National Bank of Serbia

May 2023

INFLATION REPORT

May 2023

INFLATION REPORT

NATIONAL BANK OF SERBIA
Belgrade, Kralja Petra 12
Tel: +381 11 3027-100

Belgrade, Nemanjina 17
Tel: +381 11 333-8000

www.nbs.rs
Number of copies: 60
ISSN 1820-9394

Introductory note

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

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

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

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

The May *Inflation Report* was considered and adopted by the NBS Executive Board at its meeting of 11 May 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 5 May.

Contents

I Overview

Uncertainty surrounding the global growth outlook is greater than three months ago and risks of lower than projected growth are more pronounced. At the same time, observed in isolation, the euro area's growth outlook brightened compared to three months ago.

The early-year optimism generated by the easing of global cost-push pressures, notably Europe's ample energy supplies, a consequently brighter global growth outlook and chances that global inflation will decline faster than expected, abated to a degree over the recent turmoil in some banking groups of advanced economies. This reflected on a somewhat bleaker growth outlook for this year compared to January expectations as the IMF now projects growth at 2.8%. The risks to the global growth projection are skewed to the downside and are associated with potential further deterioration in global financing conditions, reflecting the recent banking sector turmoil in advanced economies. Moreover, pockets of sovereign debt distress amid tight financing conditions and weaker economic growth may become systemic. The intensification of the Ukraine conflict may trigger a new surge in energy and food prices, fuelling inflation and entailing further monetary tightening. Still, t**he outlook for the euro area, our key trade partner, has improved in the period from the previous *Report***, owing mainly to greater than expected resilience to the energy crisis.

Inflation's slowdown in the euro area was led mainly by lower energy prices. Core inflation, however, continues up, reflecting the still exceptionally low unemployment rate and relatively strong wage growth. Though somewhat lower, Serbia's imported inflation remains relatively high.

Global cost-push pressures have dissipated, largely reflecting a further decline in world gas and electricity prices and the unwinding of supply bottlenecks, which resulted in headline inflation's slowdown from multi-decade highs in an increasing number of countries. However, the **indirect effects** of elevated prices of energy and industrial raw materials in the past period, coupled with a strong labour market, are still driving up **core inflation** in a number of countries, including the euro area. Both the ECB and the Fed responded by raising their key rates, though the pace of rate hikes is gradually decreasing.

The NBS lifted further its key policy rate in March and April, and kept it on hold in May.

At its March and April meetings, the NBS lifted further its key policy rate, to 6.00%. The aim was to contain the second-round effects of elevated cost-push pressures from the international environment in the past period on rising prices at home through inflation expectations, and to support inflation's return within the target tolerance band by mid-2024. Given that global cost-push pressures have abated further and that time is needed for the effects of past monetary measures to play out fully, at its meeting in May, the NBS kept the policy rate on hold. The NBS retains the option to increase the rate further, but also signals room for a further increase in the weighted average repo rate up to the level of the key policy rate, owing to the flexible monetary policy framework in place since December 2012. The NBS's gradual approach to tightening also reflects the fact that inflation has been led mainly by supply-side factors so far and the NBS's intention to affect economic growth to the least extent possible.

Appreciation pressures prevailed in Q1 2023 as well. To maintain relative stability of the exchange rate, the NBS intervened by net buying foreign currency, thus further boosting the country's FX reserves.

By maintaining relative stability of the exchange rate of the dinar against the euro, the NBS helps preserve high business and investment confidence, contains the effects of the spillover of rising imported prices onto prices at home, and contributes to overall macroeconomic stability amid elevated global uncertainty. Appreciation pressures, which have been recorded since May last year and were briefly interrupted in January, have prevailed again, prompting the NBS to intervene in the IFEM by buying EUR 1,065 mn net in the first four months, whereby it further **boosted the country's FX reserves**. NBS FX reserves, hitting their new record high of EUR 21.6 bn in late April, are **well above benchmark values** of all reserve adequacy metrics. At such level, FX reserves are an important buffer against a wide range of risks.

The pass-through of the effects of monetary tightening onto interest rates in the markets of money, loans and savings indicates the efficiency of the transmission mechanism through the interest rate channel.

The NBS's monetary tightening **drove interest rates in the interbank money market further up, inducing a rise in rates on dinar loans**. Interest rates on euro-denominated loans also went up as financing conditions in the euro area were tightened further. Together with the high base effect and the maturing of guarantee scheme loans, the rise in lending rates induced a further slowdown in lending to the non-monetary sector, which grew 3.7% y-o-y in March. **The share of NPLs in total loans** fell to a new low of 3% in March, indicating that the increase in loan repayment costs, resulting from higher interest rates, and the discontinuation of measures supporting the private sector during the pandemic, did not affect the quality of bank assets.

Early-year fiscal performance exceeded expectations again, owing primarily to rising revenues, despite two-digit y-o-y growth in capital expenditures.

Under the Revised Fiscal Strategy for 2023 with Projections for 2024 and 2025, the **fiscal policy** has been planned so as to ensure a continued narrowing of the fiscal deficit and a downward public debt trajectory in the medium run, without generating further inflationary pressures. This should be supported by the adoption of new fiscal rules, applied since early this year, limiting the share of public sector wages and pensions in GDP to 10%. Government capital investment expenditures are projected at around 6–7% of GDP p.a., and the share of the general government deficit in GDP at 3.3% this year, as high energy outlays are still anticipated. The deficit is then expected to decline to around 1.4% of GDP in 2025, ensuring a continued decline in public debt in the years to come. A lower than anticipated general government deficit in 2022 and sound performance that continued into Q1 2023 (a deficit of around RSD 25 bn and a primary balance surplus of around RSD 23 bn) enable stronger growth in government capital expenditures and ensure an even faster than projected downward public debt trajectory of 54% of GDP at end-2025.

Balance of payments movements in Q1 were much more favourable than in the same period last year. The current account deficit significantly undershot our February expectations.

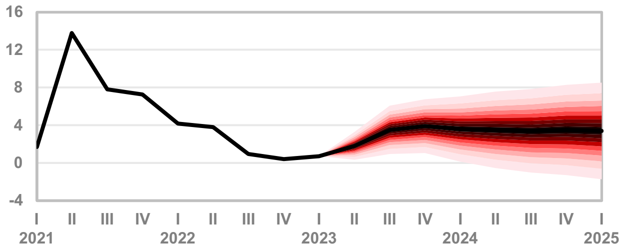
The current account deficit in Q1 measured a mere EUR 112 mn or 0.7% of GDP, down by over EUR 1.4 bn from the same period in 2022. Such outturn was supported by lower energy imports, largely because of reduced global energy prices, but also by continued growth in goods and services export at high nominal and real rates. Almost all key manufacturing branches recorded export growth (with the exception of production of oil, chemicals and chemical products, and base metals), confirming our economy's resilience to weaker external demand. In addition, Serbia was a net exporter of electricity in Q1, which had previously not been the case in this part of the year, thanks to a rebound in production and a mild winter. **FDI inflow** in the first three months measured EUR 847 mn which, together with the effects of a successful eurobond issue in the international FX market worth USD 1.75 bn, resulted in high capital inflow on the financial account. Since the first-quarter current account deficit was much lower than expected, we now project the annual share of the current account deficit in GDP to be lower than in our previous projections, measuring 4.5%. It will then continue to decline gradually to around 4% in the medium term, reflecting higher export supply on account of earlier investment and the rebound in external demand. According to our estimate, net FDI inflow will continue to fully cover the current account deficit, as in the past eight years, contributing to sustainability of our external position. We expect FDIs to remain highly geographically and project-diversified and mostly directed to export-oriented sectors.

GDP growth of 0.7% y-o-y in Q1 was guided by industry and service sectors on the production side, and net export, followed by personal consumption and fixed investment, on the expenditure side.

According to the initial SORS estimates, **GDP rose by 0.7% y-o-y in Q1**, guided by activity growth in the industry sector, primarily thanks to a rebound in electric energy system production. A positive contribution also came from the service sectors, though it was lower than in 2022. On the expenditure side, growth was led by exports. The depletion of inventories on this account put a drag on domestic demand, despite growth in its other components, excluding government consumption.

GDP is expected to grow by 2.0% to 3.0% this year, the same as expected in February, but its growth structure is more favourable in terms of sustainability than in February – a positive contribution of net export and fixed investment.

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



We have kept the **projected GDP growth rate** for this year in the range of 2.0–3.0%, the same as we expected in February. As foreign trade movements in Q1 were much more favourable than anticipated and euro area's growth projection for this year has been revised up, we changed the projected growth structure relative to what we expected in February. We now expect net export to provide a positive, instead of a negative contribution. A part of faster export growth most probably stems from inventories which are, therefore, expected to provide a lower contribution this year. Growth will continue to be led by domestic demand, notably private consumption, thanks to higher employment and wages, but private investment is also expected to make a slight positive contribution (instead of neutral). Assuming a rebound of the global economy and, by extension, external demand as of H2 2023, and the planned implementation of investment projects, mostly in road, railway, energy and utility infrastructure, we expect GDP growth to pick up as of 2024 to the range of 3.0–4.0% and resume its pre-pandemic growth trajectory of around 4% per annum thereafter.

In Q1 y-o-y inflation measured around 16%, slightly more than we expected in February.

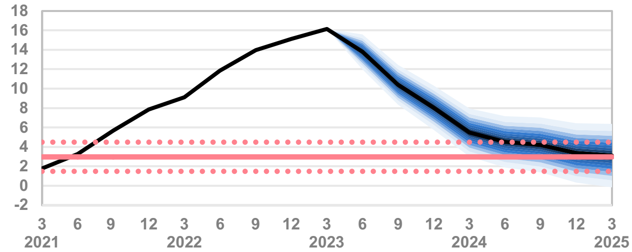
As the pass-through of high cost-push pressures from the previous period continued, **y-o-y inflation** remained elevated in Serbia in Q1, measuring 16.2% in March, slightly above our expectations from the February *Inflation Report*. A half of the inflation outturn in March was attributable to elevated prices of food and non-alcoholic beverages, the contribution of which increased relative to December, as the pass-through of elevated costs of agricultural and industrial production to food prices is still not completed, though their y-o-y dynamics have slowed over the past months. In Q1, the contribution of vegetable prices increased the most. After vegetables supply slumped following last year's drought in Serbia and most of Europe, these prices increased more than usual for this part of the year. The contribution of energy prices to y-o-y inflation edged down slightly (to 2.3 pp) as growth in the prices of petroleum products and solid fuels slackened due to warmer weather, while the adjustment of electricity and gas prices for households worked in the opposite direction. Core inflation measured around 11% y-o-y in Q1 and, as in the previous period, stayed below headline inflation, thanks to the preserved relative stability of the dinar exchange rate against the euro in uncertain global conditions.

Under our new projection, inflation will strike a downward path from Q2, ending the year at half of its March level, and return within the bounds of the target tolerance band towards mid-2024, the same as we expected in our previous projection.

Under the May central projection, we expect y-o-y inflation to strike a downward path from Q2, decline more vigorously in H2 this year and end the year at almost half of its level in March. It is expected to return within the bounds of the target tolerance band in mid-2024. As in the previous projection, we expect that inflation's decline will be supported by the past tightening of monetary conditions, the weakening of the effects of global factors underpinning past growth in energy and food prices, the slowdown in imported inflation, as well as lower external demand amid the expected global slowdown.

Uncertainty surrounding the inflation and GDP projection remains largely associated with factors from the international environment – global growth outlook, international energy and primary commodity prices, the degree of monetary policy tightening by leading central banks and global financing conditions. At home, the risks to the projection are associated primarily with the outcome of this year's agricultural season, FDI inflows, pace of recovery of the mining (coal production) and construction sectors. Overall, the risks to the inflation and GDP projection for this and the next year are now judged to be symmetric. The NBS will continue to monitor and analyse trends in international commodity and financial markets and pursue a data-dependent approach to future monetary policy decisions, taking into account the expected effects of past monetary tightening on inflation. Going forward, the monetary policy priority will remain to deliver price and financial stability in the medium term, and to support further economic growth and development, as well as a further rise in employment and preservation of a favourable investment environment.

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



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

II Monetary policy since the February *Report*

The NBS responded to the still relatively high, albeit lower than in 2022, global inflationary pressures by further monetary tightening in March and April, though at a more moderate pace than last year, and by keeping the key policy rate unchanged in May. This helps limit the second-round effects of rising cost-push pressures from the international environment on prices through inflation expectations, and also affects some pressures coming from the demand side. Thus, the NBS seeks to ensure that inflation in Serbia strikes a downward path as of Q2 this year and returns within the target tolerance band around mid-2024. The graduality of key policy rate hikes so far reflects the fact that inflation was mostly driven by supply-side factors, and the NBS's commitment to minimising the impact of monetary policy tightening on economic growth.

In the period since the February *Report*, the NBS Executive Board **continued to raise the key policy rate moderately. In March and April, the rate was raised by 25 bp each, to 6.00%**. The April hike was the 13th consecutive since April 2022. Concluding with April, the key policy rate was raised by a total of 500 bp. The deposit and lending facility rates were lifted as well, to 4.75% and 7.25%, respectively.

Since the February *Report*, the weighted average repo rate was also raised, by 56 bp to 5.22% at end-April. By further raising its interest rates, the NBS responds to the still powerful cost-push pressures, notably from the international environment. The pass-through of past key policy rate hikes to interest rates in the money, loan and savings markets indicates the efficiency of the monetary policy transmission mechanism through the interest rate channel.

By **preserving the relative stability of the EUR/RSD exchange rate**, the NBS has given a significant contribution to limiting the spillover of rising import prices on domestic prices, and to macroeconomic stability amid heightened global uncertainty, which was particularly pronounced in the first months of the pandemic and the conflict in Ukraine.

In deciding to further raise the key policy rate, albeit at a somewhat slower pace, the Executive Board was guided by the positive **signs of easing of inflationary pressures** at global level. This is owed to a further decline in global energy prices, along with less pronounced global supply chain disruptions and lower container transport costs, which should also lead to a slowdown of inflation at home in the period ahead.

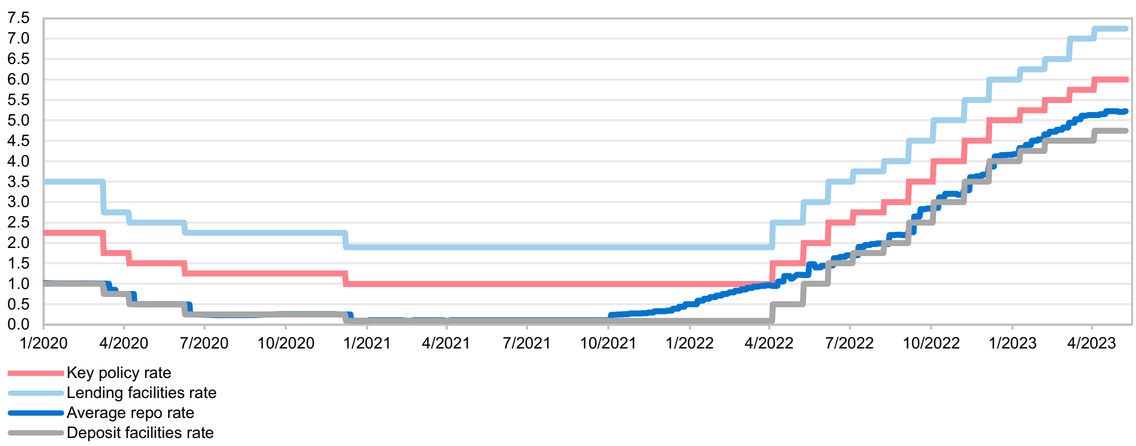
At the same time, **global growth is expected to slow down this year** amid heightened geopolitical uncertainty, tightened conditions in the international financial market and dented demand. Unexpected events in some banks in the USA and Europe caused turmoil in global financial markets in March. Concerns over stability of the financial system in advanced economies drove investors to redirect their funds in the safest classes of assets, and decreased expectations regarding the Fed and ECB rate hikes due to the assessment that in the new circumstances leading central banks would prioritise financial stability over fighting high inflation. Nonetheless, in its March meeting, the **ECB** raised its policy rate, as announced, by 50 bp, to 3.50%. The ECB pointed out that the euro area banking sector is resilient and, in many aspects, performing better than before the 2008 economic crisis, as well as that it will use the policy rate to fight inflation and macroprudential measures to preserve financial stability. By tightening its monetary policy, the ECB seeks to lower aggregate demand, as well as the risk of a permanent increase in inflation expectations. Also, the ECB is downsizing its APP portfolio, at the envisaged pace, since it is no longer reinvesting the principal payments from matured securities in full. The downsizing of the portfolio will average around EUR 15 bn per month until June 2023, with the further pace to be defined in due course. As for the PEPP, the ECB plans to reinvest the principal payments from matured securities at least until end-2024, the roll-off of the programme being managed so as to avoid interference with the appropriate monetary policy stance.

Euro area inflation is losing steam, albeit at a slower pace than hoped for. Inflation slowed down mostly owing to lower energy prices, while core inflation, on the other hand, continues up on account of the still extremely low unemployment rate and relatively high wage growth. The ECB's latest macroeconomic projections were completed in early March, before the aforementioned tensions emerged in the international financial market, increasing the uncertainty regarding inflation and economic growth. According to those projections, the euro area inflation was revised down, primarily due to the lower contribution of energy prices than initially anticipated. Under the baseline scenario, inflation is expected to recede from 10.0% in Q4 2022 to 2.8% in Q4 2023, hover around 3% in 2024 and return to the 2% inflation target in Q3 2025. When it comes to inflation excluding energy and food, it continued up since the start of this year and the ECB expects it to average 4.6% in 2023 (headline inflation 5.3%), only to decline to 2.5% in 2024 and 2.2% in 2025 as supply-side shocks weaken and tighter monetary policy further dampens demand. The Executive Board had in mind that this year's **GDP growth of the euro area** was revised up to 1.0% in March (from 0.5% in December 2022). The ECB pointed out that the revision is the result of lower energy prices and greater resilience of the euro area economy to challenges from the international environment, and voiced expectation of better economic performance as of Q2, as supply bottlenecks are resolved, inflation further retreats and uncertainty regarding energy supplies dissipates, provided that the current tensions in the financial market calm down. Consensus Economics also raised the euro area growth forecast for this year, to 0.7% in April.

The **Fed** continued to raise the federal funds rate in March, by 25 bp to the range of 4.75–5.00%, its record level since 2007. The increase was to a degree in line with expectations, although some investors believed that the Fed would take a break from raising its rate over concerns about financial system stability. The Fed pointed out that the US banking system is resilient, and that current events will probably lead to the tightening of credit conditions for households and corporates, reflecting also on economic outturn. As in December, the Fed's expectations from March point to an increase in the central projection of the policy rate to 5.1% by the end of this year, while the rate anticipated at end-2024 is somewhat higher than in December (4.3% vs. 4.1%). The Fed slightly revised up its inflation projection for this year (3.3% vs. 3.1% in December).

Amid expected further monetary policy tightening by the ECB and the Fed, the Executive Board took into account that **global financial conditions will further tighten, causing inflationary pressures to abate**. The ECB's further restrictive monetary policy should lead to lower external demand, but also to the **rising cost of euro-indexed loans in the domestic market**. On the other hand, problems in some banks of advanced economies, along with a clouded global growth outlook, **could fuel volatility in the international financial market** and lead to continued rechannelling of global capital flows from emerging to advanced economies. As for Serbia, **last year's record high level of FDI inflow is encouraging, as is the fact that Serbia made a successful presentation at the international financial market in January 2023**, when it issued two eurobonds in dollars. In addition, the Executive Board emphasised that Serbia's credit rating was maintained one notch below the investment grade in the face of numerous global challenges. The rating agencies assess that Serbia has a coherent economic policy framework, credible monetary

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



Source: NBS.

policy, moderate public debt levels, adequate FX reserves, and a stable banking sector.

In its monetary policy making, the Executive Board had in mind that geopolitical tensions are still heightened and the movement of **global energy and food prices** volatile under the impact of numerous demand- and supply-side factors. Though the global oil price fell considerably in March, mostly due to problems in some banks in the USA and Europe, April saw its surge, following the decision by OPEC+ to decrease output by 1.6 million barrels per day. Hence, its future movements remain unpredictable, particularly in view of the unabated geopolitical tensions. The situation is similar for other primary commodities prices, notably agricultural commodities. Although the prices of global primary commodities have decreased in recent months, their movements remain uncertain and mandate caution in making monetary policy decisions.

The Executive Board decisions in March and April were based on the **February medium-term inflation projection**, according to which y-o-y inflation would remain elevated in Q1 this year, and strike a downward trajectory as of Q2, with a major decline in H2. Therefore, by the end of the year it should be two times lower than in March and retreat within the bounds of the target tolerance band in mid-2024. The factors that will work towards easing inflationary pressures include past monetary tightening, the expected waning of global factors underpinning energy and food price growth in the past period, a slowdown in imported inflation, as well as subdued external demand amid the anticipated slackening of global growth.

In Q1, inflation was negligibly higher than envisaged by the February projection, which took into account the continued pass-through of high cost-push pressures from the previous period on the prices of food and other industrial products, as well as the adjustment of electricity and gas prices. Headline inflation measured 16.2% y-o-y in March, with around two-thirds of the outturn still attributable to the rising prices of food and energy, on which monetary policy measures have a limited effect, as the hike in these prices mostly reflects international developments. A negligibly higher-than-expected inflation in Q1 was actually due to the higher-than-usual vegetable price growth. **Core inflation** (headline inflation excluding the prices of food, energy, alcohol and cigarettes, most affected by monetary policy) measured 11.3% y-o-y in March and stayed lower than headline inflation, underpinned by the **relative stability of the exchange rate maintained in an extremely uncertain global environment**.

In deciding on the key policy rate, the Executive Board sought to make sure that monetary policy tightening does not threaten the continuity of economic growth. As expected, lending activity slowed down in H2 2022 and early this year, reflecting tighter financial conditions, dented household demand for loans, as well as the maturing of guarantee scheme loans. However, domestic demand continued to be supported by the preserved labour market, FDI inflow, as well as the still relatively high government allocations for capital investments. Moreover, stronger-than-expected euro area growth outlook this year and weaker negative effects of the energy crisis in Europe facilitate the achievement of the projected growth rate of 2.0– 3.0% in 2023.

At its May meeting, the NBS Executive Board kept the key policy rate unchanged at 6%, holding that it is best to wait for the effects of past monetary measures to unfold fully. The Board's decision to keep the rate unchanged is taken in conditions of a gradual weakening of cost-push pressures from the international environment and easing of disruptions to global supply chains. Prices in energy markets also went down, primarily those of electricity and natural gas. This will dampen cost-push pressures globally and should also contribute to the slowing of domestic inflation in the coming period. Further, in conditions of global slackening of economic activity, primarily manufacturing in the euro area, our key trade partner, it is necessary also to ensure the continuity of our economic growth. At the same time, by maintaining relative stability of the dinar exchange rate against the euro, the NBS significantly helps to contain the spillover effect of rising foreign prices on domestic prices and to preserve macroeconomic stability against the background of pronounced global uncertainty. Still, the Board underlined that monetary policy caution should be maintained going forward due to persistent geopolitical tensions and the still present, albeit lower, risks associated with the prices of primary commodities and energy. Uncertainty also continues to stem from the still relatively high core inflation in a number of countries, underpinned by labour market factors, as well as from the future monetary policy decisions of leading central banks and hence, conditions in the international financial market and their impact on capital flows to emerging economies.

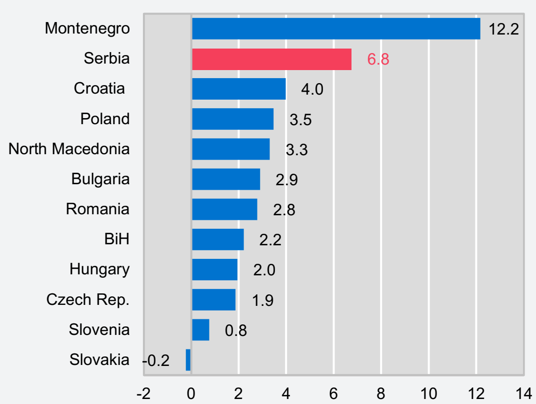
As the main risks to inflation and other economic developments continue to emanate from the international environment, the NBS will continue to monitor and analyse trends in the international commodity and financial markets and make decisions on the key policy rate based on incoming data. This means that future monetary policy decisions will depend on the movement of key monetary and macroeconomic factors in the domestic and international environment, and the anticipated effects of past monetary tightening on inflation in the period ahead. 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.

Text box 1: Assessment of Serbia's resilience to the effects of multidimensional crisis – coronavirus pandemic, energy crisis and Ukraine conflict

The previous three years probably mark the most turbulent times in recent economic history, in which three crises intertwined – the coronavirus pandemic, the energy crisis – primarily in Europe, and the Ukraine conflict. They differ from all the previous global crises with respect to their characteristics and root causes. These successive crises have shaken the entire global economy and left deep scars on its functioning. The Serbian Government and the NBS undertook comprehensive and complex measures within their jurisdiction, seeking to protect the Serbian economy from adverse effects coming from the international environment. Although the effects of these crises are still felt, from this time distance it is possible to assess Serbia's experience in dealing with these crises, the adequacy of economic policy makers' response, as well as Serbia's comparative position in the region.

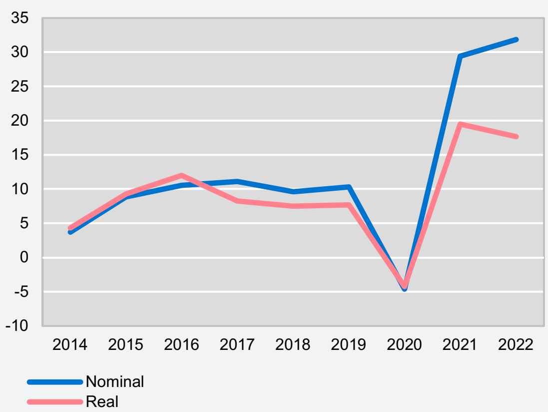
First and foremost, it is important to note that, owing to the responsible and adequate economic policy in the pre-pandemic period, and above all the full coordination of monetary and fiscal policy, implemented fiscal consolidation and structural reforms, which resulted in reduced internal and external imbalances and strengthened macroeconomic and financial stability, it was possible to undertake comprehensive fiscal, monetary and prudential policy measures, which provided support to corporates and households, following the outbreak of the pandemic in Serbia. The economic policy makers focused on providing the necessary liquidity for companies, preserving production capacities and jobs, as well as protecting the standard of living of the general population. This helped Serbia to achieve one of the best results in Europe in 2020, posting a mere 0.9% GDP drop, and to reach the pre-crisis level of economic activity only three quarters after the initial shock, i.e. in Q1 2021. Preserved investment confidence even during the crisis is evidenced by the fact that the investment cycle has been ongoing without interruption since 2015, and that the around 23% share of investments in GDP (in 2021 and 2022) is above the pre-pandemic level. Although economic activity softened in H2 2022 under the influence of adverse effects of the Ukraine conflict, which significantly strengthened the global cost-push pressures, notably on account of high energy and food prices, as well as dampened external demand, primarily in the EU, **Serbia's cumulative economic growth in in the three pandemic years amounted to 9%, staying one of the highest in Europe**.

Chart O.1.1 **Net FDI inflow by countries of the region in the 2020–2022 period**
(annual average, in % of GDP)



Source: Eurostat.

Chart O.1.2 **Nominal and real goods and services export growth rates**
(y-o-y, in %)



Sources: SORS and NBS.

Preserved investment confidence and favourable macroeconomic prospects of Serbia are also evidenced by **FDI inflow, which in the past two years reached new record values of over 7% of GDP and in three years, cumulatively, amounted to EUR 11.3 bn**, making up around 60% of total inflows to Western Balkan countries, while being all this time project-diversified and channelled mainly to tradable sectors. Stronger export capacities on this account helped the exports of goods and services in 2022 to keep the double-digit growth rates both in nominal and real terms, despite the slowdown in external demand, and export growth to be recorded in 22 out of 23 branches of manufacturing. Nevertheless, surging global energy prices, and in part higher imports of energy, resulted in an increase in the share of the current account deficit in GDP from 4.2% in 2021 to 6.9% in 2022. However, owing to the high FDI inflow, **the current account deficit was fully covered by the net FDI inflow for the eighth consecutive year**, thus contributing to the sustainability of the country's external position. At the same time, taking into account the expected decline in global energy prices this year and the current account surplus recorded in Q1, **the current account deficit this year will certainly be significantly lower than last year**, and will reach, in our estimate, around 4.5% of GDP. We expect further narrowing in the current account deficit going forward, as a result of continued reduction in goods trade deficit, which will be underpinned by rising exports on the back of past investment in tradable sectors.

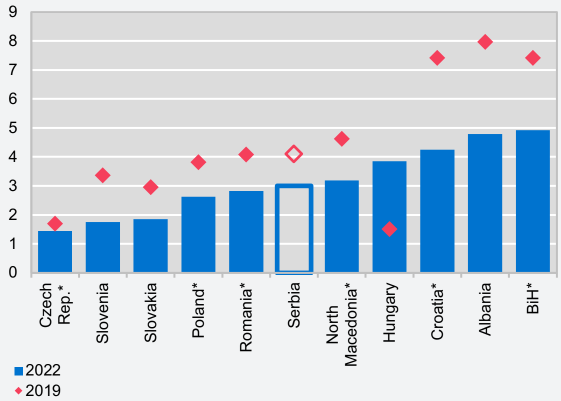
A country's FX reserves are a critical pillar of its defence and resilience against external risks. Relative to end-2019, Serbia's FX reserves increased by as much as EUR 8.2 bn to EUR 21.6 bn at end-April this year, **their newest all-time high, exceeding the benchmark values of all reserve adequacy metrics** (coverage of goods and services imports, coverage of short-term external debt, money supply, as well as combined metrics such as the so-called ARA metrics, the extended Greenspan-Guidotti rule, etc.). **The NBS also contributed to the growth in FX reserves by net buying foreign exchange in the IFEM.** It is important to note that the NBS intervened in the IFEM in an unbiased manner in both directions. During episodes of strong turbulences in the international financial market, globally heightened risk aversion following the outbreak of the pandemic, as well as the start of the Ukraine conflict, the NBS was a net seller, and for the rest of the period, a net buyer of foreign exchange. This helped preserve the relative stability of the exchange rate and prevent the spillover of rising imported inflation onto domestic inflation through the effects of the weakening of the dinar in periods of strong turmoil in the international financial market.

As in other countries, rising global cost-push pressures fuelled by elevated prices of energy, primary commodities and other production inputs, as well disruptions in global supply chains, reflected also on inflation in Serbia, which has been on an upward trajectory since August 2021, and measured 16.2% y-o-y in March this year. In this period, over two-thirds of headline inflation came from food and energy prices, while thanks to the preserved relative stability of the exchange rate, core inflation recorded a milder rise and measured 11.3% y-o-y in March this year. **Going forward, inflation is expected to slow down, which will intensify in H2 2023. At the end of the year inflation should be at half the current level, and return to the target tolerance band in mid-2024.** In addition to the effects of the implemented monetary policy measures, such inflation profile should also be supported by the weakening of global cost-push pressures, lower imported inflation and dented external demand.

The relative stability of the exchange rate, along with the strengthening of the regulatory framework for banks in line with Basel III standards and implementation of the NPL Resolution Strategy, helped to maintain and strengthen financial stability in the pre-pandemic period. Owing to this, indicators of financial soundness remained strong – **the banking sector remained highly capitalised** (at end-March 2023, the capital adequacy ratio equalled 20.52%), **liquid and resilient to risks from the international environment even in times of a multidimensional crisis**. This made it possible for the bank assets not to deteriorate even after the support measures to the private sector brought during the pandemic were wound down. In fact, **NPLs were cut to only 3% of total loans**, down by 1 pp from their pre-pandemic level.

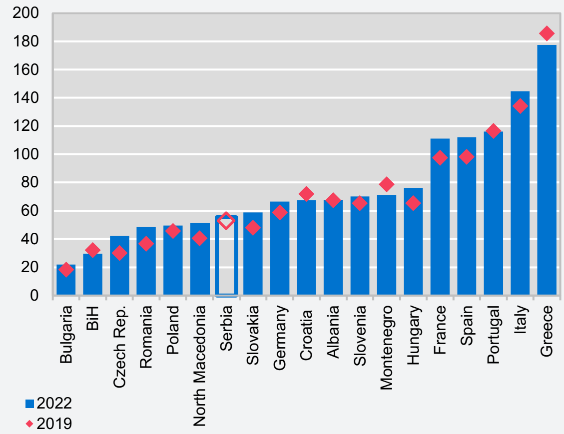
Thanks to the support measures of the NBS and the Serbian Government, the domestic labour market avoided more severe consequences of the pandemic, and has been recording favourable trends since 2021, despite the tightening of global and domestic financial conditions. This is evidenced primarily by the formal labour market data – **in March this year, there were by over 144 thousand formally employed persons more than at end-2019. At the same time, registered unemployment dropped** by over 82 thousand persons, measuring 424,747 at end-March this year. Moreover, **indicators of living standards**, such as GDP per capita and coverage of the minimum and average consumer basket with the minimum and average wage, stand at a higher level than at end-2019 (GDP per capita is higher by over EUR 2.2 thousand, reaching almost EUR 8,900 at end-2022, the coverage of the minimum consumer basket with the minimum wage is at 77% vs. 68% in 2019, and of the average consumer basket with the average wage – 86% vs. 77% in 2019).

Chart O.1.3 **NPL ratio by countries of the region in 2022 and 2019**
(in %)



Sources: IMF's GFSR (April 2023) and NBS.
* Q3 2022.

Chart O.1.4 **Public debt by country in 2022 and 2019**
(in %)



Source: IMF's WEO (April 2023) and Ministry of Finance.

As in other countries, the pandemic caused a strong fiscal policy response aimed at supporting the health care system and containing the negative impact on consumption and economic growth. Such support to economy, coupled with lower fiscal revenues amid economic contraction, pushed up the share of general government deficit to 8% of GDP in 2020 and drove public debt up by 4.9 pp, to 57.8% of GDP, the **public debt increase being among the smallest in Europe**. The downward path of both general government deficit and public debt in GDP was sustained in the next two years and resulted in the **deficit subsiding to 3.1% in 2022, and public debt to 55.6% of GDP** (2.8 pp above the end-2019 level). The deficit would have been even lower had it not been for the energy crisis and the significant increase in energy prices, which, in addition to existing problems in the Electric Power Company of Serbia (EPS), mandated government support to the domestic energy sector. According to the IMF assessment presented during the first review of the current standby arrangement, **narrowing of the deficit and the downward trajectory of public debt in GDP will continue in this year and in the period ahead, supported by the new fiscal rules**. Consistent application of the new fiscal rules should ensure long-term sustainability of public finances and prevent stronger demand-side inflationary pressures, which will positively reflect on the country's risk premium, credit rating and external financing conditions. It is also important to note that in January, Serbia issued two eurobonds in the international financial market, in the amount of EUR 1,750 mn. Considering the developments in the international financial market – higher interest rates and heightened uncertainty – such financing conditions can be regarded as favourable, particularly if compared to countries with investment grade.

All three credit rating agencies (Standard & Poor's, Fitch and Moody's) **and relevant international financial institutions, such as the IMF, agree that Serbia proved to be resilient to the crises the world has been facing for three years**. According to their assessment, the dominant factors behind Serbia's getting closer to investment grade countries and the demonstrated resilience were: sound public finances in the prior period, the improved monetary policy framework and stronger credibility of the NBS, reinforced financial stability, an adequate level of FX reserves, as well as higher diversification of exports and investments, with a robust FDI inflow, primarily to tradable sectors, which fully covers the current account deficit.

III Inflation movements

Amid the continued pass-through of high cost-push pressures from the previous period, y-o-y inflation, consistent with our earlier expectations, remained elevated in Q1 at around 16%. The y-o-y inflation growth in the period since the February Report was driven by the higher contribution of food prices and the expected adjustment in administered prices, while lower contribution of petroleum product prices worked in the opposite direction.

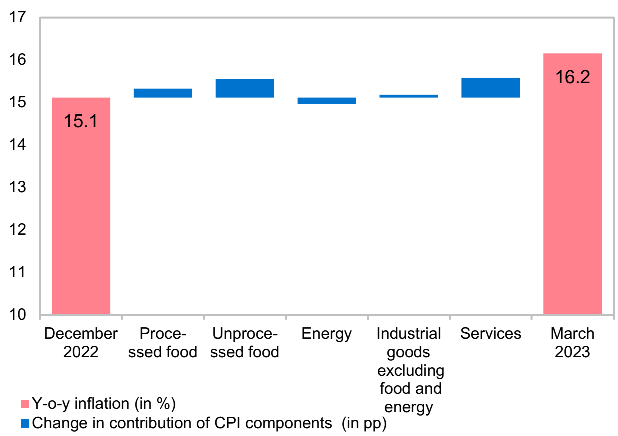
As in the prior period, core inflation, which moved at around 11% y-o-y in Q1, was kept below headline inflation, underpinned by the preserved stability of the RSD/EUR exchange rate amid uncertain international circumstances.

Inflation movements in Q1

Y-o-y inflation remained elevated in Q1 on the back of the continued pass-through of high cost-push pressures from the previous period, and measured 16.2% in March, slightly above our expectations in the February *Report*. A half of the y-o-y inflation outturn in March came from the higher prices of food and non-alcoholic beverages, whose contribution edged up by 0.7 pp relative to December, given that increased agricultural and production costs have not reflected fully on the food prices yet, though the y-o-y dynamics of food prices did slacken in the past months.[1] **In Q1, the contribution of vegetable prices increased the most**, as they grew drastically due to the dampened supply after the last year's drought in Serbia and much of Europe. Energy prices decreased slightly their contribution to y-o-y inflation in Q1 (by 0.1 pp), owing to the slower rise in petroleum product prices and solid fuels amid warmer weather, while the implemented adjustment in the prices of electricity and gas for households worked in the opposite direction. The prices of industrial products (excluding food and energy) and the prices of services also increased their contribution to y-o-y inflation in Q1. **Core inflation** (CPI excluding food, energy, alcohol and cigarettes) grew in Q1, to 11.3% in March. As in the prior period, it stayed below headline inflation, underpinned by the preserved stability of the RSD/EUR exchange rate in uncertain global conditions.

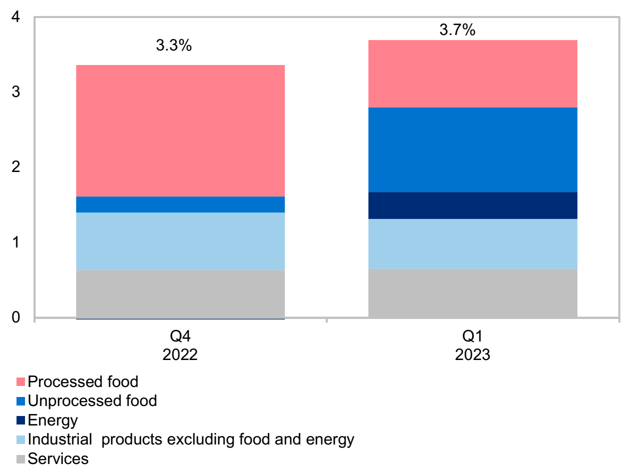
In quarterly terms, **consumer prices picked up by 3.7% in Q1**, mainly driven by the hike in the prices of food and non-alcoholic beverages (6.2%), with a 2.0 pp contribution to inflation. Compared to our expectations stated in the February *Report*, **the greatest upward departure was recorded in the prices of fresh**

Chart III.0.1 **Y-o-y inflation and change in contribution of main CPI components to y-o-y inflation**
(in %, in pp)



Sources: SORS and NBS calculation.

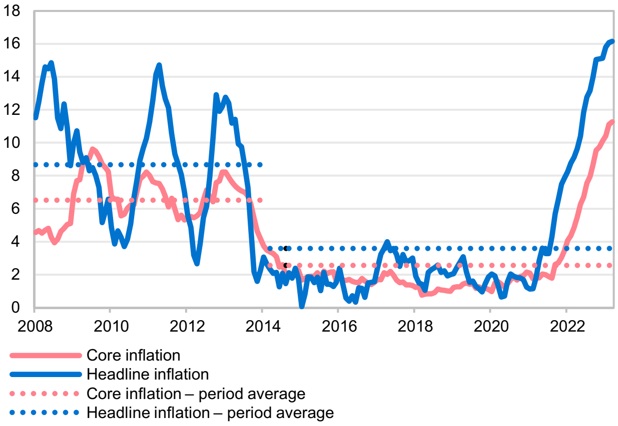
Chart III.0.2 **Contribution of main CPI components to quarterly inflation**
(in pp)



Sources: SORS and NBS calculation.

[1] For more information see Text box 2, p. 15.

Chart III.0.3 **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 Q1 2023**
(quarterly)

	Growth rates (in %)	Contribution (in pp)
Consumer prices (CPI)	**3.7**	**3.7**
Unprocessed food	10.8	1.1
Processed food	4.1	0.9
Industrial products excluding food and energy	2.4	0.7
Energy	2.3	0.4
Services	2.7	0.6
CPI excluding energy, food, alcohol and cigarettes	2.4	1.1
Administered prices	4.2	0.8

Sources: SORS and NBS calculation.

vegetables, which grew by almost 30% in Q1. This is multiple times above the seasonal increase for this period, primarily affected by the previously mentioned supply-side factors. Fresh fruit price hike in Q1 (3.3%) was considerably lower than vegetable price hike, in line with our expectations. Fresh meat prices slightly declined in Q1 (0.6%) owing to the January decline in the prices of meat, which mirrored the dynamics of their global counterparts. Unlike **unprocessed food** prices, which accelerated their growth, **processed food** prices recorded two times lower growth in Q1 (4.1% vs. 8.0% in Q4 2022), with an evident slowdown in the price hike for all products in this category.

Energy prices rose by 2.3% in Q1, on account of the previously announced adjustment in the prices of **gas** (10.8%) and **electricity** (7.1%) in January, with the price of gas giving a negligible contribution to inflation in Q1 and electricity prices a 0.4 pp contribution. In contrast, the prices of **solid fuels** (firewood and coal) went down by 2.9% in Q1, amid warmer-than-usual season. The 0.8% fall in **petroleum product prices** in Q1 is a result of the drop in the prices of diesel fuel and petrol in January, reflecting the fall in global oil prices and the extended validity of the government cap on the prices of petroleum products.

The **prices of industrial products (excluding food and energy)** recorded a rise of 2.4% in Q1, mostly owing to the higher prices of household cleaning and medical products, the January and February hike in the prices of alcoholic beverages, as well as the January adjustment of cigarette prices, with a 0.4 pp aggregate contribution to inflation. The prices of other industrial products also edged up in Q1, except footwear prices, which saw a seasonal decline of 1.0%, while the prices of clothes stagnated.

The **prices of services** increased by 2.7% in Q1 (the same as in Q4 2022), driven by the higher prices of utility services, rent, insurance and cable TV subscription, with a 0.4 pp aggregate contribution to inflation. The prices of medical, catering and transport services also rose in Q1, while the seasonal drop of almost 15% in the prices of tourist packages worked in the opposite direction.

Administered prices recorded a 4.2% rise in Q1, owed to the already mentioned adjustments in the prices of electricity, gas, utility services and cigarettes.

Prices within core inflation increased by 2.4% in Q1, on account of the price hike in products and services, which also dictated the growth in the prices of industrial products (excluding food and energy).

Producer and import prices in Q1

In the period since the previous *Report*, cost-push pressures in production softened further, which is evidenced by a significant slowdown in the growth of **industrial producer prices in the domestic market**, from 13.3% y-o-y in December to 5.5% y-o-y in March, the lowest y-o-y growth rate in the past two years, owed to the high base effect, but also to the easing of global cost-push pressures. Such movements were mostly driven by the y-o-y fall in the **production prices of crude oil and petroleum products** in Q1 and a considerably slower y-o-y rise in the **prices of durable consumer goods** (furniture and computers), **capital goods** (construction materials) and **intermediate goods** (wooden, paper, rubber and plastic products). In addition, the prices of chemical products and base metals recorded a y-o-y decline in Q1, while the y-o-y growth in the **prices of non-durable consumer goods** slackened in Q1, primarily owing to the slower pace of growth of prices in food production.

Similar to the y-o-y dynamics of producer prices in industry, the **prices of elements and materials in construction** slowed down from 14.6% y-o-y in December to 7.1% y-o-y in March (the lowest growth rate since May 2021), indicating softened cost-push pressures in construction as well.

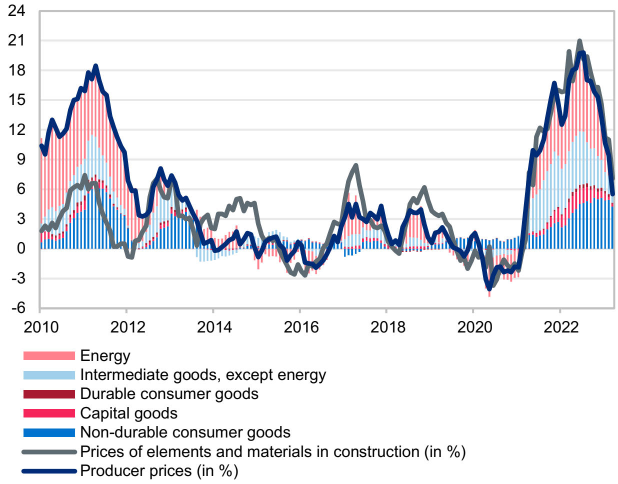
The y-o-y growth of **import prices expressed in dinars**[1] slowed down further in Q1, to 2.8% on average (from 11.8% y-o-y in Q4 2022) on account of the negative contribution from global oil and agricultural product prices, as well as import gas prices (cumulatively by 1.7 pp). Conversely, a positive contribution continued to come from import prices of services, approximated by the euro area prices within core inflation[2], and from other import product prices (primarily equipment and intermediate goods), approximated by the export prices of Germany (cumulatively by 4.5 pp).

Inflation expectations

One-year ahead inflation expectations of the financial and corporate sectors stabilised as of end-2022, despite further inflation growth in Q1.

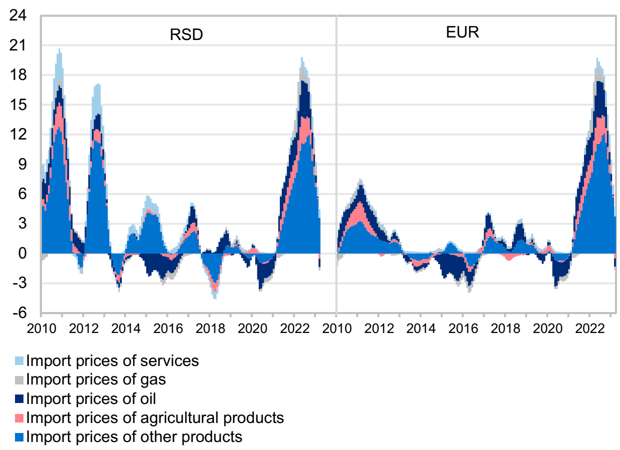
According to the Bloomberg survey, **one-year ahead inflation expectations of the financial sector** stood at

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



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

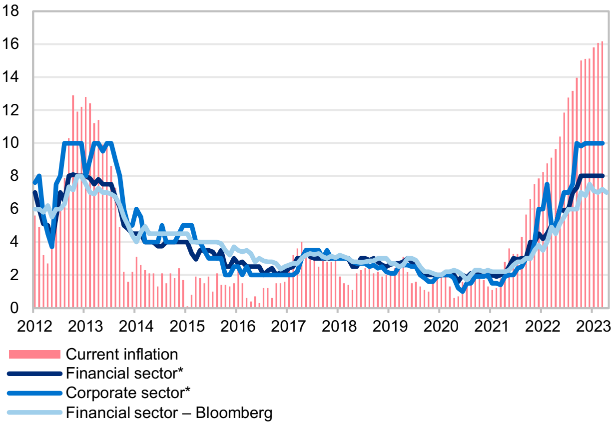
Chart III.0.5 **Contribution of individual components to y-o-y rate of import price growth**
(period average, in pp)



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

[1] Preliminary data. The weighted average of the global Brent oil price, import gas price, food price index (FAO index), euro area consumer prices, and export prices of Germany, one of Serbia's key trade partners, is used as an indicator of import prices. The base year is 2010.
[2] Measured by HICP excluding food, energy, alcohol and cigarettes.

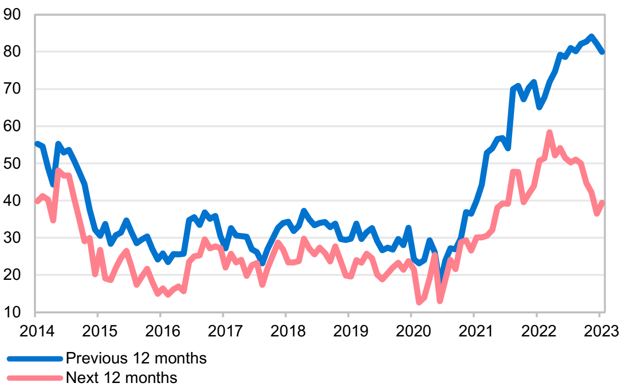
Chart III.0.6 **Current inflation and one-year ahead inflation expectations**
(y-o-y rates, in %)



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

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

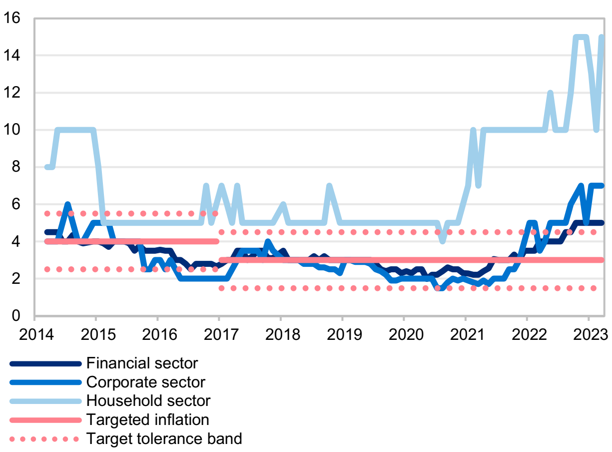
Chart III.0.7 **Household perceived and expected inflation***
(in index points)



Sources: Ipsos/Ninamedia and NBS calculation.

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

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



Sources: Ipsos/Ninamedia and NBS.

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

around 7% in Q1, the same as in April, down by 0.5 pp from end-2022. According to the Ipsos survey, after rising to 8.0% in October, one-year ahead expectations were stable at that level in the first four months of this year.

One-year ahead inflation expectations of the corporate sector have stood at 10.0% since November 2022. However, the percentage of corporates expecting an increase in input prices and the prices of final products and services over the next twelve months measured around 80% in March, marking an increase from December when it equalled around 70%.

The **corporate perception of business conditions** did not change significantly in Q1. The majority of respondents consider that business conditions in the previous three months stayed unchanged and expect them to remain unchanged in the following 12 months. The percentage of respondents expecting a deterioration in business conditions (12%) was two times lower than at end-2022.

After falling in February from 20.0% to 15.0%, **one-year ahead inflation expectations of households** stayed unchanged in March. According to the results of the qualitative survey, the index of expected inflation recorded lower values than the index of perceived inflation, indicating that households expect that inflation will be lower in the coming 12 months than in the previous year.

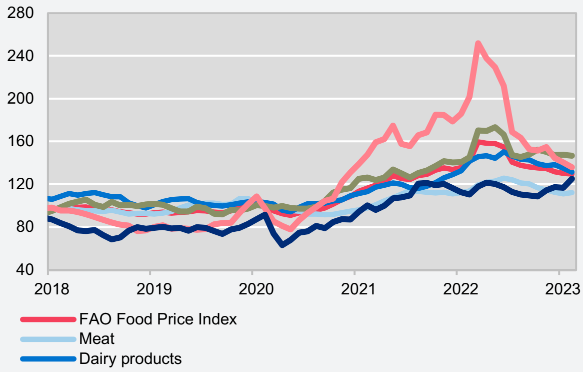
Inflation expectations of the financial sector for two years ahead stayed unchanged for six months and measured 5.0%, while expectations for three years ahead continued to move within the target tolerance band – at 4.0% (3.6% in February). In Q1, **corporate inflation expectations** for two and three years ahead measured 7.0% and 5.0%, respectively. Two-year ahead **inflation expectations of households** decreased to 13.0% in January and further to 10% February, only to return to their December values of 15% in March, while their expectations for three years ahead remained unchanged from December, at 10.0%.

Text box 2: Food prices in production and consumption: dynamics, determinants, comparison by country and outlook

Despite signals, which emerged late last and early this year, that global cost-push pressures were decelerating, food inflation has still not slowed in many countries. This text box aims to explain the dynamics of food prices in production and consumption in Serbia, the factors underlying their movement, as well as our expectations going forward.

In an environment of nascent economic recovery in most countries, along with the easing of restrictive health measures, especially after the development and mass rollout of COVID-19 vaccines, **world food prices swelled** as of mid-2020 (Chart O.2.1). Supply-side factors also drove these prices up, primarily the disruptions in global supply chains and soaring transportation and packaging costs. At end-2021, the prices of oil and gas and the related prices of mineral fertilisers went up (natural gas being the most important input in the production of mineral fertilisers), fuelling the growth in world food prices.

Chart O.2.1 **FAO Food Price Index**
(nominal, 2014−2016 = 100)

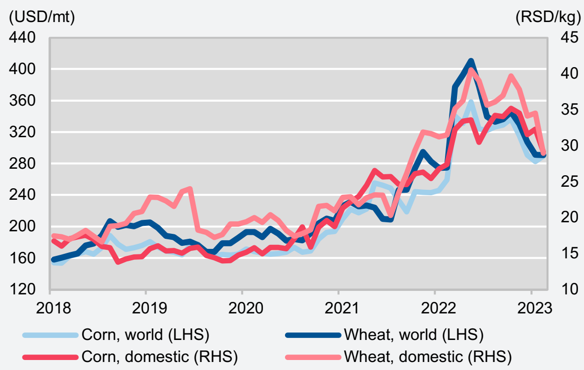


Source: UN FAO.

Inflationary pressures in the food market intensified after the outbreak of the Ukraine conflict, when the supply of primary agricultural commodities from Russia and Ukraine, which are among the world's leading cereal exporters, declined in the short run. The supply of agricultural products and mineral fertilisers contracted further on account of export restrictions introduced by other large producers. Shortly after the outbreak of the Ukraine crisis, China banned the export of mineral fertilisers, Indonesia of palm oil, and Turkey of grain.

Measured by the FAO Food Price index, **world food prices reached a multi-year high in March 2022**, when they were higher by 67.8% compared to the same period before the growth trend began (March 2020). After reaching a record high, world food prices struck a downward trajectory. In November 2022, their y-o-y decline was recorded for the first time, continuing over the following months, after more than two years of consecutive growth. The world prices of cereals, primarily wheat and corn, moved mainly along an upward path until October 2022, whereafter they headed down, affecting the domestic prices of cereals, which are a stock market commodity (Chart O.2.2). Under the impact of a number of factors (resumed grain transport via the Black Sea, lifting of export restrictions, lowering of the prices of energy products and mineral fertilisers), a gradual **easing of cost-push pressures in the market of agricultural products** followed from April 2022, partly reflecting the high base from the year before. Nonetheless, world food prices are still relatively high. In March 2023 they were higher by about 23% compared to the 2012–2020 average. Observed by groups of products whose prices are included in the calculation of the FAO Food Price index, all groups recorded a similar tendency in the past three years. The prices of meat and sugar grew the slowest, while the prices of vegetable oils the fastest.

Chart O.2.2 **World and domestic prices of wheat and corn**



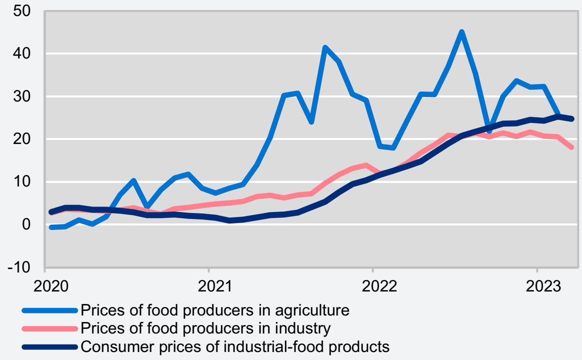
Sources: Novi Sad Commodity Exchange, CBOT, Euronext and NBS calculation.

The prices of producers of agricultural and industrial-food products in the domestic market have increased in the past two years, dominantly under the impact of the above global factors. These are the prices at which individual farmers, agricultural cooperatives and the processing food industry sell their products to authorised buyers and distributors in the higher stages of the food value chain. The price dynamics of food producers in Serbia can be followed through the aggregate indices[1] created and published by the SORS. In y-o-y terms, the prices of food producers in agriculture have increased significantly since April 2021 (Chart O.2.3), partly reflecting the low base from the same period in 2020, when they temporarily declined due to anti-pandemic restrictions, and partly due to the multiple increases in basic production input prices. Given that the basic inputs are incorporated into **food products in the industry** through agricultural products as intermediate ones, the prices of these products followed similar y-o-y dynamics in the past two years. Their growth accelerated after the intensification of the energy crisis in late 2021 and additionally after the outbreak of the Ukraine crisis in early 2022, stabilising at about 20% y-o-y since the beginning of 2023. At the same time, the growth in these prices in consumption was around 25% (Chart O.2.3).

The so-called Use Tables[1], published by SORS and available for the 2015–2020 period, show that primary inputs in agricultural production (basic raw materials, seeds, mineral fertilisers, machines, maintenance) accounted for around 31% of total costs on average, with chemicals and other chemical products making up around 21%, and the costs of purchasing petroleum products, electricity, gas and other energy products around 14% (Chart O.2.4). Therefore, **around two-thirds of costs in the production of agricultural products concerned the procurement of raw materials, chemicals and energy products**, whose global prices skyrocketed in the past two and a half years.

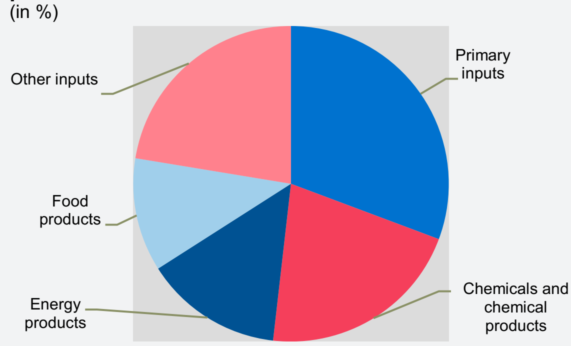
Assuming that the production inputs in the Serbian market had a similar share in the cost structure in 2021 and 2022 as in the period for which data are available (2015–2020), **it can be concluded that the growth in production costs, and thus in the prices of food producers in Serbia's agriculture and food industries in the past two years was dominantly determined by the increase in world input prices.** Nevertheless, it is noteworthy that the easing of global cost-push pressures in production in late 2022 also reflected on lower input prices in domestic agricultural production, as evidenced by the significant slowdown in y-o-y growth in the prices of mineral fertilisers and seeds, and to a lesser extent the prices of intermediate goods and energy (Chart O.2.5).

Chart O.2.3 **Producer and consumer food prices in Serbia**
(y-o-y rates, in %)



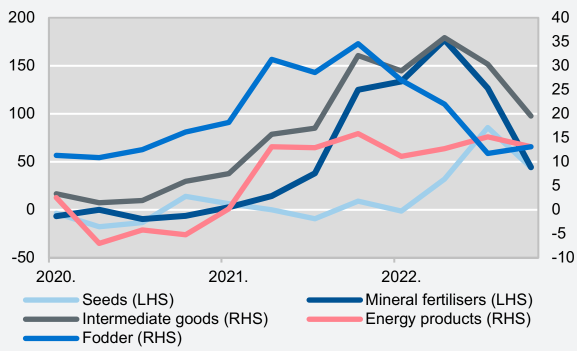
Sources: SORS and NBS calculation.

Chart O.2.4 **Structure of costs of inputs* of agricultural producers in Serbia**
(in %)



* Data are average input shares for the 2015–2020 period.
Sources: SORS and NBS calculation.

Chart O.2.5 **Movement of prices of main inputs in agricultural production in Serbia**
(y-o-y rates, in %)



Sources: SORS and NBS calculation.

[1] From agricultural and industrial food producers' point of view, the prices covered by these indices reflect the dynamics of income from the sale of agricultural and food products in the domestic market (excl. taxes and contributions).

Despite **a strong positive correlation between the global prices of agricultural products, the prices of food in agricultural and industrial production at home, and the prices of food in final consumption** (Table O.2.1), the effects of these cause-and-effect relationships are manifested with a time lag, due to the complexity of the food value chain and contractual relations between a large number of participants. This is also supported by the economic and psychological phenomenon of "downward price rigidity" – i.e. production and sale prices change slowly despite (to a greater or lesser extent) changed circumstances in which they were initially adjusted upward.

Table O.2.1 **Coefficients of correlation between producer and consumer food prices for the 2020-2022 period**

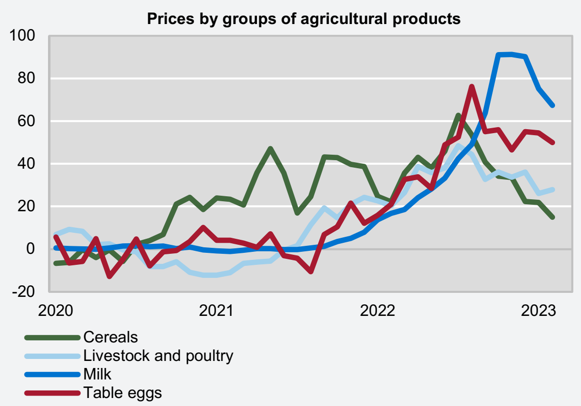
World agricultural product prices	Correlation coefficient	Producer prices in Serbia	Correlation coefficient	Consumer food prices in Serbia
FAO Food Price Index	0.83	Industrial-food products (total)	0.97	Industrial-food products (total)
FAO Food Price Index	0.81	Agricultural products (total)	0.66	Industrial-food products (total)
Milk and dairy products	0.67	Milk	0.99	Milk and dairy products
-	-	Livestock and poultry	0.98	Meat (fresh and processed)
-	-	Table eggs	0.90	Eggs
Cereals	0.81	Cereals	0.58	Bread and cereals
Vegetable oils	0.33	Industrial crops	0.31	Oils and fats

Source: NBS calculation based on FAO, NBS and SORS data.

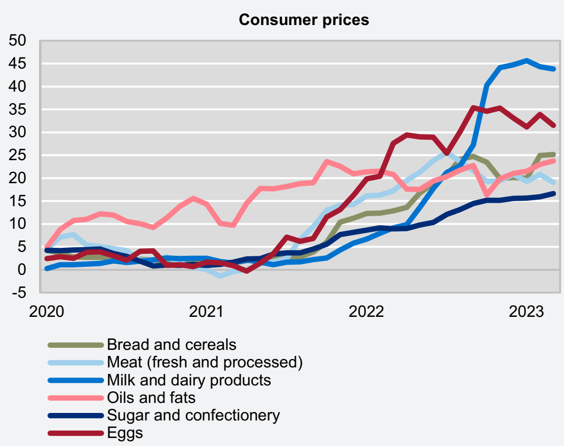
As a result, in the period observed, consumer prices of food in the domestic market followed the growth in input prices in the production and transportation of food from the world market, as well a rise in domestic producer prices, because **the demand for food, as a rule, is less price elastic than other consumer basket categories**. The retail **prices of vegetables and fruits** (fresh and processed), as the most volatile categories of food (accounting for 6.5% of the consumer basket) increased by 18.4% y-o-y on average in 2022, and by 28.1% y-o-y in the first three months of 2023, reflecting – in addition to high production costs – the last year's drought, which affected our region during the summer months and significantly reduced the supply of these products. The consumer prices of industrial-food products, participating with almost 25% in the consumer basket, also recorded significant y-o-y growth during 2022, which stepped up month after month and continued into 2023, arriving at 24.7% in March.

Observed by **groups of industrial-food products** (Chart O.2.6), the largest y-o-y growth was recorded for the retail prices of eggs and milk and dairy products, intensifying since October with the lifting of administrative price caps, though the last two months have seen a marked slowdown in their y-o-y growth rates. The lowest y-o-y growth rate since early 2023 was recorded for the prices of non-alcoholic beverages (13.2% in March), sugar and confectionery (around 16% in March), while the growth in the prices of meat and meat products, oils and fats, as well as bread and bread products ranged from 19% to 25% y-o-y in Q1 2023.

Chart O.2.6 **Movement of prices of individual products in agricultural production and consumption**
(y-o-y rates, in %)

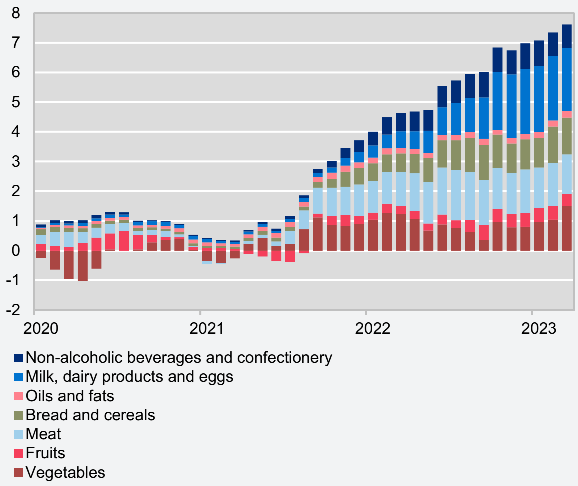


Sources: SORS and NBS calculation.



The joint contribution of the prices of industrial food products, vegetables and fruits to y-o-y inflation has increased many times since August 2021, when y-o-y inflation struck an upward path, going up from 1.6 pp in August 2021 to 8.2 pp in March 2023. Namely, **in this period the y-o-y increase in food prices accounted for 38–50% of the y-o-y growth in all consumer prices in Serbia** (Chart O.2.7). In the same period, food prices in the euro area contributed between 11% and 41% to headline inflation, with the share of the prices of food and non-alcoholic beverages in the inflation basket in Serbia equalling 31.4% and that in the euro area being almost twice lower (about 16%). From September 2022 to February 2023, y-o-y growth in processed food prices was faster than growth in unprocessed food prices, while in March unprocessed food prices posted higher growth, mirroring mainly the increase in vegetable prices. The recorded food price growth would likely have been even higher had the government not taken temporary administrative measures to cap the prices of energy products and basic foodstuffs (bread, sugar, flour, sunflower oil, pork meat, and milk) in late 2021 and early 2022 to prevent a major spillover of elevated energy and primary agricultural commodity prices onto their counterparts at home and the prices of other products and services through inflation expectations.

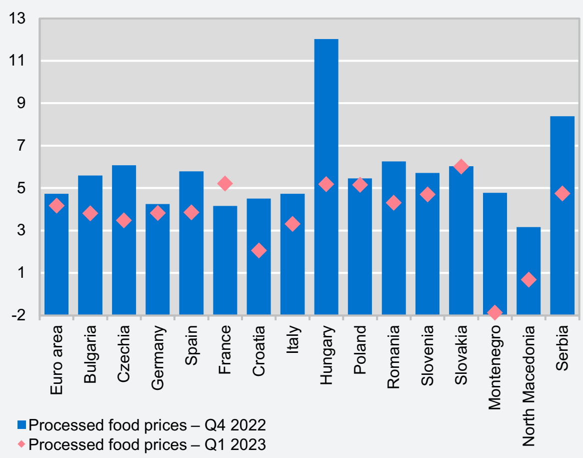
Chart O.2.7 **Contributions of food categories to y-o-y consumer price growth rate**
(in pp)



Sources: SORS and NBS calculation.

Consumer prices of food followed a path similar to other **neighbouring countries**. This is evidenced by the y-o-y growth in the prices of food (and non-alcoholic beverages) in Central and Southeastern Europe (Bulgaria, North Macedonia, Poland, the Czech Republic and Romania). In March this growth ranged between 20% and 25%, except for Hungary, which recorded a growth rate of as much as 45%. Since early 2023, the prices of food (and non-alcoholic beverages) in a number of European countries have recorded a three-month increase of 4.5–7.0%. The increase came at around 6.0% in Serbia, Romania and Hungary, and around 5.0% in Germany, Bulgaria, the Czech Republic and Slovenia. Slightly lower growth rates, around 3.5%, were registered in Spain and Italy, and around 4.5% in the euro area. The food price increase reflected **a further rise in the prices of processed food**,[2] as well as **higher prices of vegetables**, whose three-month growth rates were significantly above the multi-year outturns customary for this period of the year.

Chart O.2.8 **Three-month processed food price growth rates in European countries**
(in %)



Sources: Eurostat and NBS calculation.

This reflects last year's poor harvest (due to the drought that affected important agricultural and vegetable regions of Europe), subdued supply of new crops of vegetables from the regions that are traditionally large producers (due to unfavourable weather conditions during the past winter in Spain), as well as reduced supply of greenhouse vegetables (due to higher energy prices, which are a significant production input).

[2] In terms of coverage, the category of processed food, whose prices were taken from the Eurostat database for the sake of comparability, is almost identical to the category of industrial-food products that the analysis focuses on.

Given the connection of the above analysed segments of the food value chain – from farmers through industrial producers of food to wholesalers and retailers (as evidenced by the high correlation coefficients of producer and consumer prices), we can expect that consumer food price growth will slow in the coming period. In this regard, **it should be underscored that the prices in agricultural and industrial food production stabilised and began to record slightly slower y-o-y dynamics in the past months. For the time being, this has still not reflected on the prices of industrial-food products in consumption**, but a slowdown should follow in the coming months, along with the weakening of the effect of pass-through of earlier high costs in production, packaging and transportation to retail product prices. Prices may also be dampened by the agricultural season, provided it turns out to be good both at home and in Europe.

In the following period, cost-push pressures in the world food market are likely to dissipate thanks to lower prices of production inputs, primarily oil, natural gas and mineral fertilisers. This should push down the prices of primary agricultural commodities at home and reduce cost-push pressures in the production of agricultural and industrial-food products. In such a scenario, assuming an average agricultural season in our country, **we estimate that consumer food prices have peaked in Q1 2023** (due to the base effect). **They are likely to strike a downward path as of Q2 2023**, contributing crucially to the slowdown in headline inflation by the end of the projection horizon. According to the May medium-term inflation projection, the contribution of food prices (excluding fruits and vegetables) to headline inflation should decline close to 5.5 pp in the next year. The prices of fruits and vegetables are anticipated to gradually head down towards the long-term trend starting from Q2, which may be mitigated by the effects of bad weather from early April. The downward trajectory of food inflation, which we expect until the end of the projection period, could possibly be mitigated, but not disrupted, by an imperfect market structure on the supply side, i.e. due to the absence of stronger competition in this segment.

IV Inflation determinants

1 Financial market trends

NBS continued to tighten monetary conditions, fuelling further growth in interest rates in the interbank money market and interest rates on dinar loans in Q1. Also, further monetary tightening by the ECB put an upward pressure on interest rates in the euro area money market, and, by extension, rates on euro loans in the domestic market.

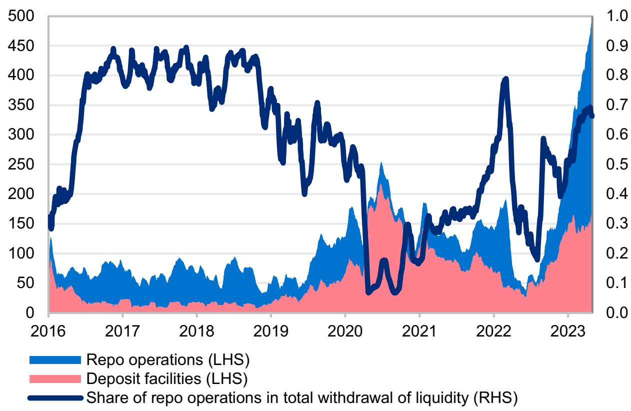
Interest rates

In Q1, the NBS continued to tighten monetary conditions by raising **the key policy rate** by a total of 75 bp (in three meetings, by 25 bp each), and by an additional 25 bp in April, to the level of 6.0%. Interest rate on deposit facilities was increased by 75 bp to 4.75%, and the rate on lending facilities by 125 bp, so that it reached 7.25% in April. The average stock of sold repo securities more than doubled in Q1 – from RSD 119.2 bn in December to RSD 291.0 bn in March. The weighted average repo rate gained 106 bp from end-2022, reaching 5.22% at end-April. The amount of overnight bank deposits with the NBS did not change considerably in Q1, with the daily average of RSD 146.3 bn in March.

A more moderate increase in the key policy rate and weighted average repo rate softened the rise in interest rates in the **interbank money market** compared to the previous quarters. In Q1, BEONIA added 50 bp, reaching 4.50% at end-March. The average daily turnover in Q1 contracted by RSD 0.5 bn from the quarter before, coming at RSD 1.7 bn. BELIBOR rates of all maturities increased almost by the same degree in Q1, by around 59 bp on average, moving at end-March from 4.62% for the shortest maturity to 5.63% for the six-month maturity.

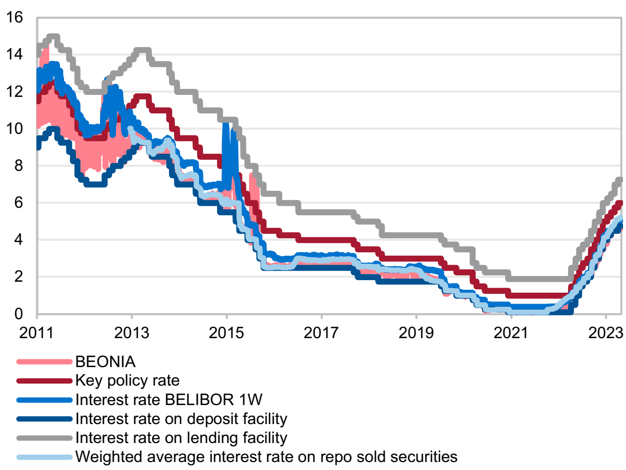
In the **primary market of dinar government securities** in Q1, 12.5-year dinar securities were offered at three auctions and two-year securities at three auctions. At each of the three auctions of 12.5-year dinar securities the yield rate declined, by a total of 20 bp, so at the last auction in March it measured 6.95%, only to drop to 6.75% at the April auction. The yield rate also declined in the auctions

Chart IV.1.1 **NBS operations – liquidity withdrawal**
(30-day moving averages, in RSD bn)



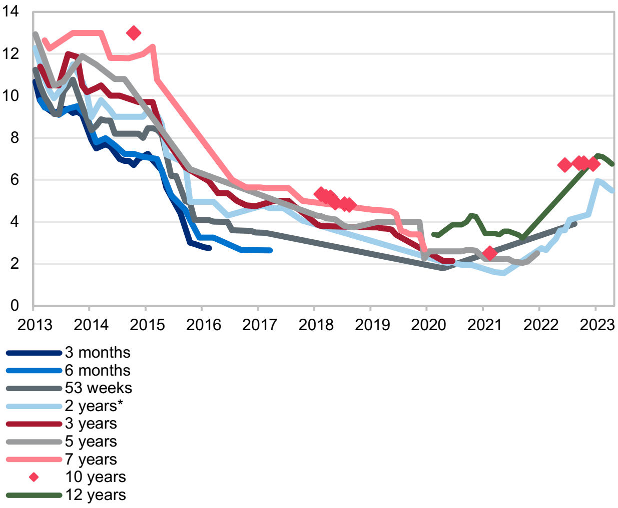
Source: NBS.

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



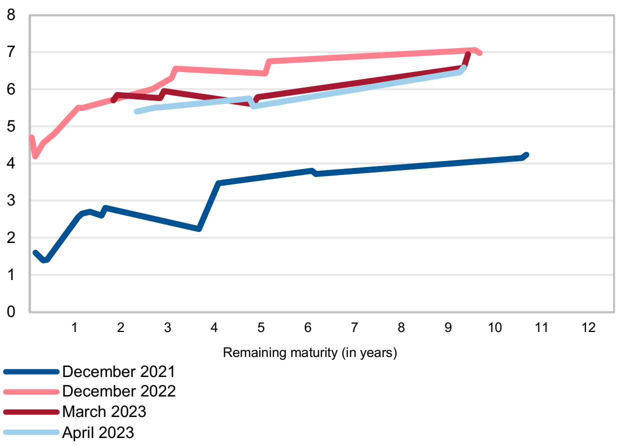
Sources: Thomson Reuters and NBS.

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



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

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



Source: Central Securities Depository and Clearing House.

of two-year securities, by a total of 30 bp to 5.65% at the March auction, going further down in the April auction, to 5.48%. March saw the fourth auction of the early buyback of seven-year dinar government securities issued in July 2016 and maturing in July this year. Securities of this maturity were bought back in the nominal amount of RSD 6.8 bn, at the effective rate of 5.2%.

Dinar securities were sold in the nominal value of RSD 89.3 bn. Since earlier sold securities worth RSD 130.5 bn fell due and securities worth RSD 6.8 bn were bought back early, the stock of dinar securities sold fell to RSD 900.3 bn at end-Q1. Though non-residents were to some extent net sellers of dinar securities in the secondary market in Q1, thanks to their ample investment in the primary market, the stock of dinar government securities in their ownership increased by RSD 5.7 bn, making up around 15% of the total portfolio of dinar government securities at end-March.

In Q1, in the **secondary market of dinar securities**, yield rates on dinar securities of longer maturities declined, while the turnover expanded by 35% compared to a quarter earlier, to RSD 37.2 bn in Q1. The weighted average yields on dinar securities with the remaining maturities of four, five and ten years contracted compared to the last week of December by 49–82 bp, to 5.55%, 5.72% and 6.57%, respectively, in the last week of March.

In Q1, one auction was organised for the sale of **government euro securities** with the two-year maturity. The effective rate equalled the coupon rate of 2.5% and securities nominally worth EUR 37.5 mn were sold. In March, the government early redeemed securities with the original maturity of 53 weeks, in nominal amount of EUR 350 mn, previously sold in a private placement. They would have originally matured in June this year, and since EUR 96.1 mn worth of securities fell due concurrently, the stock of sold euro securities declined to EUR 1,958.8 mn at end-March.

In January, the government ensured financing for its liabilities by a **dual-tranche of eurobonds in dollars in the international financial market**, the first with the five-year maturity, worth USD 750 mn, at the coupon rate of 6.25%, and the second with the ten-year maturity, worth USD 1 bn, at the coupon rate of 6.50%. A swap (hedging) transaction was performed immediately thereafter in order to convert the liabilities under dollar bond issues into euros and thus minimise the FX risk. Given the circumstances in the international financial market – the growing yield rates and a considerable degree of uncertainty in the international financial market

– the achieved terms of financing can be considered favourable, especially when compared to countries which already have investment grade and also issued eurobonds in the same period.

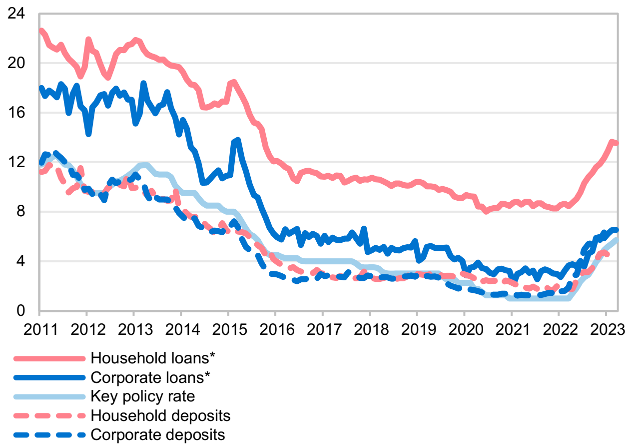
A further rise in interest rates in the interbank money market determined movements in interest rates on **new dinar loans**, which increased in Q1. Relative to December 2022, interest rate on dinar household loans increased by 1.2 pp to 13.5% in March, while interest rate on corporate loans went up by 0.7 pp, to 6.5% in March. Relative to September 2021, i.e. the period prior to the cycle of monetary tightening, these rates went up by 5.1 pp and 3.2 pp, respectively.

The increase in interest rate on new dinar corporate loans in Q1 was driven by the rise in rates on working capital and investment loans, by 0.8 pp to 8.4%, and by 0.7 pp to 8.3%, respectively. As in the prior period, the interest rate on dinar household loans was almost fully determined by the movement of interest rate on cash loans, which edged up by 1.1 pp to 14.1% in March. This loan category makes up the dominant share of 86% in total dinar household lending. Interest rates on housing and other non-categorised loans also went up, to 13.1% and 11.4%, respectively.

Continued monetary tightening by the ECB and a further rise in interest rates in the euro area money market reflected on euro lending rates in the domestic market. The weighted average interest rate on corporate euro loans added 1.1 pp compared to December, coming at 6.1% in March. As in the case of dinar loans, the rise was almost fully led by the rise in interest rates on working capital and investment loans, which edged up by 1.0 pp to 6.1%, and by 1.2 pp to 6.4%, respectively. These two loan categories together accounted for 89% of total corporate euro loans. The average interest rate on household euro-indexed loans edged up by 1.2 pp in Q1, to 7.1% in March, reflecting the rise in interest rates across all loan categories, but primarily on the dominant category of euro-indexed housing loans (by 1.0 pp to 6.1%), followed by other non-categorised loans (by 0.8 pp to 9.0%).

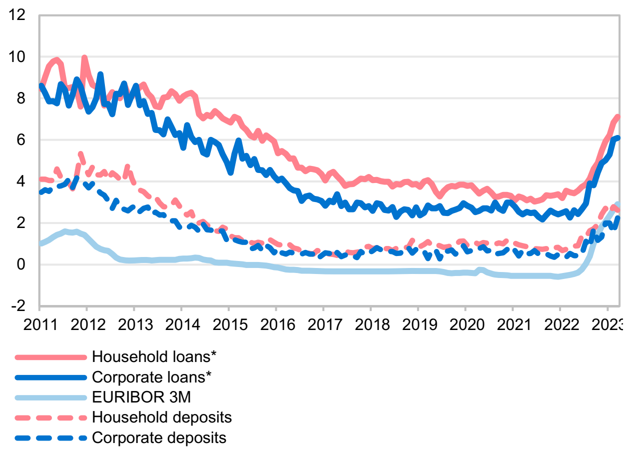
Interest rates on **household savings in dinars and euros** did not change significantly since December, measuring 4.8% and 2.6%, respectively in March. Interest rate on corporate time deposits in euros increased by 0.3 pp relative to December (to 2.3%), while interest rate on corporate time deposits in dinars lost 0.4 pp, dropping to 6.0% in March.

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



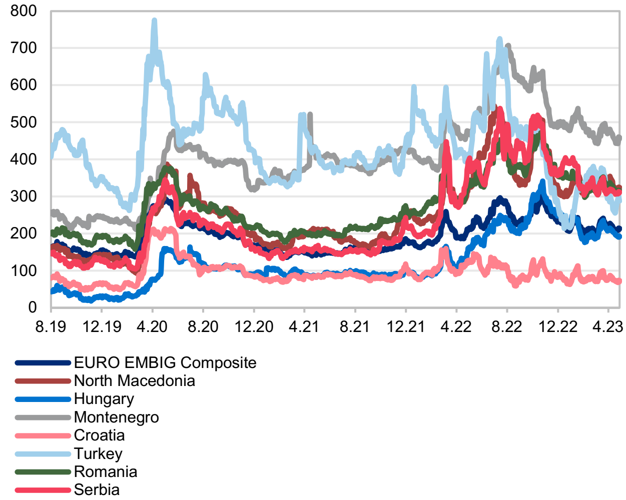
Source: NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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



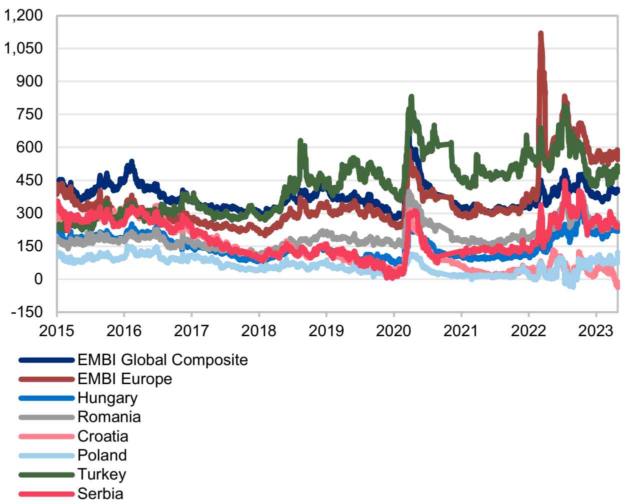
Sources: European Banking Federation and NBS.
* Excluding revolving loans, current account overdrafts and credit card debt.

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

The weakening of global cost-push pressures on account of lower energy prices and mitigated disruptions in global supply chains led to a moderate downward revision to the global risk premium early in the year. However, heightened uncertainty in the international financial market due to the problems in operation of some banks in the US and Europe led to a mild increase in the global risk premium in March.

The EURO EMBIG Composite, a composite risk measure for euro debt of emerging economies, increased by 11 bp in Q1, to 219 bp at end-March. At the same time, Serbia's risk premium for euro debt, EURO EMBIG, lost 76 bp in Q1, coming at 313 bp at end-March. Serbia's dollar risk premium also shrank in Q1 (by 3 bp to 267 bp), continuing to trend below the composite risk measure of emerging economies for dollar debt, EMBI Composite, which in Q1 increased by 26 bp, to 400 bp at end-March.

Fitch kept Serbia's credit rating at BB+ in February, one step away from investment grade, despite the pronounced uncertainties in the international environment. Stable rating outlook was also kept, as a confirmation of the well-built resilience of the domestic economy to numerous global challenges. Fitch particularly underscored the importance of the preserved stability of the exchange rate in conditions of heightened geopolitical and other international risks, adequacy of fiscal policy and higher level of economic development measured by GDP per capita compared to rating peers. It emphasized the once again proven resilience of the banking sector, a high and adequate level of FX reserves and full coverage of the current account deficit by FDI inflows, particularly important amid high global energy prices and overall risks from the international environment.

Standard & Poor's published its report for Serbia in April, keeping the country credit rating at BB+ (with a stable outlook), despite the still pronounced international risks and consequences of geopolitical developments on the global economy. Standard & Poor's stresses that the gradual lifting of the key policy rate prevented a further spread of inflationary pressures and that medium-term inflation expectations remained largely anchored thanks to the credibility of monetary policy, tightening of monetary conditions and the preserved relative stability of the exchange rate. The agency also emphasized the proven credibility of Serbia's overall economic policy, its favorable long-term growth prospects, fiscal discipline, lower financing needs and the downward trajectory of public debt. It also assessed that the financial sector is well-capitalised, liquid and profitable and that the share of NPLs in total loans is at its minimum.

Foreign capital inflow

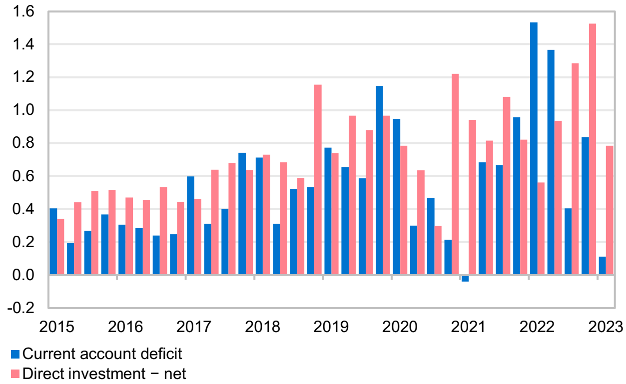
FX reserves rose by EUR 1.9 bn in Q1 (according to the balance of payments methodology), supported by high capital inflows to the financial account, with a lower-than-usual current account deficit in this period. The bulk of capital inflow originated from the successful sale of eurobonds in the international market, followed by FDI and the rise in corporate and government borrowing, which neutralised the outflows under reduced banks' credit liabilities and trade loans.

Net FDI inflow amounted to EUR 784 mn in Q1, with FDI to Serbia amounting to EUR 847 mn, up by 42% from the same period the year before, when this inflow was temporarily dampened following the outbreak of the Ukraine conflict. Almost 70% of investments took the form of equity capital and reinvested earnings, which confirms foreign investors' commitment to continue investing in Serbia. Sector-wise, the bulk of investments went to manufacturing, followed by professional, scientific, innovation and technical activities, and construction.

Net inflows under **portfolio investments** in Q1 came at EUR 1.2 bn, thanks to two successful eurobond issues in the international market in January. Serbia issued 5-year eurobonds worth USD 750 mn at the coupon rate of 6.25% and 10-year eurobonds worth USD 1.0 bn at the coupon rate of 6.50%. Investor demand outstripped the supply by several times, bringing down the required yield rates during auctions. In order to minimise FX and interest rate risks, hedging transactions were concluded immediately, converting the liabilities arising from dollar securities to euros. Thus, the cost for 5-year bond equals six-month EURIBOR + 2.9 pp, and for 10-year bond six-month EURIBOR + 3.1 pp. On the other hand, at end-March the government made an early buyback of securities issued in June 2022 through a private placement (EUR 350.0 mn). Outflow was also recorded on account of the maturing of previously issued government securities.

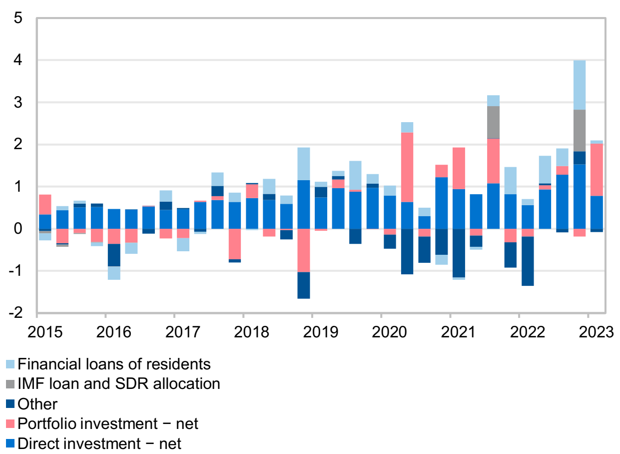
Financial loans generated a net inflow of EUR 71 mn in Q1. Government and corporate liabilities rose by EUR 95 mn and EUR 63 mn, respectively, while banks net repaid EUR 86 mn of their foreign liabilities, mostly under short-term loans. **Cash and deposits** generated a

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



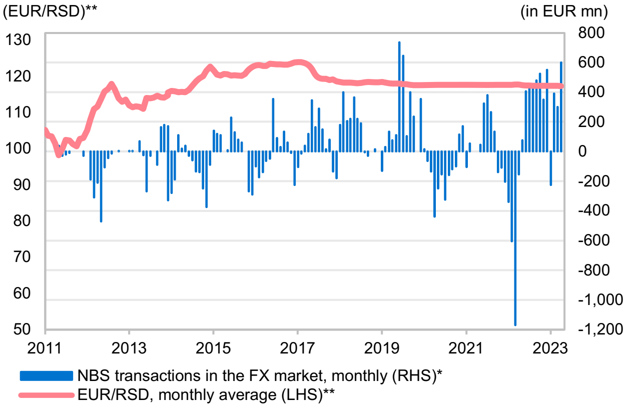
Source: NBS.
Note: Preliminary data for Q1 2023.

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



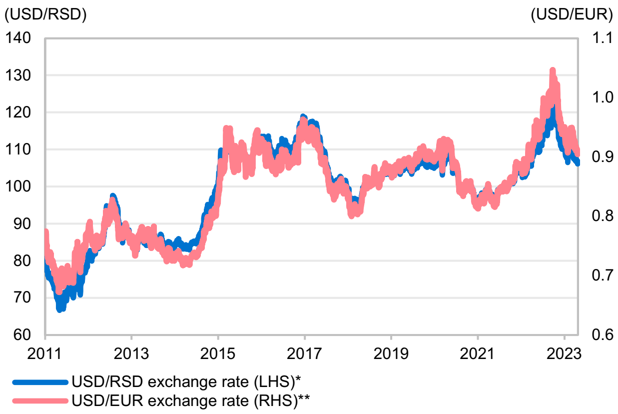
Source: NBS.
Note: Preliminary data for Q1 2023.

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



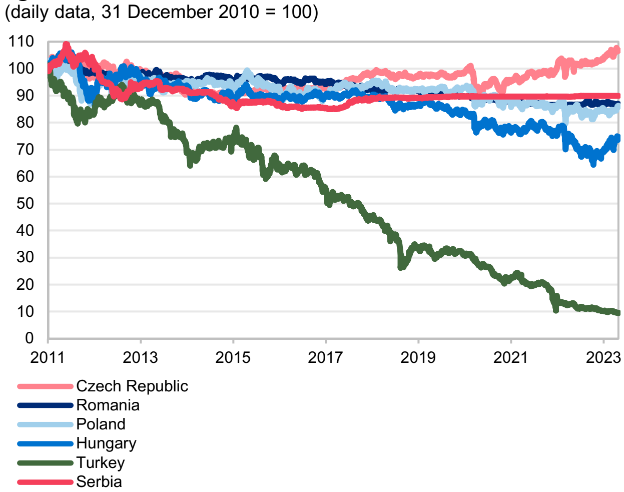
Source: NBS.
* + net purchase; - net sale.
** EUR 1 in RSD.

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.

net outflow of EUR 14 mn, as the decrease in the accounts of non-residents with domestic banks exceeded the decrease in the accounts of domestic banks abroad. Trade loans and advances also generated an outflow of EUR 80 mn as receivables under uncollected exports rose more than importers' foreign liabilities.

Trends in the FX market and exchange rate

After the demand for foreign currency in the domestic market outstripped the supply in January, primarily due to seasonally higher demand of energy importers, FX supply outstripped the demand multiple times in February and March, reinforcing appreciation pressures. The NBS intervened in Q1 in both directions, mitigating pressures on the dinar, which contributed to the dinar's relatively stable course against the euro in Q1 as well. Observed at period-end, the dinar did not change its value against the euro, while it gained 2.4% against the dollar in Q1 due to the euro's strengthening against the dollar in the international market.

The increase in the supply of foreign currency in Q1 was largely driven by the FX supply by residents excluding energy importers, followed by the high purchase of foreign cash, and the rise in FX-indexed bank assets in February and March.[2] The lengthening of banks' position on account of payment card operations worked in the same direction as well. On the other hand, at the level of the quarter, companies were the net buyers of foreign currency, mostly due to the high demand of energy importers. In monthly terms, companies were the net sellers of foreign currency in February, atypical for the season, supported by the FX inflows on account of exports and FDI. Moderate demand for foreign currency originated from non-residents.

To preserve the relative stability of the dinar exchange rate against the euro, the NBS intervened in the IFEM in Q1 on both the purchase and the sale side. In January, it was the net seller of foreign currency, while in February it intervened only on the purchase side. Hence, including net purchase in March and purchase in April, in the first four months the NBS bought EUR 1,065.0 mn net in the IFEM.

Daily trading volumes in the IFEM[3] averaged EUR 32.4 mn in Q1, down by EUR 9.4 mn from Q4 2022, and up by EUR 5.3 mn from Q1 2022. In addition, the NBS

[2] Aiming 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.

continued buying/selling foreign currency from/to banks in bilateral swap transactions which were introduced early last year, though in decreased amounts relative to Q4 2022.

As for the currencies of inflation-targeting countries in the region, the Hungarian forint gained the most against the euro in Q1 (5.1%), followed by the Czech koruna (2.7%) and the Polish zloty (0.3%). The value of the Romanian leu remained unchanged, while only the Turkish lira weakened by 4.4%, amid one policy rate cut in February.

2 Money and loans

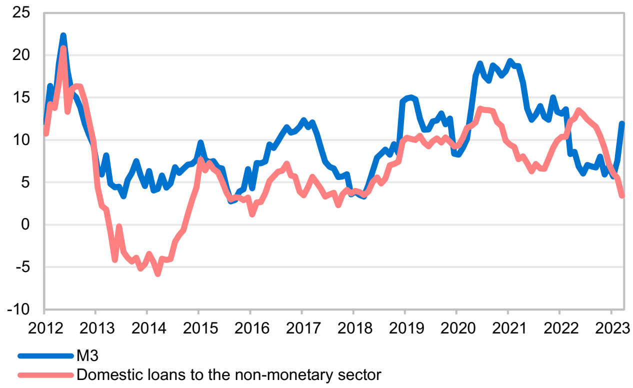
Money supply growth in Q1 was largely driven by the increase in time dinar deposits, aided by greater attractiveness of dinar savings amid NBS monetary policy tightening. In y-o-y terms, domestic lending continued to decelerate due to the high last year's base, the maturing of guarantee scheme loans and higher interest rates against the background of restrictive monetary policies of the NBS and ECB.

Money

The broadest monetary aggregate M3, which apart from dinar money also includes FX deposits of non-monetary sectors, increased by 1.6% in Q1, chiefly on the back of the least liquid component – dinar time deposits, contributing 1.2 pp, followed by FX deposits, with a 0.8 pp contribution. Y-o-y, all aggregates again recorded two-digit growth rates, mainly as a result of rising dinar time deposits.

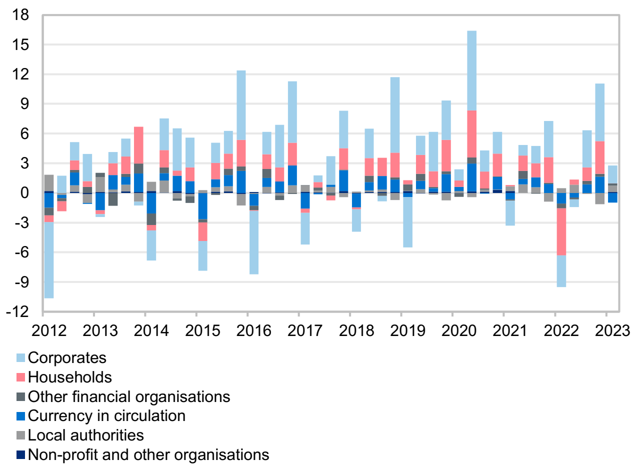
In terms of individual category, dinar **sight deposits** went up by RSD 2.6 bn in Q1, driven by the rise in corporate transaction deposits, while household deposits recorded a mild decrease, typical for the beginning of the year. At the same time, **dinar time deposits** added RSD 49.4 bn in Q1, receiving the greatest boost from higher corporate deposits (by RSD 31.2 bn). Sector-wise, the largest increase was recorded for time deposits in trade, real estate and manufacturing. **Household dinar savings** have been on a constant rise since June 2022, regaining the pre-Ukraine crisis level, as a result of the preserved financial stability and relative exchange rate stability, even in periods of pronounced uncertainty in the international financial market. In Q1, dinar savings added RSD 7.0 bn, coming at RSD 102.7 bn at end-March. Accelerated growth of dinar savings was aided by their greater attractiveness compared to FX savings and the NBS's monetary policy tightening.

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



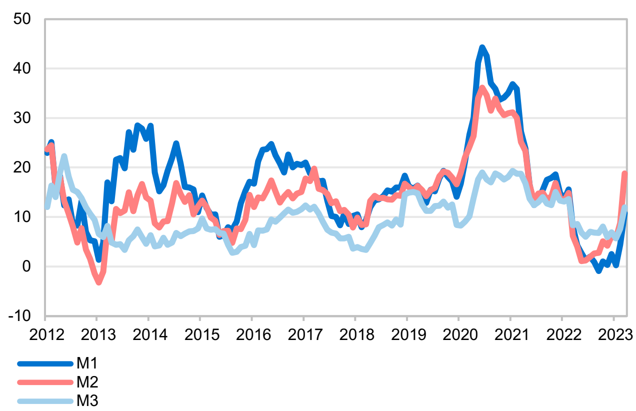
Source: NBS.

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 %)

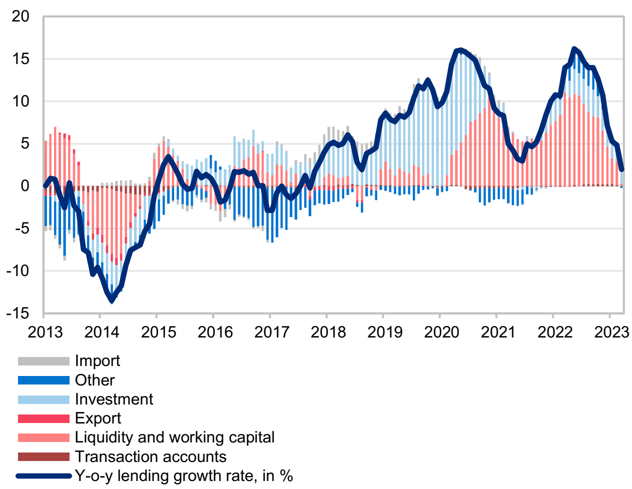


Source: NBS.

FX deposits of non-monetary sectors increased by EUR 277.5 mn in Q1, driven by the rise in corporate and household deposits. Thanks to FX inflows from exports, FDI and foreign borrowing, corporates increased their FX deposits by EUR 177.7 mn. At the same time, household FX savings[4] added EUR 62.5 mn in Q1, coming at EUR 12.9 bn at end-March.

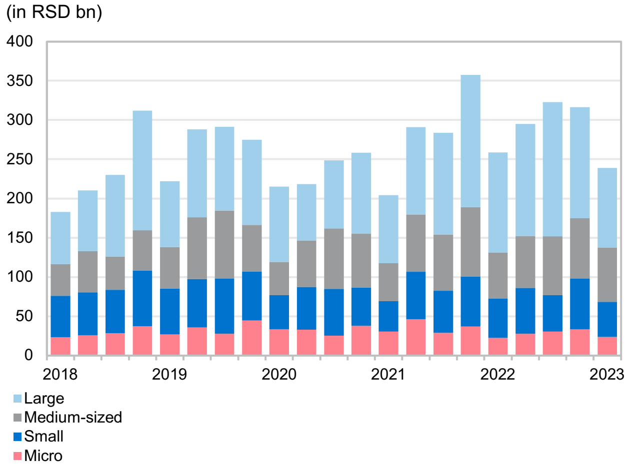
Loans

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.

High last year's base, the maturing of guarantee scheme loans and tightening of NBS and ECB monetary policies led to a further y-o-y deceleration of **domestic lending** in Q1. In March, excluding the exchange rate effect,[5] total loans to the non-monetary sector rose by 3.7% – **corporate loans** by 2.0% and **household loans** by 4.4%.

In Q1, excluding the exchange rate effect, **corporate loans** dropped by RSD 12.5 bn. The greatest decrease was recorded in investment loans (RSD 6.5 bn), followed by liquidity and working capital loans and non-categorised loans, going down by RSD 3.6 bn each. At the same time, current account overdrafts went down by RSD 1.5 bn, while import loans increased by RSD 2.6 bn. As for the structure of corporate loans in March, liquidity and working capital loans were dominant, accounting for 47.4%, followed by investment loans with a share of 40.4%. Sector-wise, companies in manufacturing recorded the greatest decrease in borrowing (RSD 14.0 bn), followed by those in agriculture (RSD 5.0 bn) and transport (RSD 4.0 bn). On the other hand, companies in electricity supply and trade increased their borrowing in Q1 by RSD 11.7 bn and RSD 3.7 bn, respectively, while other sectors saw relatively smaller changes in balance. In terms of company size, loans approved to micro, small and medium-sized enterprises made up 60.0% of total corporate loans in March. A drop in dinar corporate loans (in part due to the maturing of guarantee scheme loans, which were predominantly approved in dinars) and the rise in FX-indexed receivables resulted in lower dinarisation of corporate lending in Q1, by 1.3 pp to 18.1%.

The volume of new corporate loans in Q1 amounted to RSD 238.8 bn, down by 7.7% from the same period last year. In Q1 as well, the corporate sector predominantly used liquidity and working capital loans (62.6%), and over a half of these loans were channelled to micro, small and medium-sized enterprises. Investment loans made up

[4] Money supply M3 includes only resident funds. With non-resident funds included, dinar savings equalled RSD 103.4 bn at end-March and FX savings EUR 13.8 bn.
[5] Calculated at the new programme exchange rate as at 31 October 2022.

23.3% of new corporate loans in Q1, and almost 80% of these loans were absorbed by micro, small and medium-sized enterprises.

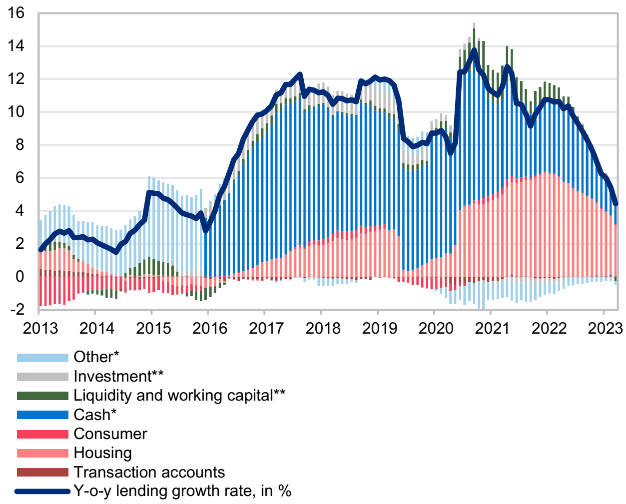
Household loans, excluding the exchange rate effect, decreased by RSD 0.8 bn in Q1, due to non-categorised loans going down by RSD 1.7 bn and cash loans by RSD 0.6 bn. On the other hand, housing loans went up by RSD 1.4 bn, and borrowing under transaction accounts by RSD 1.3 bn. Other types of household loans recorded relatively smaller changes in volume. As a result of these movements, housing loans accounted for 40.4% of total loans in March, with cash loans remaining the dominant category (43.7% in March). Within loans approved to entrepreneurs, liquidity and working capital loans shrank by RSD 2.8 bn in Q1, while investment loans gained RSD 1.6 bn. The degree of dinarisation of household receivables decreased by 0.3 pp to 52.8% in Q1, owing to the rise in FX-indexed lending and a concurrent fall in dinar household receivables.

The volume of new household loans of RSD 120.0 bn in Q1 decreased 6.1% y-o-y. Cash loans made up 60.3% of new loans in Q1, and housing loans – 19.3%.

The NBS bank lending survey conducted in April[6] showed that, expectedly, banks continued to mildly tighten their household and corporate credit standards in Q1 2023. Standards tightening was largely a consequence of costlier funding (consistent with the effects of monetary tightening by the NBS and ECB) and also uncertainty regarding the general economic situation, which translated into a lower risk appetite. Banks expect similar tendencies in Q2 2023. Banks' estimate is that corporate and household loan demand contracted in Q1. Banks deem that reduced needs for financing capital investment and mergers/acquisitions of other companies contributed to reduced corporate loan demand, while the key factor of dented demand in the household segment is the recognised situation in real estate and labour markets (wages and employment failing to keep up with the rising real estate prices and interest rates). Corporate loan demand is expected to recover in Q2, and in the household segment, respondents anticipate enhanced focus on dinar loans (primarily cash).

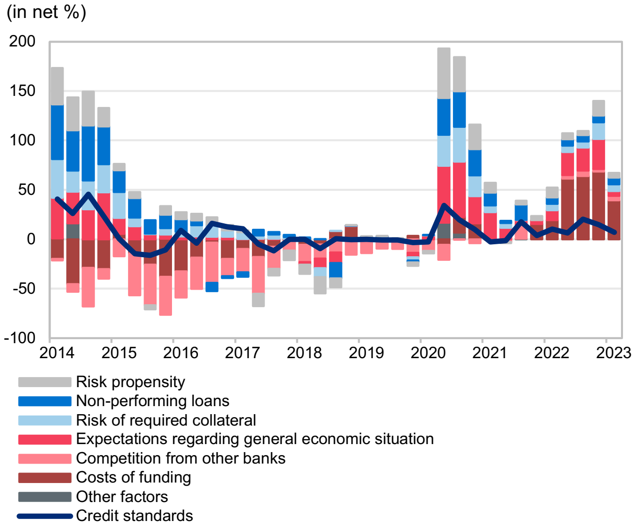
In Q1, gross **NPL ratio** remained at the lowest level on record, equalling 3.00% in March. Sector-wise, gross NPL ratio of the corporate sector[7] dropped in Q1 by 0.1 pp

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.

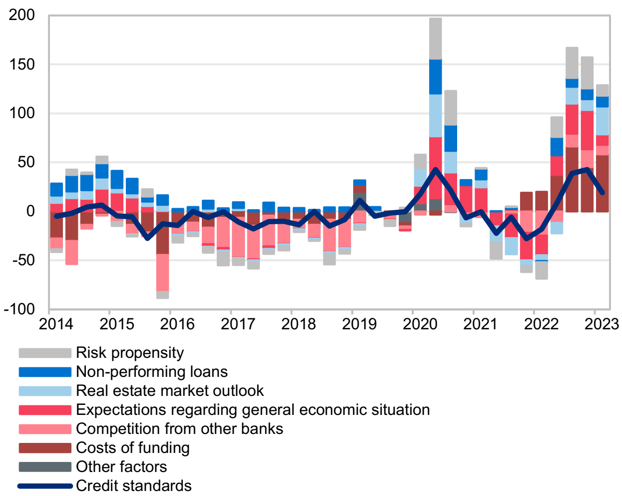
Chart IV.2.7 **Change in corporate credit standards and contributing factors**
(in net %)



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

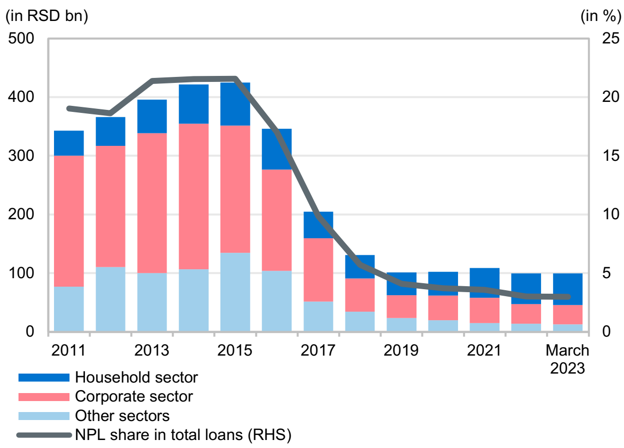
[6] The National Bank of Serbia has conducted the survey since early 2014.
[7] Including companies and public enterprises. Looking at companies only, the NPL share in total loans in March stood at 2.3%.

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



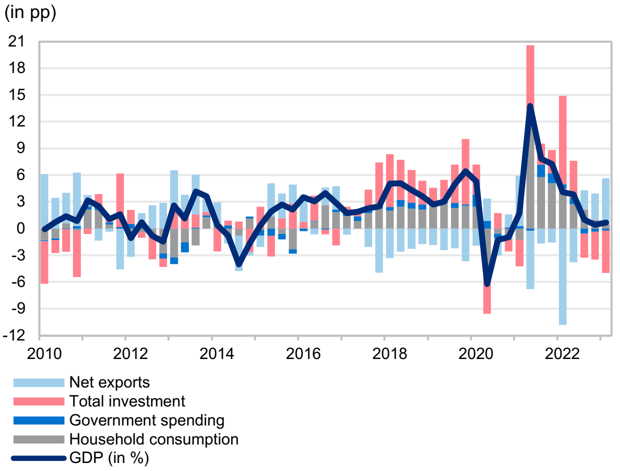
Source: NBS.
Note: Growth indicates the tightening and decline indicates the easing of credit standards.

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 Q1 2023.

to 2.0%, while rising by 0.1 pp for households[8] and reaching 4.1%. NPL coverage remained high – in March, allowances for impairment of total loans stood at 102.9% of NPLs, and allowances for impairment of NPLs at 58.4% of NPLs.

Capital adequacy ratio at end-Q1 2023 measured 20.5%, indicating high capitalisation (regulatory minimum at 8.0%) and resilience of the banking sector to external and domestic risks.

3 Aggregate demand

Unlike previous quarters when economic growth was driven by domestic demand, we estimate that exports were the main growth generator in Q1, while the consequently reduced inventories led to a negative contribution of domestic demand.

Domestic demand

Private consumption growth decelerated further in Q1, to 0.7% y-o-y, according to our estimate. Amid continued monetary policy tightening by the NBS and the ECB and consequently mounting borrowing costs, as well as increased expenses for food and energy, household disposable income went down which reflected on further deceleration of the rise in private consumption. This is primarily indicated by a 4.1% y-o-y decline in real retail trade turnover in Q1. Other indicators also point to a slowdown in private consumption – nominal growth in the import of consumer goods decelerated from over 20% in Q4 2022 to 10.6% y-o-y in Q1 2023, the growth being almost entirely attributable to higher import prices, while the y-o-y growth in household consumption in tourism slumped from over 40% in Q4 2022 to below 4% in Q1 (3.7% measured by the number of arrivals, and 3.9% measured by the number of overnight stays of domestic tourists).

As for the sources of household consumption, in Q1 wage bill increased by 2.6% y-o-y in real terms, almost entirely owing to employment growth, while the nominal wage increase accompanied the rise in consumer prices. Additional tightening of credit standards and higher borrowing cost further slowed down the rise in loans intended for consumption, to 3.1% y-o-y in Q1. On the other hand, high y-o-y growth in remittances was maintained at 30.2% in Q1.

[8] Including entrepreneurs and private households, the share of NPLs in total loans in March was also 4.1%.

It is our estimate that **government consumption** dropped in Q1, but less so than in Q4 2022 (-1.5% vs. -2.4% y-o-y), and that **total consumption** went slightly up (0.3% y-o-y), adding 0.2 pp to GDP.

Despite the still pronounced geopolitical tensions and cost-push pressures, we estimate that **private investments** went up by around 1% y-o-y in Q1. Positive dynamics of private investments are primarily indicated by the intensified expansion of the volume of the production of machinery and equipment (28.4% y-o-y). Equipment imports rose by 7.4% y-o-y nominally, while, on the other hand, construction indicators recorded negative dynamics as the number of issued permits dropped by 9.3% y-o-y in the January–February period and the production of construction materials went down by 5.7% y-o-y in Q1. The recovery of private sector investments is also suggested by the 39.6% y-o-y growth in FDI inflows in Q1. In addition, amid a further rise in borrowing costs, the increase in investment loans decelerated insignificantly, to 4.4% y-o-y in Q1 (from 4.7% y-o-y in Q4 2022).

The implementation of government-financed infrastructure projects continued in Q1 and we estimate that **government investments** picked up by around 2% y-o-y. Bearing this in mind, we estimate that **total fixed investments** went up by 1.4% y-o-y, contributing 0.3 pp to GDP in Q1.

On the other hand, the spending of **inventories** drove down domestic demand despite the growth in its other components, except government consumption.

We estimate that the same factors contributed to the quarterly GDP growth of 0.4% s-a – the rise in consumption, fixed investments and net exports, while the reduction in inventories worked in the opposite direction.

Net external demand

Owing to a faster increase in real exports than in imports of goods and services (11.7% and 3.2% y-o-y, respectively, in our estimate), **net exports** contributed 5.2 pp to the y-o-y real GDP growth in Q1.

According to the balance of payments data, **commodity exports** expressed in euros rose by 15.4% y-o-y in Q1, which is an extremely good result in the context of low external demand and geopolitical tensions, indicating the resilience and diversification of Serbia's export supply. As before, growth was driven by manufacturing exports which rose by 12.0% y-o-y. Export growth was recorded in almost all branches of manufacturing. The greatest

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

	2022			2023
	Q2	Q3	Q4	Q1
Household consumption	**3.8**	**3.0**	**1.5**	**0.7** *
Indicators				
Retail trade	7.2	5.5	2.6	-4.1
Catering turnover	57.1	26.4	24.4	29.3 ***
Number of domestic tourists	40.2	20.6	41.0	3.7
Number of overnight stays of domestic tourists	28.0	22.0	48.4	3.9
Consumer goods import (BEC classification), nominal	22.0	21.2	23.6	10.6
Sources				
Total wage bill, nominal	15.9	15.1	15.5	18.6 **
Net remittances inflow, nominal	54.0	69.6	18.3	30.2
Stock of loans intended for consumption, nominal	7.1	5.6	3.6	3.1

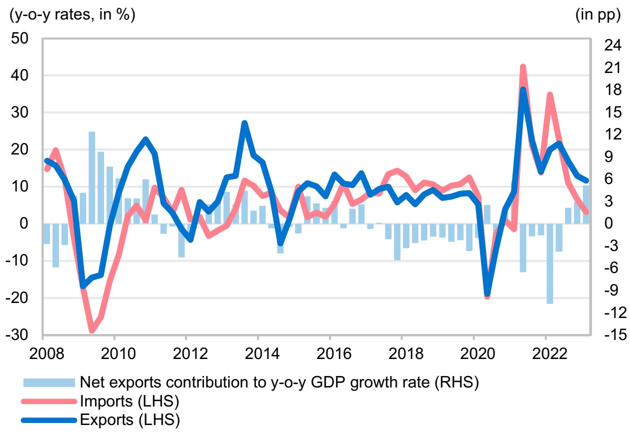
Sources: SORS and NBS calculation.
* NBS estimate.
** January–February.
*** January.

Table IV.3.2 **Investment indicators**

	2022			2023
	Q2	Q3	Q4	Q1
Real y-o-y growth rates (in %)				
Fixed investment (national accounts)	2.1	-1.9	-2.7	1.4 *
Construction (national accounts)	-6.9	-12.1	-12.5	-3.0 *
Government investment	-12.1	-36.3	-5.8	1.9 *
Number of issued construction permits	4.2	-8.9	-17.5	-9.3 **
Production of construction material	0.2	-5.1	2.3	-5.7
Value of works performed	-8.0	-13.4	-13.7	-0.5
Import of equipment, nominal	34.8	16.6	10.5	7.4
Production of domestic machinery and equipment	12.3	6.5	18.9	28.4

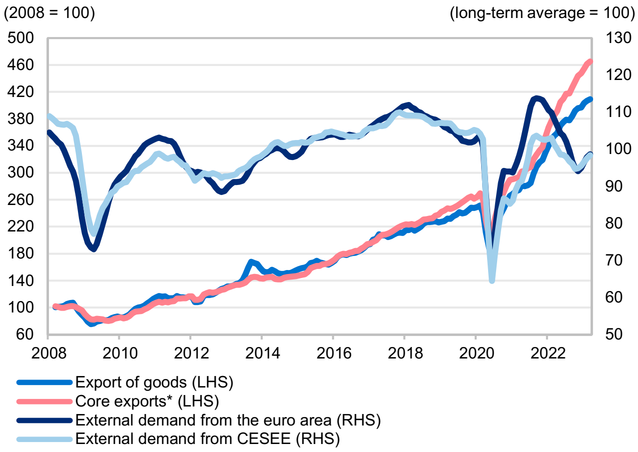
Sources: SORS and NBS calculation.
* NBS estimate.
** January–February.

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 Q1 2023.

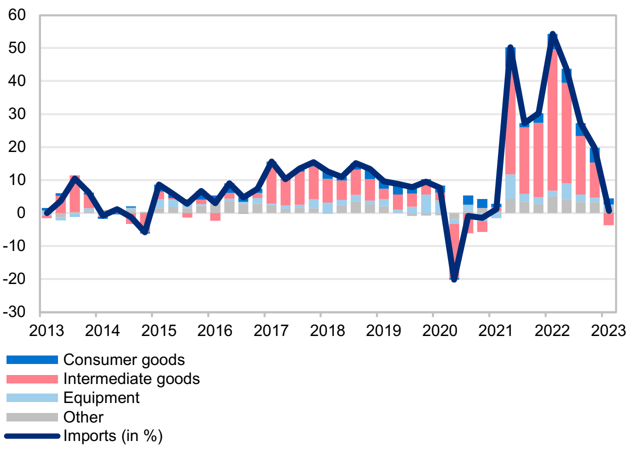
Chart IV.3.3 **Movement in external demand indicators for Serbian exports**
(3M moving average, s-a)



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.

contribution came from electrical equipment, motor vehicles, other machinery and equipment, metal products, and rubber and plastic products. On the other hand, the export of base metals continued down, reflecting lower production in the Smederevo steel works, and a fall was recorded in petroleum product exports. A positive contribution to total export growth also came from electricity, as well as mining (driven by copper exports), while the export of agricultural products was lower than in the same period last year.

On the other hand, **commodity imports** expressed in euros continued decelerating, and were 0.7% higher in Q1 compared to same period last year. Imports classification by BEC (Broad Economic Categories) reveals that growth is owed to the imports of consumer goods and equipment which went up by 10.6% and 7.4% y-o-y, respectively, while headwinds came from the lower import of intermediate goods (-5.9% y-o-y), a category that includes energy imports. Relative to the same period last year, in Q1 the import of electricity and gas was lower by EUR 191 mn and EUR 170 mn, respectively, and the import of oil and petroleum products by EUR 91 mn, while the import of coal was EUR 79 mn higher. Similar trends are also indicated by the classification of imports by purpose, where growth was driven by capital and consumer goods, while the contribution of energy and intermediate goods was negative.

The high volume of foreign **trade in services** was maintained in Q1 as well, and the surplus reached EUR 778.5 mn, close to the record from Q4 2022. This was owing to the stronger growth in exports (35.1%) than in imports (28.0%), as well as to the higher share of exports in trade in services. The export of all types of services increased with the highest contribution coming from ICT, travel and transport services. Import growth was driven by travel services, followed by business and transport services. The contribution of ICT services to the rise in imports was lower, while the import of other services was on the decline.

The continuation of strong export growth and lower energy imports reflected on increased coverage of commodity imports with exports in Q1, which measured 76.8% in March[9] and 87.2% if services are included.

[9] Measured by the 12-month moving average.

4 Economic activity

Industrial output growth, driven primarily by the recovered electricity sector, determined GDP growth in Q1, which measured 0.7% y-o-y according to SORS first estimate. We estimate that a positive contribution also came from services, but less so than in previous quarters as a result of lower real disposable household income, as well as high base from the previous period. The construction sector continued recording lower y-o-y activity, but the decline is significantly slower than in previous quarters.

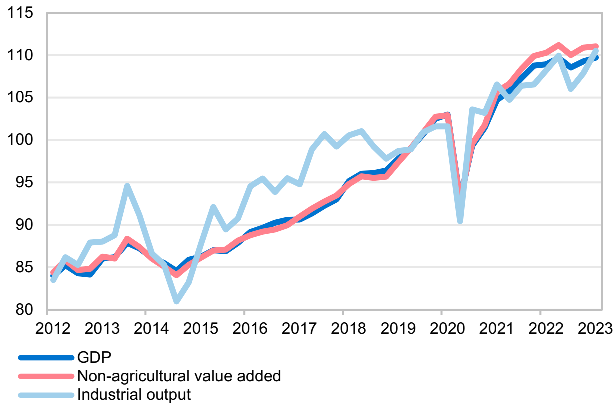
In q-o-y terms, economic growth in Q1 measured 0.4% s-a, according to our estimate, on account of all production sectors, industry the most.

The highest contribution to economic growth in Q1 stemmed from **industry** (0.5 pp), which recorded growth of 2.5% y-o-y according to our estimate. This is confirmed by data on the volume of industrial output. Particularly striking is the 18.6% y-o-y growth in the volume of production in the electricity sector (3.4 pp contribution to industrial output growth), which can be explained by the low base last year when electricity generation was reduced due to problems in the electricity system.

In addition, the volume of production increased in the mining sector as well, by 4.5% y-o-y, contributing 0.3 pp to the rise in the volume of industrial output. On the other hand, manufacturing activity declined by 1.5% y-o-y, giving a negative 1.1 pp contribution to industry. Primarily, the production of base metals decreased by over 40% y-o-y, pushing consequently down the production of metal products as well, which resulted in a negative cumulative contribution to overall industrial output of 2.8 pp. Excluding the production of metals and metal products, manufacturing contributed 1.7 pp to industrial growth, with the rise in the volume of production recorded in 13 out of 24 branches.

Cumulative contribution of **services** to GDP growth measured 0.3 pp. Services growth was considerably slower than in the previous quarter (0.5% vs. 2.8% y-o-y), as confirmed by the movement of main indicators. Though real trade turnover declined by 4.1% y-o-y, which can be linked to lower disposable household income, as well as to the base effect since early last year (particularly in March), basic foodstuffs were purchased increasingly after the outbreak of the Ukraine conflict. On the other hand, in Q1 tourism sector saw more favourable trends. Namely, the number of tourist arrivals and overnight stays increased by 18.8% and 16.0% y-o-y, respectively.

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



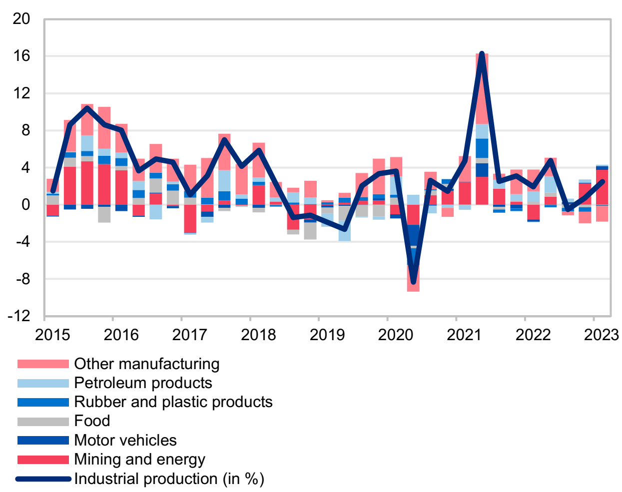
Sources: SORS and NBS calculation.

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

	2022				2023
	Q1	Q2	Q3	Q4	Q1*
GDP (in %, y-o-y)	**4.1**	**3.8**	**1.0**	**0.4**	**0.7**
Agriculture	-0.4	-0.4	-0.6	-0.5	0.2
Industry	0.4	0.9	-0.1	0.2	0.5
Construction	-0.3	-0.4	-0.7	-0.9	-0.1
Services	3.3	3.0	2.0	1.4	0.3
Net taxes	1.3	0.9	0.4	0.2	-0.3

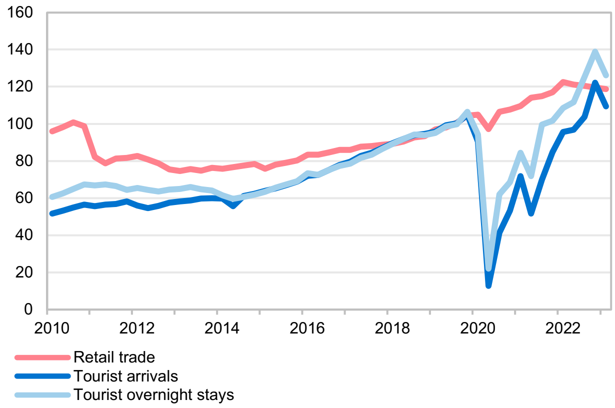
Sources: SORS and NBS calculation.
* NBS estimate.

Chart IV.4.2 **Contributions to y-o-y industry growth rate**
(in pp)



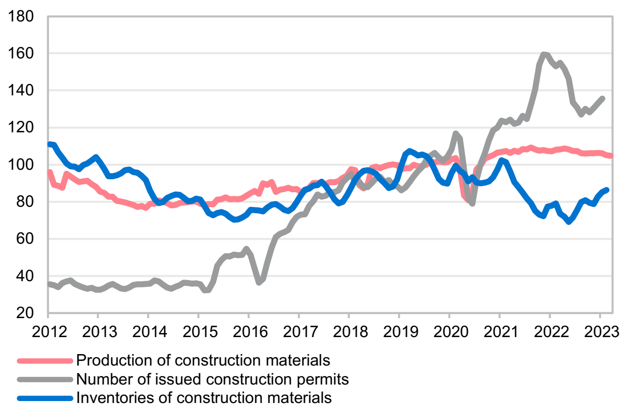
Sources: SORS and NBS calculation.

Chart IV.4.3 **Service sector indicators**
(s-a, 2019 = 100)



Sources: SORS and NBS calculation.

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



Sources: SORS and NBS calculation.

According to our estimate, the **construction** sector activity continued decreasing, by 3% y-o-y, though at a slower pace than last year (12.3% y-o-y in H2 2022). Lower activity is also confirmed by relevant indicators: the production of construction materials declined by 5.7% y-o-y, while the number of issued construction permits dropped in the January– February period by 9.3% y-o-y. On the other hand, employment in construction went up by 1.7% y-o-y.

As services slowed down, we estimate that **net taxes** also dropped, producing a negative contribution to GDP growth in Q1 (0.3 pp).

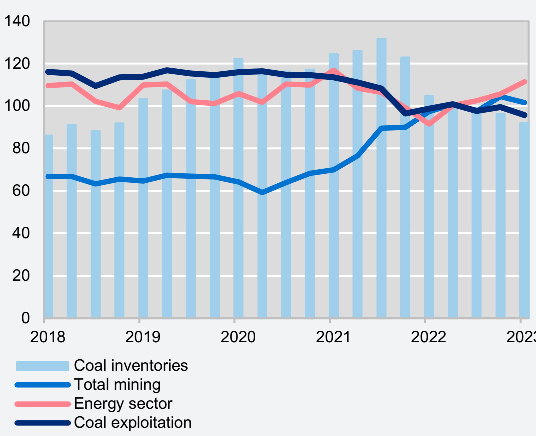
We estimate that reduced disposable household income pushed services down at the quarterly level. We estimate this decline at 0.8% s-a. Despite this, GDP growth measured 0.4% s-a, on account of other sectors, with the rise in industry measuring around 2% s-a.

Text box 3: Impact of developments in the Serbian energy sector on macroeconomic trends

Stepped-up global economic recovery prompted by the opening of numerous economies after the initial phase of the coronavirus pandemic from mid-2021 brought about a significant imbalance in the global energy markets and an unprecedented rise in energy prices, which culminated before the start of the winter heating season that year. The rise in energy prices, primarily in Europe, was also influenced by unfavourable weather conditions during the previous winter and summer, which at the same time reduced the production of energy from renewable sources and led to the depletion of gas reserves. In addition, a large number of countries have committed themselves under Paris Agreement to reducing carbon emissions in order to stop the negative effects of climate change, including by greater use of low-carbon energy sources, which includes natural gas, so the price of natural gas increased on those grounds as well. Increased demand and at the same time reduced gas production also provided a significant impetus to electricity prices, making coal-based electricity production profitable, despite the decarbonization policy, which is why the prices of coal and petroleum products as alternative sources of energy increased as well. The outbreak of the conflict in Ukraine in late February 2022 only added to the previous shocks and further worsened the situation in global energy markets, because Russia is the world's largest exporter of crude oil and natural gas and was at that time the largest supplier of energy to Europe. Western sanctions against Russia and Russia's countermeasures did not include energy initially, but were later extended to this segment as well, which is why in mid-August the prices of natural gas and electricity on European stock exchanges reached historically high levels – ten times higher than before the pandemic.

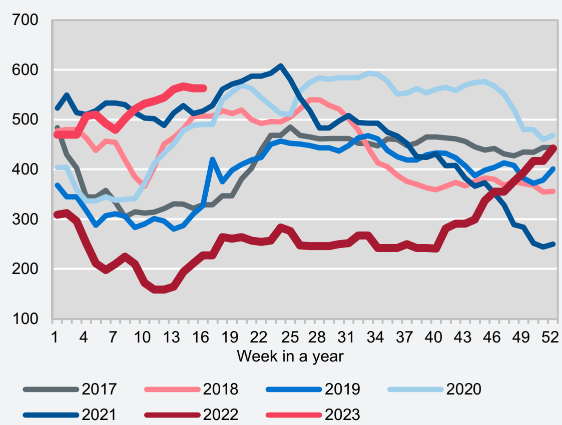
The domestic energy sector could not remain immune to such unfavourable turn of events, despite the fact that, thanks to long-term contracts with Russia, about two-thirds of the total needs for natural gas in the winter months were procured at prices considerably lower than market ones, as the rest (about one-third) was provided at enormously high prices, which resulted in significant energy imports from end-2021 and during H1 2022 (it is estimated that gas consumption in Serbia in the summer months is up to 4.5 mn cubic meters per day, whereas during the winter it exceeds 10 mn cubic meters per day). Additional headwinds to the domestic energy sector came from the technical problems in electricity production in domestic thermal power plants in late 2021, which could not be eliminated in the short term. This resulted in higher imports of gas and coal than usual for the needs of electricity production, as well as in direct import of electricity at extremely high prices. At the same time, due to the drought for two years in a row, the water level on the rivers was at a record low at the end of 2021 and in H1 2022, so it was not possible to increase the production from hydro power plants, which participate in the production of electricity with about 30% (while the production from thermal power plants accounts for about 65%, and the rest relates to production from renewable sources).

Chart O.3.1 **Mining and energy sector**
(s-a data, 2022 = 100)



Sources: SORS and NBS calculation.

Chart O.3.2 **Electricity hydroreserves in Serbia**
(1,000 MWh)



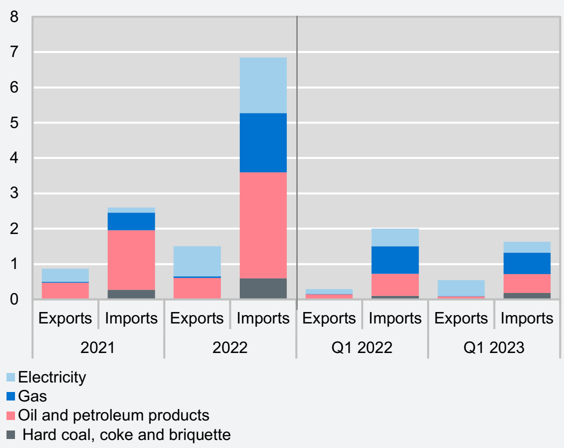
Source: ENTSO-E Transparency Platform (entsoe.eu).

In the continuation of the text box, we will deal in more detail with the direct effects of developments in the energy sector since end-2021 on domestic macroeconomic trends, primarily on economic activity and balance of payments. Still, it should be noted that the indirect effects of the energy crisis on Serbia were significant, due to the fact that the EU, which was most affected by the energy crisis, is our most important trade partner in terms of both exports and imports. Therefore, the effects of the energy crisis on domestic inflation and economic activity were transmitted through higher production costs. Additional effects on inflation came from higher prices of products and services imported from the EU, and on economic activity – from lower demand for our exports amid a slowdown in economic growth of our key trade partners.

The direct effects of this crisis on Serbia were mostly manifested through reduced industrial production in the mining sector, especially coal exploitation, as well as in the electricity, gas and steam supply sector. The physical volume of production in the exploitation of coal contracted by around 15% from September 2021 to February 2022, and the production of electricity declined to a similar degree in the period from November 2021 through February 2022. In quarterly terms, the physical volume of electricity production recorded a fall in Q4 2021 (6.8% s-a) and Q1 2022 (7.7% s-a), while recording growth in the remaining quarters of the year. As a result, at end-2022 production reached its pre-crisis level (Q3 2021). Favourable trends extended in early 2023, with a 5.4% s-a pick-up in Q1. At end-March, the pre-crisis level of production was overshot by close to 5%. As for coal exploitation, production at end-2022 was by around 8% lower than pre-crisis. It contracted somewhat since the start of 2023 (3.9% s-a in Q1), but this was compensated for by the imports of high-quality coal. As a consequence of the said movements, energy sector production declined by 7.6% in 2022, dragging GDP down by 0.2 pp. Looking at mining alone, unfavourable trends in coal exploitation were neutralised by the increased exploitation of metal ores, which is why the sector of mining provided a positive contribution to GDP (0.5 pp) at the level of the year. Assuming production growth recorded in early 2023 is sustained in the rest of the year, the energy sector could grow by around 5% and contribute around 0.2 pp to GDP this year.

The effects of the energy crisis were particularly visible in the balance of payments. Total energy imports amounted to EUR 6.9 bn in 2022, around EUR 3.9 bn more than in 2021. Of that, EUR 2.5 bn related to the import of oil, petroleum products and gas, and around 84% of the increase was dictated by the surging energy prices in the world market. At the same time, due to reduced domestic production, but also the effect of higher prices in the European market, the value of electricity imports in 2022 soared to EUR 1.57 bn, from EUR 475 mn in 2021. On the other hand, the total value of energy exports increased from EUR 865 mn in 2021 to EUR 1.5 bn in 2022, of which EUR 856 mn relating to the export of electricity. It is important to emphasise that in Q4 2022, for the first time after five quarters in a row, Serbia recorded positive net electricity exports, which continued in the first months of this year. In Q1 2023, energy imports decreased by EUR 372.5 mn due to lower imports of gas, electricity, oil and petroleum products (as a result of both the price and quantity effect), which, along with increased electricity exports (by about EUR 322 mn), resulted in the improvement of the net energy exports by EUR 632 mn. This was achieved thanks to higher-than-usual temperatures during the winter months, but also the recovery of electricity production in our energy system, as a result of the decision of the Electric Power Company of Serbia (EPS) to step up the import of coal from neighbouring countries in order to compensate for the insufficient quantity and quality of coal from domestic sources, while at the same time, the capacities of hydropower plants increased due to more abundant precipitation during autumn. Increased electricity production (by 18.6% y-o-y) and exports helped EPS post profits of around EUR 300 mn in Q1. More favourable tendencies in terms of net imports are expected in the remainder of 2023 as well, given that energy prices are estimated to be lower than last year for several reasons: weaker global economic growth and the consequently lower energy demand, regulation of prices

Chart O.3.3 **Energy exports and imports by component**
(in EUR bn)

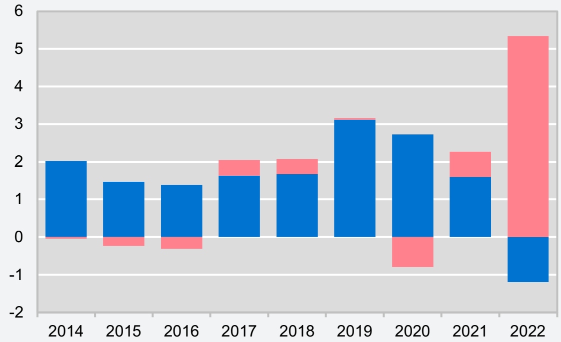


Source: SORS.

in the single European energy market, and the established alternative sources of gas supply, which will facilitate the build-up of European gas reserves in the course of this year. At the same time, it is expected that domestic electricity production will increase due to the further stabilisation of EPS operations, and especially if the planned construction of the new block B3 in the Kostolac thermal power plant is completed in autumn. This would reduce the net energy imports on account of both the quantity and price effect.

Due to the high net energy imports, the current account deficit widened in 2022 to 6.9% of GDP, from 4.2% in 2021. However, having in mind the expected lower energy prices this year, the recovery of electricity production, as well as considerably lower net energy imports in Q1 this year compared to the year before, our new projection places the current account deficit at 4.5% of GDP, which is lower than forecast in February.

Chart O.3.4 **Contribution of the energy balance to current account deficit movements**
(in EUR bn)

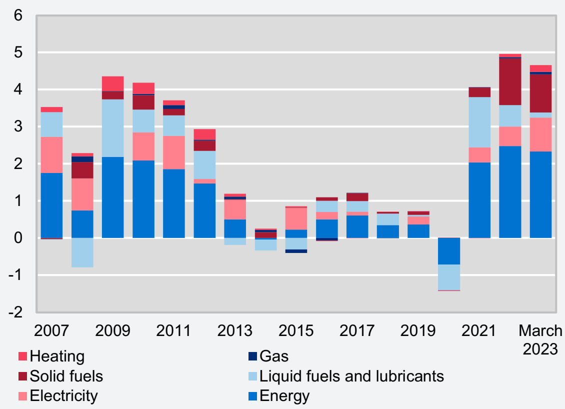


Sources: SORS and NBS.

When it comes to the effects on inflation, having in mind the plan agreed with the IMF on the increase in electricity prices for households by 8% each in January, May and October this year and in May 2024, as well as the increase in natural gas prices according to the same calendar dynamics but to a somewhat higher degree (10–11%), the direct effects of the growth in these energy prices are estimated at around 1.4 pp this year and around 0.5 pp next year. Still, the said price adjustment plan could be changed depending on the movement of global electricity prices and energy companies' performance, but given the results regarding electricity exports and the movement of global gas and electricity prices, it is more likely that the price hike will be even smaller than expected. We therefore judge the risks to our inflation projection as tilted to the downside.

Considering that the current energy crisis has only added to the challenges in terms of uninterrupted energy supply and the elimination of negative effects on domestic macroeconomic trends on that account, the reform of the energy sector and the diversification of the sources of energy supply have been singled out as the key priorities of the Government of the Republic of Serbia. The energy sector is also the focus of the new stand-by arrangement with the IMF, where short-term measures are defined as financial support for EPS and Srbijagas, followed by increased investment in production capacities, environmental protection and energy transition.

Chart O.3.5 **Contribution of energy prices to y-o-y inflation**
(in pp)



Source: SORS.

Better profitability of companies from the energy sector should be supported by the planned increase in electricity prices for households and corporates, as well as gas prices for households. The increase will be gradual so as not to cause any major negative social and economic effects. When it comes to the impact on the competitiveness of the domestic economy, we do not expect negative effects because there are companies in Europe that faced a larger increase in the price of electricity, but also because of the fact that the cost of electricity makes up a small part of the production costs of an average company in Serbia (about 3–4%). According to the IMF's estimates, subsidies to EPS will be lower this year, amounting to around 0.5% of GDP, while no additional funds are planned for 2024. In the case of Srbijagas, subsidies will be needed in 2024 as well, but less so than in the previous years, and are estimated at around 0.7% of GDP. In March this year, the Serbian Government signed an agreement with the EBRD on the provision of funds in the amount of EUR

300 mn for investments in the energy system and reforms, including support for decarbonization. Previously, the World Bank approved to Serbia funds in the amount of EUR 219 mn for similar purposes.

Concrete steps towards increasing investments and reforming the energy sector should be defined by the National Energy and Climate Plan until 2050 and the Energy Development Strategy, whose update is planned under the arrangement with the IMF. This includes projects that will be implemented in the next 2–5 years, which should ensure the stabilisation of electricity production and energy security. A part of those projects includes the construction of oil and gas pipelines and supporting transport infrastructure, electricity storages, as well as plants that use renewable energy sources, etc. The plan is to invest around EUR 12 bn in the energy sector in the next 5–6 years, and EUR 35 bn in total by 2050.

In the context of ensuring energy security, it is important to emphasise the agreement reached with Hungary on the temporary use of its gas storage facilities, the capacity of which, together with the domestic Banatski Dvor storage facility, covers about 2–3 months of average gas consumption. The expansion of the Banatski Dvor capacity is also being considered. Last year saw the start of an EU-funded project of the construction of a new gas pipeline connecting Serbia and Bulgaria. The project should be completed this year and should contribute to the diversification of gas supply, as it will allow gas, in addition to Turk Stream, to arrive from Azerbaijan, and liquefied (LNG) gas through the terminal in Greece.

5 Labour market developments

All labour market indicators point to the continuation of favourable trends in Q1 – private sector formal employment reached a new record high, accompanied with a rise in wages and a further reduction in registered unemployment to the new lowest level.

Wages and labour productivity

The average nominal net wage equalled RSD 82,062 (EUR 699) **in the January–February period, accelerating y-o-y growth to 16.0%** (from 13.4% in Q4 2022) on the back of **private sector** wage growth (18.3%) which was faster than that of the **public sector** (11.3%). At the same time, median net wage increased by 17.1% y-o-y, to RSD 62,602 (EUR 533). Following the adoption of the Decision on increasing minimum cost of labour to RSD 230, the minimum wage went up to the same extent and exceeded RSD 40,000 in January, for the first time since we have comparable data.

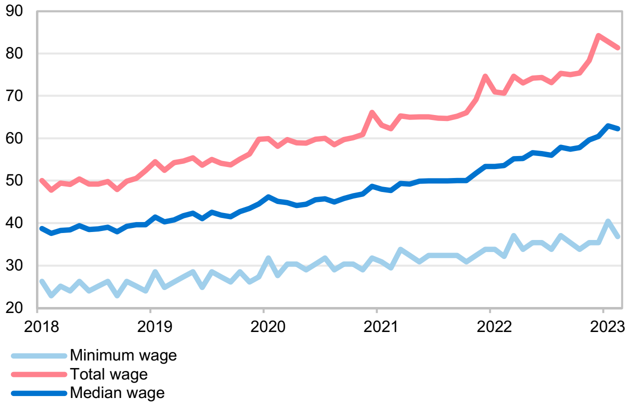
In January and February, double-digit y-o-y growth in average wages was recorded in almost all **economic branches**. After a longer period of time, it was not the highest in the **ICT sector**[10] (15.2%), but in trade (18.1%), manufacturing (17.5%) and real estate (17.1%). Other services dominated by the private sector, as well as mining, construction and agriculture also recorded double-digit y-o-y growth in average wages. Higher average wages in January and February y-o-y were also recorded in public sector-dominated branches (public administration, education, and health and social protection).

The y-o-y rise in average wages in the January–February period was widely spread across **Serbian regions**. It was the most pronounced in the Belgrade (16.6%) and Vojvodina region (15.9%), but exceeded 15% in other regions as well.

Total nominal net wage bill, the main source of consumer demand, grew by 18.6% y-o-y in January and February amid a further increase in average wages and formal employment.

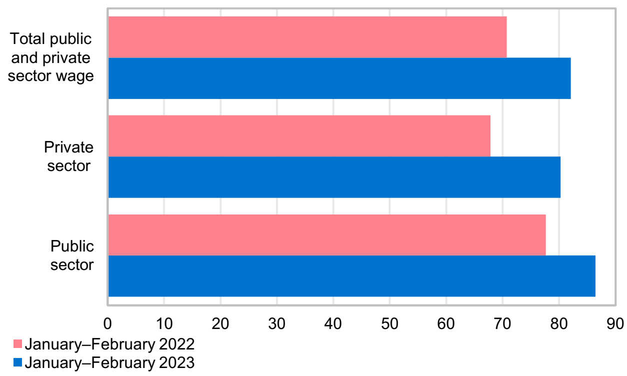
According to preliminary data, **overall economic productivity** dropped by 2.1% y-o-y in Q1 on account of

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



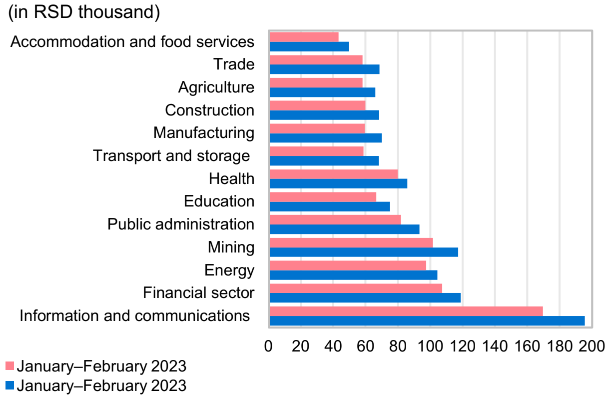
Source: SORS.
Note: Since January 2018, Tax Administration data have been used for wage calculations.

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



Source: SORS.

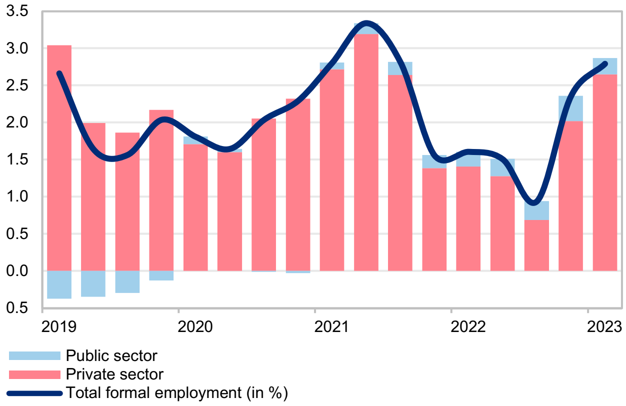
Chart IV.5.3 **Nominal net wage by economic sector**
(in RSD thousand)



Source: SORS.

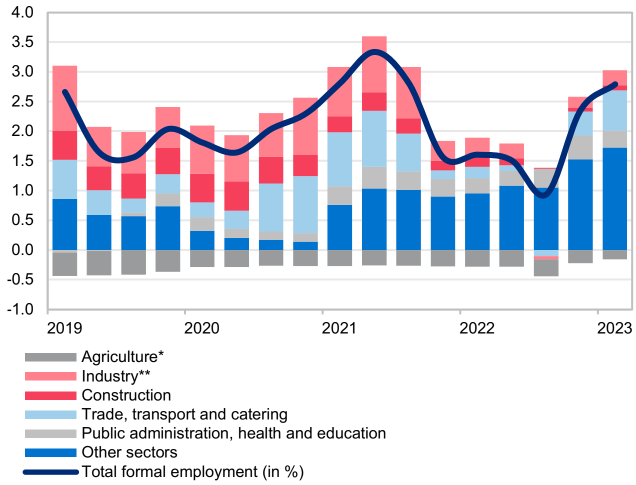
[10] Excluding wages in the ICT sector from the statistical scope, the y-o-y growth rate in total nominal net wage in the January–February period measured 14.9% (according to NBS calculation).

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



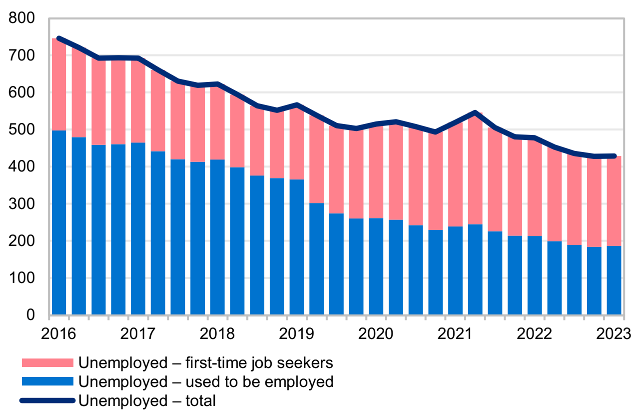
Sources: SORS and NBS calculation.

Chart IV.5.5 **Contribution to y-o-y growth in total formal employment by economic sector**
(in pp, quarterly average)



Sources: SORS and NBS calculation.
* Includes individual agricultural producers.
** Includes manufacturing, mining, energy and water supply.

Chart IV.5.6 **Movement of registered unemployment**
(in thousand persons, quarterly average)



Source: National Employment Service.

a faster rise in formal employment than in economic activity.

Employment

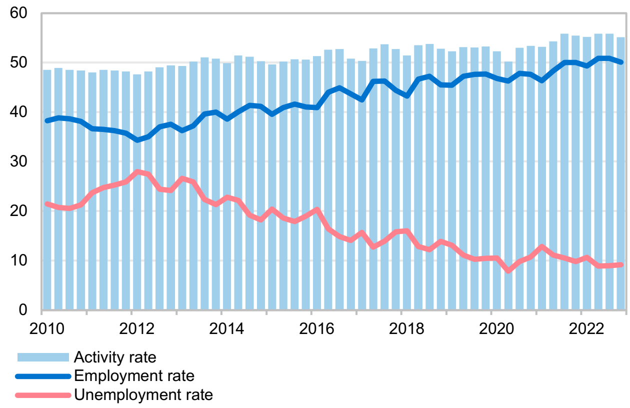
According to SORS data obtained from the Central Registry of Mandatory Social Insurance and the Statistical Business Register, **total formal employment** accelerated its y-o-y growth from 2.4% in Q4 2022 to 2.9% in Q1 and is close to the record level with 2.35 mn formally employed persons in March (up by around 64 thousand y-o-y). This is entirely owing to the y-o-y rise in employment with legal entities and entrepreneurs, by around 66 thousand in March, while the number of individual agricultural producers fell by almost three thousand.

Private sector formal employment reached a new record high in Q1 (1.74 mn persons). In March, employment went up by around 60 thousand y-o-y. The highest number of new recruits was recorded in ICT (around 16 thousand), followed by professional, scientific, innovation and technical services (by around 10 thousand) and administrative and auxiliary services (by around six thousand). At the same time, employment went noticeably up in other private sector-dominated services, as well as in manufacturing, mining and construction. **Public sector formal employment** increased by around four thousand y-o-y in March, primarily in education. In contrast, March saw a y-o-y decline in employment in agriculture and water supply by around a thousand in total.

According to National Employment Service records, **registered unemployment** equalled 424,747 in March, which is around 49 thousand unemployed persons fewer than a year ago and, at the same time, **the new lowest level** on record. The March y-o-y reduction in unemployment was widely spread across occupation groups of manufacturing and service sectors. In parallel, y-o-y growth in employers' recruitment needs accelerated to around eight thousand in March (from around two thousand in February).

According to available information from the revised **Labour Force Survey** covering both formal and informal labour market segments, working age (15–64) participation rate equalled 70.9% in Q4 2022, while the activity rate (15+) stood at 55.1%. Both rates declined from the same period a year earlier (by 0.1 pp and 0.3 pp, respectively). The employment rate in Q4 2022 went up by 0.1 pp, to 50.1%, while, at the same time, the unemployment rate decreased by 0.6 pp, to 9.2%. Long-term unemployment rate also dropped,[11] to 3.9% (y-o-y decline of 0.6 pp), this being its lowest level on record.

Chart IV.5.7 **Labour market indicators according to the Labour Force Survey**
(in %)



Source: SORS.

[11] The share of the unemployed looking for a job longer than a year in total activity.

V Projection

We have kept the projected 2023 GDP growth rate for Serbia in the range of 2.0–3.0%, as expected in February. Nonetheless, we changed the projected growth structure relative to February expectations, and it is now more favourable in terms of growth sustainability. Economic growth will still be driven by domestic demand, notably private consumption, thanks to the rising employment and wages, and investment is also expected to provide a mild positive contribution instead of neutral. According to our estimate, net export is expected to provide a positive contribution as well, given that in Q1 foreign trade movements were much more favourable than anticipated and that the euro area's economic growth was revised up. Assuming a rebound of the global economy and, by extension, external demand as of H2 2023, and the planned implementation of investment projects, mostly in road, railway, energy and utility infrastructure, we expect GDP growth to pick up as of 2024 to the range of 3.0–4.0% and resume its pre-pandemic growth trajectory of around 4% per annum thereafter.

According to the May central projection, as of Q2 y-o-y inflation will strike a downward trajectory, with a more pronounced fall in H2, ending the year at almost half the level it held in March. It is expected to return within the bounds of the target band in mid-2024. As in the previous projection, inflation's decline should be supported by past monetary tightening, waning effects of global factors underpinning energy and food price growth in the past period, a slowdown in imported inflation, and subdued external demand amid the anticipated slackening of global growth.

Uncertainty surrounding the inflation and GDP projection remains largely associated with factors from the international environment – global growth prospects, energy and primary commodity prices in the global market, the degree of monetary policy tightening by leading central banks and global financing conditions. At home, the risks to the projection are associated primarily with the outcome of this year's agricultural season, FDI inflows, and the pace of the recovery of the mining sector (coal production) and construction. Overall, the risks to the GDP and inflation projection for this and the next year are judged to be symmetric.

External assumptions

Economic activity

Early signs of the **global economic activity** stabilising at the start of 2023, which would mean a "soft landing" based on loosened cost-push pressures and better than expected performance during H2 2022, appear to be dissipating amid persistently high inflation and recent turbulences in the banking sector of some advanced economies. After posting growth in January and February, leading manufacturing indices declined again in March and remained in the contraction zone. In view of the accumulated negative effects of unprecedented global crises in the past three years, notably the coronavirus pandemic and the Ukraine conflict, in its April WEO, the IMF said that the global economy is again undergoing a period of pronounced uncertainty. Assuming the prevention of the further spread of financial stress from some advanced countries, **in its baseline scenario the IMF projected a global slowdown to 2.8% in 2023** (from 3.4% in 2022), dominantly under the impact of the

Table V.0.1 **Key projection assumptions**

	2023		2024	
External assumptions	Feb.	May	Feb.	May
Euro area GDP growth	0.0%	0.7%	1.2%	1.0%
Euro area inflation (average)	5.7%	5.5%	2.4%	2.4%
3M EURIBOR (December)	3.4%	3.7%	2.8%	3.0%
International prices of primary agricult. commodities (Q4 to Q4)*	-8.5%	-16.7%	0.3%	-3.6%
Brent oil price per barrel (December, USD)	83	78	78	74
Internal assumptions				
Administered prices (Dec. to Dec.)	13.7%	13.6%	8.3%	7.1%

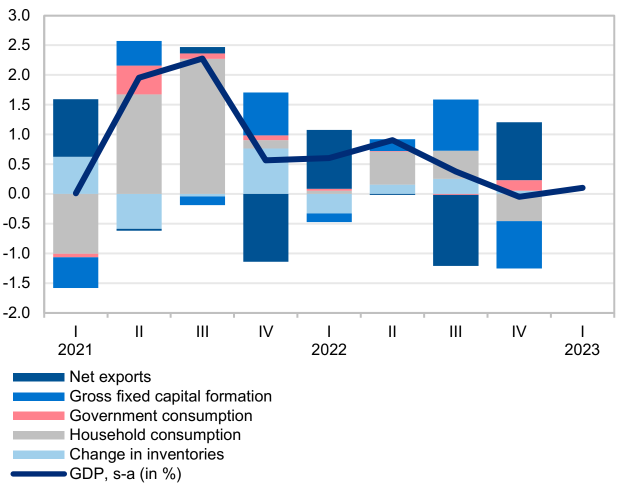
* Composite index of soybean, wheat and corn prices.
Sources: ECB, Consensus Economics, Euronext, CBOT, Bloomberg and NBS.

Table V.0.2 **IMF's forecasts of real GDP growth for 2023 and 2024**
(in %)

	2022	2023		2024	
	Outturn	New projection	Previous projection	New projection	Previous projection
World	3.4	2.7	2.9	3.2	3.1
Euro area	3.5	0.5	0.7	1.8	1.6
Germany	1.9	-0.3	0.1	1.5	1.4
Italy	3.9	-0.2	0.6	1.3	0.9
USA	2.0	1.0	1.4	1.2	1.0
Russia	-2.2	-2.3	0.3	1.5	2.1
China	3.0	4.4	5.2	4.5	4.5

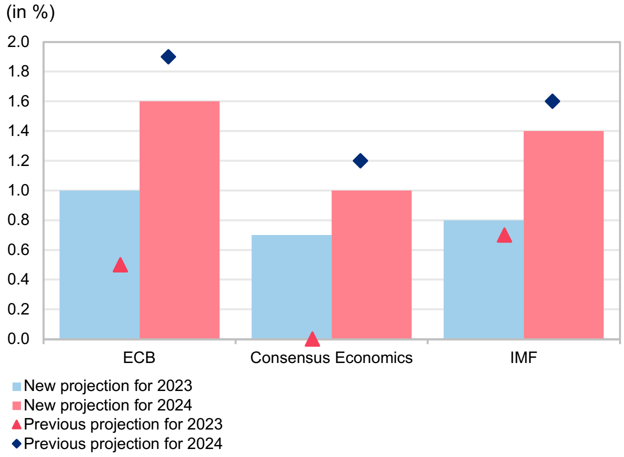
Sources: IMF WEO (April 2023) and IMF WEO Update (January 2023).

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



Source: Eurostat.

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



Sources: ECB (December and March), Consensus Economics (January and April) and IMF (January and April).

predicted deceleration in advanced countries' growth from 2.7% in 2022 to 1.3% in 2023. Compared to the January projection, global economic growth for this year is 0.1 pp lower. In an alternative scenario, with elevated tension in the financial sector, global growth is projected at around 2.5% in 2023, and in advanced countries at below 1.0%.

Under the impact of a decrease in real disposable household income, persisting uncertainty and stricter financing conditions, the euro area faced a fall in consumption and investment in Q4, which was offset by a recovery in external demand, hence the **euro area GDP** stagnated at end-2022. Under the ECB's March projection, GDP recorded mild growth in Q1, as also indicated by the PMI Composite index moving in the expansion zone since the start of the year, primarily thanks to good activity in the services sector. According to the Eurostat's preliminary estimate, GDP growth in Q1 equalled 0.1%, with economic activity recording rather uneven movements across European countries. The labour market turned out to be resilient, as attested to by the euro area unemployment rate remaining at a record low level of 6.5% in March. On the grounds of the resolution of supply halts and slowdown in headline inflation, as well as smoothing out disturbances in the energy market, the ECB expects a positive economic activity growth rate in the euro area in Q2, and acceleration as of mid-2023, in parallel with an increase in income and external demand. **According to the ECB's March forecast, euro area GDP growth will slow from 3.6% in 2022 to 1.0% in 2023**, after which it should accelerate to 1.6% in 2024 and 2025. Relative to the prior projection, in March the ECB revised up the expected euro area economic growth rate by 0.5 pp, due to the positive effects of tendencies that spilled over from H2 2022 and a more favourable short-term outlook. It should be noted that projections were concluded before the emergence of turbulences in the banking sector in the USA and Europe.

In April, Consensus Economics projected lower GDP growth in the euro area than the ECB – 0.7% in 2023 and then 1.0% in 2024 and 1.5% in 2025, which are also the assumptions we used in the projection. Though Consensus Economics for this year expects slightly higher economic growth than in the previous projection, they underline the still elevated uncertainty as to inflation movements and further lifting of the ECB's rates. As for our most important partners in the euro area, in April Consensus Economics projected Germany's GDP at 0.1% (compared to stagnation in the previous projection) and Italy's at 0.6% (the same as in the previous projection) in 2023.

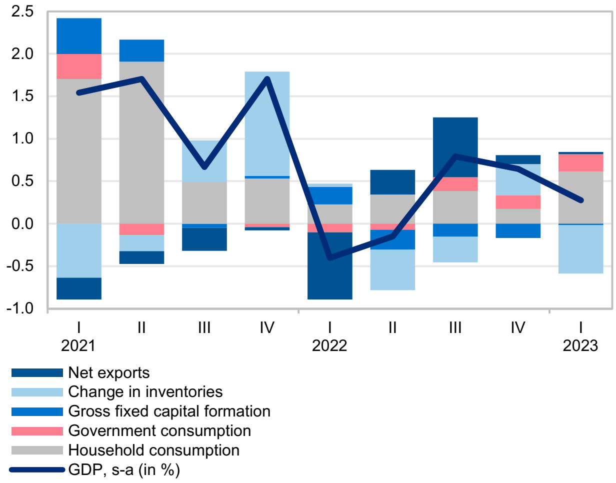
The **US economy** left the technical recession in H2, having posted 0.6% s-a growth in Q4 (2.6% annualised), thanks to a positive contribution of all GDP components, except fixed investments. Movements in the ISM Manufacturing PMI indicate that after a fall in Q4, activity in the US manufacturing sectors was in the contraction zone at the start of 2023, primarily on account of a drop in new orders. According to a preliminary assessment of the US Bureau of Economic Analysis, GDP growth in Q1 measured 0.3% s-a (1.1% annualised), indicating that the previous increase in monetary policy restrictiveness and borrowing costs did not have a significant impact on aggregate demand. Though the unemployment rate is still hovering around the historical minimum (3.5% in March), the US labour market is somewhat less tight than in previous periods, because the participation rate has been on the rise for four consecutive months (62.6% in March), while the number of job vacancies is gradually declining. In April, the IMF forecast 1.6% economic growth in 2023 and 1.4% in 2024.

In Q4, the **CESEE region** recorded a GDP fall of 0.8% s-a, notably due to depleting inventories. Lower household consumption was offset by higher government consumption, while investments in fixed assets stagnated. Moreover, the Hungarian and Czech economies fell into a technical recession. In y-o-y terms, GDP at the region's level slowed down to 1.3% in Q4, recording the lowest growth since Q1 2021. According to Consensus Economics, high inflation, monetary tightening and reduction in fiscal stimuli are acting as a drag on domestic demand which is the key driver of economic activity in conditions of decelerating external demand. In most countries of the region, economic activity weakened during H2 as the effects of accumulated savings dissipated and interest rates increased. Therefore, relative to 2022, GDP in all countries of the region is expected to record much lower growth in 2023. In April, GDP growth in central Europe was forecast at 0.5%, and for Southeast Europe at 2.2%, while higher rates are projected for 2024, i.e. 2.8% and 3.2%, respectively.

Inflation

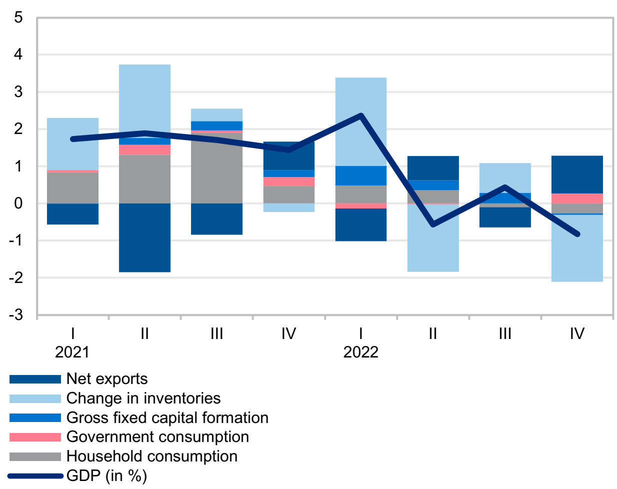
Over the past months, global inflation subsided mostly thanks to the fall in energy and food prices, however, core inflation has not yet peaked in many countries, which is attributable to the effects of past price shocks and the still tight conditions in labour markets of many countries. In April, the IMF projected a fall in global inflation from 8.7% in 2022 to 7.0% in 2023, notably as a result of lower global prices of primary commodities (and additionally to 4.9% in 2024). Also, the IMF expects core

Chart V.0.3 **Contributions 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)



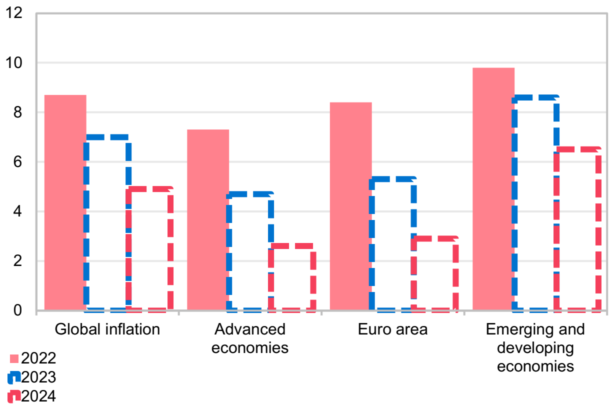
Source: Eurostat.
* Including Bulgaria, Czech Republic, Croatia, Hungary, Poland, Romania, Slovenia and Slovakia.

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

	April 2023		January 2023	
	2023	2024	2023	2024
Poland	0.6	3.1	0.8	3.0
Czech Republic	0.0	2.6	0.0	2.8
Hungary	0.2	2.9	-0.1	2.9
Romania	2.6	3.6	2.5	3.6
Slovakia	0.9	2.4	0.7	2.7
Slovenia	1.2	2.3	1.3	2.4
Croatia	1.4	2.6	1.1	2.7
Bulgaria	1.4	2.5	1.1	2.6
Albania	2.3	3.8	2.4	3.9
Bosnia and Herzegovina	1.5	2.7	1.6	2.9
North Macedonia	1.6	3.1	1.3	3.0
Montenegro	3.5	3.7	3.2	3.4

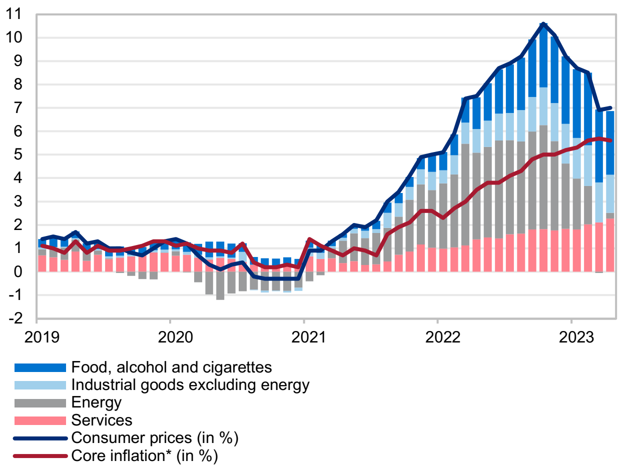
Source: Consensus Economics.

Chart V.0.5 **Global inflation projection for 2023 and 2024**
(in %)



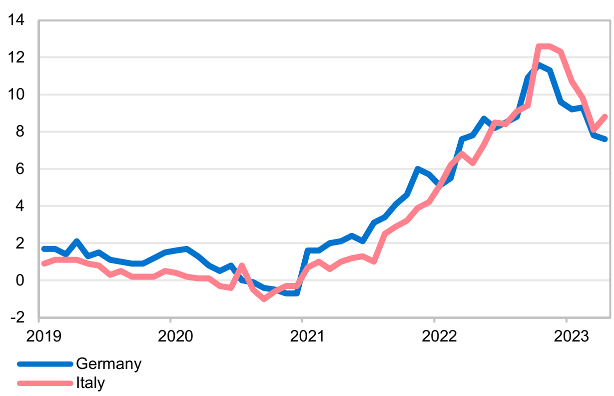
Source: IMF WEO (April 2023)

Chart V.0.6 **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.0.7 **HICP for Germany and Italy**
(y-o-y rates, in %)



Source: Eurostat.

inflation to continue to subside at a slower pace than headline inflation – from 6.4% in 2022 to 6.2% in 2023. In the majority of countries, inflation is not expected to retreat within the bounds of the target tolerance band before 2025.

Y-o-y inflation in the euro area continued to decelerate during Q1 and equalled 6.9% in March, its lowest level since February last year. This is entirely attributable to a significant deceleration of energy prices in the European market which recorded a y-o-y fall in March, the first in two years. In contrast, the prices of food, particularly processed food, continued to post y-o-y growth under the impact of the still high production and packaging costs, and last year's drought. A further rise in services prices, together with the still elevated prices of industrial products (excluding food and energy), dictated the continued upward trend of the **euro area's core inflation in y-o-y terms**, which measured 5.7% in March. Measured by the change in HICP, **y-o-y inflation in Germany** slowed further during Q1, to 7.8% in March, primarily thanks to the high base from energy prices and the third package of administrative measures for mitigating the hike in these prices. However, y-o-y inflation continued up, reaching 5.9% in March. **In Italy, y-o-y inflation** also slowed to 8.1% in March, under the impact of lower energy prices, while y-o-y core inflation of 5.3% in March was kept close to its record level from February.

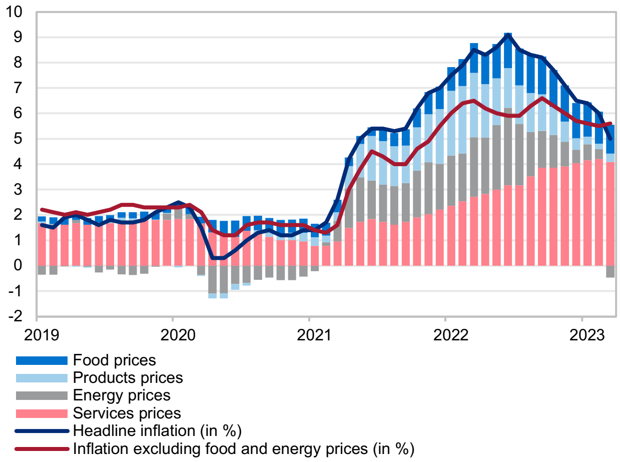
According to the Eurostat's preliminary flash estimate, in April y-o-y inflation equalled 7.0% in the euro area, and 7.6% and 8.8% in Germany and Italy, respectively. According to March forecasts, the ECB expects a significant decrease in the euro area's headline inflation in the remainder of 2023 on account of a further decline in energy prices, given the materialisation of high base effects and lower pressures in the supply process. Coupled with the effects of monetary tightening, this should contribute to a slowdown in core inflation, which will nevertheless remain elevated, primarily due to a strong increase in nominal wages. **In its baseline scenario, the ECB** projected headline inflation slowing down from 10.0% to 2.8% between Q4 2022 and Q4 2023, and moving around 3.0% in 2024, only to return to the target level of 2.0% in Q3 2025. Unlike headline inflation, the ECB projected a pick-up in core inflation, from 3.9% in 2022 to 4.6% in 2023, after which it should recede to 2.5% in 2024 and 2.2% in 2025. On the one hand, such dynamics should be supported by the resolution of halts in supply chains and waning of the effects of the past opening of European economies, and on the other, the materialisation of belated effects of slower economic growth and, indirectly, of lower energy prices, as well. Consensus Economics trimmed the headline inflation projection for this year from 5.9% in January to 5.5% in April, but raised the core inflation projection from 4.2% to 4.9%. These are the assumptions that we used in our current projection.

Headline inflation in the USA (measured by the change in the CPI) continued to slow for the ninth month in a row, measuring 5.0% y-o-y in March, its lowest level since May 2021. Inflation lost pace mostly on account of a y-o-y fall in energy prices and to a lesser extent slower growth in food prices. Industrial product prices also diminished their contribution to y-o-y inflation in Q1, with a continued decline in the prices of used vehicles, while services prices slightly increased their contribution, notably due to higher housing costs. **Core inflation** (excluding food and energy prices) recorded stable movements during Q1, around the level of 5.6% y-o-y, whereby it overshot headline inflation for the first time since end-2020. In March, the Fed revised up its December projections of preferred inflation measures for 2023 – personal consumption index to 3.3%, and excluding food and energy prices to 3.6%. Headline and core inflation in 2024 and 2025 are forecast to be close to the 2.0% target.

In all **CESEE region countries** pursuing inflation targeting, y-o-y inflation slowed down by end-Q1, at a variable monthly pace, dominantly due to the fall in petroleum product prices, while prices of other energy sources, notably gas and electricity, were also on a decline. The lowest y-o-y inflation in March was recorded in **Romania** and the **Czech Republic**, 14.5% and 15.0%, respectively. In Poland y-o-y inflation measured 16.1% in March, whereas it was still the highest in **Hungary**, equalling 25.2%. In April, Consensus Economics estimated that, though energy supply costs in the region have declined, March inflation did not slow down enough, despite the high base from 2022. Therefore, central banks of countries in the region are expected to continue with monetary policy tightening. Relative to January, in April Consensus Economics raised its inflation projection for 2023 – in Central Europe to 12.7%, and in Southeast Europe to 9.4%, while in 2024 inflation is forecast at 5.2% and 4.6%, respectively.

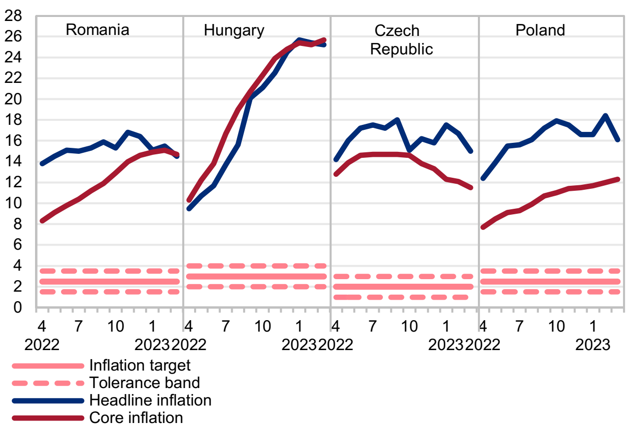
In **Western Balkan** countries, y-o-y inflation decelerated during Q1, primarily due to lower energy prices. In Albania it equalled 5.3% in March, while in other countries it trended at a two-digit level: 10.3% in Bosnia and Herzegovina, 10.5% in Montenegro, and 14.7% in North Macedonia. In April, Consensus Economics revised down its January inflation projections for 2023

Chart V.0.8 **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.0.9 **CPI movements in selected CESEE countries in the previous year (until March 2023)**
(y-o-y rates, in %)



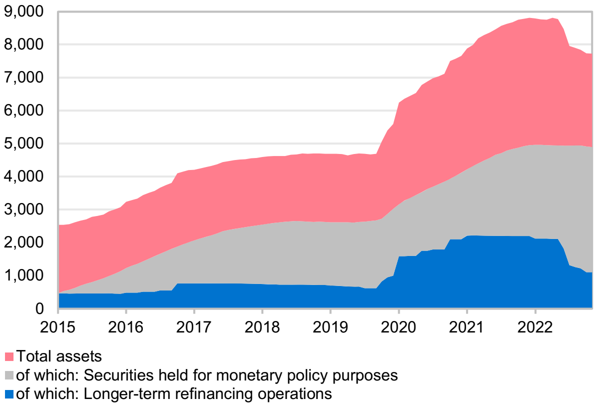
Sources: Central banks of selected countries.

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

	April 2023		January 2023	
	2023	2024	2023	2024
Poland	12.7	6.4	13.0	6.1
Czech Republic	11.0	3.0	9.3	3.1
Hungary	18.6	5.5	17.4	5.4
Romania	10.0	5.4	10.3	5.0
Slovakia	10.6	4.4	9.8	4.3
Slovenia	6.4	3.3	6.4	3.0
Croatia	7.1	3.2	6.8	3.1
Bulgaria	10.0	4.0	8.9	3.7
Albania	5.0	3.0	5.0	3.0
Bosnia and Herzegovina	8.1	2.8	7.7	2.3
North Macedonia	9.0	3.1	9.2	3.2
Montenegro	7.8	4.4	8.2	5.5

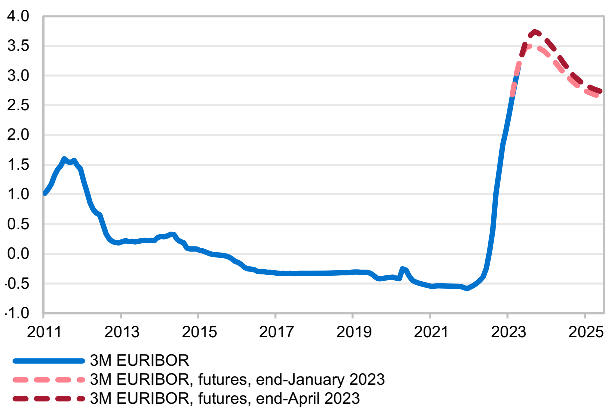
Source: Consensus Economics.

Chart V.0.10 **Consolidated Eurosystem balance sheet**
(end-of-month, EUR bn)



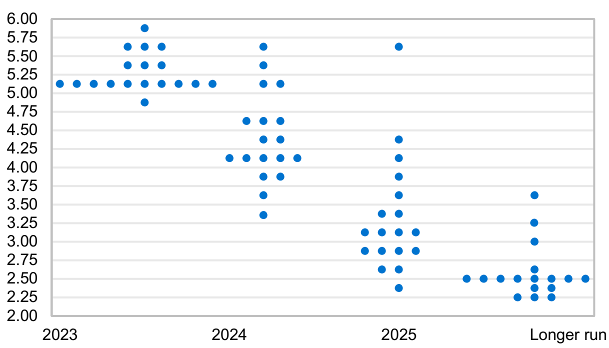
Source: ECB.

Chart V.0.11 **Expected 3M EURIBOR**
(p.a., in %)



Source: Bloomberg.

Chart V.0.12 **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, March 2023.

and 2024 for Montenegro and North Macedonia; the forecast for Albania remained unchanged and for Bosnia and Herzegovina it was revised up.

Monetary policy

The **ECB** raised its main rates further in 2023, by 50 bp each in February and March meetings, and by 25 bp in May. As of July 2022, when the cycle of tightening began, the main refinancing rate was raised seven times, by a total of 375 bp, and in May it came at 3.75%, while lending and deposit facilities rates equalled 4.00% and 3.25%, respectively. As announced, in March the ECB began downsizing the balance sheet at a monthly pace of EUR 15 bn by discontinuing the reinvestment of a portion of principal payments from maturing securities purchased within the **APP programme**. The same pace of asset downsizing is envisaged for Q2, and as of July the reinvestment of maturing securities purchased within the programme is expected to be wrapped up entirely. The principal payments of securities purchased within the **PEPP programme** will be reinvested until at least the end of 2024, with careful management of the PEPP portfolio to avoid interference with the appropriate monetary policy stance. In addition, the impact of the return of funds borrowed within **targeted long-term refinancing operations (TLTROs)** is regularly monitored. Given that core inflation projection for 2023 was revised up in March and that by the end of the projection horizon inflation will trend above the 2% target, further increases in main interest rates are possible, and decisions on these rates will depend on the assessment of future inflation movements and available economic and financial data. In our projection, in line with futures movements, we assumed that the three-month EURIBOR will equal 3.7% at the end of this, and 3.0% at the end of the following year.

The **Fed** also continued increasing its federal funds rate range in 2023, by 25 bp each in February, March and May. Thus, since March 2022, the federal funds rate was raised ten consecutive times by a total of 500 bp, to the range of 5.00–5.25% in May. Though the possibility of pausing the cycle of monetary policy tightening was considered in the March meeting due to current disruptions in the banking sector, a decision was made to lift the rate. The Fed explained that the continuation of monetary policy tightening was mandated by further strengthening of labour market indicators, with inflation remaining elevated. In the March meeting, FOMC members said they expected that some additional tightening could be appropriate, which is a somewhat milder stance compared to the previous rhetoric. After the May meeting, such formulation was replaced with an estimate that future decisions will depend on the available data, which might indicate that there could be a pause in federal funds rate hikes. In the March meeting, the majority of FOMC members said they expect the federal funds rate to be within the range of 5.00–5.25% at the end of the year, and to decline in subsequent years. Also, the Fed continued to downsize its balance sheet at the previously defined monthly pace of USD 95 bn.

The **Bank of England** continued lifting its policy rate, raising it by 50 bp in February and 25 bp March, whereby after eleven straight increases since December 2021, the policy rate equalled 4.25% in March. The central bank of **Switzerland** also raised its policy rate further in March (by 50 bp to 1.50%), with a possibility of additional rises at upcoming meetings.

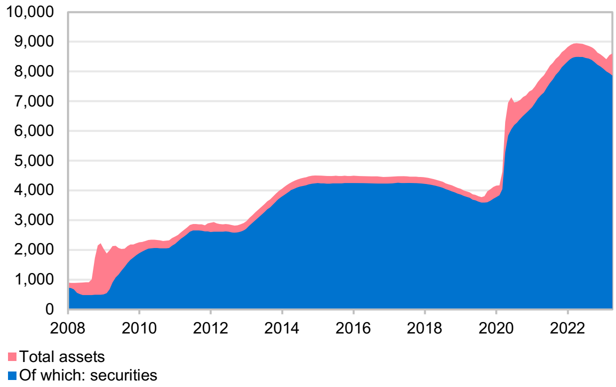
The period since our previous projection was marked by turbulences in financial markets in March amid problems with some banks in the USA and Europe. To alleviate the tension, on 20 March five leading central banks (the Fed, ECB, Bank of Canada, Bank of England and the Swiss National Bank) announced a coordinated decision on ensuring additional liquidity to banks via existing USD swap line arrangement which will be implemented daily, instead of weekly. The Swiss National Bank provided additional liquidity to a bank that faced a strong deposit outflow, promising it would continue its support so that the acquisition process by another bank, which began shortly after, would be concluded successfully. Also, the ECB, Fed and the Bank of England underlined in their press releases that their banking sectors are solid, adequately capitalised, liquid and resistant to shocks.

After significant hikes in the past period, the majority of inflation-targeting central banks in the CESEE region kept their policy rates unchanged in 2023. Only the central bank of **Romania** lifted its rate by 25 bp in January, to 7.0%. With the aim of a more efficient withdrawal of excess liquidity, the **Hungarian** central bank decided to hold auctions of treasury notes on a weekly basis as of February, shorten the maturity of long-term deposits tender to one month and, as of April, lift the reserve requirements rate from 5% to 10%. The interest rate corridor, expanded in conditions of growing uncertainty in October 2022, was narrowed in the meeting at end-April by trimming the credit facilities rate by 450 bp to 20.5%, with assessments of improved risk perception.

Financial and commodity markets

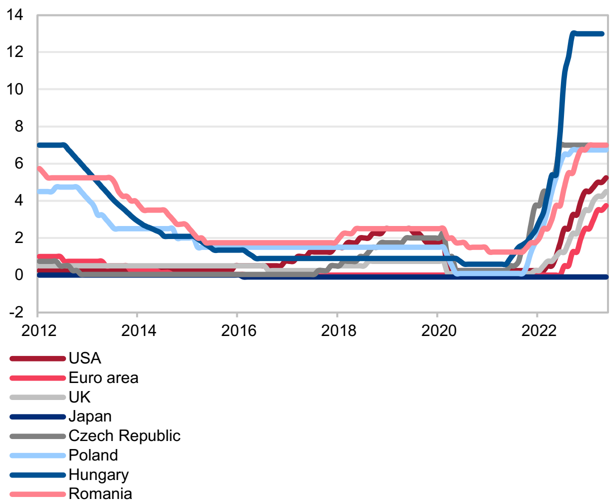
Yields on ten-year government bonds of advanced economies declined during Q1 on average by around 0.3 pp. The decline in yields was mostly under the impact of

Chart V.0.13 **Fed's total assets**
(monthly average, in USD bn)



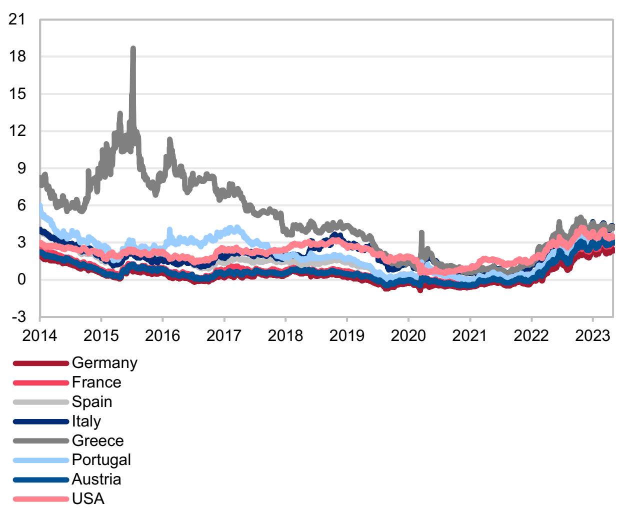
Source: Fed.

Chart V.0.14 **Policy rates across selected countries**
(p.a., in %)



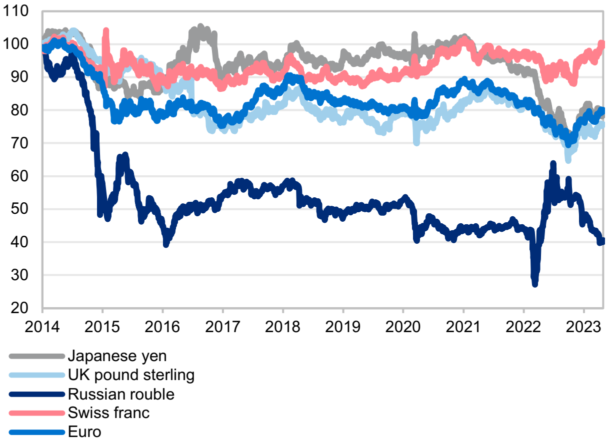
Sources: Central banks of selected countries.

Chart V.0.15 **Yields on ten-year bonds of euro area countries**
(daily data, in %)



Source: Bloomberg.

Chart V.0.16 **Exchange rates of selected national currencies against the dollar***
(daily data, 31 December 2013 = 100)

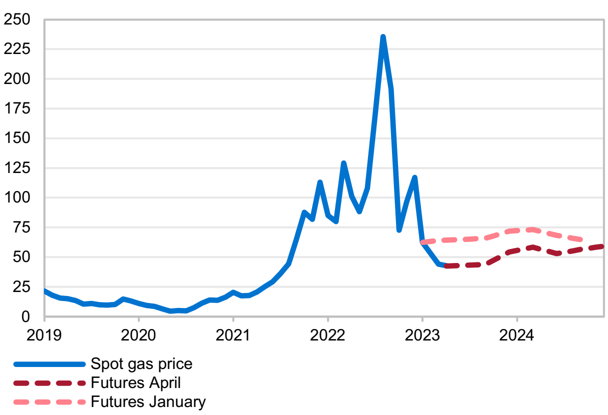


Source: IMF.
* Growth indicates appreciation.

Chart V.0.17 **Assumption for Brent oil prices**
(USD/barrel)

Source: Bloomberg.

Chart V.0.18 **European price of natural gas**
(EUR/MWh)



Source: Refinitiv.

market participants' expectations of a slower pace of further rate hikes by leading central banks against the backdrop of a gradual dissipation of inflationary pressures and economic slowdown. Also, problems in the US and then European banking sectors affected the rise in investor demand for government bonds as safe assets, and contributed to a fall in yields.

In Q1, the **dollar continued to depreciate against the euro** and most other leading currencies in the international financial market amid signs that inflation had peaked in the USA and that there would no longer be a need for further major hikes in the Fed funds rate, which had been the key driver of the dollar's appreciation for most of the last year. Successful resolution of the banking sector crisis also acted to lessen investors' concern and, by extension, soften demand for the US dollar as a safe haven currency.

In commodity markets, the **global oil price** was lower by 7.8% on average in Q1 relative to Q4 2022. This is its first y-o-y decline after more than two years (by around 18.2%). Such global oil price movements were dominantly affected by expectations of global growth slowdown and reduced demand due to the seasonal overhaul of oil refineries. Moreover, amid fears of a new financial crisis due to the issues faced by some banks in the USA and Europe, which could spill over to the real sector as well, the oil price fell to around USD 72 per barrel in mid-March, its lowest level since December 2021. After OPEC countries announced production cuts by 1.16 mn barrels per day, the oil price initially increased in April, but resumed its downward path from the middle of the month under the impact of stepped-up oil export from Russia and concerns over poor economic performance in the USA and Europe. The US Energy Information Administration (EIA) expects the oil price to measure around USD 86 per barrel at end-2023 and USD 78 per barrel at end-2024. As assumptions of global oil price movements, we used end-April futures according to which the global oil price will be USD 78 per barrel at end-2023 and around USD 74 per barrel at end-2024.

Thanks to a warmer than usual winter in Europe and Asia and high inventories in gas storage facilities, the **benchmark price of natural gas for Europe** (Dutch TTF hub) moved down in Q1 to around EUR 44 per MWh in March (equivalent to around USD 500 per 1,000 m^3 of gas),[12] its lowest level since August 2021. As a result, the gas price was 44.3% lower on average in Q1

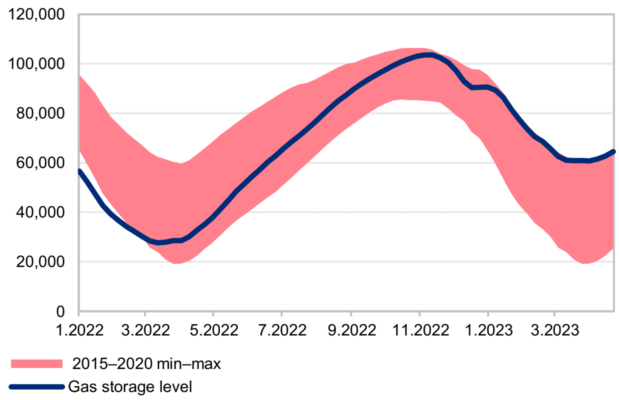
[12] The price expressed in dollars per one thousand cubic metres of gas was calculated based on the production price of gas expressed in MWh, the EUR/USD exchange rate and an appropriate coefficient (10.55 MWh ≡ 1,000 m^3).

than in Q4 2022 and 46.7% lower y-o-y. In April, the natural gas price continued down to an average of around EUR 43 per MWh. However, despite high inventories in gas storage facilities, there is concern regarding supply during the next winter, which is why Consensus Economics expects the price of natural gas to go up during 2023 to around EUR 65 per MWh at year end. It is then expected to subside in H1 2024 and rise in H2, as usual for the season. According to market futures, a similar trend is expected, but at a lower level than that projected by Consensus Economics. As a result, the average price of gas in 2023 and 2024 would come at USD 540 per m^3 and USD 650 per m^3, respectively, down by 21.3% and 9.3% from what we assumed in February.

The benchmark price of electricity for Europe (in the German stock exchange) subsided notably in January due to the German government's decision to cap electricity and gas prices, and averaged around EUR 124.5 per MWh (compared to EUR 297.9 in December). It dipped further in March to an average of EUR 98.2 per MWh as weather was warmer than usual for this time of the year. The price of electricity in the **Hungarian stock exchange**, relevant for the domestic market, displayed similar dynamics, averaging around EUR 115.4 per MWh in March. In Q1, electricity prices in the German and Hungarian stock exchanges were on average lower by 43.2% and 41.4%, respectively, than in Q4 2022, while compared to the same period last year they decreased by 40.9% and 39.3%, respectively. The benchmark electricity price for Europe in the German stock exchange moved up in April, averaging around EUR 111 per MWh. According to market futures, the benchmark electricity price for Europe is expected to go up until Q1 2024 when it will reach around EUR 166 per MWh. It will then post a seasonal decline in Q2 and Q3 2024 (to around EUR 136 per MWh), only to rise again in Q4 (to around EUR 161 per MWh).

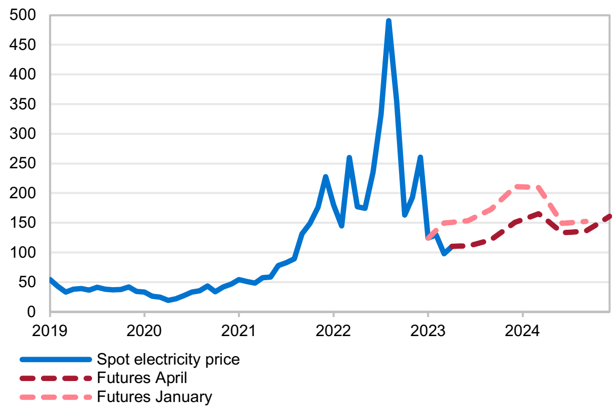
Under the impact of favourable meteorological conditions and increased production and inventory levels in China, **the price of thermal coal**, as an alternative source of energy, mirrored the dynamics of natural gas prices and fell to USD 187.2 per tonne at end-Q1, its lowest level since December 2021 and 50.6% below the end-Q4 2022 level. In April, however, the coal price went up. According to Consensus Economics' expectations, after posting a seasonal decline in Q2, it will resume the upward trajectory from Q3, reaching around USD 203 per tonne at end-2023, whereupon it will turn down again and subside to around USD 139 per tonne in Q1 2025.

Chart V.0.19 **EU gas storage levels**
(mn m^3)



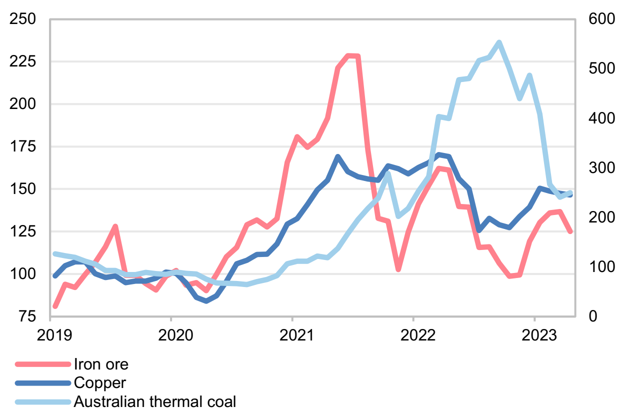
Source: Bruegel.

Chart V.0.20 **European price of electricity**
(EUR/MWh)



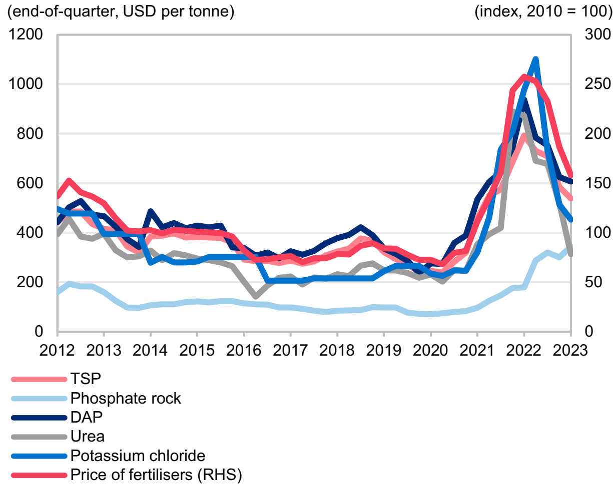
Source: Refinitiv.

Chart V.0.21 **Selected commodity prices in the global market**
(index points, 2019 = 100)



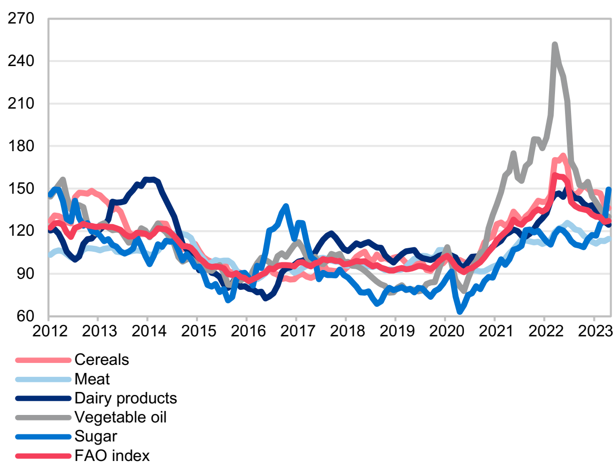
Source: Commodity Prices, World Bank.

Chart V.0.22 **Global prices of mineral fertilisers**



Source: World Bank.

Chart V.0.23 **World Food Price Index**
(in nominal terms, 2014−2016 = 100)



Source: UN FAO.

Mineral fertiliser prices continued down, reflecting subdued prices of natural gas used as an input in the production of nitrogen fertilisers. At end-Q1, they were 15.3% lower than at end-2022. Though prices of most mineral fertilisers have toppled from their April 2022 record-high levels, they remain above their multiyear averages under the impact of diminished global supply resulting from the extended conflict in Ukraine and China's ban on mineral fertiliser exports. There are, therefore, fears regarding future supply, which may affect the outcome of the agricultural season. Mineral fertiliser prices continued down in April, mostly reflecting lower prices of potassium-chloride.

In January, most **metals and minerals prices** continued up with the lifting of the zero-Covid policy in China, the world's largest buyer of metals. By end-Q1, they turned down as inventories of industrial metals in the London stock exchange increased and China's demand proved to be weaker than expected. The only exception is the iron ore price which continued rising. At end-Q1, these prices were 0.7% higher than at end-Q4 2022. The decline in metals and minerals prices continued in April. Consensus Economics expects the index of global base metals prices[13] to stay almost unchanged until the end of the projection horizon.

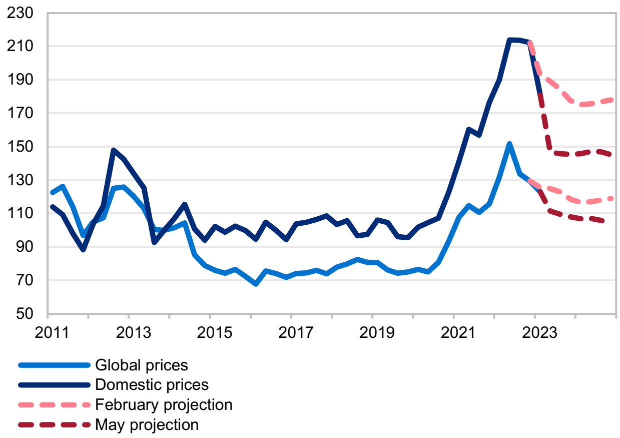
Measured by the FAO index, **global food prices** continued to slide. At end-Q1, they were 3.7% lower than in December 2022. Their decline was supported by reduced prices of vegetable oils (8.9%), which hit their two-year trough amid weaker import demand and built-up inventories. The same factors led to a decline in the prices of milk and dairy products (5.7%). **The prices of cereals**, of which Serbia is a net exporter, were almost unchanged in January and February amid uncertainty surrounding grains shipments over the Black Sea. After the deal on exports via this route was extended, they declined in March by 5.9% relative to December. Prices of sugar worked in the opposite direction after posting a quarterly increase of 8.4%. Meat prices also increased slightly in the same period (0.5%). As sugar and meat prices continued up, global food prices increased in April for the first time in more than a year, by 0.6%.

The **prices of primary agricultural commodities in the global market** continued down in Q1, after reaching record-high levels in 2022, and decreased by 6.95% y-o-y. This was guided by lower wheat and corn prices, as the Black Sea grain deal was extended in March, as well as by

[13] 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).

fears of recession. The decline in the prices of primary agricultural commodities extended into April as prices of cereals decreased amid increased wheat supply from Russia and Australia and corn supply from South America. We based our assumptions of future primary agricultural commodity prices on the two-week average of futures in stock exchanges. On the basis of this, under our May projection, we expect prices of primary agricultural commodities to subside further in the coming period and be 16.7% lower at end-2023 than at end-2022. A moderate decline of 3.6% is anticipated in 2024 as well.

Chart V.0.24 **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.

Internal assumptions

Going forward, energy costs are expected to subside, as are the costs of other inputs in agricultural production. This should encourage a further decline in the **prices of domestic primary agricultural commodities**, which will broadly mirror movements in their global counterparts. In the absence of more reliable data on sown surfaces and the effects of cold weather in early April, we still assume that the domestic agricultural season will be below average because of depleted agricultural producers' inventories (of mineral fertilisers, seeds, etc.), though it is anticipated to be better than last year.

Elevated global energy prices and their reduced availability in the past period called for continued adjustment of electricity and gas prices at home by 7.1% and 10.8%, respectively, in January this year, to avoid greater losses for companies in the energy sector. These prices are planned to go further up this year, in May as announced, while the scope of increases next year will depend on movements in global gas and electricity prices. Together with the regular adjustment of excises on cigarettes and the anticipated rise in utility services prices, the adjustment of energy prices for households ought to result in **administered price growth** of 13.6% this and 7.1% next year.

With regard to factors influencing domestic demand, **wage growth** is expected to continue this year, also propped up by a 14.3% higher minimum wage, as is the **rise in private sector employment**, though it will be slower than last year. The anticipated slowdown in inflation ought to contribute to their greater growth in real terms. Additional sources of consumption will include the rise in pensions and public sector wages, which should not exceed the bounds determined by fiscal rules (10% of GDP), and the anticipated continuation of inflow from remittances.

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

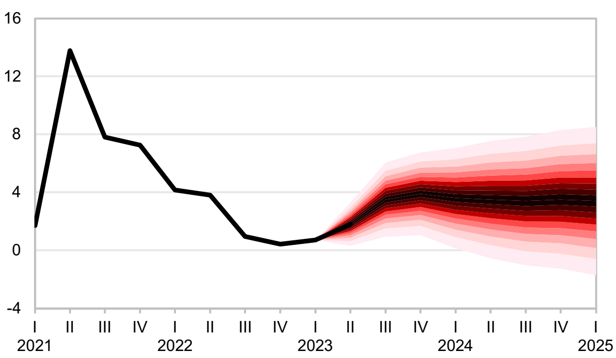
Source: Ministry of Finance.

Table V.0.6 **International institutions' projections of Serbia's GDP**

	Real GDP growth	
	2023	2024
IMF	2.0	3.0
World Bank	2.3	3.0
S&P	2.1	3.0
Fitch	1.8	3.8
Consensus Economics	2.1	3.0

Sources: The above institutions.

Chart V.0.25 **GDP growth projection**
(y-o-y rates, in %)



Source: NBS.

According to the Revised Fiscal Strategy for 2023 with Projections for 2024 and 2025, the medium-term **fiscal policy** has been planned so as to ensure a continued narrowing of the fiscal deficit and a downward public debt trajectory, without generating further inflationary pressures. Government capital investment expenditures are projected at around 6–7% of GDP per annum and general government deficit at 3.3% of GDP this year, as high energy outlays are still anticipated. It is then expected to decline to around 1.4% of GDP in 2025, ensuring the return of public debt on a downward path. A lower than anticipated deficit in 2022 and sound performance since the start of the year (deficit of around RSD 25 bn or 1.4% of GDP) enable stronger growth in government capital expenditures and ensure an even faster than anticipated downward public debt trajectory of 54% of GDP at end-2025. This should be supported by the adoption of a new set of fiscal rules subject to amendment of the Law on the Budget System. In our judgement, a consistent implementation of fiscal rules would reflect positively on the **country's credit rating and risk premium**.

GDP projection

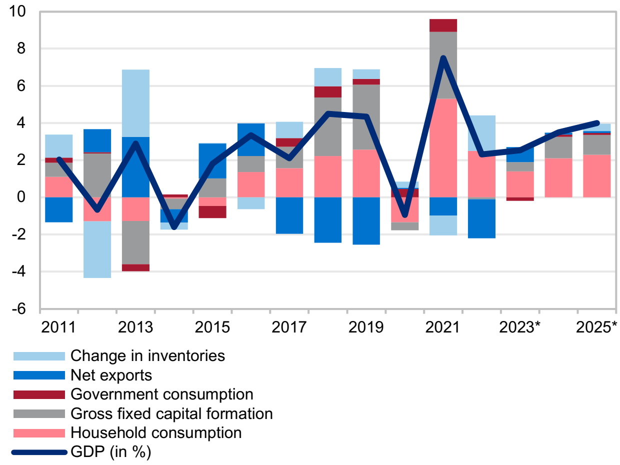
We have kept Serbia's projected GDP growth rate for this year in the range of 2.0–3.0%, the same as in February. According to the initial SORS estimates, GDP growth measured 0.7% y-o-y in Q1 and was guided by activity growth in industry, thanks primarily to higher production in the electric energy system, and in the service sectors. We expect GDP growth to accelerate in the remainder of the year, spurred by stepped-up growth in the euro area. Additionally, the euro area is now expected to see faster growth than in February (our current assumption is 0.7%, instead of 0% in February), which will certainly have a positive effect on our export and private investment growth. Taking this into account, as well as the fact that foreign trade movements in Q1 were much more favourable than expected, we changed the projected structure of growth relative to February. We now expect net export to provide a positive instead of a negative contribution. Since a part of faster export growth is most probably attributable to inventories, their annual contribution is therefore expected to be lower.

GDP growth in 2023 will be led by domestic demand, with **private consumption** expected to contribute the most (1.4 pp) owing to higher wages in the private and public sectors, pensions and employment. Taking into account key indicators of consumption in Q1, the projected consumption growth for 2023 is somewhat lower than we anticipated in February. It is important to note that fiscal rules for public sector wages and pensions have been applied as of this year and that we expect the share of outlays for public sector wages and pensions to stay below 10% of GDP, which is particularly important for ensuring sustainable economic growth and fiscal sustainability. On the other hand, income disposable for consumption will be negatively affected by the rising cost of borrowing at home on account of monetary policy tightening by the NBS and ECB and, as a result, lower demand for consumption loans and the still relatively high outlays for food and energy products. With the expected waning of the effects of cost-push pressures, private consumption will pick up in 2024, increasing its contribution to GDP to over 2 pp.

According to our estimate, outlays for the procurement of goods and services will be lower in real terms this year, which is why we expect a mild negative contribution of **government consumption** (0.2 pp). As the general government deficit is expected to narrow on other accounts, we expect a mildly positive contribution of government consumption in the years to come.

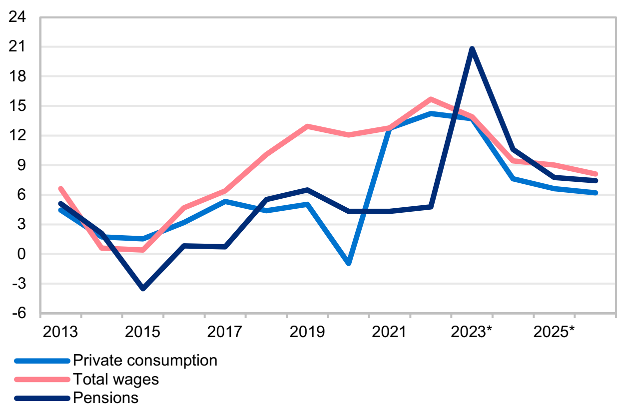
By contrast to the previous projection, when we expected **fixed investment** to stagnate in Serbia due to globally heightened risk aversion amid elevated uncertainty over geopolitical tensions, high operating costs of enterprises in an environment of robust growth in the prices of energy and other production inputs, dented external demand and tight financial conditions, we now expect its contribution to be mildly positive. **Government investment** is also expected to provide a positive contribution (the same as in the previous projection) due to the continued implementation of infrastructure projects and planned high capital outlays. The contribution of **private investment** is now expected to be slightly positive, propped up by projected euro area growth which is higher than we anticipated three months ago. Own sources are still the main source of private investment financing, thanks to increased company profitability indicated by higher than anticipated payments of profit tax (for the previous year) in Q1, as is the high FDI inflow. Conversely, credit sources of financing are costlier, mostly on account of continued monetary policy tightening by the ECB, but the tightening so far has been consistent with our expectations from three months ago. Based on the expected reduction in production costs and global uncertainty, continued easing of global supply bottlenecks and accelerated implementation of transport and utility infrastructure projects, total fixed investment is likely to add around 1 pp to GDP annually starting from 2024 and to maintain its share in GDP at close to 23%.

Chart V.0.26 **Contributions to real GDP growth**
(in pp)



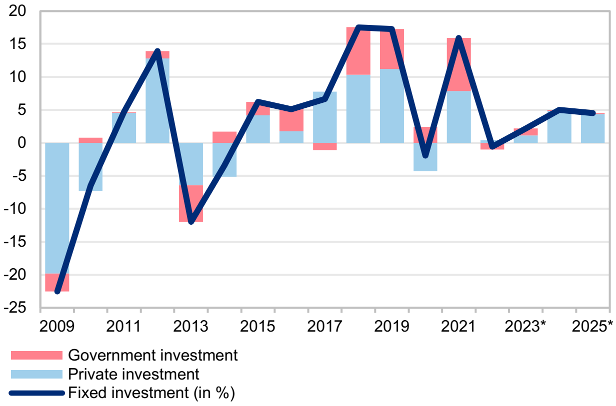
Sources: SORS and NBS.
* NBS estimate.

Chart V.0.27 **Rate of growth in private consumption and its sources**
(nominal y-o-y rates, in %)



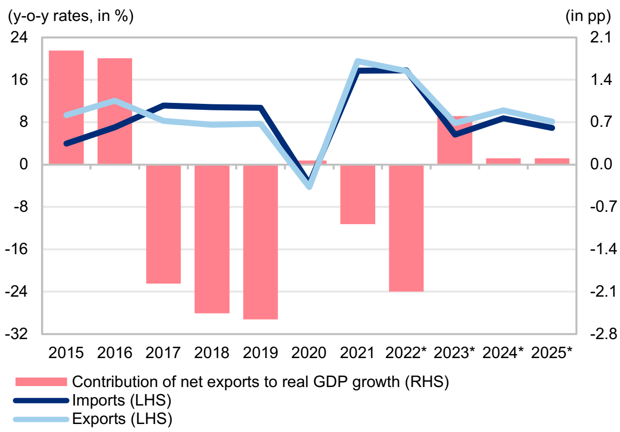
Sources: SORS and NBS calculation.
* NBS estimate.

Chart V.0.28 **Fixed investment**
(y-o-y growth, in pp)



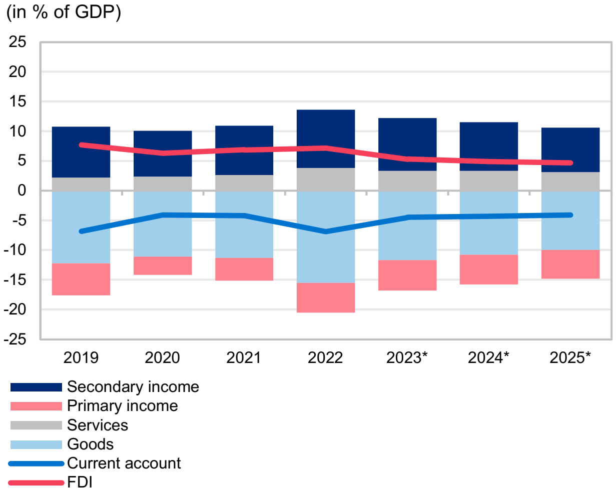
Sources: SORS and NBS calculation.
* NBS estimate.

Chart V.0.29 **Real export and import growth**



Sources: SORS and NBS.
* NBS estimate.

Chart V.0.30 **Current account and FDI projection**
(in % of GDP)



Source: NBS.
* NBS projection.

With the normalisation of prices and availability of food and energy and the gradual resolution of global supply chain bottlenecks, **inventories** of finished products, mostly capital goods, have been depleted and used in part for domestic consumption and in part for exports. We therefore expect the contribution of inventories to GDP to turn from positive to neutral in this and the next year.

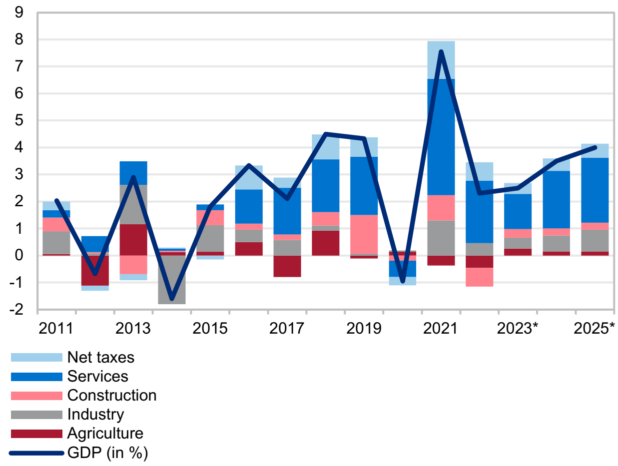
Foreign trade developments in Q1 were much more favourable than expected, as real growth in goods and services export well outstripped that in import. This is supported by electricity export, lower import of other energy products and the fact that most of the key manufacturing export branches, excluding base metals, chemical and oil production, continue to register double-digit export growth rates, despite subdued external demand. Lower external demand was largely offset by higher export supply of manufacturing on account of past investment. Owing primarily to rising ICT export, the surplus on trade in services is expected to be sustained. In view of this and the higher projected euro area growth which should affect our export positively, we now expect **net export** to make a positive contribution of around 0.8 pp to GDP this year. In the years to come, we expect a mildly positive contribution of net exports, guided by the expected rebound in external demand. Another important factor of export growth will be the effects of new investments in export-oriented sectors, which should lead to stepped up growth in real export of goods and services. Net exports are likely to be a positive contributor despite the fact that imports will edge up as well, led by the rising import of equipment and intermediate goods for investment projects, and, to a lesser extent, by the import of consumer goods and tourist services.

In view of the foreign trade developments in Q1, continued inflow of remittances at relatively high y-o-y rates and the projected continued slide in global energy prices based on futures (improved terms of trade), we have revised down our projection of the **share of the current account deficit in GDP** for this year to 4.5%, which is better than we expected in our previous Report when we projected it to be similar as in 2022. As the current account deficit recorded in Q1 was minimal, there is great probability that the outturn in 2023 may even be better than this projection. In the coming years, we project continued gradual reduction in the current account deficit to around 4% of GDP, reflecting higher export supply on account of earlier investment and the rebound in external demand. According to our estimate, **net FDI inflow** will continue to fully cover the current account deficit, as in the past eight years, contributing to sustainability of our external position. We expect FDIs to remain highly geographically and project-diversified and mostly directed to export-oriented sectors.

On the **production side**, given their high share in GDP and consistent with the continued growth in personal consumption, the largest positive contribution to GDP growth is expected from the **services sector** – 1.3 pp this year and around 2 pp in 2024, which is somewhat lower than in the previous projection. According to our estimates, **net taxes** will lend a positive impulse (around 0.4 pp) this and next year. Given the still relatively high costs of agricultural production, notably the elevated prices of mineral fertilisers (which is why a suboptimal amount of fertilisers will most likely be used this year too), we assumed that this year's agricultural season will also be below average, although better than the previous one, when we faced the negative effects of the drought. We assumed that this year's **agricultural production** will be around 5% higher than last year's, adding around 0.3 pp to GDP, while for next year we assumed an average season and a contribution of around 0.2 pp. A slightly positive contribution this year and over the following years is also expected from **construction** (0.3 pp p.a.), reflecting primarily the planned implementation of infrastructure projects in the field of transport and utility infrastructure.

We expect a positive contribution from **the industry** this year (around 0.4 pp), in contrast to the February projection, when we expected stagnation. A slight positive contribution should now also come from **manufacturing**, thanks to the higher projected growth rate of the euro area, the continuation of export growth at relatively high rates, which reflects earlier investment in tradable sectors and, on these grounds, expanded production capacities, as well as the emptying of finished goods inventories. Greater exploitation of coal and metal ores, particularly copper, will prop up the **mining** activity, while due to the last year's low base and the expected continuation of production growth, **the energy sector** will also provide a slight positive contribution. We expect the industry growth to accelerate in the years to come (adding around 0.6 pp to GDP), on account of activation of new and expansion of existing capacities in manufacturing and the rebound of external demand, as well as structural reforms in the energy sector planned under the new arrangement with the IMF.

Chart V.0.31 **Contributions to real GDP growth, production side**
(in pp)



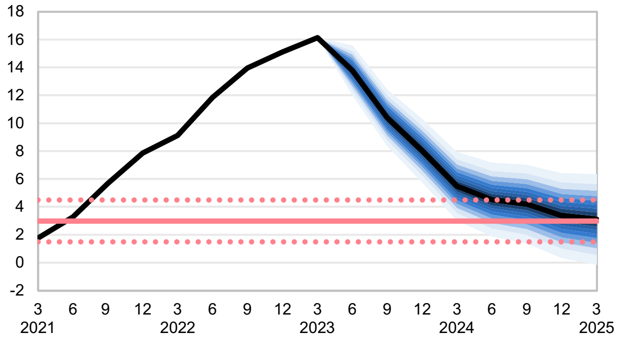
Sources: SORS and NBS.
* NBS estimate.

Table V.0.7. **International institutions' projections of average inflation in Serbia**

	Average inflation	
	2023	2024
IMF	12.2	5.3
World Bank	8.2	4.0
Consensus Economics	10.1	4.6

Sources: The above institutions.

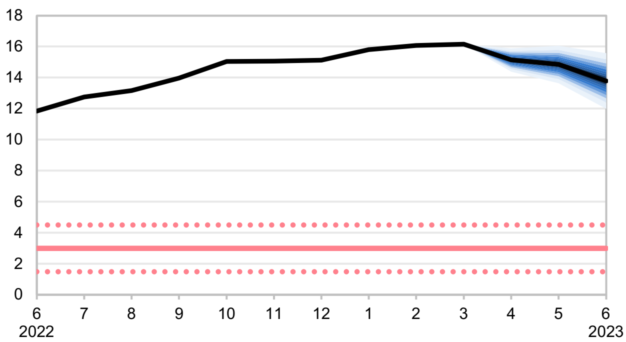
Chart V.0.32 **Inflation projection**
(y-o-y rates, in %)



Source: NBS.

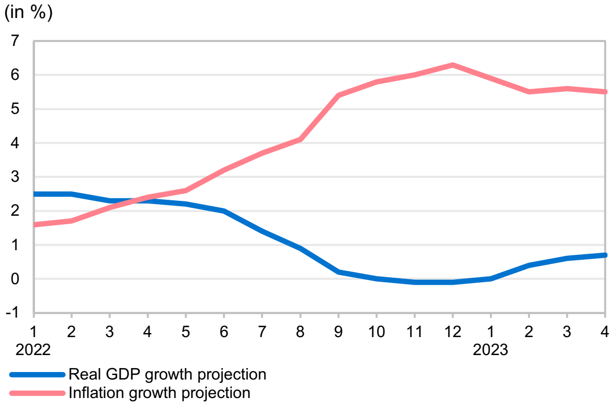
The fan chart depicts the probability of various inflation outcomes in the next eight quarters. The central projection is within the darkest central band and the probability that inflation would lie in it is 10%. Each following shade includes 10% probability, which means that outturns of inflation somewhere 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.0.33 **Short-term inflation projection**
(y-o-y rates, in %)



Source: NBS.

Chart V.0.34 **GDP and inflation projections of the euro area for 2023**
(in %)



Source: Consensus Economics.

Inflation projection

The period since our previous February projection was marked by prevailing uncertainty regarding global economic growth and inflation, as well as the degree of monetary tightening by leading central banks. Although global energy and primary commodity prices declined, with indicators signalling supply chain disruptions and container shipping rates almost fully returning to the pre-pandemic levels, **global inflationary pressures remain a cause for concern**. Though gradually decreasing in a number of countries, inflation is still high, with core inflation continuing to rise, aided by labour market factors, which indicates that **central banks' fight against inflation is not yet over**.

Our new projection of y-o-y inflation is consistent with the above trends and the fact that global inflationary pressures, though still relatively high, are gradually easing, which is expected in the coming period as well. According to the May central projection, we expect **y-o-y inflation to strike a downward path in Q2, decline more vigorously in H2 this year and return within the target tolerance band in mid-2024**. As in the previous projection, we expect that past tightening of monetary conditions, the weakening of the effects of global factors underpinning the past growth in energy and food prices, the slowdown in imported inflation, as well as lower external demand amid the expected global slowdown will work towards a decline in inflation.

Almost all cost factors from the international environment are likely to influence a gradual slowdown in inflation in the coming period. **The key assumptions behind the expected downward trajectory of inflation are movement of primary commodity prices in line with futures and a further reduction in inflation globally, notably in the euro area.** The dissipation of pressures based on imported inflation on prices in Serbia during the projection horizon is one of the important drivers of inflation's projected return to the target.

After hitting record high levels, **world food prices** have declined in recent months, with **more significant reductions expected in the coming period**, owing to good global crop prospects for key agricultural commodities. Furthermore, despite prevailing uncertainty regarding grain exports from Ukraine, the agreements allowing exports from Black Sea ports are being extended for the time being. That world food prices will decline in the coming period is also indicated by the expected decrease in primary agricultural commodity prices consistent with futures. This reflects a reduction in the costs of energy and other inputs in agricultural production, primarily **mineral fertilisers**. Expectations are similar for the **global oil price**, which edged down in March as global growth slowed and demand from refineries contracted. In the first half of April, the global oil price increased primarily due to the OPEC+ countries' decision to cut output in the coming period, whereafter it returned to a downward path. The expected decrease in the global oil price next year will underpin a further decline in y-o-y inflation at home.

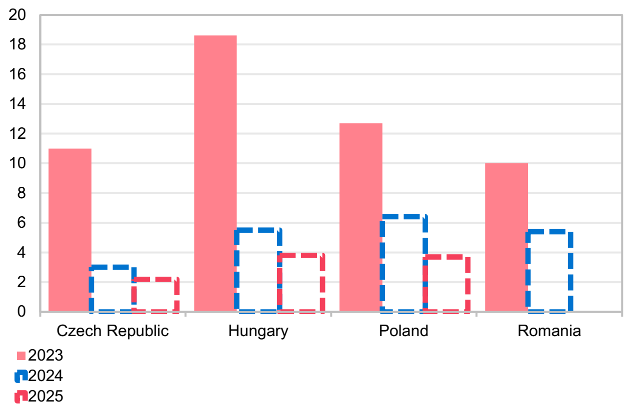
Consistent with the global slowdown, we expect disinflationary pressures on account of **aggregate demand** to persist throughout the projection horizon. In regard to domestic demand, a somewhat lower income disposable for consumption reflecting monetary tightening by the ECB and the NBS will be partly offset by rising public sector wages and pensions and continued positive labour market trends. For this reason, after deepening in Q3 2023, the negative output gap is anticipated to gradually narrow due to the above factors, but it will not close until the end of the projection horizon.

Observed by inflation category, **petroleum product prices** are expected to be the main disinflationary factor, provided the global oil price moves in line with futures. As in the previous projection, the contribution of petroleum product prices is expected to shift to negative territory in Q2 2023 and stay there until the year-end due to the strong base effect, only to become almost neutral until the end of the projection horizon.

We expect fruit and vegetable prices to gradually return from the current relatively high level to their long-term trend (reflecting a rise in the prices of non-food products and services). Namely, due to subdued supply after last year's drought in Serbia and most of Europe, as well as elevated production and logistics costs, the prices of this inflation category have increased significantly, particularly of vegetables. With the easing of cost-push pressures based on energy prices, primarily natural gas, as well as mineral fertilisers, and with the new agricultural season, we expect their contribution to y-o-y inflation to decline – to zero in Q4 this year, and to move to negative territory next year, working towards a reduction in y-o-y inflation.

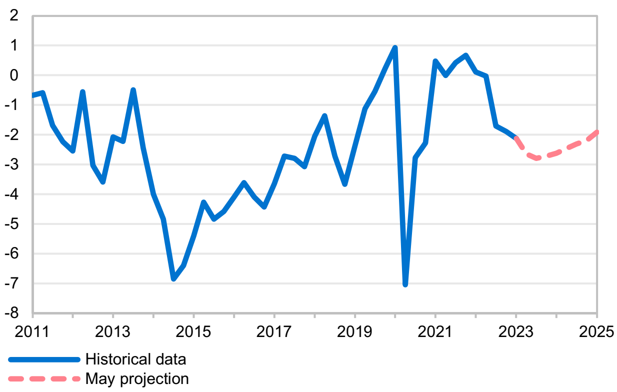
Elevated cost-push pressures in food production, largely reflecting a rise in global prices of energy and primary agricultural commodities, packaging and other raw materials in production, drove up **food inflation** (the price of food excluding fruits and vegetables) at home. In line with our expectations from the previous projection, the prices of food products in Q1 this year provided the strongest contribution to growth in y-o-y inflation among

Chart V.0.35 **Projection of consumer price growth**
(in %)



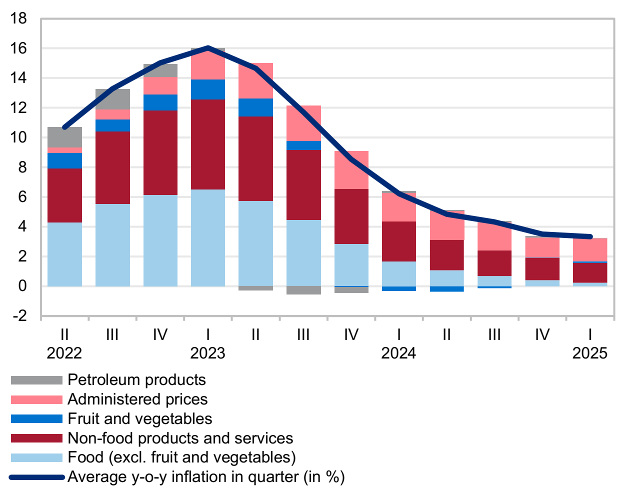
Source: Consensus Economics.

Chart V.0.36 **Output gap projection***
(in % of potential output)



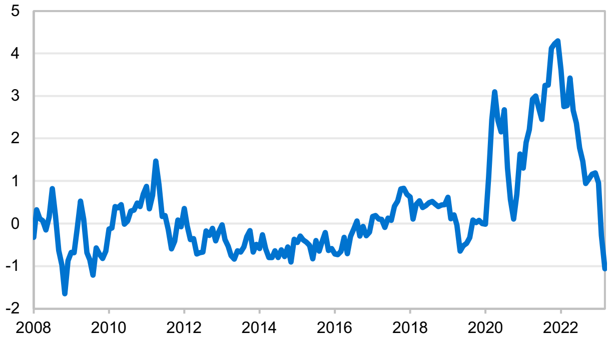
Sources: SORS and NBS.
* Output gap is estimated on the basis of NAVA.

Chart V.0.37 **Contributions to y-o-y inflation by component**
(average y-o-y rates, in pp)



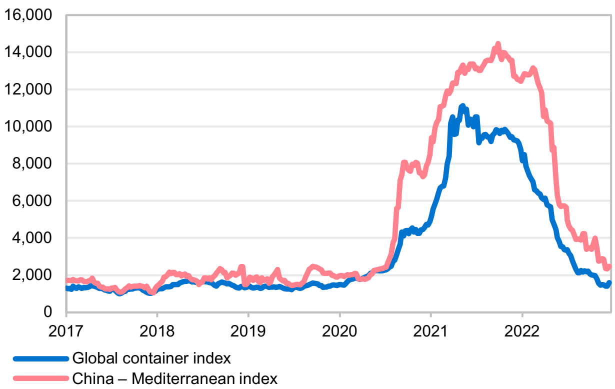
Source: NBS.

Chart V.0.38 **Global supply-chain pressures**
(index, in standard deviations)



Source: Federal Reserve Bank of New York.

Chart V.0.39 **Container transport price**
(USD)



Source: Freightos.

individual inflation components. Going forward, we expect the major part of cost-push pressures to weaken and imported inflation to decline. As a result, the growth in food prices will slow and the contribution of food prices to y-o-y inflation will be steadily declining until the end of the projection horizon, by more than 6.0 pp. The dissipation of cost-push pressures in food production is indicated by the further closing of the real marginal costs gap (measured by deviation from trend of the ratio of input prices to prices of final food products). This gap began to close in Q3 last year, which continued in Q4 and early this year, with additional increases in food prices and falling prices of primary agricultural commodities. The downward trajectory of food inflation, expected until the end of the projection horizon, may possibly be moderated, though not jeopardised, by the imperfect market structure on the supply side, i.e. the absence of any stronger competition in this segment.

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). High imported inflation generated inflationary pressures within this inflation component, with its effect expected to weaken considerably over the projection horizon. 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 group to headline inflation to subside gradually until the end of the projection horizon.

The exceptionally high global energy prices in the prior period were the key reason behind the expected growth in **administered prices** during the projection horizon. Consistent with our assumption of administered price growth of 13.6% this and 7.1% next year, their contribution to y-o-y inflation will decline gradually – from 2.5 pp late this to 1.3 pp late next year.

Risks to the GDP and inflation projection

The risks to our new inflation and GDP projection are still mainly associated with factors from the international environment: the global growth outlook, global energy and primary commodity prices, the degree of monetary tightening by leading central banks and global financing conditions. When it comes to factors at home, the risks to the projection are associated mainly with the outcome of this year's agricultural season, FDI inflows, recovery of the mining sector (coal production), and the pace of construction works given persistently high construction material prices. Overall, we judge the risks to the GDP and inflation projection for this and next year to be symmetric.

The uncertainty surrounding **global economic growth** is greater than three months ago, with downside risks being dominant. The recent turmoil in banking sectors of some advanced economies due to problems of some financial institutions has shifted focus on increased financial vulnerability resulting from a long period of exceptionally low interest rates and enormous liquidity. Significant monetary tightening by leading central banks has led to sizeable losses on the assets side and has raised the

Table V.0.8 **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
Global economic growth outlook	– Slower economic growth globally, and particularly in the euro area, would result in subdued external demand for our exports and fewer demand-side pressures on inflation.	↓	↓
Geopolitical tensions and events in Ukraine	– Heightening of geopolitical tensions would further inflate the prices of energy and other primary commodities, pushing up production costs and fuelling inflationary pressures. – If the initiative on the export of foodstuffs and mineral fertilisers from several Black Sea ports is not extended, global food prices may increase, resulting in stronger inflationary pressures.	↓	↑
International oil, gas and electricity prices (Serbia is a net energy importer)	Rising global prices of energy have inflated production costs, trimming funds available for investment and potentially producing second-round effects on inflation, which may partly be offset by subdued demand for these products.	↓	↑
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 produces inflationary/disinflationary effects. This inflates/deflates production costs and increases/decreases income available for investment, but the effect on GDP would most probably be neutralised by higher/lower exports, as Serbia is a net exporter of primary agricultural commodities and metals.	↕	↕
Global inflation, primarily euro area inflation, and monetary policies of leading central banks	– Higher/lower than anticipated global inflation, particularly euro area inflation, leads to elevated/lower imported inflation, raising/diminishing production costs; – Greater and/or faster than anticipated monetary tightening by leading central banks leads to higher risk aversion of investors and reduced capital flows to emerging economies and vice versa.	↕	↕
Agricultural season	A better than assumed agricultural season leads to increased supply of agricultural products and may produce disinflationary pressures.	↑	↓
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, higher/lower FDI inflows and/or accelerated/slowed implementation of infrastructure projects by the government, would result in faster/slower growth in domestic demand and stronger/weaker inflationary pressures. Higher/lower growth in costs of construction material would accelerate/slow activity in construction and private investment.	↕	↕
Recovery of the energy sector and administered prices	Energy sector reform may have weaker and stronger effects on the volume of production than expected. Due to falling global energy prices over the past months, administered prices may increase less than expected.	↕	↓

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.

financing costs of banks. The IMF assesses that risks to the outlook are heavily skewed to the downside, with the chances of a hard landing having risen sharply. Financial sector stress could amplify and contagion could take hold, weakening the economy through a sharp deterioration in financing conditions, with pockets of sovereign debt distress becoming systemic. Another risk to global growth is potentially slower than anticipated growth of China as it will have to rely more on domestic demand, chiefly due to the slowdown of its main trading partners. The effects on the rest of the world, including Serbia, will be manifested primarily through lower external demand and subdued inflationary pressures, including energy and primary commodity prices. Lower external demand may slow manufacturing and export growth at home. Moreover, the growth outlook of Serbia's main trading partners could weaken due to persistently high core inflation and, as a result, monetary policy that is more restrictive than expected, which may adversely affect external demand for our products. Conversely, global economic growth may not slow down as much as expected because the banking sector's resilience to external risks in most countries is better thanks to more stringent regulations applied after the 2008 crisis. China's growth may also turn out to be faster than expected and savings built up during the pandemic may be used for consumption in a number of countries, which could prop up global growth and, by extension, our exports. China's faster than anticipated growth would probably drive up energy and other primary commodity prices, and make the fight against inflation more difficult, entailing stricter monetary policy. Given all the above, we judge the **risks to the inflation and GDP projection based on global economic growth and external demand to be tilted to the downside.**

The impact of geopolitical tensions and the Ukraine conflict is the most pronounced in the European market. The intensification of the Ukraine conflict may trigger a new surge in energy and food prices, fuelling inflationary pressures and prompting further monetary tightening aimed at curtailing inflation. Although gas shortages in the EU were avoided this winter, and the gas price is lower than initially expected, problems may emerge in filling gas storage facilities for next winter. Problems may be particularly pronounced if demand from China picks up, as this will push up the gas price in the EU. Even in the absence of direct effects on the gas price in Serbia, imported inflation and, by extension, domestic inflation, would go up. Furthermore, if the agreement on the export of grain, other foodstuffs and mineral fertilisers from several Black Sea ports is not extended, global food prices may increase. Geopolitical fragmentation may cause significant losses in global production and generate negative effects on FDIs. With this in mind, we judge the **risks to the GDP projection associated with the potential escalation of the Ukraine conflict to remain tilted to the downside, and to the inflation projection – to the upside**.

Taking into account the risks to global growth on the one hand, and 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**.

Vigorous growth in oil, gas and food prices may **again stoke up global inflationary pressures**. Also, a tight labour market, notably in advanced economies, may result in higher than expected wage growth. This may fuel core inflation and inflation expectations, entailing further and more prolonged tightening of monetary conditions, which would generate negative effects on economic growth and financial stability. In March, the ECB stated that inflation's growth and its elevated level in the medium run may lead to inflation expectations trending above the target, and result in a further rise in wages and companies' profit margins, faster than expected growth of the Chinese economy and, on these grounds, higher prices of primary commodities. The persisting uncertainty in the financial market, a heftier than anticipated drop in energy prices – which would reduce pressures on a further rise in sale prices and wages – and softer demand amid the tightening of credit conditions and more efficient monetary policy transmission mechanism should work in the opposite direction. If inflation increases again, **leading central banks would tighten their monetary policies more than expected**. This would lead to more stringent global financing conditions, a rise in the risk premium, reduced capital flows to emerging economies and depreciation pressures on these grounds. In that case, the higher cost of borrowing in a foreign currency at home would weigh on domestic demand through lower income disposable for consumption and investment, while the preserved relative stability of the dinar exchange rate would greatly diminish inflationary pressures on account of potentially reduced inflows of portfolio investment. If inflation in advanced economies returns to lower levels sooner than expected and/or if economic growth slows more considerably, leading central banks could slow the pace of their monetary tightening or discontinue it altogether, which would result in more favourable than expected global financing conditions. **Hence, we judge the risks on this account to be symmetric.**

When it comes to domestic factors, **the agricultural season** poses a risk to the inflation and GDP projection.

We assumed this year's season to be around 5% higher than last year's, but below the long-term average. We judge **the risks to the inflation projection** on this account to be **tilted to the downside**, and to the **GDP projection – to the upside**.

The risks to the inflation projection are also associated with the **pace of domestic demand growth**. Lower proceeds from subdued export demand could negatively affect the labour market, i.e. lead to slower than anticipated employment and wage growth, with negative implications for domestic demand. On the other hand, FDI inflows could be higher than anticipated as our projections of **FDI inflows** are quite conservative and record-high FDI outturns in previous years exceeded our projections. This would spur further growth in wages and employment. It should also be noted that higher labour supply is supported by the "Open Balkan" project, which could have further positive effects on our export. There is also a possibility of accelerated implementation of government-financed infrastructure projects to encourage domestic investment. Conversely, the pace of construction works may slow in an environment of high prices of construction elements and materials. With this in mind, the **risks to the inflation and GDP projection on account of domestic demand are judged to be symmetric**.

Developments in the domestic energy sector, notably coal production, are another risk to the projection. Needs for the import of coal, and probably of electricity as well (if next winter turns out to be harsher), pose downside risks to economic growth and upside risks to inflation. Still, the energy sector reform and investment are in the focus of the new Stand-By Arrangement with the IMF, which is why investment in the sector's overhaul may be larger than assumed. Given all this, the risks to the **economic growth projection are judged to be symmetric**. In case of lower than assumed global energy prices, **some administered price increases in the domestic market may not take place**.

As the key risks to inflation and other economic developments still come from the international environment, the NBS will continue to monitor and analyse trends in international commodity and financial markets and to evaluate their impact on our economy. Depending on geopolitical developments and the movement in key inflation factors from the domestic and international environment in the coming period, the NBS will make monetary policy decisions taking into account the effects of past monetary tightening and the time needed for these effects to play out fully. Going forward, the monetary policy priority will remain to deliver price and financial stability in the medium term, because in this way it will contribute to sustainable economic growth and, by extension, to a further rise in employment and a favourable investment environment.

Text box 4: Alternative projection scenarios

As this time again, the risks to GDP and inflation projections are judged to be symmetric, we have analysed, in addition to the baseline scenario, the effects of two alternative projection scenarios – a downside, which results in lower real GDP growth and higher inflation, and an upside, which leads to faster disinflation and stronger GDP growth compared to the baseline. In contrast to previous projections, where global energy prices and energy availability were the key risks that we varied in alternative scenarios, this time, starting from the IMF's estimate stated in the April WEO, we have analysed the different intensity effects of global inflationary pressures, and hence, global financial conditions, as well as the pace of China's recovery after lifting the zero-tolerance policy to coronavirus. An additional risk comes from the geopolitical situation and the consequent movement of energy and primary commodity prices.

Below are presented the key assumptions underlying the downside and upside scenarios and the effects of their materialisation on domestic macroeconomic movements.

Table O.4.1 **External projection assumptions in the baseline and alternative scenarios**

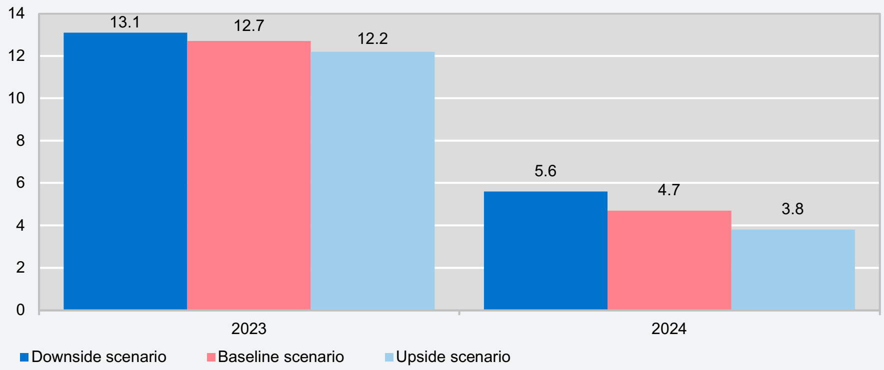
		Baseline scenario	Downside scenario	Upside scenario
Euro area GDP growth (in %)	2022	3.5		
	2023	0.7	0.2	1.2
	2024	1.0	0.5	1.5
Average euro area inflation (in %)	2022	8.4		
	2023	5.5	6.5	5.0
	2024	2.4	3.5	2.0
Global oil price (average, USD/barrel)	2022	99.8		
	2023	80.4	90.0	70.0
	2024	75.6	86.0	66.0
Global gas price (average, USD/1000 m^3)	2022	1,224		
	2023	495	554	431
	2024	637	725	556
Global prices of primary agricultural commodities (y-o-y growth in Q4, in %)	2022	11.9		
	2023	-16.7	-1.9	-24.6
	2024	-3.6	-10.0	1.0
Quarterly EURIBOR (year end)	2022	2.1		
	2023	3.7	4.7	3.2
	2024	3.0	4.0	2.6

Sources: Consensus Economics, ECB and Bloomberg.

In the **downside scenario**, we assumed that inflation in the euro area, above all core inflation, is more persistent than anticipated due to the continued spillover of high global cost-push pressures from the prior period, the fact that the prices of products and services do not reflect only mounting production costs, but also rising profit margins and/or relatively high inflation expectations of market agents, as well as due to a stronger than expected increase in wages. In parallel, we assumed a faster than expected recovery of China, which, given that China is the world's largest buyer of energy and primary commodities, inevitably leads to the higher level of these prices in the global market than envisaged by the baseline scenario. The downside scenario also envisages an additional escalation of geopolitical tensions and higher energy and primary agricultural commodity prices on those grounds as well. Due to rising profit margins and lofty inflation expectations, which weigh down on the real interest rate, and the higher global energy and primary agricultural commodity prices, a stronger tightening of financial conditions in the euro area would be required than in the baseline. This would further lead to slower economic growth of the euro area than envisaged in the baseline, despite the fact that China's faster growth would fuel external demand, i.e. demand for euro area's exports. The materialisation of the described downside scenario would reflect on domestic macroeconomic movements in the following way:

• Higher inflation in the euro area than assumed in the baseline would also mean higher prices of the products and services that we import. Besides, higher global oil prices would exert a direct effect on domestic inflation through higher domestic prices of petroleum products, while the surge in global prices of other energy and primary agricultural commodities would only amplify production costs. Still, the effect of stronger cost-push pressures on inflation at home would in part be offset by the ECB's monetary policy tightening and weaker external demand. Further, lower external demand and rising interest rates on euro-indexed loans in the domestic market on account of the ECB's monetary tightening would dampen the demand at home. However, the effects of lower external and domestic demand on inflation would become visible with a time lag, while the effects of stronger cost-push pressures would pass through to inflation faster. Taking everything into account, we estimate that in that case this year **average inflation would be 0.4 pp higher** and next year 0.9 pp higher than in the baseline, and that it would return within the target band most probably in Q4 2024.

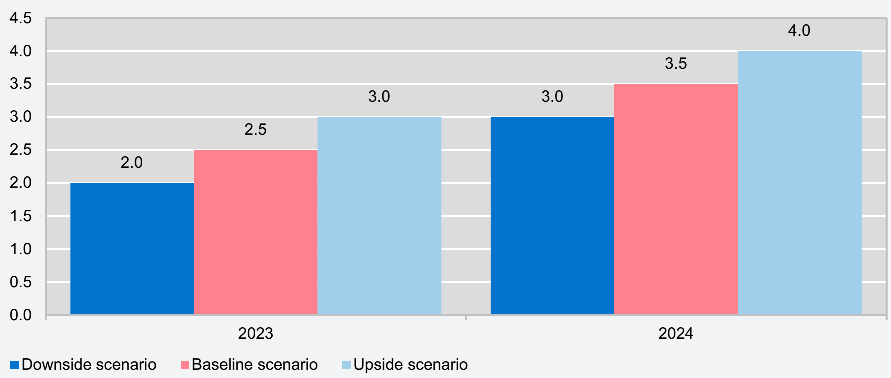
Chart O.4.1 **Comparison of average inflation projections in the baseline and alternative scenarios**
(in %)



Source: NBS.

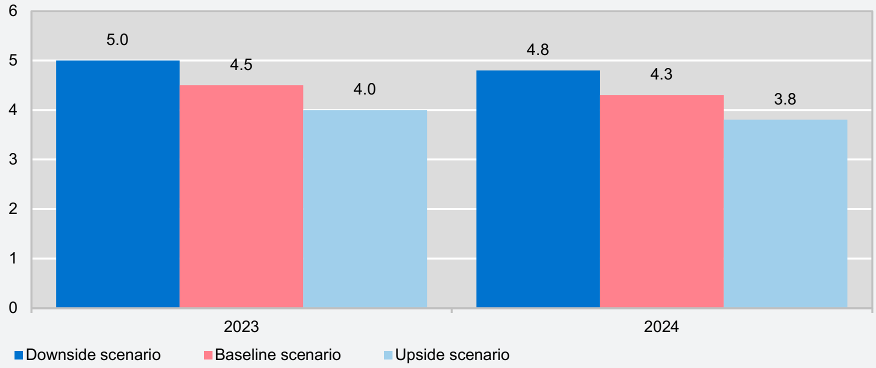
• Lower economic growth of the euro area than projected in the baseline would have a head-on effect on Serbia's exports, considering that the bloc remains our key export market despite increased export diversification by product and geography. The ECB's monetary tightening through the higher cost of euro-indexed loans and cross-border loans, as well as stronger than expected cost-push pressures from the international and domestic environment would dampen disposable income for investment and consumption, all of which together resulting in **0.5 pp lower economic growth of Serbia** in both 2023 and 2024 compared to the baseline.

Chart O.4.2 **Comparison of GDP projections in the baseline and alternative scenarios**
(in %)



Source: NBS.

Chart O.4.3 **Comparison of CAD projections in the baseline and alternative scenarios**
(in %)



Source: NBS.

• Lower exports of goods and services because of subdued external demand, along with high global prices of energy, of which Serbia is a net importer, would also trigger a **rise in the current account deficit of the balance of payments**, though this would be partly offset by smaller imports of consumer goods and equipment amid weaker domestic demand. In addition, less favourable financing terms in the international financial market amid more aggressive monetary policy tightening by the ECB would increase expenditure in respect of primary income. All of this would make the current account deficit by 0.5 pp higher in both 2023 and 2024 compared to the baseline.

In the upside scenario, we assumed that market agents' inflation expectations start declining faster than expected amid a considerable easing of global cost-push pressures in recent months, making monetary conditions, in real terms, more restrictive. In such conditions, inflation in the euro area would slow down faster than anticipated in the baseline, reducing the need for further monetary policy tightening. We also assumed a somewhat slower China's recovery than in the baseline, as well as the easing of geopolitical tensions, which would lead to lower global prices of energy, primary commodities and industrial raw materials. As a result of lower cost-push pressures and weaker monetary tightening, the euro area's growth prospects would also be more favourable than envisaged in the baseline.

The materialisation of the described upside scenario would reflect on domestic macroeconomic movements in the following way:

• Amid additional easing of cost-push pressures, and most of all lower prices of energy and primary agricultural commodities and lower imported inflation, **inflation at home would also be lower** than in the baseline – **by 0.5 pp this year** and by 0.9 pp next year, and would return within the target band most probably already in Q1 2024.

• More favourable prospects of the euro area would lead directly to Serbia's higher exports of goods and services than envisaged in the baseline. Besides, a slower pace of the ECB's monetary tightening compared to the baseline would also have smaller negative effects on disposable income for investment and consumption, all of which would result in **Serbia's stronger economic growth – by 0.5 pp** in both 2023 and 2024.

• Lower energy imports, in value terms due to lower prices, followed by stronger export growth prompted by the faster recovery of the euro area, as well as lower expenditure in respect of primary income amid weaker tightening of financial conditions in the euro area, would lead to a **current account deficit** that would both this and the next year be **by around 0.5 pp lower** than in baseline.

Table A
Indicators of Serbia's external position

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023
EXTERNAL LIQUIDITY INDICATORS (in %)																			
FX reserves/imports of goods and services (in months)	6.1	9.0	7.5	5.4	9.7	8.4	8.8	7.7	7.6	6.6	6.7	6.2	5.4	5.4	5.7	6.1	5.9	5.2	5.6
FX reserves/short-term debt	177.0	265.1	250.6	162.6	220.6	191.2	299.9	237.3	268.6	294.0	256.4	234.0	202.1	210.9	275.6	228.1	245.7	265.1	
FX reserves /GDP	22.1	34.8	30.5	22.9	32.6	31.7	34.0	32.4	30.7	27.9	29.1	27.8	25.4	26.3	29.1	28.8	30.9	32.2	34.3
Debt repayment/GDP	4.7	9.7	9.6	10.1	12.1	11.3	11.7	12.3	12.6	13.3	11.1	12.3	10.9	11.3	10.0	5.8	9.2	9.6	
Debt repayment/exports of goods and services	19.8	36.2	37.5	37.5	48.8	37.5	37.3	36.0	33.0	32.7	25.2	25.9	22.2	22.9	19.7	12.2	17.0	15.3	
EXTERNAL SOLVENCY INDICATORS (in %)																			
External debt/GDP	56.2	55.2	55.1	58.8	68.6	74.5	68.1	76.1	70.4	72.4	73.4	72.0	65.1	62.2	61.4	65.8	68.4	69.4	
Short-term debt/GDP	12.5	13.1	12.2	14.1	14.8	16.6	11.3	13.7	11.4	9.5	11.3	11.9	12.6	12.4	10.6	12.6	12.6	12.1	
External debt/exports of goods and services	234.9	205.7	214.3	218.9	276.9	247.1	216.5	223.6	184.0	177.7	166.8	152.4	132.2	126.0	121.0	138.2	126.6	110.2	
FINANCIAL RISK EXPOSURE INDICATORS (in %)																			
FX reserves/M1	290.3	356.1	306.7	300.4	393.4	416.6	429.6	402.1	330.4	278.1	250.2	207.3	176.2	168.0	174.1	130.0	138.1	158.7	176.6
FX reserves/reserve money	169.8	179.5	173.8	140.7	190.5	196.4	207.6	197.9	199.9	196.6	193.7	196.6	185.0	171.4	194.1	157.1	180.0	180.2	204.7
OPENNESS OF ECONOMY (EXPORTS + IMPORTS)/GDP	67.1	73.0	74.7	78.0	65.1	75.3	78.0	84.5	87.1	91.8	96.2	100.6	106.2	108.2	111.5	103.9	116.7	137.5	140.5
MEMORANDUM: (in EUR million)																			
GDP[1)]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,815	53,329	60,371	14,924
External debt	12,520	14,291	17,382	20,982	22,272	23,509	24,123	25,645	25,644	25,679	26,234	26,494	25,526	26,662	28,254	30,787	36,488	41,885	
External debt servicing	1,054	2,513	3,039	3,594	3,922	3,564	4,154	4,130	4,595	4,728	3,960	4,508	4,285	4,849	4,592	2,710	4,886	5,801	
Central bank foreign exchange reserves	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381
Short-term debt[2)]	951	968	1,044	1,832	1,852	1,758	612	455	196	99	303	672	844	1,401	1,925	1,585	1,612	2,404	
Current account balance	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,139	-112

CREDIT RATING (change of rating and outlook)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
	May/July	Feb	July	March/ Dec	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- /positive	BB- /stable	BB- /negative	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		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 − ratio of end-of-period outstanding debt to GDP.
Short-term debt/GDP (in %) − ratio of end-of-period short-term debt at remaining maturity to GDP.
External debt/exports (in %) − ratio of end-of-period outstanding debt to annual value of exports of goods and services.
Foreign exchange reserves/M1 (in %) - ratio of foreign exchange reserves to money supply at end-of-period.
(Exports + imports)/GDP (in %) - ratio of value of exports and imports of goods and services to GDP during period under review.

1) According to ESA 2010. Data for 2022 and Q1 2023 are 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

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Q1 2023
Real GDP growth (in %)[1]	5.5	5.1	6.4	5.7	-2.7	0.7	2.0	-0.7	2.9	-1.6	1.8	3.3	2.1	4.5	4.3	-0.9	7.5	2.3	0.7
Consumer prices (in %, relative to the same month a year earlier)[2]	17.7	6.6	11.0	8.6	6.6	10.3	7.0	12.2	2.2	1.7	1.5	1.6	3.0	2.0	1.9	1.3	7.9	15.1	16.2
NBS foreign exchange reserves (in EUR million)	4,922	9,020	9,634	8,162	10,602	10,002	12,058	10,915	11,189	9,907	10,378	10,205	9,962	11,262	13,378	13,492	16,455	19,416	21,381
Exports (in EUR million)[3]	5,329	6,948	8,110	9,583	8,043	9,515	11,145	11,469	13,937	14,451	15,728	17,385	19,312	21,166	23,349	22,271	28,818	38,000	10,023
- growth rate in % compared to a year earlier	19.1	30.4	-	18.2	-16.1	18.3	17.1	2.9	21.5	3.7	8.8	10.5	11.1	9.6	10.3	-4.6	29.4	31.9	20.5
Imports (in EUR million)[3]	9,612	11,970	15,468	18,267	13,099	14,244	16,487	16,992	17,782	18,096	18,643	19,597	22,343	25,257	27,960	26,370	33,439	45,037	10,941
- growth rate in % compared to a year earlier	0.7	24.5	-	18.1	-28.3	8.7	15.7	3.1	4.7	1.8	3.0	5.1	14.0	13.0	10.7	-5.7	26.8	34.7	5.1
Current account balance[3]																			
(in EUR million)	-1,778	-2,356	-5,474	-7,125	-2,032	-2,037	-3,656	-3,671	-2,098	-1,985	-1,234	-1,075	-2,051	-2,076	-3,161	-1,929	-2,266	-4,139	-112
as % of GDP	-8.0	-9.1	-17.3	-20.0	-6.3	-6.5	-10.3	-10.9	-5.8	-5.6	-3.5	-2.9	-5.2	-4.8	-6.9	-4.1	-4.2	-6.9	-0.7
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	9.4	
Wages (average for the period, in EUR)[7]	210.4	257.8	347.1	402.0	337.8	331.8	372.5	366.1	388.5	379.8	367.9	374.5	394.5	419.8	466.0	510.9	560.2	637.9	699.3
RS budget deficit / surplus (in % of GDP)[4]				-1.6	-3.0	-3.2	-3.8	-5.6	-4.9	-5.9	-2.7	-0.2	0.7	0.6	0.2	-8.3	-4.6	-3.3	-1.6
Consolidated fiscal result (in % of GDP)[4]	1.1	-1.4	-1.8	-2.5	-4.2	-4.3	-4.5	-6.4	-5.1	-6.2	-3.5	-1.2	1.1	0.6	-0.2	-8.0	-4.1	-3.2	-1.4
RS public debt, (central government, in % of GDP)[8]	47.6	33.9	27.9	26.8	30.9	39.5	42.8	52.9	56.0	66.2	70.0	67.7	57.8	53.6	51.9	57.0	56.5	55.1	51.0
RSD/USD exchange rate (period average)	66.87	67.03	58.39	55.76	67.47	77.91	73.34	88.12	85.17	88.54	108.85	111.29	107.50	100.28	105.28	103.03	99.49	111.86	109.26
RSD/USD exchange rate (end of period)	72.22	59.98	53.73	62.90	66.73	79.28	80.87	86.18	83.13	99.46	111.25	117.14	99.12	103.39	104.92	95.66	103.93	110.15	107.56
RSD/EUR exchange rate (period average)	82.99	84.11	79.96	81.44	93.95	103.04	101.95	113.13	113.14	117.31	120.73	123.12	121.34	118.27	117.85	117.58	117.57	117.46	117.33
RSD/EUR exchange rate (end of period)	85.50	79.00	79.24	88.60	95.89	105.50	104.64	113.72	114.64	120.96	121.63	123.47	118.47	118.19	117.59	117.58	117.58	117.32	117.29
MEMORANDUM:																			
GDP (in EUR million)[5]	22,276	25,906	31,551	35,701	32,486	31,546	35,432	33,679	36,427	35,467	35,740	36,779	39,235	42,892	46,005	46,815	53,329	60,371	14,924

1) At constant prices of previous year. Data for 2022 is SORS preliminary estimate. Data for Q1 2023 is SORS flash estimate.

2) Retail prices until 2006.

3) Starting from 2007 data on balance of payments (current account, exports and imports of goods and services) are shown in accordance with BPM6. Data for 2005 and 2006 are shown according to the previous methodology. Due to the break in the series for 2007, exports and imports 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 2022 and Q1 2023 are NBS estimate.

6) Data are revised according to the new methodology of the Labour Force Survey from 2021.

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 Q1 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.

Index of charts and tables

Charts

Tables

Charts in text boxes

Tables in text boxes

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		
13 July		
10 August		
7 September		
10 October		
9 November		
7 December		

Press releases from NBS Executive Board meetings

Press release from Executive Board meeting held on 9 March 2023

At its meeting today, the NBS Executive Board voted to raise the key policy rate by 25 bp, to 5.75%. The deposit facility rate was kept at 4.50%, while the lending facility rate was raised to 7.0%.

In its decision-making, the Board was guided by the persistently high global cost-push pressures and imported inflation, despite the signs of easing, as well as the necessity to contain their second-round effects on price growth at home through inflation expectations and to impact a part of demand-side pressures. The NBS thus helps inflation to strike a downward path and retreat within the target tolerance band until the end of the projection horizon.

The transmission of the rate increases so far to the rates in the markets of money, loans and savings signals the effectiveness of the monetary policy transmission mechanism via the interest rate channel. Moreover, by maintaining the relative stability of the dinar against the euro, the NBS also significantly contributes to containing the spillover effect of rising import prices on domestic prices, and to overall macroeconomic stability amid elevated global uncertainty.

As stated by the Board, global cost-push pressures have weakened, mostly reflecting falling global energy prices, resolution of supply bottlenecks and reduced container shipping rates, which should lead to the slowing domestic inflation in the coming period. Still, China's lifting of restrictive containment measures could speed up global economic activity and bolster demand for energy and other primary commodities, slowing the decline in global inflation, while greater-than-expected tightening of monetary policies by leading central banks would work in the opposite direction. Developments in the international financial market and capital flows to emerging economies will also depend on the pace of the Fed's and the ECB's monetary policy tightening. Caution is needed in monetary policy conduct due to the persisting geopolitical tensions, including the risk that Russian oil supplies to the global market could be slashed in the coming months and not be offset by higher supply from other OPEC countries, driving up oil prices. Besides, the indirect effects of elevated prices of energy and industrial raw materials in the past period, along with a tight labour market, continue to fuel core inflation in most countries.

In January, inflation in Serbia measured 1.4% per month, and 15.8% y-o-y, in accordance with the Executive Board's expectations. As before, around two-thirds of the contribution to headline inflation originated from food and energy prices, on which monetary policy measures have a limited effect as growth in these prices is largely a consequence of developments in the international environment. Core inflation (measured by the change in CPI excluding food, energy, alcohol and cigarettes) is still trending at a much lower level than headline inflation – it equalled 10.4% y-o-y in January, due to a significant contribution of the preserved relative stability of the exchange rate. According to the medium-term February projection, y-o-y inflation is expected to stay elevated in the remainder of Q1 2023, notably as a consequence of the continued transmission of high cost-push pressures from the prior period onto the prices of food and other industrial products, as well as adjustments in electricity and gas prices. Thereafter, inflation should strike a downward path and decline more sharply in the second half of the year, returning within the bounds of the target tolerance band in mid-2024. Past monetary tightening, the expected weakening of the effects of global factors underpinning the hike in energy and food prices in the prior period, slowdown in imported inflation as well as lower external demand amid anticipated slackening of global economic growth should act towards soothing inflationary pressures.

As regards economic activity, according to the NBS's current projection, Serbia's GDP will post real growth in the range of 2.0% to 3.0% this year. Growth will be driven by domestic demand, which is mostly propped by the preserved labour market, while expectations of the still high energy imports and lower external demand, notably in the euro area, will keep the contribution of net exports in the negative zone. However, we expect the dynamic growth of exports to continue this year as well, thanks to prior investments which were mostly channelled to tradable sectors. As of 2024, GDP growth should accelerate to the range of 3.0% to 4.0% and in the following years return to the pre-pandemic growth trajectory of around 4.0% per annum on the back of the recovery in external demand from H2 2023, increased export capacities and the planned implementation of investment projects, notably in road, railway, energy and utility infrastructure.

Depending on movements of key monetary and macroeconomic factors at home and abroad, as well as the global geopolitical situation, the NBS will assess whether there is a need to tighten monetary conditions further and to what extent, taking into account the anticipated effects of past monetary tightening on inflation going forward. Delivering price and financial stability in the medium term remains the NBS's monetary policy priority, while supporting further economic growth.

The next rate-setting meeting will take place on 6 April 2023.

Press release from Executive Board meeting held on 6 April 2023

At its meeting today, the NBS Executive Board voted to raise the key policy rate by 25 bp to 6%. The rates on deposit and lending facilities were raised to 4.75% and 7.25%, respectively.

In making the decision, the Board judged that further moderate tightening of monetary conditions is necessary to preclude a rise in inflation expectations and ensure that inflation hits a downward trajectory and returns within the target tolerance band over the projection horizon. The pass-through of key policy rate hikes so far to the interest rates in the markets of money, loans and savings signals the efficiency of the monetary policy transmission mechanism through the interest rate channel.

At the same time, by maintaining relative stability of the dinar exchange rate against the euro, the NBS significantly contributes to containing the effects of the spillover of rising import prices onto domestic prices, and to overall macroeconomic stability amid heightened global uncertainty.

A further decline in energy prices, resolution of global supply bottlenecks and a reduction in container transport costs largely contributed to the easing of cost-push pressures globally, which should slow inflation at home. Uncertainty over global growth and concerns over recession in advanced economies resulted in a further decline in primary commodity prices. Still, the Board underlines that monetary policy caution is needed due to the persisting geopolitical tensions over the Ukraine conflict, and the fact that the indirect effects of elevated prices of energy and industrial raw materials in the past period, along with the labour market, are still keeping core inflation at a relatively high level in most countries, which reflects on imported inflation in Serbia. This is true primarily for the euro area, our key trade partner, where, according to preliminary data, despite a reduction in headline inflation to 6.9% in March (from 8.5% in February), core inflation increased further, to 5.7% y-o-y (from 5.6% in February).

February headline inflation amounted to 16.1% y-o-y, consistent with the NBS's projections for Q1 which factored in the anticipated continuation of high cost-push pressures from the prior period on the prices of food and other industrial products, as well as the revision of electricity and gas prices. Around two-thirds of headline inflation remains attributable to the growth in food and energy prices, on which monetary policy measures have a limited effect because it is mostly driven by developments in the international environment. Core inflation (CPI excluding food, energy, alcohol and cigarettes) stayed considerably lower than headline inflation and amounted to 11.1% y-o-y in February, supported to a significant degree by the preserved relative stability of the exchange rate. Under the February medium-term projection, y-o-y inflation will strike a downward path from Q2 and record a sharper fall in H2, ending the year at half the current level and returning within the target tolerance band in mid-2024. Inflationary pressures should ease on the back of past monetary tightening, the expected waning of the effects of global factors that drove the energy and food price growth in the prior period, slower imported inflation, and lower external demand amid anticipated slackening of global economic growth.

As regards economic activity, the NBS expects Serbia's GDP to post real growth of 2–3% this year, supported inter alia by the recovery of the energy sector, which is signalled by data on electricity production and exports in the first two months of the year. Growth will be driven by domestic demand, which is mostly propped by the preserved labour market, while expectations of persistently high energy imports and lower external demand, notably in the euro area, will make the contribution of net exports negative. However, we expect the dynamic growth of exports to continue this year as well, thanks to prior investments which were mostly channelled to tradable sectors. As of 2024, GDP growth should accelerate to 3.0–4.0% and in the following years return to the pre-pandemic growth trajectory of around 4.0% per annum on the back of the recovery in external demand from H2 2023, increased export capacities and the planned implementation of investment projects, notably in road, railway, energy and utility infrastructure.

Depending on movements of key monetary and macroeconomic factors at home and abroad, as well as the global geopolitical situation, the NBS will assess whether there is a need to tighten monetary conditions further and to what extent, taking into account the expected effects of past monetary tightening on the future inflation profile. Delivering price and financial stability in the medium term remains the NBS's monetary policy priority, while supporting further economic growth.

The next rate-setting meeting will take place on 11 May 2023.

Press release from Executive Board meeting held on 11 May 2023

Att its meeting today, the NBS Executive Board voted to keep the key policy rate at 6.00%. The rates on deposit and lending facilities were also kept unchanged, at 4.75% and 7.25%, respectively.

The Executive Board holds that the full-fledged effects of past monetary measures should be considered after the tightening of monetary conditions, on which the NBS embarked in October 2021 (first by raising the weighted average rate in reverse repo auctions, and since April 2022 by continuous key policy rate hikes – by a total of 500 bp). The pass-through of past increases in the key policy rate to interest rates in the money, loan and savings markets indicates the efficiency of the monetary policy transmission mechanism through the interest rate channel. By safeguarding relative stability of the dinar exchange rate against the euro, the NBS also continuously contributes to the easing of inflationary pressures. The Executive Board's decision is consistent with the expectation that inflationary pressures would start to subside in the coming months, more substantially so as of the middle of this year. The NBS retains the option to continue monetary tightening going forward if so required by movements in the domestic and international environment. There is room to tighten monetary conditions also by adjusting the weighted average repo rate and by further raising the policy rate, depending on the nature of potential pressures. Hence, the NBS once again underscores the importance of the flexibility of its monetary framework.

The Executive Board's decision to keep the key policy rate unchanged was adopted in conditions of gradual weakening of cost-push pressures from the international environment and easing of disruptions to global supply chains. Prices in global energy markets also went down, primarily those of electricity and natural gas. This will dampen cost-push pressures globally and should also contribute to the slowing of domestic inflation in the coming period. Further, in conditions of global slackening of economic activity, primarily manufacturing in the euro area, our key trade partner, it is necessary to also ensure the continuity of our economic growth. At the same time, by maintaining relative stability of the dinar exchange rate against the euro, the NBS significantly helps to contain the spillover effect of rising foreign prices on domestic prices and to preserve macroeconomic stability against the background of pronounced global uncertainty. The Board underlines that monetary policy caution should be maintained going forward due to the still present risks – geopolitical tensions and the price dynamics and future availability of primary commodities and energy. Uncertainty also continues to stem from the still relatively high core inflation in a number of countries, underpinned by labour market factors, as well as from the future monetary policy decisions of leading central banks and hence, conditions in the international financial market and their impact on capital flows to emerging economies. It is therefore possible that the period of elevated interest rates will last somewhat longer than initially anticipated.

As expected by the Board, inflation in Serbia stayed at around 16% y-o-y in Q1, due to the pass-through of high-cost push pressures from the prior period. Such inflation movements were dictated by the increased contribution of food prices and the expected adjustment of administered prices, while a lower contribution of petroleum products worked in the opposite direction. As before, core inflation (CPI excluding food, energy, alcohol and cigarettes) stayed considerably lower than headline inflation and amounted to around 11% y-o-y in Q1, supported by the preserved stability of the exchange rate of the dinar against the euro. Under the latest projections, inflation will strike a downward path from April and record a sharper fall in H2, ending the year at half the March level and returning within the target tolerance band in mid-2024. Inflation will fall primarily on the back of monetary tightening, the waning of the effects of global factors that drove the energy and food price growth in the prior period, and the slowing of imported inflation.

As regards economic activity, the NBS maintains its real GDP growth projection for this year in the range of 2–3%, supported by the significantly better than expected foreign trade movements since the start of the year. As of 2024, GDP growth should accelerate to 3.0–4.0% and in the following years return to the pre-pandemic growth trajectory of around 4.0% p.a. on the back of the global economic recovery and, hence, recovery in external demand from H2 2023, and the planned implementation of investment projects, notably in road, railway, energy and utility infrastructure.

Depending on movements of key monetary and macroeconomic factors at home and abroad, as well as the global geopolitical situation, the NBS will assess whether there is a need to tighten monetary conditions further and to what extent, taking into account the expected effects of past monetary tightening on the future inflation profile. Delivering price and financial stability in the medium term remains the NBS's monetary policy priority, while supporting further economic growth.

At today's meeting, the Executive Board adopted the May Inflation Report with the latest macroeconomic projections that will be presented to the public in detail at a press conference on 17 May.

The next rate-setting meeting will take place on 8 June.

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

336.71(497.11)

INFLATION Report / National Bank of Serbia. - 2006- . - Belgrade (Kralja Petra 12) : National Bank of Serbia, 2006- (Beograd : Zavod za izradu novčanica i kovanog novca "Topčider") . - 30 cm

Tromesečno
ISSN 1820-9394 = Inflation Report (National Bank of Serbia)
COBISS.SR-ID 155775244