longer period of time.

During Q3, the **dollar gained vis-à-vis the euro and the majority of other leading currencies** in the international financial market. Increase in the dollar's value in the observed period can be related to the USA's better economic performance relative to the euro area, as well as the role of the dollar as a safe haven currency in conditions of the lingering uncertainty in global markets.

The **global price of oil** moved on the upward path during Q3, reaching around USD 95 per barrel by end-September, under the prevailing impact of Saudi Arabia and Russia's decision to cap production by 1 mn and 0.5 mn barrels a day, respectively, by end-2023. On a quarterly level, the price of Brent oil averaged around USD 87 per barrel in Q3, 10.9% up from Q2, though in y-o-y terms it was 14.1% lower. In October, the price of oil dipped, averaging around USD 91 per barrel amid increased inventories in the USA and poorer than expected production activity in China, despite the fact that the outbreak of the conflict in Middle East drove it up by around 5% in mid-month. The Consensus Economics expects the Brent oil price to measure around USD 90 per barrel at end-2023 and USD 87 per barrel at end-2024. The US Energy Information Administration (EIA) expects the price of oil to reach USD 91 per barrel at end-2023, as oil demand currently exceeds the supply, and to reach USD 94 per barrel at end-2024. According to our projection, based on market futures, the price of Brent oil will average USD 88 and USD 84 per barrel at the end of 2023 and 2024, respectively.

The benchmark price of natural gas for Europe (Dutch TTF hub) retreated on average to around EUR 33 per MWh in Q3 (equivalent to USD 380 per 1,000 cubic metres).[14] It is 5.4% below Q2 levels and multiple times lower than the record high level from Q3 2022. The lower natural gas price is attributable to the high filling levels in storage facilities, while occasional hikes were triggered by workers' strikes at export terminals of liquid gas in Australia and the capped production in Norway. As usual for the season, natural gas price went up in October, averaging around EUR 43 per MWh. With the high filling levels of storage facilities, which reached 90% in September, the Consensus Economics expects a more moderate increase in natural gas prices than before, most likely reaching around EUR 44 per MWh at end-2023 and EUR 46 per MWh at end-2024. According to market futures, the natural gas price should measure around EUR 50 and EUR 53 per MWh at the end of 2023 and 2024, respectively, similar to the previous projection.

Chart V.0.17 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)

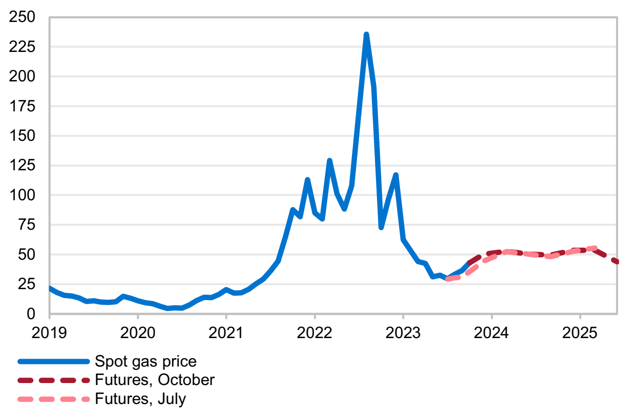


Source: IMF.
* Growth indicates appreciation.

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

Source: Bloomberg.

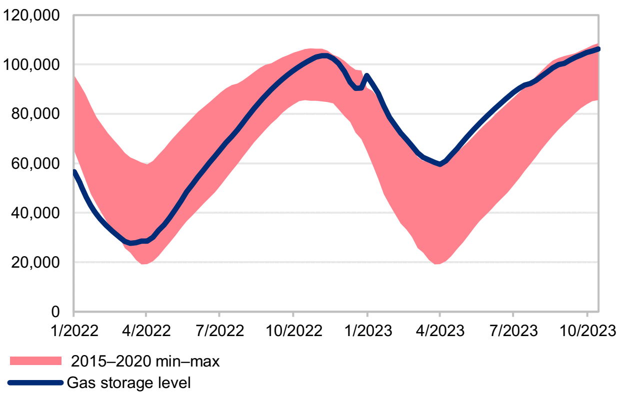
Chart V.0.19 **European price of natural gas**
(EUR/MWh)



Source: Refinitiv.

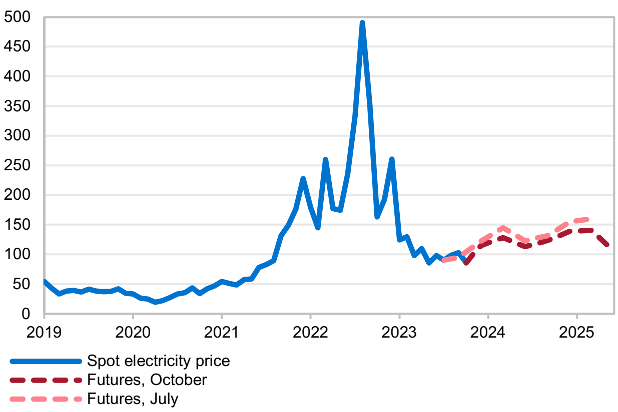
[14] The price expressed in dollars per 1,000 cubic metres of gas was calculated based on the production price of gas expressed in MWh, the EUR/USD exchange rate and an appropriate coefficient (10.55 MWh ≡ 1,000 m³).

Chart V.0.20 **EU gas storage levels**
(mn m³)



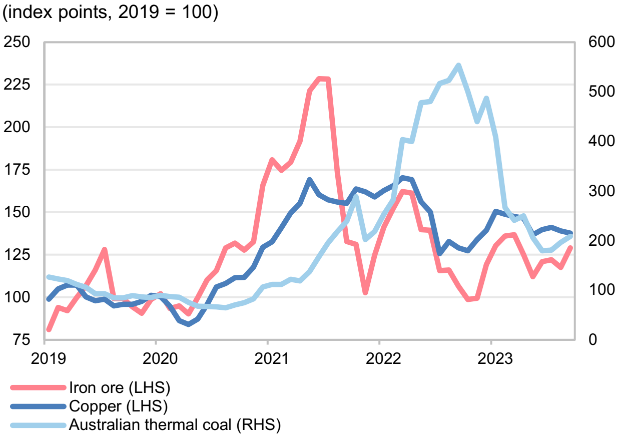
Source: Bruegel.

Chart V.0.21 **European price of electricity**
(EUR/MWh)



Source: Refinitiv.

Chart V.0.22 **Selected commodity prices in the global market**
(index points, 2019 = 100)



Source: Commodity Prices, World Bank.

The benchmark electricity price for Europe (German stock exchange) was stable during Q3 and averaged around EUR 97 per MWh. This is almost unchanged from Q2, but simultaneously as many as four times lower than in the same period last year. In contrast, the **price of electricity in the Hungarian stock exchange** rose mildly from Q2 (4.5%) and averaged around EUR 105 per MWh in Q3. The price of electricity continued up at a moderate pace in Hungary in October, averaging around EUR 109 per MWh, while in Germany it edged down to around EUR 86 per MWh. According to market futures, the coming period will see slower growth than before, hence the price of electricity will climb to EUR 128 per MWh at end-Q1 2024, only to return to around EUR 139 per MWh at end-2024 after the seasonally usual fall in Q2.

Thermal coal price climbed during Q3, averaging around USD 162 per tonne in September, 16.5% higher q-o-q. Even so, it was as much as 62.3% lower in y-o-y terms. In contrast, the thermal coal price retreated 12.5% in October on account of stepped up output in China.

The **global prices of mineral fertilizers** trended up over the past months, only to edge down 25.8% y-o-y in October, while relative to the record high level from last April, they are almost twice lower.

Metals and minerals prices recorded diverging movements during Q3 since the increase in inventories of most metals in the London Stock Exchange drove the prices of metals down, while China's decision on a new fiscal stimulus acted in the opposite direction. Relative to June, September saw lower prices of nickel, tin and copper, and higher prices of the iron ore, lead and zinc, while aluminium price remained mostly unchanged. The prices of most metals and minerals trended down in October against the backdrop of the crisis in China's construction sector. The Consensus Economics expects the index of global base metals prices[15] to edge up moderately by end-2024.

After an initial increase in July, **global food prices**, measured by the FAO index, decreased by end-Q3 and were 1.0% lower in September relative to June, as well as 10.7% lower y-o-y. The fall was precipitated by the lower prices of dairy products due to high inventories and subdued demand, as well as the lower prices of meat amid increased export capacities and dented demand in China. Conversely, under the impact of elevated uncertainty over the impact of El Niño on sugar cane harvest and lower

[15] This index has been calculated by The Economist, and the shares of individual metals reflect their respective shares in world metal trade: aluminium (47%), copper (32%), nickel (8%), zinc (7%), lead and tin (3% each).

rainfall than usual in Thailand, the price of sugar went up. The prices of plant oils also increased over heightened supply-related concerns after Russia left the Black Sea Grain Deal. The prices of cereals in September remained almost unchanged relative to June. Global food prices continued on the downward path in October, with only the prices of dairy going up, while the prices of other categories edged down.

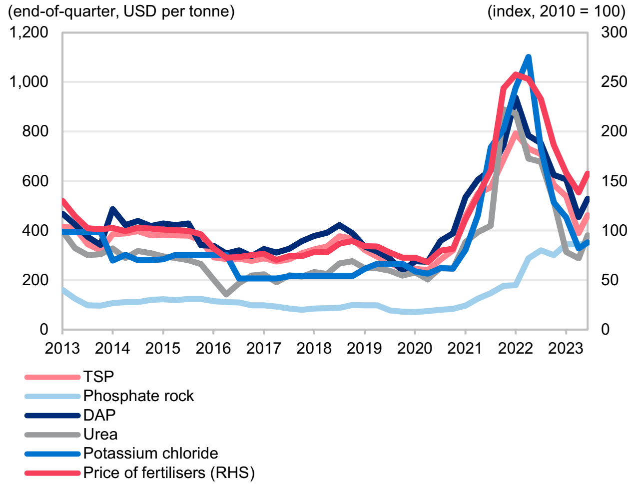
Following an initial increase in July, dominantly under the impact of Russia's decision to suspend the Black Sea Grain Deal, the **prices of primary agricultural commodities** in the global market struck a downward trajectory until end-Q3 and were 3.4% lower in September relative to June. The lower prices of cereals were under the impact of favourable weather conditions and the new harvest. The global prices of primary agricultural commodities remained stable in October. Our assumptions on movements in primary agricultural commodities prices going forward were based on the two-week averages of futures in international stock exchange markets. Accordingly, in the coming period we expect a fall in the global prices of primary agricultural commodities, hence they should be 26% lower in December than at end-2022, whereas they are to record moderate growth (around 5%) by end-2024.

Internal assumptions

This year's domestic agricultural season is nearing closure, promising to overperform our initial expectations. It will definitely exceed the multi-year average, with the output growing probably at 10–11%, while our August expectation was at the multi-year average of around 8%. A better season is also indicated by the estimated higher output of main agricultural crops, published by the SORS in early September (corn 55%, soybean 50%, wheat 11%, sugar beet 22%, sunflower 7%). The season is also estimated as favourable in global terms, which, given the expected decline in global prices of primary agricultural commodities, should positively reflect on **prices of primary agricultural commodities and food in the domestic market**.

Reflecting the rise in global energy prices in the past period, the adjustment of electricity and natural gas prices in the domestic market was announced for November in order to prevent major losses of energy companies. This is consistent with the plan defined under the IMF arrangement and our expectations from the previous *Report*. Also, October saw increases in excise duties on cigarettes, coffee, alcoholic beverages and petroleum

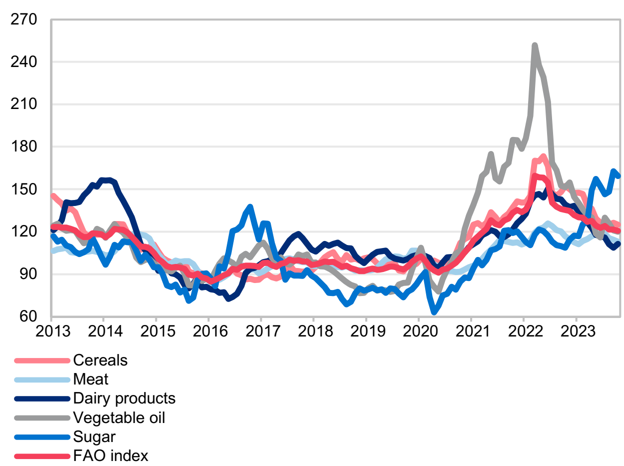
Chart V.0.23 **Global prices of mineral fertilisers**



Source: World Bank.

Chart V.0.24 **World Food Price Index**

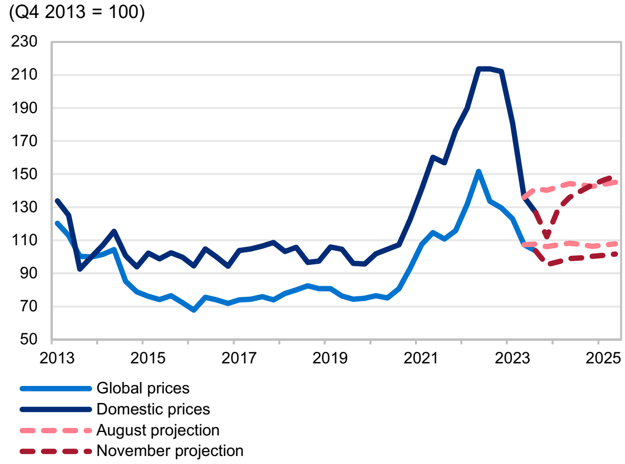
(in nominal terms, 2014−2016 = 100)



Source: UN FAO.

Chart V.0.25 **Assumption for prices of primary agricultural commodities***

(Q4 2013 = 100)



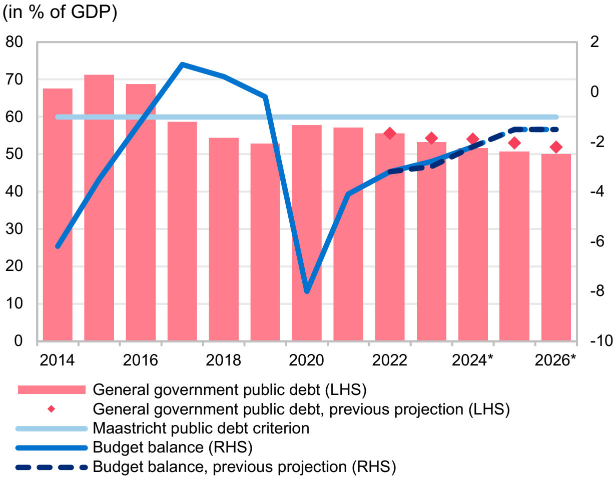
Sources: Novi Sad Commodity Exchange, CBOT, Euronext and NBS calculation.
* Measured by the composite index of wheat, corn and soybean prices.

Table V.0.5 **New set of fiscal rules**

General fiscal rules	
Government sector debt, including restitution liabilities, is not to exceed 60% of GDP	
Medium-term deficit target is 0.5% of GDP	
Depending on the level of government sector debt, the deficit is adjusted to the following levels (in % of GDP):	
60% or above	0.0%
55-60%	0.5%
45-55%	1.5%
45% or below	3.0%
Specific fiscal rules	
Share of government sector wages in GDP up to 10%	
Indexation of pensions depending on their share in GDP as follows:	
10.5% or above	Indexed to change in CPI
10-10.5%	Weighted indexation to change in net average wage and change in CPI
10% or below	Indexed to change in net average wage

Source: Ministry of Finance.

Chart V.0.26 **Budget balance and general government public debt**
(in % of GDP)



Source: Ministry of Finance.
* Projection from the Revised Fiscal Strategy for 2024 with Projections for 2025 and 2026.

products. Due to the announced increase in the gas price, we expect heating plants in Serbia to raise heating prices moderately. Bearing all this in mind, we expect that the rise in **administered prices** this year will amount to 11.1%. We have assumed further administered price hikes – 5.2% in the next year and 6.5% in 2025.

Speaking of the rise in consumer demand, the wage bill, pensions and remittances remain its main sources. The cap on interest rates on new euro-indexed housing loans and lower costs of repayment of existing loans for first-time apartment buyers, approved at a variable interest rate and worth up to EUR 200,000, ought to work towards higher disposable income for consumption by the end of this and throughout the next year. Specifically, speaking of **labour market factors**, we project that the wage bill, after rising by around 15% this year, will record an increase of around 11% next year, reflecting the higher minimum wage (by 17.8%), the projected continued growth in employment and public and private sector wages, remaining a key source of consumer demand.

The medium-term fiscal framework defined by the *Revised Fiscal Strategy for the Period 2024–2026* has not changed significantly relative to the previous medium-term framework. According to the *Revised Fiscal Strategy*, the fiscal deficit for 2023 was revised down to 2.8%, mostly as a result of higher than planned tax revenues. In terms of the structure of tax revenues, the most significant changes were recorded in the collection of labour taxes, i.e. personal income tax and mandatory social contributions, reflecting a sizeable rise in average wages and employment, and in the collection of profit tax, due to the more profitable operations of corporates in 2022. On the expenditure side, more favourable movements were recorded under subsidies and budgetary loans thanks to a fall in energy prices, which, along with the stabilisation of domestic electricity production, reduced the need for government financial support.

Public finance overperformance compared to estimates from H1 allowed the government to implement measures boosting household income through the September revision of the 2023 budget, without undermining the declining path of public debt in GDP. The measures comprise a 5.5% increase in pensions and some public sector wages and one-off assistance for parents of children up to 16 years of age and pensioners. A portion of the budget saved owing to the energy sector recovery was redirected to increased agricultural subsidies. These measures should boost private consumption in Q4, with no major inflationary effect expected on that account.[16]

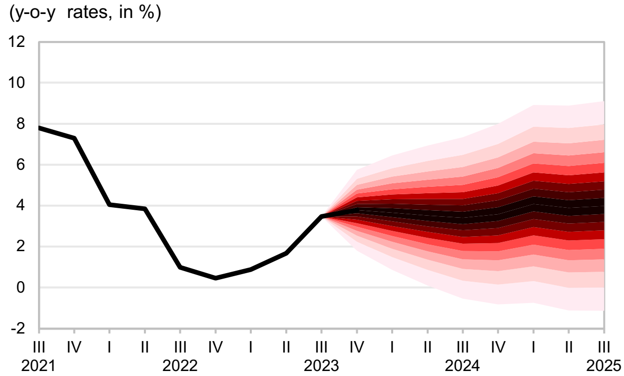
At the consolidated level, in the first nine months a surplus of RSD 15.8 bn was recorded, or 0.3% of the projected GDP[17]. General government public debt at end-September measured 51.7% of GDP, down by 3.9 pp compared to end-2022. Public debt to GDP ratio is projected at 53.3% for the year-end, which is a 1 pp decrease compared to the previous fiscal strategy. The government sector deficit for 2024 is projected at 2.2% of GDP. In the fiscal framework for 2024–2026 the emphasis remains on the maintenance of fiscal stability and reducing public debt share in GDP, aiming to bring it down to 50% by the end of this period. This target will be supported by the previously introduced fiscal rules, which limit the fiscal deficit level to 1.5% (planned both for 2025 and 2026), and special fiscal rules which limit the wage and pension share in GDP. On the expenditure side, priority lies with infrastructure and capital projects, with the planned share of capital expenditure in the range of 6.6–6.8% of GDP for 2024–2026. The implementation of public investment in 2023 increased relative to the initial plan, mainly owing to the construction of transport infrastructure, so the share of capital expenditure went up to 7.2% of GDP. The government will proceed with the policy of reducing the tax burden on the corporate sector with a view to supporting private sector competitiveness.

In our estimate, such movements in public finance would reflect positively both on the country's **credit rating and risk premium**.

GDP projection

GDP growth stepped up further in Q3 to 3.5% y-o-y, according to the SORS estimate. In our view, growth was underpinned primarily by construction due to accelerated implementation of infrastructure projects. Though external demand, primarily from the euro area, slackened, manufacturing posted better than expected outturns, propped up by past investment and rising domestic demand. Also, SORS data on the yields of key crops indicate that this year's season was better than average, exceeding our expectations from August. A positive impulse also came from most service sectors. On the expenditure side, growth was led by rising investment, mostly private. Net exports also gave a positive contribution, though lower than in H1 2023, as real

Chart V.0.27 **GDP growth projection**
(y-o-y rates, in %)

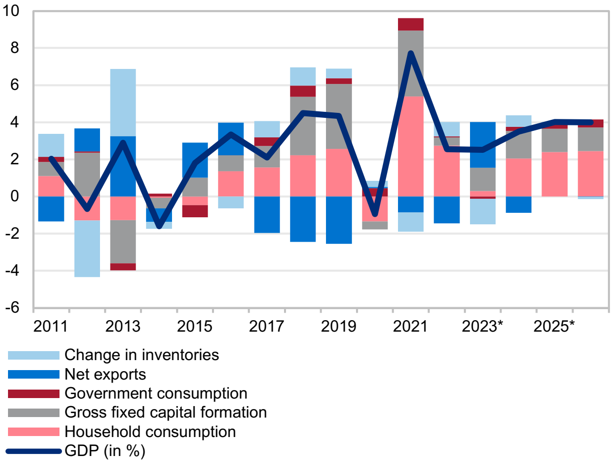


Source: NBS.

[16] See Text box 3, p. 32.

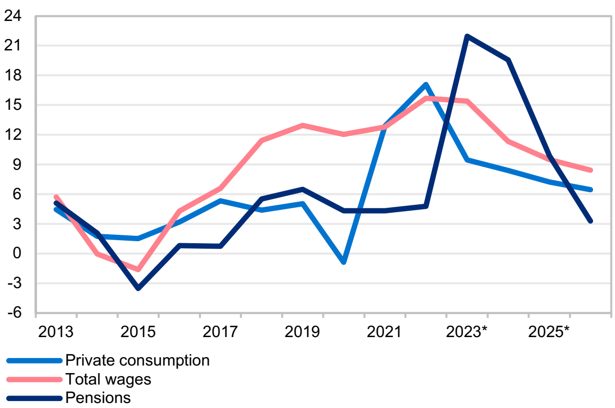
[17] According to the projection of the Ministry of Finance for 2023.

Chart V.0.28 **Contributions to real GDP growth**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.29 **Rate of growth in private consumption and its sources**
(nominal y-o-y rates, in %)



Sources: SORS and NBS calculation.
* NBS estimate.

growth in the exports of goods and services continued up, and imports declined further.

As third-quarter GDP growth outstripped our expectations from the previous *Report*, **we now estimate the GDP growth rate in 2023 to measure around 2.5%, exceeding our expectations from August** when we anticipated it to settle closer to the lower bound of the projected 2–3% range. Though net exports are expected to provide a negative contribution in Q4 as imports of goods and services are expected to accelerate and exports decelerate reflecting subdued external demand, primarily from the euro area, it is precisely net exports that are anticipated to provide the key contribution to GDP growth at the level of the year (around 2.5 pp). Overall domestic demand will, on the other hand, stagnate. Fixed investment will go up thanks to increased corporate profitability, high FDI inflows and government investment in transport infrastructure, as will private consumption which is expected to rebound in Q4 on the back of an increase in employment and wages in the private and a part of the public sector, and in outlays for pensions. The depletion of inventories will work in the opposite direction. On the production side, despite divergent trends in some of them in H1, the service sectors taken together ought to contribute around 1 pp to GDP growth this year, and the same contribution is expected to come from construction and industry together. An additional positive impulse is anticipated from agriculture, thanks to this year's above-average agricultural season.

With the expected recovery of the euro area and, by extension, of external demand, and the planned accelerated implementation of investment projects in the area of transport, energy and utility infrastructure, we expect Serbia's GDP growth to step up to 3.0–4.0% as of 2024, and then return to the pre-pandemic growth trajectory of around 4% per annum. The achievement of the projected GDP growth rate in 2024 will also be facilitated by a stronger carry-over effect than in 2023, resulting from accelerated economic growth in H2 this year and estimated at around 1.5 pp.

When it comes to GDP composition in terms of its use, the largest positive contribution of around 2 pp in 2024 is expected to come from **private consumption**, reflecting the continued rise in employment and wages (including the minimum wage increase), and in pensions in line with the fiscal rules. The rise in the real income disposable for consumption will also be propped up by inflation's slowdown and lower costs of repayment of euro-indexed housing loans based on the NBS's decision to temporarily cap these interest rates. However, we project that private consumption in 2024 will continue to rise more slowly than total GDP, which ought to contribute to medium-term price stability as well.

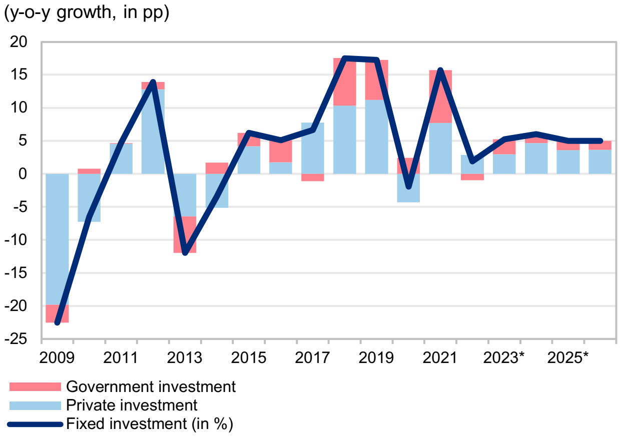
Consistent with the plan defined in the *Revised Fiscal Strategy for 2024*, we expect **government consumption in 2024** to continue to provide a mildly positive contribution to GDP growth. Most of all, this is indicated by movement in outlays for public sector wages which, in the medium term, are projected at around 10% of GDP, in line with the fiscal rules, while the share of outlays for goods and services in GDP will even slightly subside.

We estimate **that private investment will provide a strong positive contribution to GDP growth in 2024 and in the medium term**. This contribution is estimated at around 1.0 pp per annum, propped up by the preserved investment confidence, favourable growth outlook of our economy and its demonstrated resilience to negative external shocks in the preceding period. Own funds remain the key source of private investment financing, supported by increased corporate profitability and high FDI inflows. Though costlier, investment loans continued to provide a positive contribution to investment growth in 2023 as well. Also, significant government-financed projects in transport infrastructure and the energy sector have been planned. Further, as EXPO 2027 is set to be held in Belgrade, major investment in other public infrastructure is expected as well. According to our estimate, all of the above will result in a mild positive contribution of government investment of around 0.3–0.4 pp per annum.

We expect **inventories** to recover gradually in 2024. They were very much depleted in 2023, used in part for domestic consumption and in part for exports. The rise in the inventories of agricultural products is propped up by this year's good agricultural season, particularly the yield of autumn crops. For the coming years, we project the contribution of inventories to be close to neutral.

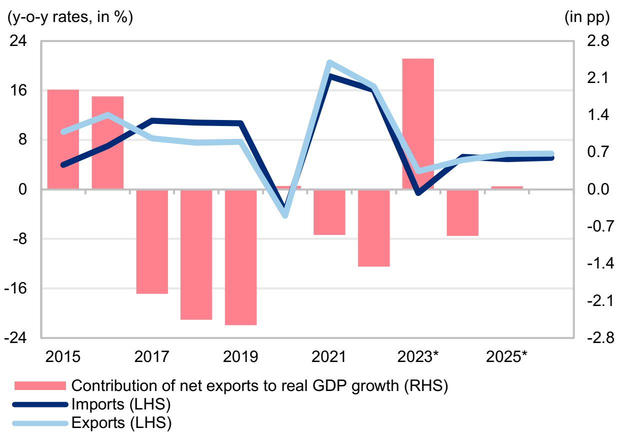
The contribution of **net exports** in 2024 is expected to be negative (around -1 pp) due to the anticipated increase in the imports of equipment and intermediate goods for the needs of implementation of the planned investment projects. In part, this will be offset by higher goods exports as a result of new and past investment in export-oriented sectors and the rebound in external demand, which ought to result in an almost neutral contribution of net exports in the medium term. In addition, a mild increase in the surplus on services trade is expected to continue as a result of diversified growth in the exports of services observed by type, primarily the exports of ICT and business services, tourism and air travel services. A

Chart V.0.30 **Fixed investment**



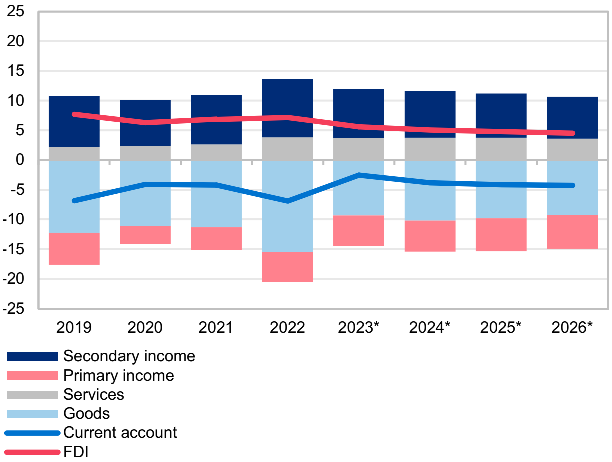
Sources: SORS and NBS calculation.
* NBS estimate.

Chart V.0.31 **Real export and import growth**



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.32 **Current account and FDI projection**
(in % of GDP)



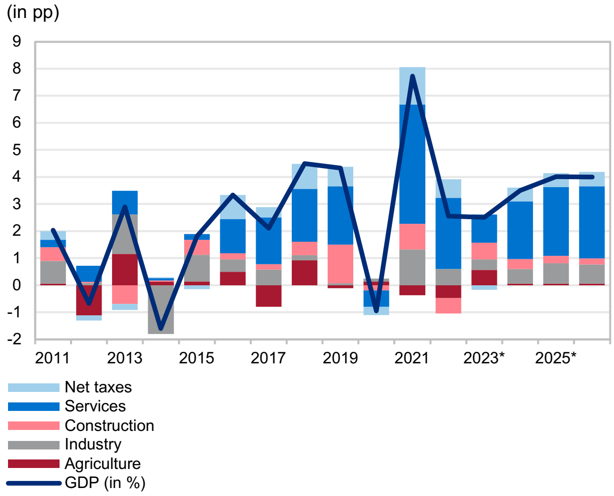
Source: NBS.
* NBS projection.

better agricultural season this year resulted in higher yields of primary agricultural commodities which much exceed the requirements at home. This will in all likelihood have a large bearing on export growth next year, as the supply of these products in the market is currently high and export prices are low.

Taking into account this and the fact that exports of goods and services continued up in real terms in Q3, while imports are still lower in y-o-y terms, the projection of the **share of the current account deficit in GDP** was kept at 2.5% this year and measures 3.8% for 2024. We expect that the terms of trade (i.e. higher increase in export than import prices) will contribute to a lower current account deficit this year and work in the opposite direction next year, which also explains the slightly higher expected deficit next year than we projected in August.

The current account balance profile next year and in the medium term will mostly be determined by structural factors. Continued investment growth, notably the planned large-scale investments in infrastructure, will push up equipment imports, which is why real growth in the imports of goods and services in the next three years is estimated at around 5% per annum on average. At the same time, as a result of past investment in tradables, and most of all of high FDI inflows and the expected rallying of external demand, we expect real exports of goods and services in the medium term to measure around 5.5% per annum on average. The projection assumes that the secondary income surplus will not exceed 8% of GDP, an average recorded even before the pandemic, while the anticipated trajectory of net FDI inflows of around 5% of GDP will make the yields in respect of their ownership a solid expenditure item in the primary income account, the deficit on which will therefore moderately increase. All of this should result in a gradual trending of the share of the current account deficit in GDP towards 4% in the medium term, a level that ensures the country's external sustainability. When it comes to FDIs, we expect them to remain highly geographically and project-diversified and mostly directed to export-oriented sectors.

Chart V.0.33 **Contributions to real GDP growth, production side**
(in pp)



Sources: SORS and NBS.
* NBS estimate.

On the **production side, GDP growth in 2024 will continue to be led by the service sectors, aided by rising private consumption** resulting from a preserved labour market and lower inflation, which will increase households' living standards and income available for consumption. This contribution will gradually gain speed from around 2 pp next year to 2.5 pp in 2025. According to our estimate, **net taxes** will also lend a positive impulse (around 0.5 pp per annum), supported by the effect of e-fiscalisation.

A positive contribution to economic growth should also come from production sectors. We expect **agriculture** to continue its moderate growth, propped up by equipment modernisation and greater application of agrotechnical measures due also to higher government subsidies to agriculture. This ought to result in a slightly positive contribution of agricultural production to GDP. A positive impulse of around 0.2–0.4 pp per annum should also come from **construction** due to the planned implementation of infrastructure projects in the area of transport, energy and utility infrastructure. As of next year, **industry** growth is expected to pick up (providing a positive impulse of around 0.7 pp per annum to GDP), propped up by the activation of new and the expansion of existing capacities in **manufacturing** and a rallying of external demand, as well as by the structural reforms in the **energy** sector planned in the new arrangement with the IMF and increased activity in **mining** due to greater exploitation of coal and metal ores, particularly copper.

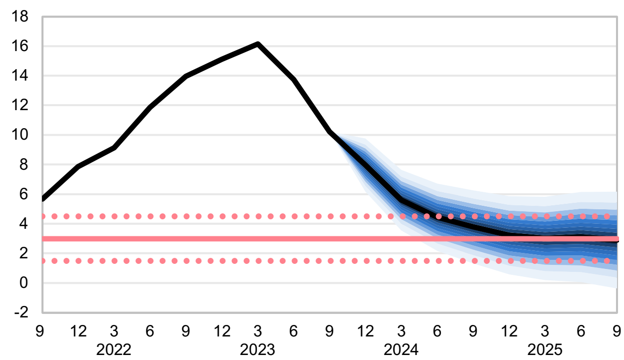
Inflation projection

Our new inflation projection mostly reflects the fact that global inflationary pressures have continued easing and that the effects of monetary policy tightening are increasingly felt. Under the November central projection, we expect y-o-y inflation in Serbia to slacken further **to around 8% at end-2023. It will retreat within the target band most probably towards mid-next year, approaching the target midpoint in late 2024**. Compared to the August projection, our new inflation projection is **unchanged for 2023 and only slightly higher for 2024**, primarily because of the increase in the global price of oil which somewhat surprised us on the upside. Also, our new projection assumes a slightly higher euro area inflation, while external demand is less disinflationary than three months ago.

Though geopolitical tensions and fragmentation increased further with the outbreak of another conflict, **several key factors will aid the downward trajectory of y-o-y inflation:** stringent monetary conditions, subsiding inflation expectations, lower imported inflation, falling prices of primary agricultural commodities and widening of the negative output gap. On the other hand, we expect global oil prices to have an inflationary effect next year.

To navigate the high tide of inflation, almost all central banks, including the NBS, **tightened their monetary policies**. Most central banks have now in all likelihood neared the end of the cycle of monetary policy tightening, and some inflation-targeting central banks of the region

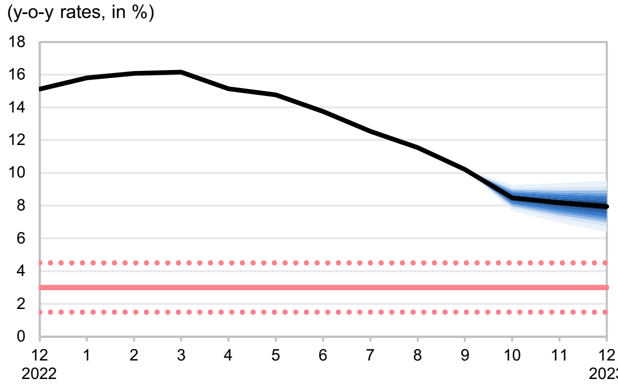
Chart V.0.34 **Inflation projection**
(y-o-y rates, in %)



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.0.35 **Short-term inflation projection**
(y-o-y rates, in %)



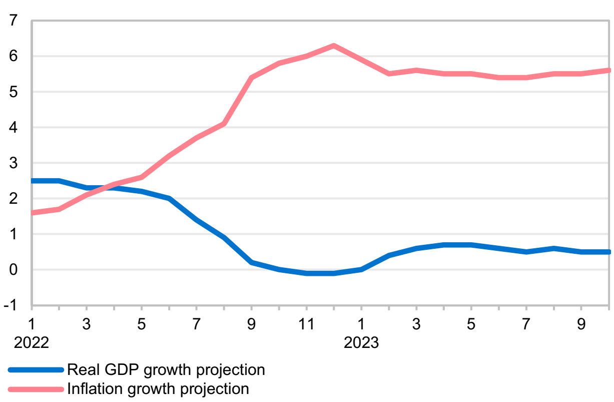
Source: NBS.

Table V.0.6. **International institutions' projections of average inflation in Serbia**

	Average inflation	
	2023	2024
IMF	12.4	5.3
Consensus Economics	12.4	5.5
NBS	12.5	4.6

Sources: The above institutions.

Chart V.0.36 **GDP and inflation projections of the euro area for 2023**
(in %)



Source: Consensus Economics.

have already begun or announced the beginning of monetary policy easing. The IMF has, however, warned **against premature monetary policy easing**, stating that interest rate cuts should only start once the process of disinflation has neared its end and short-term inflation expectations have subsided. As for the leading central banks, the ECB and the Fed, the current cycle of monetary policy tightening seems to be over, with easing expected next year.

In the current cycle of monetary tightening, the Executive Board sought primarily to impact **market players' inflation expectations**, accelerate their retreat within the target band and ensure that inflation strikes a sustainable downward path. Inflation expectations of the financial and corporate sectors have been on a decline in recent months, particularly in the financial sector, whose two- and three years-ahead expectations are within the NBS's target band. They are anticipated to subside further as current inflation declines, leading to an additional fall in inflation and, at the same time, supporting a rise in the real interest rate and a more restrictive effect of monetary policy even without added tightening of monetary conditions.

As in the prior projection, **a key assumption underpinning the anticipated declining inflation trajectory is the decrease in inflation across the world, primarily in the euro area**. The IMF expects global inflation to subside from 6.9% in 2023 to 5.8% in 2024, thanks to monetary tightening and subdued global prices of primary commodities. It expects euro area inflation to go down from 5.6% this to 3.3% next year, similarly to the ECB which anticipates a decline to 3.2% in 2024. The easing of pressures from imported inflation on prices in Serbia during the projection horizon is one of the important drivers of inflation's projected return to the target and is already visible if we observe monthly price growth rates. Both demand and supply-side factors contribute to the decrease in imported inflation. **On the supply side**, it is important to note lower prices of primary commodities and food and the decline in energy prices in the euro area after they soared drastically due to the Ukraine conflict. Also relevant is the improved functioning of global supply chains and the fall in the costs of container transport. **On the demand side**, the effects of rising interest rates due to restrictive monetary policies of leading central banks are being increasingly felt while, on the other hand, households' savings accumulated during the pandemic lockdowns are being exhausted and fiscal aid programmes for citizens have been wound up in large economies.

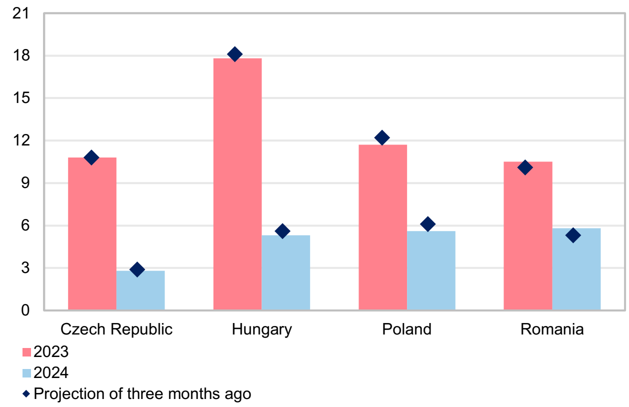
Though inflation is receding, in most countries it will not return within the target band before 2025. There is still concern over the fact that **core inflation is declining more slowly than headline inflation**. According to the IMF, core inflation will continue to recede at a slower pace, measuring 4.5% in 2024. It is of particular interest to central banks, which are keeping a close eye on the second-round effects and the possible triggering of the inflationary price and wage spiral. The opening up of this spiral remains the greatest upside risk to core inflation in the period ahead, if wage growth is not offset by lower corporate profit margins which increased in the prior period.

Another key factor underpinning inflation's projected downward path is the **decline in the prices of primary agricultural commodities**. Global food prices are expected to subside further in the period ahead, as indicated by the expected decrease in primary agricultural commodity prices, consistent with futures. This also reflects a reduction in the costs of agricultural inputs, notably **mineral fertilisers**.

By contrast, **the global crude oil price** is the key inflationary factor in our new projection. Together with other supply-side factors, the outbreak of the Middle East conflict led to a rise in the global price of crude oil. A sharper oil price increase was moderated by higher oil export by Iran this year, while other producers, most notably Saudi Arabia and Russia, reduced their supply and extended supply caps until the end of the year. According to the IEA, the Middle East conflict has so far not limited oil supply, but risk premium and the price of oil have increased by USD 3–4 per barrel. Futures, however, indicate that the global oil price will be on a decline in the coming period, which ought to contain its inflationary effect.

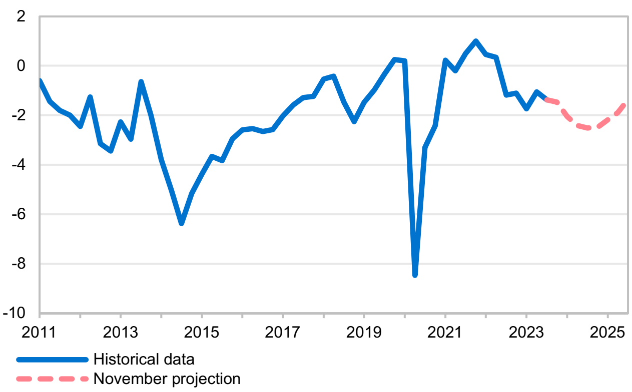
Consistent with the global slowdown and tighter financial conditions, we expect disinflationary pressures on account of **external demand** to persist throughout the projection horizon. Euro area growth is expected to measure 0.7% in 2023 and 1.0% in 2024. Such modest growth mostly reflects trends in Europe's strongest economy, Germany, where economic contraction this year and growth of at most 1.0% is expected next year due to a decline in manufacturing, which will affect our economy the most. In regard to **domestic demand**, a somewhat lower income disposable for consumption on account of monetary tightening by the ECB and the NBS, and the expected more restrictive character of fiscal policy, will be partly offset by higher private sector wages and the continued rise in employment. For this reason, the

Chart V.0.37 **Projection of consumer price growth**
(y-o-y rates, in %)



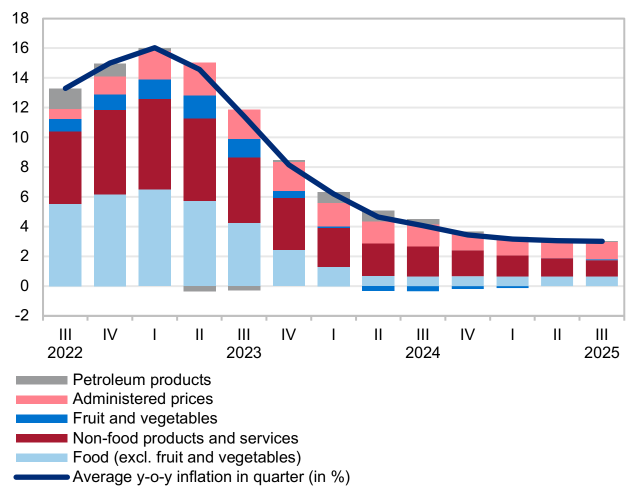
Source: Consensus Economics.

Chart V.0.38 **Output gap projection***
(in % of potential output)



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

Chart V.0.39 **Contributions to y-o-y inflation by component**
(average y-o-y rates, in pp)

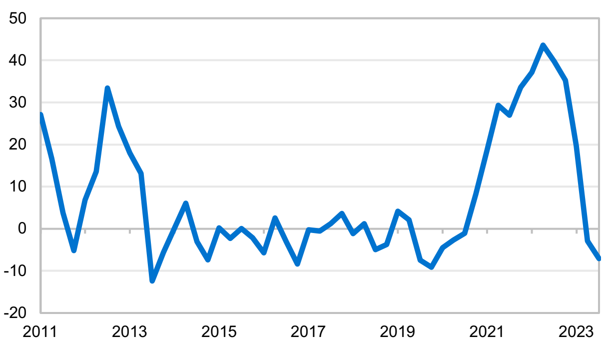


Source: NBS.

negative output gap will continue to deepen until Q4 2024, and then start to narrow, but it will not close until the end of the projection horizon.

We expect the contribution of all inflation components to y-o-y inflation to decrease, aiding its slowdown in the coming period. In particular, this refers to **food prices (excluding fruit and vegetables)**, which, together with prices of non-food products and services, gave the biggest push to y-o-y inflation growth among individual inflation components in the previous period. The decline in the contribution of food prices will reflect the high base for industrial food products and reduced cost-push pressures in food production due mostly to lower prices of primary agricultural commodities (corn, wheat and soy) and receding imported inflation. In the past two quarters, the prices of primary agricultural products, which fell to their pre-crisis levels, generated disinflationary pressures. The dissipation of cost-push pressures in food production is indicated by the further closing of the real marginal costs gap (measured by the deviation from trend of the ratio of input prices to prices of final food products). The gap began to close in Q3 last year, and entered negative territory from Q2 2023 with additional food price hikes and the decline in prices of primary agricultural commodities. The marked decrease in the contribution of food prices to y-o-y inflation which we anticipate next year may possibly be moderated, though not undermined, by an imperfect market structure on the supply side, i.e. the absence of any stronger competition in this segment and the rise in profit margins.

Chart V.0.40 **Real marginal costs gap in food production**
(% deviation from trend)



Source: NBS.

The contribution of **non-food inflation** to y-o-y inflation is also expected to decline. The prices of this product category largely depend on the prices of numerous imported products, primarily from the euro area, our most important trade partner. The rise in non-food inflation since 2021 coincides almost entirely with growth in imported inflation from the euro area and other non-euro area EU member countries, which are also our important partners and are still recording relatively high inflation (e.g. Hungary, Romania, the Czech Republic). As in the prior projection, imported inflation is a factor whose effect on non-food product prices will weaken considerably over the projection horizon. Also, with the reduction in prices of international transport and industrial raw materials, resolved supply bottlenecks, subdued aggregate demand and reduced inflation expectations, we expect pressures on the domestic prices of non-food products to abate and the contribution of this price group to headline inflation to subside gradually until the end of the projection horizon.

Notable growth in global energy prices in the past period is the key reason behind the expected rise in **administered prices** in the projection horizon. Prices of electricity, natural gas and utility-housing services will go up in Q4 2023, as will the cigarette prices. In line therewith, we expect administered price growth to measure 11.1% in 2023, and to be lower in 2024 and 2025 at 5.2% and 6.5%, respectively, while its contribution to y-o-y inflation will gradually shrink from around 2 pp late this year to 1.1 pp towards the end of the projection horizon.

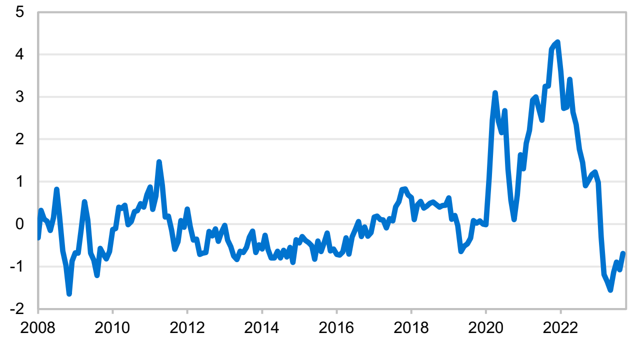
As the global oil price has increased since our previous projection, we expect **petroleum product prices** to contribute more to y-o-y inflation than we anticipated three months ago. Instead of having a disinflationary and then neutral effect, in our new projection we expect petroleum product prices to have an inflationary effect for most of 2024, after which their contribution to y-o-y inflation will be negligible.

We expect **fruit and vegetable prices** to gradually return from their current relatively high level to their long-term trend (reflecting a rise in the prices of non-food products and services). With the easing of cost-push pressures from the prices of energy, primarily of natural gas and, by extension, mineral fertilisers, as well as due to the new agricultural season (which we assume to be slightly better than average) and the base effect, we expect their contribution to y-o-y inflation to decline notably in Q1 next year and turn negative thereafter, i.e. contribute to a reduction of y-o-y inflation until end-2024. In 2025, their contribution to y-o-y inflation should be negligible.

Risks to the projection

The risks to our new inflation and GDP projections are still mainly associated with factors from the international environment – geopolitical relations and the global growth outlook, and their impact on global prices of energy and primary commodities, particularly after the outbreak of the Middle East conflict. Though to a lesser degree, the risks from the international environment also relate to the speed of decline in core inflation and the degree of monetary policy tightening by leading central banks. At home, the risks to the projection are associated with the level of FDI inflows, outcome of the agricultural season next year, pace of investments in infrastructure and the energy sector and, in part, also the speed of coal production recovery. Overall, we judge the risks to the GDP and inflation projections to be symmetric over the projection horizon.

Chart V.0.41 **Global supply-chain pressures**
(index, in standard deviations)



Source: Federal Reserve Bank of New York.

With the outbreak of the Middle East conflict in addition to that in Ukraine, **geopolitical tensions** intensified, heightening uncertainty in commodity and financial markets. Governments, investors and consumers became increasingly concerned over energy supply and new hikes in the prices of oil and food, which could give rise to a fresh cycle of inflationary pressures and lead to further monetary policy tightening in order to rein in inflation. Even if this produced no direct effects on energy prices in Serbia, it would still lead to higher imported inflation and, by extension, inflation at home. As a result of further economic and political fragmentation, countries could be divided into trade blocs, which would cause major production losses worldwide, including negative effects on FDI. As there is little likelihood that the geopolitical situation could soon improve to any major degree, we judge the **risks to the GDP projection on account of potential escalation of geopolitical tensions to be skewed to the downside and to the inflation projection – to the upside**.

Mounting geopolitical tensions are one of the factors overshadowing prospects for **global growth**, which will

Table V.0.7 **Key risks to the GDP and inflation projection**

Risk	Possible channels of influence	Estimate of the risk effect on GDP relative to the baseline scenario	Estimate of the risk effect on inflation relative to the baseline scenario
Intensification of geopolitical tensions and impact on the prices of oil, gas and electricity in the global market (Serbia net energy importer)	Intensification of geopolitical tensions and the Ukraine conflict would lead to renewed growth in global energy prices. Production costs would go up, reducing funds for investment and possibly generating second-round effects on inflation, which could partly be offset by lower demand for these products.	↓	↑
Global growth prospects	Slower economic growth globally, and particularly in the euro area, would result in subdued external demand for our exports and reduced demand-side pressures on inflation.	↓	↓
Global inflation, notably in the euro area, and monetary policies of leading central banks	– Higher/lower than expected global inflation, notably in the euro area, leads to higher/lower imported inflation, which increases/decreases production costs. – Greater and/or faster than expected monetary policy tightening by leading central banks results in greater investor risk aversion and decreased capital flows to emerging economies, and vice versa.	↕	↕
International prices of primary agricultural commodities and metals (Serbia is a net exporter)	A rise/fall in the prices of primary agricultural commodities and metals has inflationary/disinflationary effects. This inflates/deflates production costs and decreases/increases income available for investment, but the effects on GDP would most probably be neutralised by higher/lower exports, as Serbia is a net exporter of primary agricultural commodities and metals.	↕	↕
Pace of domestic demand growth	Higher/lower disposable income on account of faster/slower than expected wage and employment growth due to higher/lower export demand and/or higher/lower FDI inflow would result in faster/slower growth in domestic demand and stronger/weaker inflationary pressures. Accelerated activity growth in construction amid faster implementation of infrastructure projects by the government, as well as private investment in the conditions of receding inflationary pressures, would drive up domestic demand, GDP and inflation.	↑	↑
Recovery of the energy sector	Energy sector reform may have weaker or stronger than expected effects on the volume of production.	↑	↓
Agricultural season	A better than assumed agricultural season leads to higher supply of agricultural products and may produce disinflationary pressures, and vice versa: a poorer than assumed agricultural season results in reduced supply of agricultural products and inflationary pressures.	↕	↕

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

in all likelihood post similar growth rates in 2024 as in 2023. With China slowing and Europe on the verge of recession, the US economy has emerged as the main driver of global growth, but whether it will achieve a "soft landing" remains uncertain. According to the IMF, the risks to the baseline global growth projection remain pronounced, more to the downside. China's recovery may be slower than expected, with ramifications for global growth, due to headwinds from the deepening real estate crisis. If real estate prices decline too rapidly, the balance sheets of banks and households will worsen, with the potential for serious financial amplification. If real estate prices are artificially propped up, balance sheets will be protected for a while, but this may crowd out other investment opportunities and reduce new construction activity. Also, the entrenched global inflation, which could be further spurred by the intensification of the Ukraine and the Middle East crises, may call for additional monetary policy tightening by central banks, affecting negatively the financial sector. There is also the risk of fiscal challenges in a number of countries due to rising financial needs in the conditions of slowing growth and already elevated public debt levels, which would affect economic growth. A larger than expected slackening of the global economy, and especially the euro area, would affect Serbia primarily through lower external demand and reduced energy and primary commodity prices. Subdued external demand would dampen growth in domestic manufacturing activity and exports.

On the other hand, global growth could be stronger than expected. Upside factors noted by the IMF include faster slowing of core inflation due to stronger than expected pass-through from lower energy prices and a compression of profit margins as well as labour market pressures. In that case, the need for monetary tightening would lessen and the likelihood of a "soft landing" increase. It is possible that consumers in leading economies have not yet drained their stock of savings accumulated during the pandemic, and that policy support measures in China could bolster the recovery and generate positive global spillovers. Faster GDP growth in China would probably result in higher prices of energy and other primary commodities, making it more difficult to rein in inflation and calling for more stringent monetary policy. With all this in mind, we judge the **risks to the GDP projection, and to a smaller extent to the inflation projection, to be somewhat tilted to the downside in respect of global growth and external demand**.

Taking into account the risks to global growth on the one hand, and the risks from geopolitical tensions on the other, we judge the **risks of departure of global prices of**

primary commodities (agricultural commodities and metals) to be symmetric.

Though **global inflation** has receded, the path to sustainable price stability worldwide is still fraught with challenges. First of all, tight labour markets, particularly in advanced economies, could lead to higher than anticipated wage growth. A key issue in the euro area is whether demand will contract enough for companies to absorb the higher wage costs without further lifting the prices of their products and services, as this is the condition for achieving the inflation target in 2025. If **companies shift the wage increase onto consumers by raising the prices of their products**, both core inflation and inflation expectations would probably go up. This would additionally tighten monetary conditions over a longer time period, with negative implications for economic growth and financial stability. Weaker demand amid tighter than expected credit conditions and a more efficient monetary policy transmission mechanism would work in the opposite direction, particularly in the medium term.

Renewed inflation growth would lead to **tighter than expected monetary policies by leading central banks**. If leading central banks tightened their policies more than anticipated, global financing conditions would be even stricter, with risk premium going up and capital inflow to emerging economies dwindling, generating depreciation pressures. This would drive up the cost of FX borrowing at home, which would then have a dampening effect on domestic demand through lower disposable income for consumption and investments, while the maintained relative stability of the dinar exchange rate would significantly alleviate inflationary pressures from a possibly reduced inflow of portfolio investments. If, however, inflation in advanced economies returns to lower levels sooner than expected and/or economic growth slows down more significantly, leading central banks could put a break on the cycle of interest rate hikes and start lowering the rates sooner. As this would result in more favourable financial conditions globally, **we assess the risks on this account as symmetric**.

At home, the risks to the projection are associated with the **speed of domestic demand growth**. On the one hand, lower income resulting from subdued export demand could reflect negatively on the labour market, i.e. result in slower than anticipated employment and wage growth, with negative implications for domestic demand. On the other hand, **Serbia's ability to attract FDI** could turn out to be greater than anticipated, especially as our FDI inflow projections are quite conservative and record-high outturns were recorded over the past years, exceeding our projection. This would lead to further growth in wages and employment. Faster than assumed performance of construction works would work in the same direction. As inflationary pressures have eased and the prices of construction elements and materials levelled off, the implementation of state-financed infrastructure projects, and of private investments, could speed up. With this in mind, we judge the **risks to the GDP projection on account of domestic demand to be skewed to the upside. Also, faster than anticipated domestic demand growth would add somewhat to inflationary pressures**.

Another risk to the projection are the **developments in the domestic energy sector, primarily in coal production**. If the coming winter is harsher, it may be necessary to import coal and probably electricity, which poses downside risks to economic growth and upside risks to inflation. However, weather conditions in the heating season so far have been favourable and this risk seems to be lower. On the other hand, as energy sector reform and investments are in the focus of the new stand-by arrangement with the IMF, investments in the sector's modernisation may be even larger than assumed. Given all this, the risks to the **economic growth projection** on this account are judged to **be tilted to the upside**.

The agricultural season next year poses a symmetric risk to the inflation and GDP projections. We have assumed it to be slightly better than this year as a result of equipment modernisation and wider application of agrotechnical measures, propped up by higher government subsidies to agriculture.

As the key risks to inflation and other economic developments still emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets, as well as geopolitical relations, and estimate their impact on our economy. In making its monetary policy decisions the NBS will take into account the effects of past monetary tightening and the time needed for these effects to play out fully. Going forward, delivering price and financial stability in the medium term will remain the monetary policy priority, as this contributes to sustainable economic growth and, by extension, to a further rise in employment and a favourable investment environment.

Text box 6: Alternative projection scenarios – different assumptions for global primary commodity prices

Currently the major risk to inflation and GDP projections stems from geopolitical developments, especially in the wake of the latest conflict in the Middle East. Having in mind that geopolitical tensions could primarily affect the global prices of primary commodities (oil and agricultural commodities), and thus of other energy, in this text box we will give a brief overview of the effects of alternative scenarios which assume further tightening of geopolitical tensions, on the one hand, and their possibly earlier than expected resolution, on the other. Consistent with this, we used different assumptions for the movement of primary commodity prices relative to the baseline scenario.

The heightening of geopolitical tensions and the outbreak of the conflict in the Middle East, which largely determines global oil supply, has increased uncertainty in commodity and financial markets, resulting in oil price volatility in recent weeks, and pushing up emerging market risk premia to some degree. Concerns are mounting that the conflict could expand to leading oil producers in the Middle East, notably Iran, which only fuels oil price growth additionally. On the other hand, slackening demand for oil in an environment of high interest rates in leading economies and a crisis in China's construction sector, despite better than expected outturns in Q3, has a dampening effect. According to the World Bank,[1] unless the conflict widens, the effect on primary commodity prices, and hence on global inflation, should be limited, as indicated by the fact that global oil price increased by around 5% since the outbreak of the conflict, but returned to prior levels thereafter, while the prices of primary agricultural commodities and metals experienced no major effects. However, historical precedent indicates that the conflict could become wider, which is why the World Bank considers three different scenarios. The first (small disruption) scenario would be equivalent to the effects of the Libyan war in 2011, when oil supply was reduced by 500 thousand–2 million barrels a day, which would push oil prices to USD 93–102 per barrel. The second (medium disruption) scenario assumes that oil supply would decrease by 3–5 million barrels a day, the decrease being comparable with the loss of global oil supply during the Iraq war in 2003. Under this scenario, oil prices would increase to USD 109–121 per barrel, while in the third (large disruption) scenario, comparable with the 1973 oil embargo, oil prices could skyrocket to USD 140–157 per barrel. Should it persist, global oil price growth would most probably lead to a rise in primary agricultural commodity prices even if the agricultural season turns out to be good globally. All of this would unleash a new round of inflationary pressures, and hence, monetary policy tightening to contain inflation. Also, further economic and political fragmentation could divide countries into trade blocs and cause considerable losses to global production, including the negative effects on FDI amid globally heightened investment aversion. Even if there were no head-on effects for Serbia, reduced availability and higher prices of energy and food would feed through into higher imported inflation and slower global growth, which would have indirect implications for our economy too.

If we assume that under the impact of heightened geopolitical tensions the global oil price in Q4 this year will be higher by around 5% than in the baseline, and in 2024 by around 20% on average (which is close to the medium disruption scenario of the World Bank), and that the growth will persist in 2025 at a slightly slower pace (18%), pushing primary agricultural commodity prices up to levels higher than in the baseline by around 15 pp next year and further by around 5 pp in 2025, the consequences would be as follows:

• Global oil price growth would automatically reflect on petroleum product prices in the domestic market, while the surge in global primary commodity prices would increase food production costs, triggering a rise in food prices, and hence, domestic inflation. This would also affect inflation in the euro area (according to the ECB's September forecast, a 21% rise in the composite energy price index above the baseline would result in a 0.7 pp higher euro area inflation). This would further translate into higher prices of the products and services that we import, and quite likely into higher inflation expectations, all of which would produce inflationary effects. We estimate that the consequences of such a scenario would be **a 0.6 pp higher average inflation than in the baseline in both 2024 and 2025**.

• Additional monetary policy tightening, which would most likely follow due to the need to mitigate inflationary pressures, would along with increased production costs due to higher oil prices, as well as global fragmentation and rising risk premium, have a negative impact on global economic growth. Lower external demand and tighter global financial

[1] https://www.worldbank.org/en/news/press-release/2023/10/26/commodity-markets-outlook-october-2023-press-release.

conditions would have a negative effect on domestic economic activity too, through lower exports, as well as investment and consumption, which would partly mitigate inflationary pressures. Still, the effects of such a scenario on economic growth would be smaller than the effects on inflation and would probably not exceed 0.2 pp (according to the ECB's September forecast, the effects of a 21% rise in energy prices on the euro area GDP would be negligible).

• Lower exports, in value terms, due to weaker external demand, could be partly compensated for by higher exports of agricultural commodities and metals driven by the increase in their prices in the world market. At the same time, the increase in the price of oil, and probably also of other energy, would lead to higher energy imports, in value terms, which would be largely offset by the lower imports of equipment and consumer goods in conditions of dampened domestic demand. A higher current account deficit would be propped up also by the higher primary income expenditure amid a sharper tightening of global financial conditions. Everything taken into account, we estimate that, as in the case of GDP, the effects of such a scenario on the current account deficit would be modest.

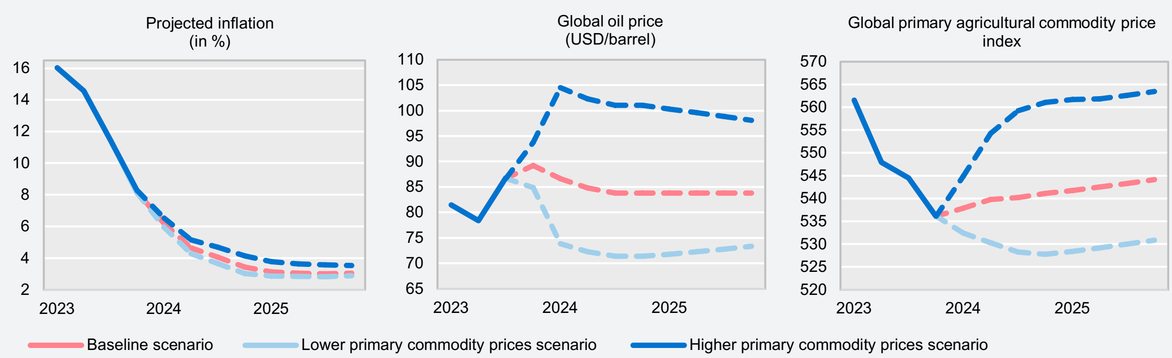
If, on the other hand, we assume that the geopolitical tensions will be resolved earlier than envisaged by the baseline scenario and that the double energy shock we have been facing for the past two years will stop working, i.e. that the average global oil price next year will be lower by around 15% than in the baseline, and in 2025 by around 13%, which will also drag down the global prices of primary agricultural commodities by around 10 pp in 2024 and 3 pp in 2025 (especially if the season, globally speaking, is good), the effects would be as follows:

• **Average inflation would be lower by 0.4 pp in 2024 and by 0.2 pp in 2025 relative to the baseline scenario**, directly as a consequence of lower petroleum product prices compared to the baseline, as well as lower costs in food production and lower imported inflation.

• Economic growth would be negligibly higher than in the baseline as a result of abated inflationary pressures, lower risk premium and stronger external demand.

• Stronger external demand would also lead to faster than expected export growth. With the recovery of domestic demand, import growth would also probably be higher than anticipated, while global prices of oil, of which Serbia is a net importer, would work towards lower energy imports, in value terms. Besides, primary income expenditure would likely be lower than in the baseline scenario, which would result in a slightly lower current account deficit than in the baseline.

Chart O.6.1 **Effects of different movements in primary commodity prices on inflation**



Sources: SORS and NBS calculation.

Most analysts agree that the potential rise in the prices of primary commodities, even if the conflict in the Middle East were to expand further, would most likely not have such effects as the energy shock of the 1970s, because in the meantime many countries have built strategic reserves of primary commodities and diversified the sources of supply. The NBS will certainly continue to monitor developments in the international commodity and financial markets and evaluate their effects and, if deemed necessary, take appropriate measures to ensure medium-term price stability and sustainable economic growth.

Table A
Indicators of Serbia's external position

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023	Q2 2023	Q3 2023
EXTERNAL LIQUIDITY INDICATORS (in %)																	
FX reserves/imports of goods and services (in months)	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1	5.9	5.2	5.6	6.0	6.5
FX reserves/short-term debt	220.6	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	275.6	228.1	247.1	247.0	274.8	318.0	
FX reserves /GDP	32.6	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1	28.8	30.8	32.1	34.3	35.1	36.4
Debt repayment/GDP	12.1	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.0	5.8	9.2	9.6	7.7	10.9	
Debt repayment/exports of goods and services	48.8	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	12.2	17.0	15.3	11.6	18.0	
EXTERNAL SOLVENCY INDICATORS (in %)																	
External debt/GDP	68.6	74.5	68.1	76.1	70.4	72.4	73.4	72.0	65.1	62.2	61.4	65.8	68.4	69.4	69.8	69.0	
Short-term debt/GDP	14.8	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	12.4	10.6	12.6	12.5	13.0	12.5	11.0	
External debt/exports of goods and services	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	138.2	126.6	110.2	109.8	109.5	
FINANCIAL RISK EXPOSURE INDICATORS (in %)																	
FX reserves/M1	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0	138.1	158.7	176.6	179.9	181.2
FX reserves/reserve money	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1	180.0	180.2	204.7	223.5	213.4
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	65.1	75.3	78.0	84.5	87.1	91.8	96.2	100.6	106.2	108.2	111.5	103.9	116.7	137.5	139.7	125.9	118.0
MEMORANDUM: (in EUR million)																	
GDP[1)]	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,815	53,345	60,426	15,021	16,820	17,776
External debt	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30,787	36,488	41,895	43,592	44,396	
External debt servicing	3,922	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	2,710	4,886	5,801	1,158	1,835	
Central bank foreign exchange reserves	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381	22,585	24,182
Short-term debt[2)]	1,852	1,758	612	455	196	99	303	672	844	1,401	1,925	1,585	1,612	2,405	2,164	1,875	
Current account balance	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,162	-153	-412	-226

CREDIT RATING (change of rating and outlook)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Dec	Nov	March	Aug	July	Jan	Dec	Jan/March/ June/Dec	March/Dec	Dec	Sept/Dec	May	March/Dec	June
S&P	BB- /stable		BB /stable	BB- /negative				BB- /positive	BB /stable	BB /positive	BB+ /positive	BB+ /stable	BB+ /positive	BB+ /stable
Fitch		BB- /stable		BB- /negative		B+ /stable	B+ /positive	BB-/stable	BB /stable		BB+ /stable			
Moody's					B1 /stable			B1 /positive	Ba3 /stable		Ba3 /positive		Ba2 /stable	

Methodological notes:

Foreign exchange reserves/imports of goods and services (in months) - ratio of end-of-period foreign exchange reserves to average monthly imports of goods and services during 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 (in %) − ratio of end-of-period outstanding debt to GDP.
Short-term debt/GDP − ratio of end-of-period short-term debt at remaining maturity to GDP.
External debt/exports (in %) − ratio of end-of-period outstanding debt to annual value of exports of goods and services.
FX reserves/M1 (in %) - ratio of FX 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. Data for Q3 2023 is NBS estimate.

[2)] At original maturity.

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 previous methodology.
4. Starting from 2007 the general trade system of registration of exports and imports of goods is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.
5. External debt servicing does not include advance debt repayments.

Table B
Key macroeconomic indicators

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023	Q2 2023	Q3 2023
Real GDP growth (in %)[1)]	-2.7	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.1	4.5	4.3	-0.9	7.7	2.5	0.9	1.7	3.5
Consumer prices (in %, relative to the same month a year earlier)[2)]	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3	7.9	15.1	16.2	13.7	10.2
NBS foreign exchange reserves (in EUR million)	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381	22,585	24,182
Exports (in EUR million)[3)]	8,043	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,349	22,271	28,818	38,004	10,021	10,206	10,143
- growth rate in % compared to a year earlier	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.6	29.4	31.9	20.4	9.0	2.3
Imports (in EUR million)[3)]	13,099	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,960	26,370	33,439	45,054	10,970	10,964	10,825
- growth rate in % compared to a year earlier	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.7	26.8	34.7	5.4	-6.3	-4.2
Current account balance[3)] (in EUR million)	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,162	-153	-412	-226
as % of GDP	-6.3	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9	-4.1	-4.2	-6.9	-1.0	-2.5	-1.3
Unemployment according to the Survey (in %)[6)]		20.9	24.9	25.9	24.0	20.6	18.9	16.4	14.5	13.7	11.2	9.7	11.0	9.5	10.1	9.6	
Wages (average for the period, in EUR)[7)]	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.8	466.0	510.9	560.2	637.9	709.2	726.4	724.7
RS budget deficit / surplus (in % of GDP)[4)]	-3.0	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2	-8.3	-4.6	-3.3	-1.6	2.2	-1.3
Consolidated fiscal result (in % of GDP)[4)]	-4.2	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2	-8.0	-4.1	-3.2	-1.4	3.5	-1.4
RS public debt, (central government, in % of GDP)[8)]	30.9	39.5	42.8	52.9	56.0	66.2	70.0	67.7	57.8	53.6	51.9	57.0	56.5	55.1	51.0	51.7	51.3
RSD/USD exchange rate (period average)	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.03	99.49	111.86	109.26	107.79	107.68
RSD/USD exchange rate (end of period)	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66	103.93	110.15	107.56	107.82	110.75
RSD/EUR exchange rate (period average)	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58	117.57	117.46	117.33	117.28	117.21
RSD/EUR exchange rate (end of period)	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58	117.58	117.32	117.29	117.23	117.20
MEMORANDUM:																	
GDP (in EUR million)[5)]	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,815	53,345	60,426	15,021	16,820	17,776

1) At constant prices of previous year. Data for Q3 2023 is SORS flash estimate.

2) Retail prices until 2006.

3) Starting from 2007 data on the 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 the previous methodology. Due to the break in the series for 2007, export and import growth rates are not shown. Starting from 2007 the general trade system of registration of exports and imports is applied. This is a broader concept and includes all goods entering/exiting country's economic territory, apart from goods in transit. Data for 2005 and 2006 are disseminated using the special trade system.

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. Data for Q3 2023 is NBS estimate.

6) Data are revised according to the new methodology of the Labour Force Survey from 2021. From 2022 data are aligned with the 2022 Census.

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 Q3 2023 is the average of two months.

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

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

2022

Date	Key policy rate (p.a, in %)	Change (in basis points)
13 January	1.00	0
10 February	1.00	0
10 March	1.00	0
7 April	1.50	+50
12 May	2.00	+50
9 June	2.50	+50
7 July	2.75	+25
11 August	3.00	+25
8 September	3.50	+50
11 October	4.00	+50
10 November	4.50	+50
8 December	5.00	+50

2023

Date	Key policy rate (p.a, in %)	Change (in basis points)
12 January	5.25	+25
9 February	5.50	+25
9 March	5.75	+25
6 April	6.00	+25
11 May	6.00	0
8 June	6.25	+25
13 July	6.50	+25
10 August	6.50	0
7 September	6.50	0
10 October	6.50	0
9 November	6.50	0
7 December		

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 7 September 2023

At its meeting today, the NBS Executive Board kept the key policy rate at 6.50%. The rates on deposit (5.25%) and credit (7.75%) facilities also remained unchanged.

The Board's decision reflects further easing of global inflationary pressures, the downward trajectory of inflation at home and its expected return within the NBS target band over the monetary policy horizon. The Board also took note of the past tightening of monetary conditions and the fact that the full effects of earlier hikes of key interest rates are yet to play out. The pass-through of key policy rate increases so far to the rates in the markets of money, loans and savings signals the efficiency of the monetary policy transmission mechanism through the interest rate channel. However, being determined to curb inflation, the NBS decided to withdraw a portion of high excess dinar liquidity via reserve requirements, and thus tighten monetary conditions additionally. The Board does not exclude the possibility of further monetary tightening, if necessary.

Global inflationary pressures weakened further, mainly on account of lower global energy and primary commodity prices, which are still much below the 2022 figures, as well as the elimination of supply bottlenecks and the effects of monetary tightening by leading central banks. Y-o-y headline inflation in the euro area, our key economic partner, remained unchanged in August relative to July, while core inflation declined to the level of headline inflation. In making its future decisions, the ECB will follow a data-dependent approach, aware of the uncertainty surrounding the pace of disinflation amid a continued rise in euro area wages, record low unemployment and high profit margins. The Fed took a similar position at its last meeting, though the disinflation process in the USA is faster than in the euro area. The NBS Executive Board urges monetary policy caution over geopolitical tensions and risks, though reduced, concerning the prices of energy products and their availability going forward, including global primary agricultural commodity prices.

Y-o-y inflation in Serbia has been on a downward path since April. It slowed down additionally to 12.5% in July, with deflation recorded at the monthly level, which is in line with earlier estimates of the NBS. The inflation slowdown is largely attributable to the slower pace of growth in processed food and energy prices, as well as prices within core inflation that returned to single digits in June and equalled 9.4% y-o-y in July. The Executive Board expects y-o-y inflation to continue on a downward path, receding on average by around 1 pp a month, and settling at around 8% by year end. The described inflation trajectory will also be supported by the weakening of global cost-push pressures and the drop-out of food and energy price hikes in H2 2022 from the y-o-y inflation rate. The inflation's downward trajectory and its return within the target band in Q2 2024 will be aided by the effects of monetary tightening, the slowing of imported inflation and the expected further fall in inflation expectations.

GDP growth stepped up to 1.7% y-o-y in Q2, in line with the SORS flash estimate. Economic growth in H1 2023 thus came at 1.3% y-o-y, consistent with the NBS projection of 2–3% growth at the level of the year. Such growth outcome is underpinned mainly by net exports owing to the rise in goods and services exports despite the weaker outlook for global economic growth this and the next year amid tightened conditions in the international financial market, pandemic-induced structural changes, and lower investment. In its monetary policy decision-making, the Executive Board also took into account the risk that weaker external demand could to some extent weigh down on Serbia's manufacturing output and exports in the coming period.

The NBS will continue to keep a close eye on key inflation factors from the domestic and international environment and to make decisions depending on the inflation outlook. At the same time, it will strive to maintain financial stability and support continuous economic growth, a further rise in employment and a favourable investment environment.

The next rate-setting meeting will take place on 6 October.

Press release from Executive Board meeting held on 6 October 2023

At its meeting today, the NBS Executive Board voted to keep the key policy rate on hold, at 6.50%. Interest rates on deposit (5.25%) and credit facilities (7.75%) were also kept unchanged.

The Board's decision is underpinned by the continued easing of global inflationary pressures and the established downward path of domestic inflation and its expected return within the target tolerance band over the monetary policy horizon. The Board also took into account the fact that monetary conditions were tightened in the previous period through the main instrument – the interest rate, and in September also by increasing the reserve requirement ratio, with the full effects of these measures yet to be played out. The transmission of past monetary tightening onto interest rates in the money, lending and savings markets signals the efficiency of the monetary policy transmission mechanism.

In making the decision, the Executive Board had in mind that headline inflation is falling in the international environment, although the recent rise in energy prices and elevated wage costs still mandate caution from central banks in a number of countries. In the euro area, our most important trade partner, y-o-y headline inflation declined further in September, with core inflation also going down. Global inflationary pressures are expected to abate further by the end of this and into next year, but inflation will remain above central bank targets in many countries. Therefore, the ECB decided to further tighten monetary conditions in September by increasing its key interest rates by 25 bp each and following a data-dependent approach when it comes to further decisions. The Fed took a similar stance, though in September it kept its rates unchanged.

In regard to global energy prices, caution is mandated in the face of persisting geopolitical tensions and the recent rise in crude oil prices, reflecting primarily the OPEC+ countries' decision to extend earlier cuts in supply through the end of the year, as well as growing oil demand. Natural gas prices are also on the rise, given that the winter heating season is nearing and that production in Australia and Norway has decreased. Still, it is estimated that the hike in global energy prices will not have a major negative effect on inflation in Serbia and will not jeopardise its downward trajectory.

The y-o-y inflation trajectory turned downward since April. At 11.5% in August, it was somewhat lower than the current medium-term projection. Inflation deceleration resulted from the slowing down of food prices and prices within core inflation (CPI excluding food, energy, alcohol and cigarettes), whose y-o-y growth since June hovered at one-digit figures, measuring 9.1% in August. The Executive Board expects y-o-y inflation to remain on the downward trajectory, losing 1 pp on average per month and coming at around 8% by year end. Such inflation movements will also be supported by the weakening of global cost-push pressures and the dropping of food and energy H2 2022 price increases from the y-o-y inflation calculation. Also contributing to inflation's declining path and its return within the bounds of the target in Q2 2024 will be the effects of monetary tightening, deceleration of imported inflation and the expected further fall in inflation expectations.

The movement of monthly indicators suggests that the economic growth dynamics has accelerated further in Q3, overperforming the NBS's August projection which forecast GDP growth at 2% to 3%, but most probably closer to the lower bound. Despite the dented external demand, primarily from the euro area, trends more favourable than initially expected have materialised primarily in the manufacturing, owing to past investments and the rise in domestic demand. In addition, the data on the estimated output of main agricultural crops indicate that this year's season will most probably outperform the average, i.e. the NBS's expectations. In the remainder of the year a positive contribution is also expected from construction, as a result of continuation of infrastructure projects, as well as from service sectors, thanks to the further rise in employment and wages, primarily in the private sector. Nevertheless, according to NBS estimates, domestic demand will increase at a slower pace than GDP, so no major inflationary pressures are expected on this account.

The NBS will continue to monitor and analyse the movement of key inflation factors in the domestic and international environment and make decisions depending on projected inflation movements. At the same time, it will take due care of the maintenance of financial stability and supporting continuous economic growth, a further rise in employment and a favourable investment environment.

The next rate-setting meeting will be held on 9 November 2023.

Press release from Executive Board meeting held on 9 November 2023

At its meeting today, the NBS Executive Board kept the key policy rate on hold, at 6.50%. It did not change the rates on deposit (5.25%) and lending facilities (7.75%) either.

The Board's decision was motivated by further easing of global inflationary pressures, the established downward trajectory of inflation at home and its expected movement within the target band over the monetary policy horizon. Moreover, monetary conditions in the past period were tightened by means of the main instrument – the interest rate, and in September by increasing the required reserve ratio, with the full effects of these measures yet to play out. The transmission of monetary tightening onto the interest rates in the money, lending and savings markets, and the reduction in short-term inflation expectations, signal the effectiveness of the monetary policy transmission mechanism.

In making the decision, the Executive Board took into account the declining global inflation, which, however, remains above the target of almost all inflation-targeting central banks. Amid the alleviation of cost-push pressures, the removal of supply bottlenecks, and tight monetary policy, in October the ECB did not change its main rate, following a data-dependent approach. The Fed held a similar stance as since July it has not changed its fed funds range. Global inflationary pressures are expected to dissipate further in 2024 and contribute to lower inflation at home.

The Executive Board underlined that geopolitical tensions still mandate caution in monetary policy decision-making, particularly in the wake of the new conflict that has broken out in the Middle East, as do the volatile movements of global prices of crude oil and some foodstuffs, which may also impact inflationary expectations. Still, relative to the maximum levels recorded last year, the prices of primary commodities are lower and if geopolitical tensions do not exacerbate further, we should not anticipate a major effect on global and domestic inflation on this account.

Y-o-y inflation in Serbia has been on a downward trajectory since April, with the August and September outturns slightly lower than expected. It slowed down to 10.2% in September on account of lower growth in food prices and core inflation (CPI excluding food, energy, alcohol and cigarettes), which edged down to 8.2%. The importance of monetary policy tightening should also be pointed out as it will, together with other factors, almost certainly drive inflation back to a single-digit level in October and ensure its downward path over the coming months. The retreating inflation reflected on a further fall in one-year ahead inflation expectations of the financial sector, as well as on two- and three-year ahead expectations which are within the NBS's target tolerance band. According to our new projection, at the end of the year inflation will measure around 8% and return within the target band in mid-2024.

The Executive Board underlined that the Q3 economic growth has outperformed expectations, picking up to 3.5%, according to a SORS estimate. Construction provided the key contribution to such an outcome, owing to stepped-up implementation of infrastructure projects. Manufacturing performed better than anticipated, on the back of past investments and rising domestic demand. Furthermore, data on the yields of the most important crops suggest that this year's agricultural season turned out to be both above our expectations and above-average. On the expenditure side, growth was led by higher investment, notably of the private sector. Reflecting continued real growth in exports of goods and services and a fall in imports, net exports also provided a positive contribution, though smaller than in the first half of the year.

The NBS will continue to keep a close eye on key inflation factors in the international and domestic environment and make monetary policy decisions based on the projected inflation profile. It will also remain committed to maintaining financial stability and supporting continuous economic growth, as well as employment and a favourable investment environment.

At today's meeting, the Executive Board adopted the November Inflation Report with the latest macroeconomic projections that will be presented to the public in detail at a press conference on 15 November.

The next rate-setting meeting will take place on 7 December.

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